



MSBA PREFERRED SCHEMATIC REPORT
SHARON HIGH SCHOOL

SHARON, MASSACHUSETTS



MARCH 21, 2019



MSBA PREFERRED SCHEMATIC REPORT SHARON HIGH SCHOOL

SHARON, MASSACHUSETTS



TAPPÉ
ARCHITECTS

ARCHITECT



PMA Consultants

OWNER'S PROJECT MANAGER

MARCH 21, 2019

Fenton Bradley
Project Coordinator
Massachusetts School Building Authority
40 Broad Street, Suite 500
Boston, MA 02109

March 21, 2019

RE: Preferred Schematic Report for the Sharon High School Building Project

Dear Fenton,

In accordance with the MSBA's Feasibility Study Submittal Procedures, PMA has reviewed and coordinated the materials contained within the Sharon High School Project's Preferred Schematic Report submittal.

PMA finds the submittal to be complete and certifies that the Sharon High School Building Committee has officially approved the submittal and the materials contained within. The formal approval of the School Building Committee was obtained on the evening of Tuesday, March 19th, 2019. Final approved SBC meeting minutes will be certified and submitted to the MSBA when they are made available as required under section 7.2.

The District, along with PMA and Tappe have explored the 3 alternatives and performed an in-depth analysis on each option for the purposes of this study.

With the MSBA's support the Town of Sharon wishes to further the design of the preferred option during the MSBA's module 4 guidelines leading up to submission of a Schematic Design.

1. N4 - New Construction at Sharon High School site, 1250 students

We look forward to the MSBA's review and are eager to begin design of the preferred option. As always, please feel free to contact me with any questions or concerns.

Sincerely,

Matthew Gulino

Matthew Gulino
Senior Consultant | Owner's Project Manager
PMA Consultants, LLC



35 Braintree Office Hill Park
Suite 300
Braintree, MA 02184
Tel: 781.794.1404
Fax: 781.794.1405

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INTRODUCTION

1.1

INTRODUCTION



Overview of Process

Following the submission of the Preliminary Design Program dated November 21, 2018, The District, the Town of Sharon and the project team have continued to develop three final options that were identified in the PDP as R1, AR1 and N4. During the PDP and PSR phases there have been over 40 project related meetings. During the PSR the Project team met with the School Building Committee on a bi-weekly basis to update them on project progress. Also during this phase the project team met with the District Management Team on a bi-weekly basis to review details of the project including design options, site design approach, and programming details. The three final options were also presented at two community forums, two PTO meetings and at School Committee meetings.

During the PSR phase the Designer also held meetings with school faculty and students over the course of two days holding fourteen listening sessions. These sessions were organized by department and were an opportunity for faculty and students to offer feedback and input on the preliminary options. The result of these meetings was the desire for a new facility that supports collaboration and offers flexibility and academic connections.

The information that was gained during this phase helped to further develop the three final options and the selection of a preferred approach.

Summary of Updated Schedule

The proposed project schedule has been more fully defined during the PSR phase. However, the approach and goals for project completion remain as indicated in the PDP submission. In broad terms, it is still anticipated that the Schematic Design Phase will be submitted in early September 2019 with the goal of an MSBA Board vote at the late October MSBA Board Meeting for approval of the Project Scope and Budget Agreement. This would allow the Town of Sharon to vote on whether they will fund the project at their Town Meeting in November. If these milestones are achieved, the project will

target a fall 2020 construction start and a summer 2022 building completion, allowing students to move into the facility in September 2020 with demolition of the existing building to occur in the summer and fall of 2022 and final site work to be completed the spring of 2023.

Summary of Final Evaluation of Existing Conditions

No existing conditions information has been gathered since the PDP submission that would trigger reconsideration of the viability of the three options that were under consideration in the PSR phase. A more detailed analysis of the site and proposed site design, including discussions with the District on desired site features, confirmed that remaining on the existing school site is preferable to relocation. A proposed condition traffic report indicates that the proposed site plan is a viable approach to parking and vehicular circulation.

Summary of Final Evaluation of Alternatives

The three options studied in the PSR represent three approaches. R1 is a code required upgrade to the existing building. A second option, AR1 proposes demolition to portions of the existing school, renovations to areas of the building that remain, and a new addition. The third option is a replacement building adjacent to the existing school that would eventually be removed when the new building opens.

During the PSR it was confirmed that the renovation option can't accommodate the MSBA space template for the approved student population. It was also confirmed that there is no available swing space in Sharon, requiring the use of modular classrooms as temporary space during construction, adding cost and substantial disruption to this approach.

The addition and renovation option, AR1, was further refined. However, it continued to be difficult to develop a compact and efficient floor plate due to the configuration of the existing school and

1.1 INTRODUCTION

the available location for an addition. This option therefore remained the largest in terms of gross square footage which, along with the anticipated complexity of phasing, made this the most costly option. Parents also expressed concern related to students having to attend a school under renovation and addition with the associated distractions and disruptions to everyday teaching and learning.

The replacement option, N4 is an evolution of the N4 diagram contained in the PDP document based on more detailed design exploration and District feedback. The classroom wings are located on the south and east sides of the available site with the entrance to the north facing parking, pick up and drop off. The cafeteria and media center are located so that they can take advantage of the views of the lake located to the south of the site and the building is configured to avoid an existing wetland resource on the site.

Summary of the Districts Preferred Solution

The Districts preferred solution is the replacement option, N4. The conclusion reached at the end of the Preferred Schematic Report phase is that a replacement school is a preferred outcome to either the renovation, or the addition and renovation. The renovation option is not large enough to accommodate the proposed space template and the existing school is already too small for the current student population, curriculum and school programs. The addition / renovation option is an inefficient layout due to the area available on site for a large classroom addition. This results in a more expensive construction cost and a proposed building that is spread out and does not meet the stated goal of the District of having a facility that brings departments and programs together to enhance collaboration and reduce student travel time.

N4 is located on the existing baseball and softball fields that are south of the existing school. Construction of a new school can occur while the existing school is fully operational without interfering with parking and drop off and academic programs.

Temporary measures will be required when the two fields are taken off line and until the replacement fields are reconstructed elsewhere on site. However, the football field can remain in use during construction.

The proposed plan is a two story building with six academic wings that adjoin facilities for the arts, technology, and health and wellness. The configuration of the building creates two exterior spaces for outdoor learning. The goal of the plan is to enhance the departmental approach that is currently in place at Sharon High School by placing classrooms in smaller wings that are close to shared programs to promote collaboration between departments and disciplines. Teacher planning centers are located on each floor to enhance faculty collaboration and special education teaching spaces are distributed throughout the floor plan. The main school entrance leads to a corridor that can access the gym, the auditorium and the cafeteria, providing for a building that can be used by the town for community programs and functions.

1.2

MSBA PDP REVIEW & DISTRICT RESPONSE



ATTACHMENT A
MODULE 3 – PRELIMINARY DESIGN PROGRAM REVIEW COMMENTS

DISTRICT RESPONSE (in red)
January 9, 2019

District: Town of Sharon
School: Sharon High School
Owner's Project Manager: PMA Consultants
Designer Firm: Tappe Architects
Submittal Due Date: November 21, 2018
Submittal Received Date: November 21, 2018
Review Date: November 23- December 18, 2018
Reviewed by: A. Waldron, F. Bradley, C. Alles, J. Jumpe

MSBA REVIEW COMMENTS

The following comments¹ on the Preliminary Design Program (PDP) submittal are issued pursuant to a review of the project submittal document for the proposed project presented as a part of the Feasibility Study submission in accordance with the MSBA Module 3 Guidelines.

3.1 PRELIMINARY DESIGN PROGRAM

Overview of the Preliminary Design Program Submittal	Complete	Provided; <i>Refer to comments following each section</i>	Not Provided; <i>Refer to comments following each section</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
OPM Certification of Completeness and Conformity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Table of Contents	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.1 Introduction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.2 Educational Program	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.3 Initial Space Summary	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.4 Evaluation of Existing Conditions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.5 Site Development Requirements	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.6 Preliminary Evaluation of Alternatives	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.7 Local Actions and Approvals Certification(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.8 Appendices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹ The written comments provided by the MSBA are solely for purposes of determining whether the submittal documents, analysis process, proposed planning concept and any other design documents submitted for MSBA review appear consistent with the MSBA's guidelines and requirements, and are not for the purpose of determining whether the proposed design and its process may meet any legal requirements imposed by federal, state or local law, including, but not limited to, zoning ordinances and by-laws, environmental regulations, building codes, sanitary codes, safety codes and public procurement laws or for the purpose of determining whether the proposed design and process meet any applicable professional standard of care or any other standard of care. Project designers are obligated to implement detailed planning and technical review procedures to effect coordination of design criteria, buildability, and technical adequacy of project concepts. Each city, town and regional school district shall be solely responsible for ensuring that its project development concepts comply with all applicable provisions of federal, state, and local law. The MSBA recommends that each city, town and regional school district have its legal counsel review its development process and subsequent bid documents to ensure that it is in compliance with all provisions of federal, state and local law, prior to bidding. The MSBA shall not be responsible for any legal fees or costs of any kind that may be incurred by a city, town or regional school district in relation to MSBA requirements or the preparation and review of the project's planning process or plans and specifications.

3.1.1 INTRODUCTION

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District's response required</i>	Not Provided; <i>District's response required</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
1	Summary of the Facility Deficiencies and Current S.O.I.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Date of invitation to conduct a Feasibility Study and MSBA Board Action Letter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Executed Design Enrollment Certification	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Narrative of the Capital Budget Statement and Target Budget	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Project Directory with contact information	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Updated Project Schedule	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MSBA Review Comments:

4) In response to these review comments, the MSBA requests that the District's financial manager provide additional information that indicates the targeted budget or not-to-exceed budget that has been identified at this time for the proposed project. The District must provide a narrative that indicates how much the Sharon community is expecting the proposed project to cost; and identify in dollar amount, how much the District can afford to pay for the proposed project. Additionally, provide a narrative that describes how potential project costs were communicated to the public during District's community outreach activities. **Included with this response as an attachment is a narrative from the Town of Sharon describing anticipated costs and the approach to project funding. The document is entitled "Sharon High Budget Response" dated 1-3-19.**

No further review comments for this section.

3.1.2 EDUCATIONAL PROGRAM

Provide a summary and description of the existing educational program, and the new or expanded educational vision, specifications, process, teaching philosophy statement, as well as the District's curriculum goals and objectives of the program. Include description of the following items:

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District's response required</i>	Not Provided; <i>District's response required</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
1	Grade and School Configuration Policies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Class Size Policies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	School Scheduling Method	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Teaching Methodology and Structure				
	a) Administrative and Academic Organization/Structure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District's response required</i>	Not Provided; <i>District's response required</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
	b) Curriculum Delivery Methods and Practices	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) English Language Arts/Literacy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) Mathematics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e) Science	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f) Social Studies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	g) World Languages	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	h) Academic Support Programming Spaces	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	i) Student Guidance and Support Services	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Teacher Planning and Professional Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Pre-kindergarten	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Kindergarten	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Lunch Programs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Technology Instruction Policies and Program Requirements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Media Center/Library	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Visual Arts Programs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Performing Arts Programs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Physical Education Programs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Special Education Programs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Vocation and Technology Programs				
	a) Non-Chapter 74 Programming	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Chapter 74 Programming	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Transportation Policies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Functional and Spatial Relationships	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Security and Visual Access Requirements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MSBA Review Comments:

*In addition to providing a response to the following review comments, the District must provide an updated educational program to be submitted with the Preferred Schematic Report that addresses the items below; one copy that indicates changes made to the original submittal, and a second "clean copy" that documents the educational program to inform the feasibility study and design of the proposed project. **The project team acknowledges that an updated Educational Program will be included at the PSR submission.***

*4a) Please provide additional information associated with the District's desire to explore an academy model as an academic organizational structure. **While the concept of a freshmen or theme-based academy for one or more cohorts of students is intriguing, the district is not immediately prepared to move in the direction of incorporating academies. That said, the goal is to create a building that is flexible and structured in a way that allows for the***

creation of, and physical separation of, smaller learning communities (e.g. academies) if the district chooses to pursue this approach in the future.

4b) Provide additional information associated with the proposed outdoor spaces including but not limited to; whether the District is proposing a single outdoor space or several spaces, how the outdoor spaces will be accessed, identifying all of the classes/groups that will access the spaces, how safety and security of students and staff using the outdoor spaces will be addressed, how the outdoor spaces will be managed, and how the spaces will be designed for future changes in curriculum delivery. **Our high school has several outdoor spaces that are currently used as learning areas. It is our hope to continue to provide learning spaces that take advantage of an open-air environment. Currently, existing outdoor spaces are used in a variety of ways by students and staff spanning all grades and academic areas. They have been the setting for direct instruction, class discussions and readings, writing and reflection, drawing/painting, scientific investigations, presentations and performances, and other learning-oriented sessions.**

Two such open-concept spaces are proposed in the current conceptual plans. As the case is now, these spaces would likely have paved areas. In this way, necessary maintenance is minimal. Additionally, seating could be accommodated with light, movable, and weather-proof furniture (e.g. benches). The safety, security, and accountability of students would be attended to by faculty, as the case is now when such spaces are utilized. The outdoor spaces will be accessed directly from an interior classroom or hallway.

4e) The submittal notes that science rooms should be designed as discipline specific rooms. The MSBA strongly encourages the District to consider future flexibility and consider the science labs as universal as possible. The MSBA requests that the District refer to the MSBA's high school science lab guidelines found on the Educational Facility Planning page on MSBA's website. Please acknowledge. **The district has reviewed and acknowledges the MSBA's high school lab guidelines and is committed to the future flexibility of science labs in planning for a new or renovated high school facility.**

10) Provide additional information associated with the proposed library and the maker space activities planned in that space; including, but not limited to, who is responsible for managing and maintaining this space, how is it utilized, how is it scheduled, and what types of activities will occur. **With the advent of maker spaces or innovation centers in other parts of the building, the need for an actual Makerspace in the library decreases greatly. While more collaborative or project-based learning activities may still happen in the library, the need for space, storage, and "maker" tools would move to a larger, more open space, conducive to collaborative designing, building, and creating projects.**

The library, as a central hub, will be overseen by our excellent library staff, currently one library teacher and one assistant. As we do now, the library is open from before school starts until well after school closes. The library is often used for afterschool and evening clubs, activities and events, and we hope to continue and perhaps expand this access, especially as we improve the physical offerings. During the day, teachers will work with

library staff to arrange for class visits and work with the library teacher. Sign-outs will be arranged for peak demand of the small group collaboration areas.

13) The material provided for the adaptive physical education and wellness programs appears to lack the detail required to indicate how the District will deliver this aspect of the program. Please provide additional information. In addition, please indicate how the District intends to deliver occupational/physical therapy services to students and the number of current & proposed students anticipated to be served. At this time Sharon High School does not have an adaptive physical education/wellness program. All students participate in a general physical education/wellness class. Accommodations and modifications are provided in the class to students who need the services. Also, if required, instructional assistants support the students in class.

Occupational/Physical Therapy services are currently served on a consult basis to the teacher and student. The consult service may occur in the classroom, or the therapists meet with the teacher outside the classroom. There are no anticipated changes to this consult model, and we expect to continue servicing approximately 6-10 students per school year.

14) The submittal indicates the District's desire to locate the substantially sub-separate programs in close proximity to one another to increase the collaboration amongst the staff and ensure the safety and oversight of all of the students. However, the MSBA requests that the District avoid clustering all students with intensive needs into one area of the building and consider maximizing inclusion. Refer to the Special Educational Rubric on page 3A-9 of the MSBA's Educational Program Requirements. Please acknowledge. The District has reviewed and acknowledges the MSBA's Special Education Rubric. It is not the school district's intent to cluster substantially separate programs together. The district is committed to ensuring that students with disabilities receive a quality education in the least restrictive environment. We will continue to meaningfully and purposefully include students in the general education classroom as well as the broader school community. There are currently six academic support labs for students with mild to moderate learning disabilities that we hope will be merged into four academic support centers located within the core instructional areas of the building so that students can access the specialized supports and services that they need. In addition, five dedicated special education classrooms were proposed in the PDP space template to be distributed in five of the six classroom learning communities. Discussions are ongoing and the final configuration might be six special education classrooms, one at each small learning community wing. It is anticipated that half of these rooms would have associated toilets and half would not.

No further review comments for this section.

3.1.3 INITIAL SPACE SUMMARY

Provide the following Items		Complete; No response required	Provided; District's response required	Not Provided; District's response required	Receipt of District's Response; To be filled out by MSBA Staff
1	Space summary; one per approved design enrollment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Floor plans of the existing facility	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Narrative description of reasons for all variances (if any) between proposed net and gross areas as compared to MSBA guidelines	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MSBA Review Comments:

1) Based on an agreed upon enrollment of 1,250 students in grades 9-12, the MSBA has performed an initial review of the space summary provided for new construction and offers the following:

- **Core Academic** – *The District is proposing to provide a total of 63,080 net square feet (nsf) which exceeds the MSBA guidelines by 3,440 nsf. Per the information provided, the following spaces will be proposed in order for the District to deliver its educational program:*

Anticipated Core Academic Spaces	MSBA Comments
(42) General Classrooms	Proposed quantity meets guidelines
(4) 1,000 sf Teacher Planning	Under guidelines by 200 nsf
(8) 200 sf Small Group Seminar	Exceeds guidelines by 100 nsf
(12) Science Labs	One lab in excess of guidelines
(6) Prep Rooms	Under guidelines by 400 nsf
(3) Central Chemical Storage Rooms	Two rooms in excess of guidelines

*In response to these comments, provide a narrative that describes the difference between the science labs, STEAM rooms, and the Makerspace included in the Technology & Vocations category below. Additionally, please provide additional information that demonstrates the need for two (200 nsf) central chemical rooms beyond that included in the guidelines. **There is no need for three chemical storage areas in the building and one would be appropriate. The science department utilizes thirteen rooms for current course offerings. In looking to the future, the department felt that a minimum of 12 rooms would be needed to meet the main science discipline demand while the CAD lab space would be used to house the engineering design courses. The CAD lab would be wired for various technology including laptops with ethernet access points throughout the room and our current bank of 3D printers. The CAD lab would also have space with open counters and floor space so that students can assemble products and test design solutions. In addition to the three main science disciplines and engineering design, the department currently offers several STEAM focused courses including forensic science, biotechnology, and environmental science. The current courses and/or any future STEAM focused courses could be accommodated within two STEAM labs. As a district we felt that designing flexible STEAM lab rooms would create opportunities for changing courses in the future and fall more in line with the MSBA's high school guidelines that consider not only current but future use of these spaces. The Innovation Lab would be an open space wired for***

technology around the room so that it could serve multiple uses and be accessed by all departments for groups and large projects. This lab could also house robotics courses in the future as the department does not currently offer robotics but would like to add it in the future.

- **Special Education** – Proposed programmatic spaces appear to align with the MSBA guidelines. Please note that the Special Education program is subject to approval by the Department of Elementary and Secondary Education (“DESE”). The District should provide the required information with the Schematic Design submittal. Formal approval of the District’s proposed Special Education program by the DESE is a prerequisite for executing a Project Funding Agreement with the MSBA. No further preliminary comments.
- **Art & Music** – The overall square footage in this category exceeds the MSBA guidelines by 3,000 nsf. This is due to the inclusion of a 3,000 nsf Drama Classroom. The educational program provided indicates this drama classroom/multipurpose room, described in conjunction with the auditorium, will be fitted and equipped with seating for up to 150 people. It will be used for classes, presentations, small scale productions, and other low-attendance events. Based on the information provided, the MSBA requests that the District relocate this classroom to the auditorium/drama category and consider reducing the overall square footage in that category. Please refer to the comments below in the Auditorium/Drama category that account for this adjustment. **The space template that is included with the PSR submission will have the drama classroom shown in the auditorium category. The Project Team acknowledges that the MSBA will be establishing a maximum square foot area for this category and will comply with this guidance in the next submission.**
- **Vocations & Technology** – Proposed programmatic spaces appear to align with the MSBA guidelines. This category includes four rooms that appear to be different computer lab type rooms (two Digital Arts, a Computer Science/ Coding room, and a CAD Lab). In addition, three Maker type rooms (two STEAM rooms and an Innovation/Maker Space) and a TV studio are proposed. In response to these comments, provide scheduling and utilization information for each of these spaces. Provide additional information associated with the computer labs and maker areas; please describe how they are outfitted, staffed, and how they differ from each other. No further preliminary comments. **An existing schedule of use is included below indicating that multiple programs (3) do not have any allocated space for instruction in the current high school while other programs have maximum utilization.**

Current Digital Arts Room 601 Usage per 6-Period Schedule	Current Digital Arts Room 603 Usage per 6-Period Schedule	Current Computer Science/Coding Room 624 Usage per 6-Period Schedule	Current CAD Room 511 Usage per 6-Period Schedule	Current <u>Short Fall</u> in available spaces for Maker Space/STEAM Rooms Usage per 6-Period Schedule (3 programs)
Animation (2)	Digital Music (1)	Journalism (1)	Engineering (2)	Current Space in library open area
Photography (4)	Digital Photo (2)	Computer Science (4)	Physics (3)	
	Graphic Design (2)			STEAM in standard science rooms
	Animation (1)			
				Digital Music (1) in standard room
Idle periods: 0	Idle periods: 0	Idle periods: 1	Idle periods: 1	Idle:N/A

- Health & Physical Education** – Proposed programmatic spaces align with the MSBA guidelines. In response to these review comments, please indicate the proposed locations of the yoga/ cardio studio and wrestling/ weight room. **The proposed alternative PE spaces will be located near the gym and near a main corridor so that students can easily access them and so that health and wellness are made visible to the entire school community.** The MSBA also notes the educational program documents the District’s desire to include an elevated running track above the gymnasium, synthetic turf for the existing stadium as well as outdoor concession stands and out-buildings in the proposed project. In response to these comments, please confirm these features will be included as part of the proposed project. **A walking / running track above the gym is being discussed by the District. The Project Team acknowledges that the MSBA is establishing guidelines on the maximum size of gymnasiums. The track will appear on the template that is submitted at the PSR phase if it is integrated. The decision on a turf field and out buildings associated with sports programming has not yet been finalized. Note that remedial work on the existing bleachers at a minimum is required for code compliance.** Please note that these items will be considered ineligible for reimbursement. No further preliminary comments.
- Media Center** – Proposed programmatic spaces appear to align with the MSBA guidelines. In response to these comments, please provide a narrative that describes how the media center area will be planned and divided into distinct rooms, in order to accommodate the various needs described in the educational plan. No further preliminary comments. **A contemporary library requires a variety of spaces or areas where different kinds of learning can take place. In areas somewhat acoustically separated, small groups can collaborate on writing, mathematical problems, or more artistic endeavors. These more collaborative spaces may be at the edge of the larger library space and may be separated by a glass wall, maintaining sight lines and the sharing of lighting. In areas with more comfortable seating, teachers can meet with students, or groups can gather for discussions. Lower shelving or a knee wall may form a soft demarcation of these spaces. In quieter areas, students and staff can read, work independently, or research on their own. While check-out stations and “collaboration stations” will have more hardwired devices, technology tools would be more ubiquitously available thus avoiding the need for a library “lab” area as we have today. A critical component to all of these spaces is flexibility, allowing small spaces to exist while easily being able to move furniture around to create an open “performance” space, a classroom area, or a group discussion set-up.**
- Auditorium/Drama** – The overall square footage in this category exceeds the MSBA guidelines by 1,400 nsf. This overage is primarily due to including a larger than guideline stage. However, based on the comments provided above in the Art & Music category, relocating the proposed Drama Classroom will result in an additional 3,000 nsf in the Auditorium and Drama category. Therefore, the overall square footage exceeding the MSBA guidelines would be 4,400 nsf, and the table below includes the adjusted square footage. Please note that the MSBA does not object to including this additional area, however, area in

*excess of MSBA guidelines will be considered ineligible for reimbursement. Refer to the attached memorandum which outlines the MSBA's policy regarding auditorium and gym spaces beyond those included in the guidelines. Please acknowledge. **The District and Project Team acknowledges the MSBA memorandum on eligible space.***

Based on the estimated preliminary costs submitted as part of the Preliminary Design Program, the MSBA is providing the following calculations that will be reevaluated again at schematic design that gives a preliminary estimated cost associated with ineligible auditorium/drama spaces:

Total net square footage (nsf) requested by the District	14,800 nsf
Total nsf for Auditorium/Drama Category allowed as eligible by MSBA space guidelines	10,400 nsf
Excess net square footage equals District request minus net square footage allowable by MSBA space guidelines	4,400 nsf
Gross square foot (gsf) exclusion = Excess net square feet times the project's grossing factor	4,400 nsf x 1.46 = 6,424 gsf
Total cost of exclusion = Gross square foot times the project's total construction cost/square foot	6,424 gsf x \$517*/gsf = \$3,321,208
Total cost of exclusion from the Estimated Basis of Grant	\$3,321,208

**Based on the average estimated total construction cost for the new construction options.*

- **Dining & Food Service** – Proposed programmatic spaces appear to align with the MSBA guidelines. No further preliminary comments.
- **Medical** – Proposed programmatic spaces appear to align with the MSBA guidelines. No further preliminary comments.
- **Administration & Guidance** – Proposed programmatic spaces appear to align with the MSBA guidelines. No further preliminary comments.
- **Custodial & Maintenance** – Proposed programmatic spaces appear to align with the MSBA guidelines. No further preliminary comments.
- **Other** – The overall square footage in this category exceeds the MSBA guidelines by 3,500. This is due to the inclusion of a 500 nsf school store and a 3,000 nsf community education space. The MSBA does not object to including these areas, however, they will be considered ineligible for MSBA reimbursement. The MSBA encourages the District and its consultants to attempt to find efficiencies in the proposed building layout to reduce the overall net square footage in this category. No further preliminary comments. **The District and Project Team will work to reduce these areas during the PSR phase and will provide an updated and revised space template with with the upcoming PSR submission.**

Please note that upon selection of a preferred solution, the District may be required to adjust spaces/square footage that exceeds the MSBA guidelines and is not supported by the Educational Program provided.

No further review comments for this section.

3.1.4 EVALUATION OF EXISTING CONDITIONS

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District's response required</i>	Not Provided; <i>District's response required</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
1	Confirmation of legal title to the property.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Determination that the property is available for development.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Existing historically significant features and any related effect on the project design and/or schedule.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Determination of any development restrictions that may apply.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Initial Evaluation of building code compliance for the existing facility.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Initial Evaluation of Architectural Access Board rules and regulations and their application to a potential project.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Preliminary evaluation of significant structural, environmental, geotechnical, or other physical conditions that may impact the cost and evaluations of alternatives.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Determination for need and schedule for soils exploration and geotechnical evaluation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Environmental site assessments minimally consisting of a Phase I: Initial Site Investigation performed by a licensed site professional.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Assessment of the school for the presence of hazardous materials.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Previous existing building and/or site reports, studies, drawings, etc. provided by the district, if any.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MSBA Review Comments:

3) Please include the timeline associated with filing with the Massachusetts Historical Commission ("MHC") and obtaining MHC approval prior to construction bids in future versions of the project schedule. **The Project Team anticipates that a MHC Project Notification Form will be submitted early in the Schematic Design Phase after a preferred option has been selected and that approval from the MHC will be secured prior to submission of the Schematic Design package.** The District should keep the MSBA informed of any decisions and/or proposed actions and should confirm that the proposed project is in conformance with Massachusetts General Law 950, CRM 71.00. Please acknowledge. **The project team acknowledges that the MSBA should be kept informed and that the project should comply with MGL 950 CRM 71.00.**

4) The information provided contains a statement indicating that the design team is not aware of any development restrictions. However, limited information has been provided. In response to these comments, provide a narrative regarding any development restrictions that may be present in conjunction with, but not limited to, zoning, easements, overlay districts, wellhead protection

zones, wetlands, vernal pools, flood plains, priority wildlife habitats, or any other condition that would influence the buildable area of the site.

Detailed Zoning information is provided in the Landscape Narrative (5.3). The key points in the narrative are that the site is a Rural 2 zoning district and an educational use is permitted. Setbacks (60' front and 30' side and rear) are noted in the zoning narrative and are also identified on site analysis plan (5.2).

The surface water protection district requirements are detailed under the permitting narrative (5.4). In addition, existing wetlands are identified with associated no-build setbacks on site analysis plan (5.2) and also noted in the permitting narrative (5.4). These were flagged by a botanist and are shown on the site analysis plan and the survey.

The site is not located within or in proximity to a priority habitat of rare species or wildlife and no certified vernal pools are mapped within the immediate vicinity of the site based on Mass GIS mapping.

The site is mapped within FEMA Zone X indicating areas outside the 1% annual chance flood.

There are no known easements or wellhead protection zones on the property.

In summary, there are no apparent regulatory restrictions that would prohibit construction on the site. A memorandum entitled “Wetland Resource Area Analysis Report” prepared by the wetland scientist LEC and completed subsequent to the PDP submission dated 12/27/18 is attached to this response as an appendix. This memo discusses environmental regulatory requirements and restrictions on and around the site.

*7) The information provided indicates that the existing high school building was constructed and expanded at various times between 1956 to 2010. In response to these comments, please provide a diagram of the existing building that illustrates the construction date of each portion. **A diagram has been included with this response as an appendix and is attached. The diagram, “Sharon HS Building History” dated 1/2/19 indicates the various phases of construction completion for the existing facility.***

*Additionally, this submittal suggests that modification of the roof would be required in any renovation or renovation/addition option; but does not specifically identify what factors are driving the need to modify the roof, or to what extent it will be modified. In response to these comments, please clarify the driving factors that necessitate the roof modification, and how this impacts the scope of a renovation or renovation/ addition option. **The existing roof is close to the end of its useful life and in need of replacement. In addition, it is assumed that in order to meet current energy code requirements, the roof will require additional insulation with the existing roof removed to the deck to allow for this added scope.***

9) The Phase I Environmental Site Assessment provided indicates that a decommissioned 20,000 underground storage tank for fuel oil is located beneath the rear parking lot of the school. Abatement and removal of fuel storage tanks and the abatement of contaminated soil from any source must be itemized in the cost estimates and will be considered ineligible for MSBA

reimbursement. Additionally, all work associated with the on-site sewerage treatment plant and associated leaching fields will be considered ineligible for reimbursement. Please acknowledge. **The District and Project Team acknowledge.**

10) It should be noted that all costs associated with the removal of floor and ceiling tiles containing asbestos are ineligible for MSBA reimbursement. Additionally, the project team should be aware of the current policies associated with MSBA's participation in the abatement and removal of hazardous materials.

No further review comments for this section.

3.1.5 SITE DEVELOPMENT REQUIREMENTS

Provide the following Items		Complete; No response required	Provided; District's response required	Not Provided; District's response required	Receipt of District's Response; To be filled out by MSBA Staff
1	A narrative describing project requirements related to site development to be considered during the preliminary and final evaluation of alternatives.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Existing site plan(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MSBA Review Comments:

1) The information provided indicates that the District considered the following five sites for possible development: The Town of Sharon provided the following list of all available sites exceeding 28 acres that did not have conservation restrictions or other open space limitations that would prohibit development:

- **Existing Sharon HS** (181 Pond Street, 28 acres);
- **Sharon Gallery** (144 Old Post Road, 59.8 acres);
- **Camp Everwood** (250 E. Foxboro Street, 63.1 acres);
- **Sharon Country Club** (149 East Street, 71.7 acres); and
- **Rattle snake Hill** (400 Mountain Street, 317 acres).

With the exception of the existing Sharon High School site, the District and its consultants have determined that further exploration of the other four sites are not viable because they would require extensive site development, legal and acquisition costs, and would cause delays in the anticipated project schedule. In response to these review comments, please provide certified meeting minutes that include the vote language and vote results that eliminate these sites from future consideration and confirm if a school building committee vote was taken or is anticipated for the final site selection.

No further review comments for this section.

3.1.6 PRELIMINARY EVALUATION OF ALTERNATIVES

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District's response required</i>	Not Provided; <i>District's response required</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
1	Analysis of school district student school assignment practices and available space in other schools in the district	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Tuition agreement with adjacent school districts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Rental or acquisition of existing buildings that could be made available for school use	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Code Upgrade option that includes repair of systems and/or scope required for purposes of code compliance; with no modification of existing spaces or their function	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Renovation(s) and/or addition(s) of varying degrees to the existing building(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Construction of new building and the evaluation of potential locations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	List of 3 distinct alternatives (including at least 1 renovation and/or addition option) are recommended for further development and evaluation.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MSBA Review Comments:

7) Subsequent to the receipt of this submittal, the MSBA requested that the District further clarify which of the preliminary options will be studied moving forward into the preferred schematic phase. On December 5, 2018, the MSBA received an amendment to section 6.4 of this submittal; the information provided proposes the following options for further evaluation in the Preferred Schematic Report:

- **Base Repair/Code Upgrade R-1:** “No build” code upgrade, includes comprehensive renovation (without any building expansion), systems upgrade, and updating the existing facility to meet the building code; Please note that the MSBA has and would support and participate in the reimbursement of repair/renovation, “Base Repair” options, where a District has selected an alternative that proposes to repair/renovate an existing facility while addressing a certain level of educational program need.
- **Addition / Renovation Option AR-1:** Comprehensive renovation and a two-story classroom addition onto the southside of the existing school;
- **New Construction Options N-3:** New two-story school built on the existing softball and baseball fields, proposing three 210 student classroom wings located on the eastern and southern side of the site with public zones for the community located on the western side; and
- **New Construction Option N-4:** New two-story school built on the existing softball and baseball fields, proposing three 210 student classroom wings located on the eastern side of the site with public zones for the community located on the western and southern side.

In response to these review comments, please provide certified meeting minutes from the November 27, 2018 **District planning meeting minutes from 11/27/18 are included with this**

response as an attachment reflecting elimination of some of the options and the December 4, 208 School Building Committee meetings. Meeting minutes from 11/6/18 are included with this response as an attachment. These minutes include the decision to have the high school remain at the existing site. Please include the vote language and vote results that eliminated options AR-2, N-1, N-2, & N-5 from future consideration. Meeting minutes from 12/4/18 are included with this response as an attachment. These minutes include the decision to eliminate AR-2, N-1, N-2, N-5.

No further review comments for this section.

3.1.7 LOCAL ACTIONS AND APPROVAL

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District's response required</i>	Not Provided; <i>District's response required</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
1	Certified copies of the School Building Committee meeting notes showing specific submittal approval vote language and voting results, and a list of associated School Building Committee meeting dates, agenda, attendees and description of the presentation materials	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Signed Local Actions and Approvals Certification(s):				
	a) Submittal approval certificate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Grade reconfiguration and/or redistricting approval certificate (if applicable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Provide the following items to document approval and public notification of school configuration changes associated with the proposed project				
	a) A description of the local process required to authorize a change to the existing grade configuration or redistricting in the district	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) A list of associated public meeting dates, agenda, attendees and description of the presentation materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Certified copies of the governing body (e.g. School Building Committee) meeting notes showing specific grade reconfiguration and/or redistricting, vote language, and voting results if required locally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d) A certification from the Superintendent stating the District's intent to implement a grade configuration or consolidate schools, as applicable. The certification must be signed by the Chief Executive Officer, Superintendent of Schools, and Chair of the School Committee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MSBA Review Comments:

No review comments for this section.

3.1.8 APPENDICES

Provide the following Items		Complete; <i>No response required</i>	Provided; <i>District's response required</i>	Not Provided; <i>District's response required</i>	Receipt of District's Response; <i>To be filled out by MSBA Staff</i>
1	Current Statement of Interest	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	MSBA Board Action Letter including the invitation to conduct a Feasibility Study	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Design Enrollment Certification	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MSBA Review Comments:

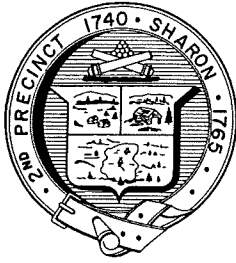
No review comments for this section.

*To facilitate the efficient and effective administration of proposed projects currently pending review by the MSBA, the MSBA occasionally issues project advisories as informational updates for the Districts, Owner's Project Managers and Designers. These advisories can be found on the MSBA's website. In response to these review comments, please confirm that the District's consultants have reviewed all project advisories and that they have been incorporated into the proposed project as applicable. **The District Consultants have reviewed MSBA advisories.***

District Response – Appendix (Attachments)

- **Capital Budget Response – 1/3/19**
- **LEC Wetland Resource Area Analysis Report – 12/27/18**
- **Sharon High School Building History Diagram – 1/2/19**
- **District Meeting Minutes 11/27/18**
- **Building Committee Meeting Minutes 11/6/18, 12/4/18.**

End of District Response



TOWN OF SHARON
Accounting/Finance Department
90 SOUTH MAIN STREET
SHARON, MASSACHUSETTS 02067

Phone: (781) 784-1500 ext 1209
Fax: (781) 784-1502
www.townofsharon.net

January 3, 2019

On 12/20/18, as part of its review of the Capital Budget Summary narrative, the MSBA requested the following information be provided by the Town of Sharon:

4) In response to these review comments, the MSBA requests that the District's financial manager provide additional information that indicates the targeted budget or not-to-exceed budget that has been identified at this time for the proposed project. The District must provide a narrative that indicates how much the Sharon community is expecting the proposed project to cost; and identify in dollar amount, how much the District can afford to pay for the proposed project. Additionally, provide a narrative that describes how potential project costs were communicated to the public during District's community outreach activities.

The Town of Sharon hereby provides the following responses to the MSBA:

Targeted budget or not-to exceed budget.

The total project budget is yet to be established. The Town is going through the Feasibility stage. The budget for the proposed project will be established when the preferred option is identified in the next phase of design, the Preferred Schematic Report (PSR), to be completed in March of 2019. The amount of the budget will correspond to the estimated total project cost of the preferred option.

How much the Town of Sharon expects the project to cost.

The estimated total project cost will be determined when the preferred option is identified in the next phase of design, the Preferred Schematic Report (PSR), to be completed in March of 2019. As indicated within the PDP delivered to the MSBA on 11/21/18, the estimated total project cost for renovation, addition-renovation, and new construction options are summarized as follows:

Option	Estimated Total Project Cost
Renovation (R-1)	\$ 89,000,000
Addition-Renovation (AR-1)	\$160,000,000
New Construction (N-3)	\$155,000,000
New Construction (N-4)	\$156,800,000

How much the Town of Sharon can afford to pay for the project.

The Town of Sharon anticipates being able to afford the cost of any of the building options identified in the PDP and summarized above. The Town of Sharon anticipates financing its share of the project costs through bond anticipation notes and bonds with payments of the debt being supported by the tax levy of the town, contingent upon a successful and passage of a Proposition 2 ½ debt exclusion vote at the Town Meeting and subsequent public ballot

Communication of potential project costs.

Continuous public communication of the Sharon High School project and its cost, is essential to the the project completion. Various communication avenues will be deployed. For example, Potential project costs were communicated at a School Building Committee meeting held on 11/20/18, an open public meeting that was televised on Sharon Community Television and remains available for viewing on <http://www.sharontv.com/video/standing-building-committee-11-20-18/>. The potential project costs are included within Section 6 of the Preliminary Design Program (PDP), a public document that is posted on the Building Project page of Sharon High School website, <https://www.sharon.k12.ma.us/site/Default.aspx?PageID=5496>. The Building Project page provides a lot of project information and has been promoted at faculty presentations, PTO meetings, School Building Committee meetings, and School Committee meetings. There will be a community forum for the building project at the Sharon High School Auditorium from 7:00 p.m. to 8:00 p.m. on 1/24/19; potential project costs will be further communicated at this meeting.

Thank you for your assistance.

Sincerely,



Krishan Gupta
Director of Finance
Town of Sharon, MA

Copy: Dr. Victoria Greer, School Superintendent
Fred Turkington, Town Administrator
Gordon Goldstone, Chairman, Standing Building Committee
Patricia-Lee Achorn, Chairman, Finance Committee
Paul Queeney, (OPM) PMA Consultants

December 27, 2018

Email [mviolette@nitscheng.com]

Mr. Mark Violette
Nitsch Engineering, Inc.
120 Front Street, Suite 280
Worcester, MA 01608

Re: Wetland Resource Area Analysis Report
Sharon High School
181 Pond Street (Assessor's ID #081124000)
Sharon, Massachusetts

[LEC File #: NEI18-275.01]

Dear Mr. Violette:

As requested, LEC Environmental Consultants, Inc., (LEC) conducted a site evaluation and Wetland Resource Area Analysis at Sharon High School in Sharon, Massachusetts. The purpose of the evaluation was to determine Wetland Resource Area boundaries on the property. The evaluation was conducted in accordance with the *Massachusetts Wetlands Protection Act* (Act, M.G.L. c. 131, s. 40) and its implementing *Regulations* (310 CMR 10.00), the *Federal Clean Water Act* (CWA; 33 U.S.C. 1344, s. 404) and its implementing *Regulations* (33 CFR and 40 CFR), and the *Town of Sharon Wetlands Protection Bylaw* (Bylaw, Chapter 262) and its implementing *Rules and Regulations* (Bylaw Regulations). The following report provides a general site description, wetland delineation methodology, a description of the Wetland Resource Areas, and potential regulatory implications.

General Site Description

The approximately 28.5± acre parcel (the site) at 181 Pond Street (Assessor's ID #081124000) is situated immediately west of Pond Street, immediately north of Beach Street, and south of Ames Street within a moderately dense residential section of Sharon, Massachusetts (Attachment A). Single-family homes associated with Ames Street and Ames Court border the site to the north and northwest, and single-family homes associated with Pond Street are situated to the east. Forested uplands and forested wetlands are located southwest of the site, and Memorial Park Beach and Lake Massapoag are located to the south across Beach Street.

The northern portion of the site includes the Sharon High School building complex and associated paved parking areas. The northwestern and southern portions of the site contain athletic fields, a track, and tennis courts. The main entrance to the school complex is on Pond Street. Secondary access extends east from Ames Court to the rear of the building complex.

LEC Environmental Consultants, Inc.

www.lecenvironmental.com

12 Resnik Road
Suite 1
Plymouth, MA 02360
508-746-9491
508-746-9492 (Fax)

380 Lowell Street
Suite 101
Wakefield, MA 01880
781-245-2500
781-245-6677 (Fax)

100 Grove Street
Suite 302
Worcester, MA 01605
508-753-3077
508-753-3177 (Fax)

P. O. Box 590
Rindge, NH 03461
603-899-6726
603-899-6726 (Fax)

A narrow band of forested land extends along Pond Street south of the main entrance, and along Beach Street on the southern portion of the school property. A small isolated Freshwater Wetland is located within this area, east of the tennis courts. The southwestern portion of the site contains an unnamed intermittent stream and associated Bordering Vegetated Wetland (BVW) system. Wetland Resource Areas are described in detail below. Topography is relatively flat throughout the developed site, sloping slightly downgradient in a southerly direction.

Vegetation within the fringing upland portions of the site contains a moderately dense canopy of red oak (*Quercus rubra*), white oak (*Quercus alba*), black cherry (*Nyssa sylvatica*), black locust (*Robinia pseudoacacia*), and red maple (*Acer rubrum*). The moderately dense understory contains saplings from the canopy layer; a shrub layer of sweet pepperbush (*Clethra alnifolia*), Japanese barberry (*Berberis thunbergii*), multiflora rose (*Rosa multiflora*), glossy buckthorn (*Frangula alnus*), and pokeweed (*Phytolacca americana*); and a groundcover layer of Virginia creeper (*Parthenocissus quinquefolia*), cinnamon fern (*Osmunda cinnamomea*), sarsaparilla (*Aralia nudicaulis*), sensitive fern (*Onoclea sensibilis*), and seedlings from the canopy layer. Entanglements of common greenbrier (*Smilax rotundifolia*), fox grape (*Vitis labrusca*), Asiatic bittersweet (*Celastrus orbiculata*), and Virginia creeper are common throughout.

According to the Natural Resource Conservation Service (NRCS) Soil Survey (Web Soil Survey and Norfolk and Suffolk Counties, Massachusetts, Version 13, October 6, 2017), the forested upland portion of the site is mapped as Udorthents, loamy and Woodbridge Fine Sandy Loam, 0 to 8 percent slopes. NRCS describes the Udorthents Series as areas where the original soil has been cut away or covered with a loamy fill material graded to a smooth surface with 4 to 10 inches of topsoil. NRCS describes the Woodbridge Series as moderately well drained, loamy soils formed in lodgment till.

Representative test pits in the upland located within the southwestern portion of the site consist of an 8 inch thick A-Horizon with a matrix color of 10 YR 3/3. The topsoil is directly underlain by a 10 inch thick Bw-Horizon with a matrix color 10 YR 4/3. The Bw-Horizon is underlain by a C-Horizon measuring 6 inches thick with a matrix color ranging between 2.5 Y 4/4 to 2.5 Y 6/4. LEC's field observations of the soil profile were generally consistent with the NRCS Soil Survey, and the soil profiles described above are not considered 'hydric' in accordance with the *Field Indicators for Identifying Hydric Soils in New England* (May, 2017).

Natural Heritage and Endangered Species Program Designation

According to the 14th edition (August 1, 2017) of the *Massachusetts Natural Heritage Atlas* published by the Natural Heritage & Endangered Species Program (NHESP), the site is not located within or in proximity to a *Priority Habitat of Rare Species* or *Estimated Habitat of Rare Wildlife*. No Certified Vernal Pools (CVP) or Potential Vernal Pools (PVP) are mapped on or within the immediate vicinity of the site (Attachment A).

Floodplain Designation

According to the July 17, 2012 FEMA Flood Insurance Rate Map (FEMA FIRM) for the Town of Sharon (*Community Panel 25021C0356E*), the site is mapped within a Zone X (unshaded) – *Areas outside the 1% annual chance flood* (Attachment A).

Wetland Boundary Determination Methodology

On September 25, 2018 and November 7, 2018, LEC conducted site evaluations to identify and characterize existing protectable Wetland Resource Areas located on or adjacent to the site. The Bordering Vegetated Wetland (BVW) and isolated Freshwater Wetland boundaries were determined through observations of the existing plant communities, using the "fifty percent criteria" to determine dominance of wetland/upland vegetation, the interpretation of soil characteristics, and other indicators of wetland hydrology in accordance with the Massachusetts Department of Environmental Protection (MADEP) handbook, *Delineating Bordering Vegetated Wetlands under the Massachusetts Wetlands Protection Act* (March 1995), the *Field Indicators for Identifying Hydric Soils in New England* (May, 2017), the criteria set forth in 310 CMR 10.55, and the criteria set forth in the *Bylaw and Bylaw Regulations*.

The boundaries of the BVW and isolated Freshwater Wetland were demarcated in the field with blaze orange surveyor's flagging tape, embossed with the words "LEC Resource Area Boundary" in bold, black print. The BVW flags are numbered 1 – 26. The isolated Freshwater Wetland flags are numbered A1 – A-13.

Massachusetts Department of Environmental Protection (MassDEP) BVW Field Data Forms are attached to support the wetland boundary determination (Attachment B).

Wetland Resource Areas

Wetland Resource Areas associated with the site include Bordering Vegetated Wetland (BVW) and isolated Freshwater Wetland. A brief description of the Wetland Resource Areas are provided below.

Bordering Vegetated Wetland (BVW)

BVW is defined at 310 CMR 10.55(2) as *freshwater wetlands which border on creeks, rivers, streams, ponds, and lakes. In these areas soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The boundary of BVW is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist.*

The western and southwestern portion of the site contains a forested BVW (Wetland Flags 1 – 26) associated with an unnamed intermittent stream, which eventually discharges into Lake Massapoag off-site to the south. Topography within the BVW is relatively flat, sloping slightly downgradient towards the intermittent stream with pit and mound micro-topography throughout. Bank associated with the intermittent stream is entirely contained within the BVW boundary and thus, was not delineated in the field.

Vegetation within the forested BVW is dominated by mature red maple (*Acer rubrum*) with scattered patches of tupelo (*Nyssa sylvatica*) and eastern white pine (*Pinus strobus*). The dense understory contains saplings from the overstory; a shrub layer dominated by sweet pepperbush (*Clethra alnifolia*) with patches of highbush blueberry (*Vaccinium corymbosum*), thicket creeper (*Parthenocissus inserta*), northern arrowwood (*Viburnum dentatum*), glossy buckthorn (*Frangula alnus*), and winterberry (*Ilex verticillata*); and a moderately dense groundcover layer containing sphagnum moss (*Sphagnum* sp.), cinnamon fern (*Osmunda cinnamomea*), sensitive fern (*Onoclea sensibilis*), royal fern (*Osmunda regalis*), marginal wood fern (*Dryopteris marginalis*), jewelweed (*Impatiens capensis*), poison ivy (*Toxicodendron radicans*), and seedlings from the canopy layer. Entanglements of poison ivy and common greenbrier (*Smilax rotundifolia*) are common throughout.

According to the NRCS Soil Survey (Web Soil Survey and Norfolk and Suffolk Counties, Massachusetts, Version 13, October 6, 2017), the forested wetland portion of the site is mapped as Freetown Muck, 0 to 1 percent slopes. NRCS describes the Freetown Muck Series as a very deep and very poorly drained organic soil commonly found within depressions or on level uplands and alluvial plains. Representative soil test pits dug utilizing a hand-held Dutch style auger consisted of approximately 5 inches of hemic and fibric organic material underlain by a 1 inch thick A-Horizon with a matrix color 10 YR 2/1. The A-Horizon is underlain by an AB-Horizon measuring 3 inches thick with a matrix color 2.5 Y 3/2. Redoximorphic features up to 7% were identified within the AB-Horizon and refusal was met at 9 inches below the surface. This soil profile is considered ‘hydric’ in accordance with the *Field Indicators Guide*.

Isolated Freshwater Wetland

Freshwater Wetlands are defined at Section 1.04 of the *Bylaw Regulations as vegetated wetlands and consist of any area of at least 2,000 square feet where surface and/or ground water, or ice at or near the surface of the ground, supports a plant community dominated (at least 50 percent) by wetland species and/or exhibits other evidence of hydrology.*

Furthermore, the isolated Freshwater Wetland may be subject to jurisdiction in accordance with the *Federal Clean Water Act* (33 U.S.C. 1344, s.404, the *CWA*) and its implementing Regulations (33 CFR and 40 CFR, the *CWA Regulations*). Section 328.3(c)(4) of the *CWA Regulations* defines Wetlands as *those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.*

An isolated Freshwater Wetland is situated within a topographic depression located within the southern portion of the site immediately east of the tennis courts (Wetland flags A1 – A13). The wetland hydrology appears to be driven primarily by groundwater and surficial runoff from adjacent athletic fields and courts. A small culvert is located to the east of the wetland, draining surface water into a drainage system beneath Beach Street. At the time of LEC’s November site evaluation, approximately 4 inches of standing water was observed within the isolated Freshwater Wetland. The presence of an outlet via the culvert restricts the potential depth of water from being any deeper than approximately 4 inches.

Given the small size of the wetland and the presence of an outlet via the culvert, it is unlikely that the isolated Freshwater Wetland meets the criteria for Isolated Land Subject to Flooding (ILSF) under the *Act* and *Bylaw Regulations*. The wetland does not appear to hold a sufficient water column to provide habitat for breeding Vernal Pool species and therefore does not appear to be a potential Vernal Pool.

Vegetation within the isolated Freshwater Wetland includes mature and sapling red maple and white oak (*Quercus alba*), and a sparse shrub layer of sweet pepperbush, glossy buckthorn, winterberry, and honeysuckle (*Lonicera* sp.). The groundcover layer is comprised of seedlings from the overstory, cinnamon fern, and poison ivy. Entanglements of poison ivy, common greenbrier, and Asiatic bittersweet (*Celastrus orbiculatus*) are common throughout.

Summary

LEC identified and delineated the boundary of a forested BVW and isolated Freshwater Wetland located at Sharon High School in Sharon, Massachusetts. The aforementioned Wetland Resource Areas are protected under the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40) and its implementing Regulations (310 CMR 10.00), the Federal *Clean Water Act* (CWA; 33 U.S.C. 1344, s. 404) and its Regulations (33 CFR and 40 CFR), and the *Town of Sharon Wetlands Protection Bylaw* (Chapter 262) and its implementing *Rules and Regulations*. Any proposed alteration within the Wetland Resource Areas or the associated 100-foot Buffer Zone may require filing the necessary permit applications with the Sharon Conservation Commission and the Massachusetts Department of Environmental Protection. Any proposed fill within any of the Wetland Resource Areas may require filing the necessary permit applications with the Department of the Army Corps of Engineers.

We appreciate the opportunity to work with you on this project. If you have any questions or require additional information, please do not hesitate to contact us.

Sincerely,

LEC Environmental Consultants, Inc.



Claire A. Hoogeboom
Wetland Scientist



Mark L. Manganello
Assistant Director of Ecological Services

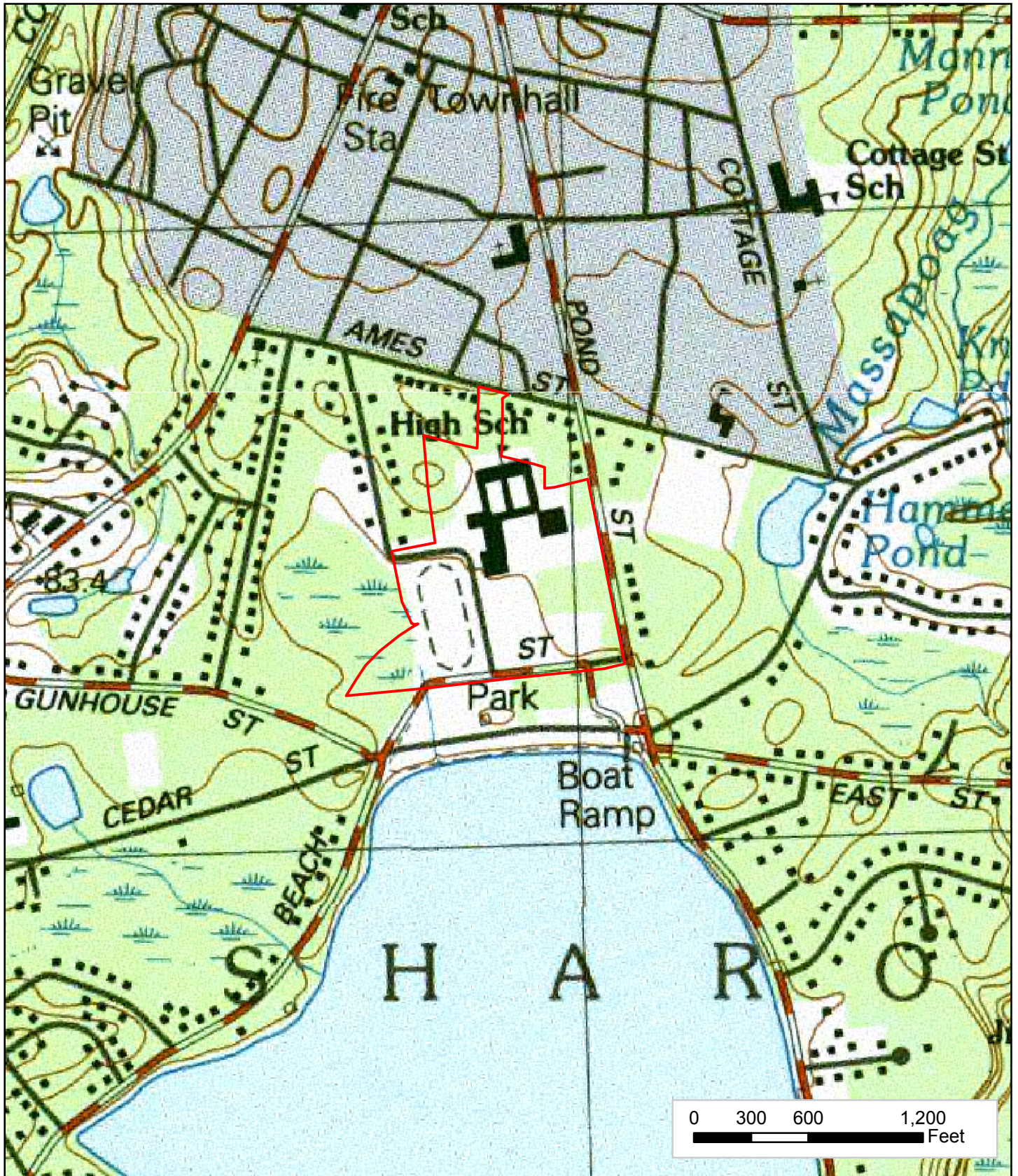
Attachment A

Locus Maps:

Figure 1: USGS Topographic Map

Figure 2: MassGIS Orthophoto

Figure 3: FEMA Flood Insurance Rate Map



LEC Environmental Consultants, Inc.

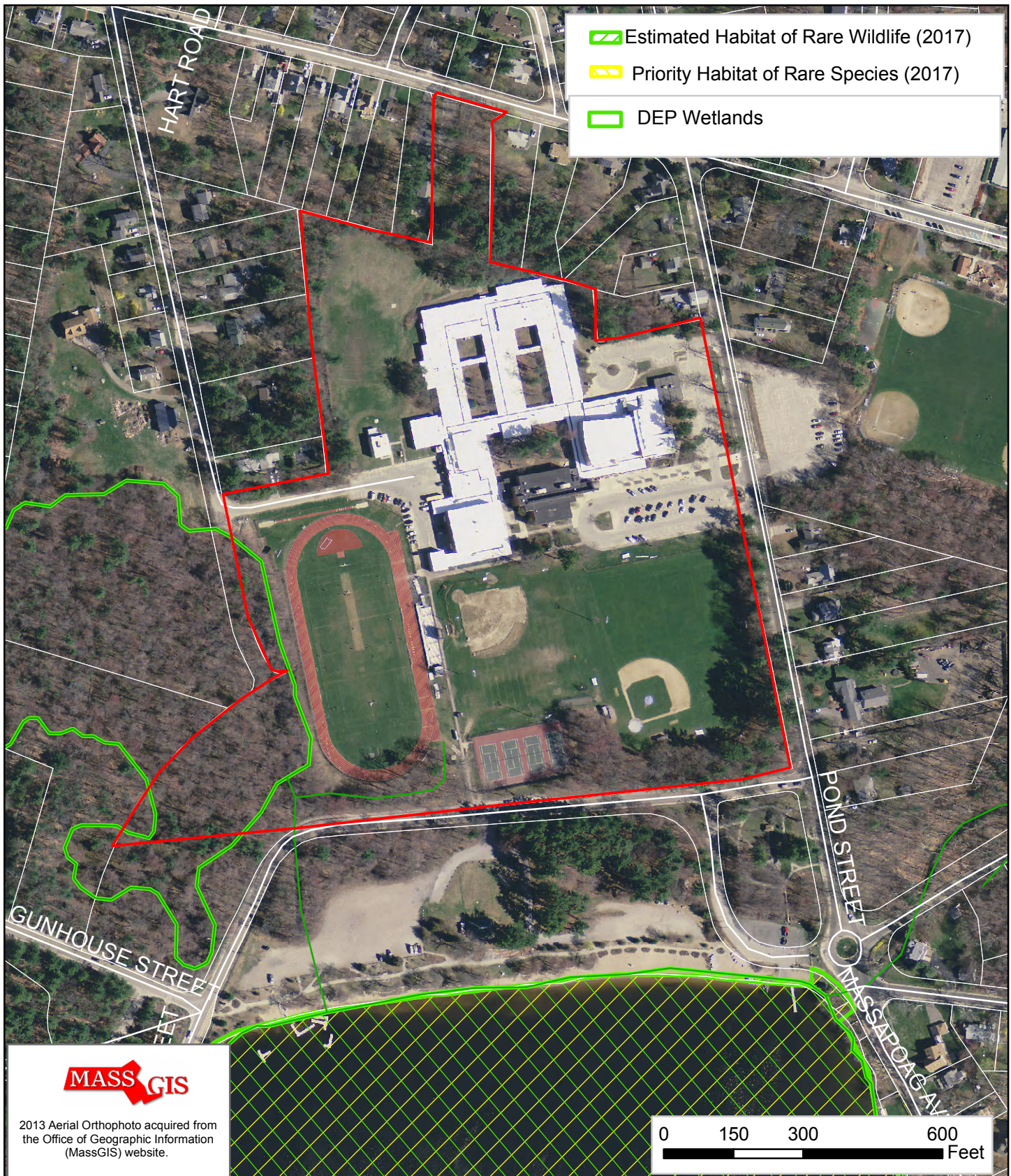
Plymouth, MA
508.746.9491
www.lecenvironmental.com

USGS Topographic Map

Sharon High School
Sharon, Massachusetts



September 4, 2018



LEC Environmental Consultants, Inc.

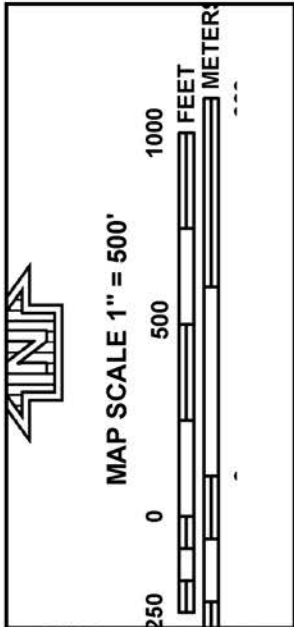
Plymouth, MA
508.746.9491
www.lecenvironmental.com

Aerial Orthophoto Map

Sharon High School
Sharon, Massachusetts



September 4, 2018



NFP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0356E


FIRM
FLOOD INSURANCE RATE MAP
NORFOLK COUNTY,
MASSACHUSETTS
(ALL JURISDICTIONS)

PANEL 356 OF 430
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
COMMUNITY NUMBER 250252
SHARON, TOWN OF

PANEL SUFFIX
0356
E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**
25021C0356E
EFFECTIVE DATE
JULY 17, 2012
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD



The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE



The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS



- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS



- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS



OTHERWISE PROTECTED AREAS (OPAS)



CBRS areas and OPAS are normally located within or adjacent to Special Flood Hazard Areas.

- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary

Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.

Base Flood Elevation line and value; elevation in feet*

(EL 987)

*Referenced to the North American Vertical Datum of 1988



Cross section line



Transect line

Culvert

Bridge

45° 02' 08", 93° 02' 12"

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere

1000-meter ticks: Massachusetts State Plane Mainland Zone (FIPS Zone 2001), Lambert Conformal Conic projection

1000-meter Universal Transverse Mercator grid values, zone 19N

Bench mark (see explanation in Notes to Users section of this FIRM panel)

River Mile

MAP REPOSITORIES

Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP

July 17, 2012

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

Attachment B

DEP Field Data Forms

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Sharon High School Prepared by: LEC Environmental Consultants, Inc. Project location: 181 Pond Street, Sharon, MA DEP File #: N/A
 Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: 1 (east of flags #23 and #24)	Transect Number: 1	Date of Delineation: 9/25/2018
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
CANOPY			
Red oak (<i>Quercus rubra</i>)	38.0%	Yes	FACU-
Black locust (<i>Robinia pseudoacacia</i>)	20.5%	Yes	FACU-
SAPLING: N/A			
SHRUB			
Glossy buckthorn (<i>Rhamnus frangula</i>)	68.0%	Yes	FAC *
GROUND COVER			
Sarsaparilla (<i>Aralia nudicaulis</i>)	10.5%	Yes	FACU
Glossy buckthorn (<i>Rhamnus frangula</i>)	10.5%	Yes	FAC *
Multiflora rose (<i>Rosa multiflora</i>)	10.5%	Yes	FACU
Poison ivy (<i>Toxicodendron radicans</i>)	10.5%	Yes	FAC *
Virginia creeper (<i>Parthenocissus quinquefolia</i>)	3.0%	No	
Sensitive fern (<i>Onoclea sensibilis</i>)	3.0%	No	
ENTANGLEMENTS			
Asiatic bittersweet (<i>Celastrus orbiculatus</i>)	38.5%	Yes	UPL

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c. 131, s. 40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 3

Number of dominant non-wetland indicator plants: 5

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes no

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? **yes** no
title/date: USGS Web Soil Survey/Version 13, October 6, 2017
map number: N/A
soil type mapped: udorthents, loamy
hydric soil inclusions: No

Are field observations consistent with soil survey? **yes** no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0 – 8"	10 YR 3/3	
Bw	8 – 18"	2.5 Y 4/3	
C	18 – 24"	2.5 Y 4/4 (49%)	10 YR 4/6 (2%)
		2.5 Y 6/4 (49%)	

Remarks:

- Test pit dug utilizing hand-held Dutch style auger

3. Other:

Conclusion: Is soil hydric? **yes** **no**

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other): _____
- ☐ Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	_____	_____ x _____
Wetland hydrology present:		
Hydric soil present	_____	_____ x _____
Other indicators of hydrology present	_____	_____ x _____
Sample location is in a BVW	_____	_____ x _____

Submit this form with the Request for Determination of Applicability or Notice of Intent.

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Sharon High School Prepared by: LEC Environmental Consultants, Inc. Project location: 181 Pond Street, Sharon, MA DEP File #: N/A
 Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
☐ Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: 2 (west of flags #23 and #24)	Transect Number: 1	Date of Delineation: 9/25/2018
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
CANOPY			
Red maple (<i>Acer rubrum</i>)	63.0%	Yes	FAC*
SAPLING			
Eastern white pine (<i>Pinus strobus</i>)	3.0%	Yes	FACU
SHRUB			
Glossy buckthorn (<i>Rhamnus frangula</i>)	20.5%	Yes	FAC*
Sweet pepperbush (<i>Clethra alnifolia</i>)	20.5%	Yes	FAC+*
GROUND COVER			
Glossy buckthorn (<i>Rhamnus frangula</i>)	10.5%	Yes	FAC*
Sweet pepperbush (<i>Clethra alnifolia</i>)	10.5%	Yes	FAC+*
Cinnamon fern (<i>Osmunda cinnamomea</i>)	10.5%	Yes	FACW*
Poison ivy (<i>Toxicodendron radicans</i>)	3.0%	No	
ENTANGLEMENTS			
Common greenbrier (<i>Smilax rotundifolia</i>)	10.5%	Yes	FAC*
Poison ivy (<i>Toxicodendron radicans</i>)	3.0%	Yes	FAC*

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 8

Number of dominant non-wetland indicator plants: 1

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? (yes) no

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
 title/date: USGS Web Soil Survey/Version 13, October 6, 2017
 map number: N/A
 soil type mapped: Freetown Much, 0 – 1 percent slopes
 hydric soil inclusions: No

Are field observations consistent with soil survey? yes no

Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
Oe	0 – 2"		
Oi	2 – 5"		
A	5 – 6"	10 YR 2/1	10 YR 4/1 (5%)
AB	6 – 9"	2.5 Y 3/2 (93%)	10 YR 3/3 (2%)

Remarks:

- Test pit dug utilizing hand-held Dutch style auger

3. Other:

Conclusion: Is soil hydric? yes no

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☒ Depth to soil saturation in observation hole: to surface
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☒ Water-stained leaves: _____
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other):

- ☒ Other: Buttressed roots

Vegetation and Hydrology Conclusion

Number of wetland indicator plants
 ≥ # of non-wetland indicator plants

Yes x No _____

Wetland hydrology present:

Hydric soil present

x _____

Other indicators of hydrology present

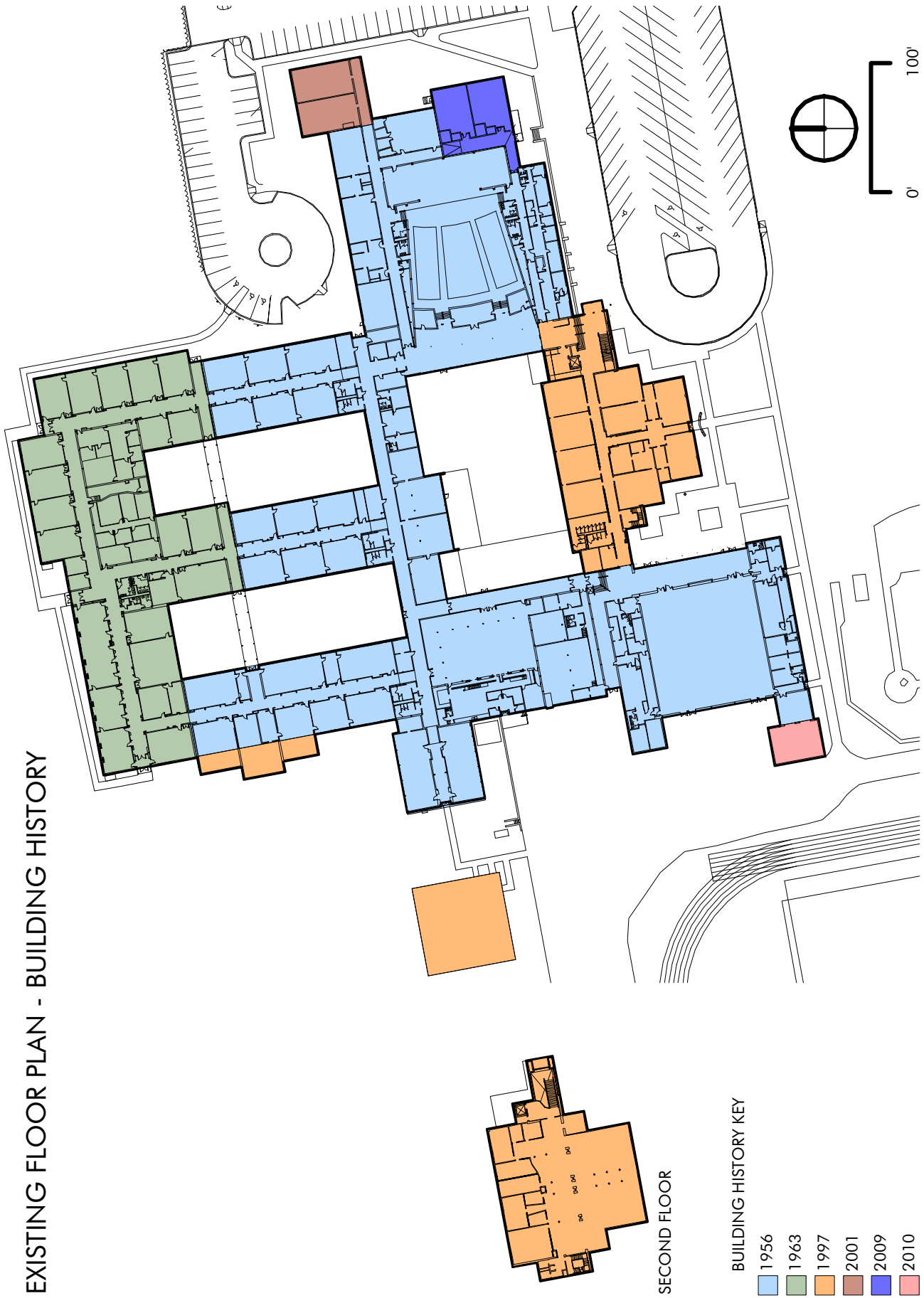
x _____

Sample location is in a BVW

x _____

Submit this form with the Request for Determination of Applicability or Notice of Intent.

EXISTING FLOOR PLAN - BUILDING HISTORY



**Sharon School Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
11/6/18**

SSBC Members

Gordon Gladstone, Chair	Richard Slater absent	Sara Winthrop absent
Deb Benjamin	Steve Smith	
Rick Rice	Roger Thibault	
Marty Richards	Colleen Tuck	Matthew Baldassari (TH)

Special Members

Ken Wertz	Jim Wright, Fire Chief
-----------	------------------------

SBC Attendees and Others

Joe Sullivan DPI	Emily Burke SBC
Kim Joyce Colantonio	Amy Garcia SBC
Kevin Paton BKA	Victoria Greer SBC
Chris Blessen Tappe absent	Jose Libano SBC
Charlie Hay Tappe	John Marcus SBC
Paul Queeney PMA	
Matt Gulino PMA	
Don Hillegass	

Administration

- The meeting of the SBC was called to order by Chair Gladstone at 6:40 PM at the Public Safety Building.
- Future scheduled meetings: 11/20, 12/18

High School

- The main point of discussion for the evening was Tappe's submission to MSBA on 11/21/18 with respect to the High School.
- Charlie Hay provided the Committee with a progress report relative to the PDP – Preliminary Design program.
- The update included a list of documents available for review.
- Alternate sites – School Committee decided to stay with the adequate existing site of the High School. Challenges of the alternate site included land acquisition, time, cost and there are no better alternatives.



- Space template – this is an ongoing living document, drama classroom added, auditorium was reduced to 750 seats which the MSBA will support and added Community Education space: offices, classrooms.
- New gross square footage is 241,618. MSBA guidelines is 225,000 so we are over 16,618 square feet.
- Mr. Hay said MSBA will provide a written response back regarding the overage on the square feet. He said MSBA may prorate these spaces as they are integral to the school programming.
- Preliminary options include renovation which does not accommodate the space. It is a difficult phased construction, could take 4 years and does not satisfy the educational program. Mr. Hay said you could add a classroom wing, taking over the football field and build next to the old building but that is a 3 year project. It is not a perfect solution. This is Option AR1.
- Option AR2 takes away exiting wings in sections and constructs a new wing on the north side. This could take 4 years to build and modular classrooms would be needed.
- Mr. Hay said each scheme will have project costs assigned based on square footage. He said costs are surprisingly high when looking at a building from the 1950's that needs new systems and finishes etc. You do not save a lot on renovations and logistically it is very difficult.
- With new construction you can have a separate construction entrance, can close off the site from traffic for safety and it is more of a clean and simple process. Several sports will however be displaced including baseball, softball, field sports and tennis.
- Mr. Hay said the construction timeline would include Fall 2020 – Fall 2022 for demo and site work.
- In conclusion Mr. Hay stated: do not pursue alternative sites, study all on site PDP options in the Preferred Schematic Phase. The current site can support either addition or replacement options.
- At the School Building Committee meeting of 11/20 the Committee can vote to approve submitting the PDP to the MSBA. A formal vote is required. On 11/21 the submission of the PDP binder to MSBA will be made.
- The next step will be to proceed into the PSR Phase and create the Preferred Schematic Report. Here the district reviews options for the preferred approach. Recommendations to SBC on final options for selection. Complete PSR to MSBA on 3/21/19.
- Paul Queeney of PMA stated that they keep adding to the website for frequently asked questions and next steps.

Minutes

Mr. Smith moved to approve the minutes of 10/23/18. Ms. Benjamin seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

Ms. Benjamin moved and Mr. Rice seconded the motion to approve all invoices. The Committee voted unanimously in favor of approval.

High School

Tappe - \$158,440.91

Adjournment

Through unanimous consent, the meeting adjourned at 7:45 PM.

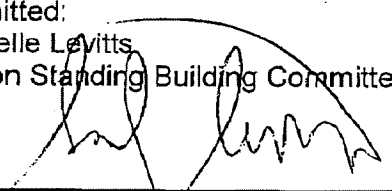
Attachments

None

Submitted:

Rachelle Levitts

Sharon Standing Building Committee



(Gordon Gladstone) Signature of Chair



Date of Acceptance

**Sharon School Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
12/4/18**

SSBC Members

Gordon Gladstone, Chair	Richard Slater	Sara Winthrop
Deb Benjamin, Vice Chair	Steve Smith	
Rick Rice	Roger Thibault absent	
Marty Richards	Colleen Tuck	Matthew Baldassari (TH) absent

Special Members

Ken Wertz absent		Jim Wright, Fire Chief absent
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SBC Attendees and Others

Joe Sullivan - DPI absent	Emily Burke SBC
Kim Joyce - Colantonio	Amy Garcia SBC
Kevin Paton - BKA	Victoria Greer SBC
Anne Castelnovo - BKA	Jose Libano SBC
Chris Blessen - Tappe	John Marcus SBC absent
Paul Queeney - PMA	Judy Crosby (alternate) absent
Matt Gulino - PMA	Joe Sexton

Administration

- The meeting of the SBC was called to order by Chair Gladstone at 7:05 PM at the Public Safety Building.
- Future scheduled meetings: 12/18, 1/8, 1/22

High School

- Mr. Hay reviewed the projects progress to date. He stated that the PDP was submitted on 11/21/18 and acknowledged by MSBA.
- There was a District meeting on 11/27 to review options and a presentation to the High School PTSO on 12/3 to discuss the process going forward. A meeting with the Elementary School PTSO's is being planned.
- The PSR Overview Phase is between 11/21 – 3/21. In this timeframe, options will be narrowed to be studied in greater detail. MSBA requires 3 alternatives: code upgrade, add/reno and replacement. PSR will document and substantiate the districts selections and recommendations for the preferred solutions.

- Preliminary Options were reviewed to include: Option R-1 which is the reno option. It satisfied MSBA requirement option at PSR. It can only bring the school up to code but has limitations and challenges.
- AR-1 adds classrooms towards the site near the lake. It is a two story large addition, least evasive, accommodates space template. AR-2 is less efficient and constrained. It would be disruptive, temporary modular classrooms required, 4 major construction phases. The school wants to eliminate AR-2.
- Option N-1 is two floors, two wings per floor, larger classrooms and 300 students per wing. It is an expansive layout. It is less accommodating of future educational needs. Less disruptive than add/reno. N-2 is similar and would place the auditorium on the south side away from the entrance. N-1 and N-2 are less desirable as they have 300 students per wing.
- N-3 is a smaller learning community. 3 wings per floor, 200 students per wing, public functions in the front of the building, better accommodates future changes in education. Toilets would be distributed throughout the buildings.
- N-5 is 3 floors, 2 wings, 200 students per wing, less appropriate scale to neighborhood context. Mr. Hay commented that a two story building is more appropriate scale for the site.
- N-4 is 2 floors, 3 wings, 200 students per wing, public functions in the front, better accommodates changes in education.
- Mr. Hay recommended allowing study of N-3 and N-4.
- The Conceptual Cost Option showed a new building costing between 153.7 - to 157 million dollars. An ad/reno to be 157 to 160 million dollars and a reno at 89 million dollars. The cost opinion on all options is very similar. It is based on the square footage and the footage meets the space program of the MSBA.
- It was determined not to study AR2, N1, N2, N5.
- It was recommended to study in greater detail: R1, AR1, N3 and N4.
- Elevators- thinking two elevators.
- School prefers the smaller number of students per wing and is not interested in three stories.
- Brief discussions ensued related to what and how the building will work. View of the lake, access to the space by public and students. There will be a call with the wetlands scientist, to address an entrance from the beach side of the building. Need to determine what will the building look like from the lake.
- On 1/8 Building Committee selection of preferred option.

- On 1/22 there could be an inclination to move forward with N3 or N4.
- Public forum is scheduled for 1/24. 3 options to be presented for public feedback.
- Next steps update MSBA on PSR progress.
- Complete PSR and submit to MSBA on 3-21-19.

Minutes

Mr. Smith moved to approve the minutes of 11/20/18. Ms. Benjamin seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

Ms. Winthrop moved and Mr. Rice seconded the motion to approve all invoices. The Committee voted unanimously in favor of approval.

High School

Gelerman \$136.50

Adjournment

Through unanimous consent, the meeting adjourned at 8:00 PM.

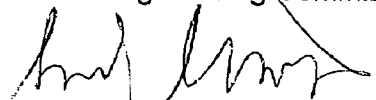
Attachments

None

Submitted:

Rachelle Levitts

Sharon Standing Building Committee



(Gordon Gladstone) Signature of Chair

12/18/18
Date of Acceptance



Sharon High School Feasibility Study / Schematic Design District Planning Meeting #7

November 27, 2018 – 10:30 am
Sharon High School

TAPPÉ ARCHITECTS, INC.

Principals

CHARLES M. HAY, AIA
JEFFREY M. HOOVER, AIA
CÉSAR DEDIOS, AIA, LEED AP
CHRISTOPHER D. BLESSEN,
AIA, LEED AP

Associates

JENNIFER M. LITTLEFIELD,
AIA, LEED AP
MATTHEW BARNHART

Principal Emeritus

A. ANTHONY TAPPÉ, FAIA

Meeting Minutes

Attendees:

- | | |
|--------------------|-------------------------------------|
| • Victoria Greer | Superintendent of Schools |
| • Elizabeth Murphy | Assistant Superintendent of Schools |
| • Gordon Gladstone | Chair – Standing Building Committee |
| • Kevin Nigro | PMA – Owner's Project Manager |
| • John Marcus | Assistant Superintendent of Schools |
| • Jose Libano | Principal Sharon HS |
| • Emily Burke | Science Coordinator |
| • Chris Blessen | Tappé Architects |
| • Charles Hay | Tappé Architects |

1. PSR Phase

- *The purpose of the Preferred Schematic Report (PSR) is to summarize the process and conclusions of the Preliminary and Final Evaluation of Alternatives and substantiate and document the District's selection and recommendation of a preferred solution.*
- The team discussed the purpose of the PSR phase and what is expected in order to complete the PSR by March 21st 2019.

2. Outreach Plan

- The following dates were acknowledge to meet with Sharon PTO:
 - High School PTO 12/3/18
 - Elementary School PTOs 12/11/18
- Sharon High School Faculty Meeting 12/12/18
- January Community Forum was planned for 1/24/19
 - Get to 3 concepts to show the community on 1/22/18 at standing building committee meeting.
 - Review process and projection moving forward
 - Get feedback
- PMA and district to work on website. District is pursuing third party management of communications.
- Standing Building Committee Meeting 1/08/19 & 1/22/19

TEL 617 451 0200
FAX 617 451 3899

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SIX EDGERLY PLACE
BOSTON, MA 02116



- The team discussed the need to reduce options and report back to the MSBA. The renovation option can stay. The team eliminated AR2 due to the disruption it would cause to the teaching and learning and related cost associate with this option.
- It was noted that the 6 wings in lieu of 4 wings is better for a more individualized teaching approach and produces cohort sizes that are less intimidating and more socially/emotionally supportive to students and teachers.
- It was also noted that a 2 story school was better for universal access, connected community and scale of the school building. Local zoning would limit the building height as well.
- Therefore, Options R1, AR1, N3 and N4 will be the focus of the PSR with an eventual narrowing to R1, AR1 and a single new/replacement option. The team hopes to arrive at this decision with a recommendation to the building committee on 1/22/19. It was noted and stressed that these options even after narrowing down will continue to evolve and change as the architects push and pull and respond to the district administration's lead.
- Plan for Fields
 - The team discussed the need for the district to begin thinking about a plan for sports activities that occur where a potential new building or addition will occur.
- General Development
 - The strategies and general development ideas for the concepts were discussed as well as strategies for departmental groupings and adjacencies, etc. Tappé will continue to evolve the plans as discussed.

4. Next Steps

- Continue PSR

Schedule next meeting – 12/11/18 @ 10:30am

- **NEXT MEETING:**
 - **Scheduled for Tuesday December 11th at 10:30am, Sharon High School.**

END OF MINUTES

THIS IS THE CERTIFY that the attached minutes of November 27, 2018 Sharon District Planning Meeting, is a True Record Attest on file.

Dr. Victoria Greer
Superintendent of Schools

2

EVALUATION OF EXISTING CONDITIONS

2.1

SUMMARY OF EXISTING CONDITIONS



2.1 SUMMARY OF EXISTING CONDITIONS

Evaluation of Existing Conditions

As noted in the introduction, no additional information was gathered in the Preferred Schematic phase that has changed the general findings of the PDP investigation. During the PDP phase hazardous materials testing, preliminary geo-technical investigation, geo-environmental testing, complete site survey including botanist wetland flagging, an investigation of the on-site wastewater treatment plant, and existing conditions traffic analysis including traffic counts were all completed. In addition, the project design team surveyed the existing building for systems and structural and architectural conditions.

Based on the level of investigation at the PDP phase there was no required supplemental site investigations conducted during the PSR phase. It is anticipated that additional geo-technical investigation will take place during the Schematic Design Phase. Once the preferred option is selected, a more defined scope for boring locations is possible that can confirm the assumptions that are already in place. The project team also anticipates completing a flow test during the schematic phase although the project team is assuming that adequate flow is available on site to avoid the need for a fire pump given the current demands of the existing building. Nonetheless, an on-site flow test is anticipated.

A budget is available for supplemental site investigation during the Schematic phase if required. The Project Team will consult with the District and the Town on the need for and timing of any further investigation.

3

FINAL EVALUATION OF ALTERNATIVES

3.1

SITE ANALYSIS





March 5, 2019

Sharon High School, Sharon, MA - Preferred Schematic Report
Site/Landscape Narrative

This narrative refers to plan diagrams under 3.3.3 Final Evaluation of Alternatives and excludes temporary site facilities and phasing implications. All building options include complete reconstruction of existing (or new) driveways, parking areas and walkways.

Base Repairs – Renovation Option R1

The renovation option will address code compliance and repairing deficient areas and improvements that have extended beyond their lifecycle. Areas of non-code compliance will be addressed to meet current minimum code. The scope of repairs would include pavement rehabilitation, curbs replacement or resetting where possible, manhole rim resetting, parking/traffic striping, sidewalk rehabilitation, track surfacing replacement. Code compliance will address accessibility including walks and curb ramps.

Add-Reno Option – AR1

With the building expansion to the south, the softball field is moved to the northwest corner of the property on top of the leaching system, which will remain in operation. The new car drop-off and parking area is accessed from a new driveway and is designed to accommodate longer queuing lanes and provide direct access to the new building entry. The existing bus drop-off will remain in its current position. Tennis will remain in its current position and receive new color surfacing. Baseball is unchanged. Minor improvements around the building will be required to accommodate new circulation routes and egress. Bleacher retrofit includes handrail replacement to bring to compliance. The pressbox will be replaced and include an accessible wheelchair lift. The track surfacing will be replaced due to its degraded condition.

New Construction Option - N4

The new construction option reorganizes the site by placing the building on the southern half of the property. The new parking and drop-off will be accessed from a new driveway to the north with the main parking lot in the center of the property. The athletic fields and tennis courts are reorganized with the baseball field adjacent Pond Street. The softball field is moved to the northwest corner of the property on top of the leaching system, which will remain in operation. Service will be accessed primarily from Beach Street. Bleacher retrofit includes handrail replacement to bring to compliance. The pressbox will be replaced and include an accessible wheelchair lift. The track surfacing will be replaced due to its degraded condition.

November 12, 2018

Sharon High School, Sharon, MA

Landscape Existing Conditions Report & Site Development Requirements

3.1.4 Evaluation of Existing Conditions

Property Description

Parcel ID: 81124000

Parcel Size: 28.5 acre (21.5 acres developable)

Zoning District: Rural 2

Address: 181 Pond Street, Sharon, MA

Site Configuration

The existing 28.5-acre Sharon High School site is bordered by residential properties to the east, north and northwest. South of the property is Beach Street and beyond, Memorial Park and Lake Massapoag. The mostly one-story existing school building is located on the northern half of the site. The southern half of the site contains the sports fields. The west and southwest part of the site contains wooded areas with wetlands abutting conservation land.



Physical Conditions Summary

The existing school building is oriented toward Pond Street where two driveways access the site serving two drop-off areas with associated parking. A parking lot connects the two drop off loops across the front of the school. The student parking lot is located on the opposite side of Pond Street with two designated crosswalks to the school site.

The property's highest point is the northwest corner and generally slopes to the south, dropping in elevation approximately 16 feet from end to end. The property ends at Beach Street, but there is an important visual connection to Lake Massapoag.

A wetland area extends from abutting conservation land onto the southwest corner of the site. A potential isolated wetland was observed east of the tennis court that will need to be confirmed with the Sharon Conservation Commission. The northwest corner of the site is used for leaching fields from the on-site waste water treatment plant serving both on and off-site sewer sources. Refer to separate WWTP narrative by Nitsch Engineering.

3.1.5 Site Development Requirements

The items described within this section identify existing conditions and programmatic or regulatory requirements to be considered in the development and evaluation of alternative site designs, and are further depicted on the existing site plans.

Structures and Fences

Fencing will be provided to separate pedestrian and athletic facilities from vehicular areas. Netting systems may be required for ball control due to site spatial constraints. Fencing will also be provided to buffer service/mechanical areas as required.

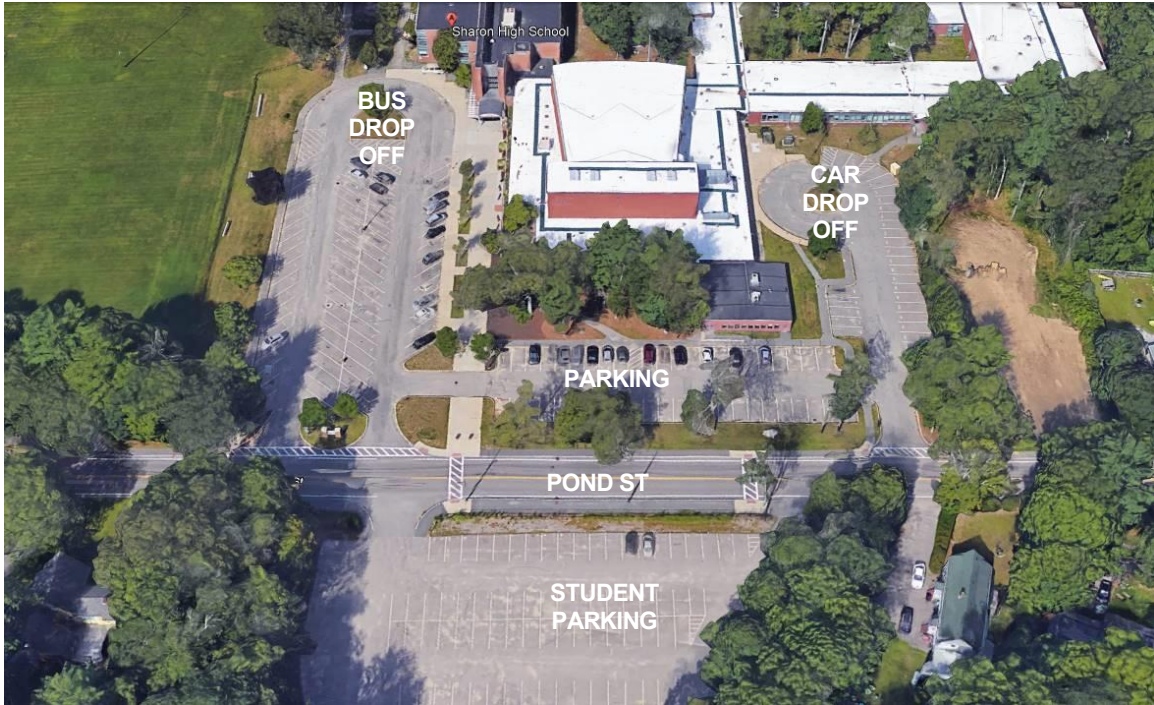
Retaining walls will be incorporated as required by the proposed building and site design to negotiate grade changes and provide accessibility.

Site Access and Circulation

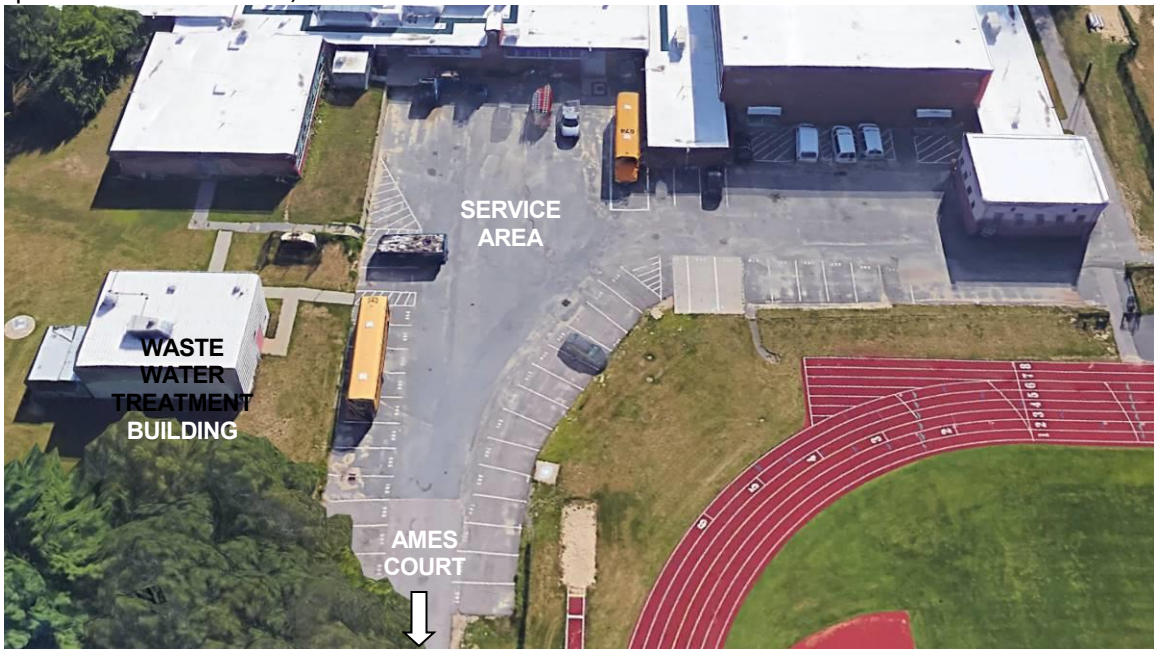
Pedestrian access is provided to the site from surrounding neighborhoods via sidewalks on the south side of Ames Street, the west side of Pond Street and on the north side of Beach Street. A paved asphalt walkway connects the Ames Street frontage with a paved walkway at the back of the school. A portion of this walkway slopes greater than 5%, exceeding the maximum accessible slope.

There are 2 drop-off loops off Pond Street that serve the existing school. The northern loop is 350 feet in length and designed for cars. The bus loop southeast of the school is 700 feet in overall length and has capacity for up to 14 buses. Both loops are shared with parking, which restricts access to parking spaces during drop-off and pick up periods.

Pond Street Site Access



The service area is accessed from Ames Court and includes adequate paved space for large vehicle maneuvering and access to the waste water treatment building. There are approximately 40 parking spaces in the service area, that are also convenient to the bleachers at the stadium.



Parking

There are about 332 parking spaces at the existing high school. This includes a student parking lot with approximately 140 spaces east of Pond Street accessed via two crosswalks on Pond Street. An unknown number of student drivers also use the Memorial Park Beach lot accessed via a single crosswalk that connects to a walkway between the track and softball field. There is a 71-space parking lot with angled parking to the south of the building that is shared with the bus drop off loop. A single parking lot with 90-degree parking along both sides connects the car and bus drop off loops across the front of the building. There are about 40 additional staff parking spaces by the service area.

The Town's Zoning By-Laws require public educational institutions to provide one parking space per 600 SF gross floor area. There is also provision for places of assembly which require one space per 5 fixed seats.

Zoning requires 9' x 20' parking spaces with 24' wide aisles. The existing parking space and aisle dimensions vary, but in general are less than required by zoning. The 20' depth is larger than many communities and will require substantially more pavement to accommodate the same amount of parking. It may be advisable to consider seeking a variance for more typical 18' deep parking spaces, which we have found acceptable in other communities with similar regulations when a 2-foot overhang is provided at the curb line.

Parking abutting residential districts located within a setback is required to be screened with landscaping per article 3117, which includes densely planted shrubs at least 4' high at time of planting.

One loading bay is required per 40,000 SF of gross floor area for institutional use. Loading bays are required to be 12'x 65'.

Paving and Curbing

Paving and curbing will be specified per applicable Town of Sharon and/or state standards. Asphalt paving of vehicular driveways and parking is typical. Walkway paving will include different materials such as asphalt, concrete and unit pavers based on location and use.

Existing driveway curbing is precast concrete in poor condition with granite at intersections with Pond Street. New curbing will include vertical granite at walkways and high impact areas and possibly Cape Cod asphalt berm at low impact areas along landscaping.

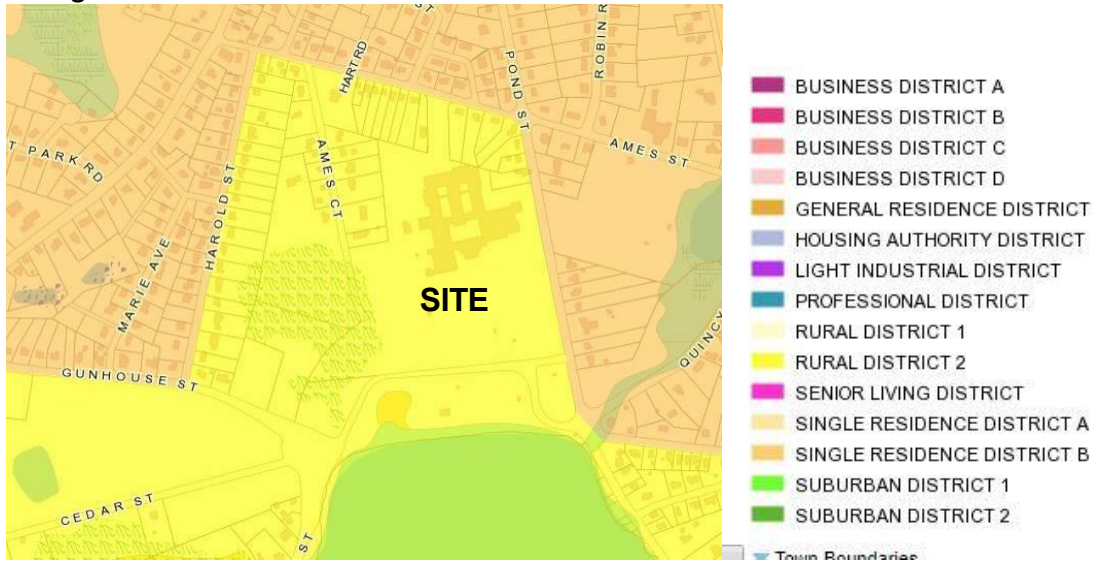
Code Requirements

The preferred building solution and site design will fully meet current accessibility regulations and building code requirements. This includes compliant accessible parking, pedestrian routes, curb ramps, stairs and ramps with associated handrails as well as compliant guard railings along pedestrian routes located above walls greater than 30-inches high.

November 12, 2018

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Zoning Setbacks and Limitations



The site is located in the Rural 2 zoning district with the following dimensional requirements:

TABLE OF DIMENSIONAL AND DENSITY REGULATIONS

Minimum Lot Area (ft.)	80,000 SF
Minimum Lot Width (ft.)	200' if fronts state or county street, 175' otherwise
<u>Minimum Yard Size</u>	
Front (ft.)	60' if fronts state or county street, or 80' to CL (whichever is more restrictive)
Side (ft.)	30' to principal bldg
Rear (ft.)	30' to principal bldg
Maximum Bldg Height (ft.)	35'
Maximum Stories (no.)	2.5
Maximum Lot Coverage(%)	15%
Min Vegetation coverage	50%
Maximum impervious	15% (includes structures)

Under 2312 Educational uses are permitted in a Rural District.

Adjacent properties to the east, west and north are zoned residential B and attention should be paid to any specific buffer or screening requirements of which are outlined below.

In addition to the Mass DEP 25' wetland setback, the Town Conservation Commission identifies a 50' no-build wetland setback which restricts most new development. Any work within the 100' wetland

jurisdictional buffer will require permitting with the Sharon Conservation Commission. Refer to the separate permitting narrative by Nitsch Engineering.

Article VII Additional Landscaping Requirements

The Zoning By-Law should be referenced for more detailed requirements. Several applicable landscape standards are summarized below:

- Shall be context sensitive primarily of drought-resistant, non-invasive native species.
- Landscaping shall be provided along the entire street frontage. Trees spaced min. 40' on center
- Screening shall be provided for dumpsters and mechanical equipment. Fencing shall also be provided.
- At time of planting, trees shall be 2.5" caliper minimum. Evergreen trees 10' ht. minimum. Shrubs 18" minimum.
- Landscaping shall be provided for all parking lots containing 10 or more parking spaces. A minimum of 1 shade tree shall be provided for every 8 parking spaces. Shade trees shall be located in a manner to provide shade to the pavement in order to reduce heat gain in the parking lots.

Accessibility

The site is relatively flat with walkways connecting sidewalks and parking areas to the building with flush conditions at building doors. The three existing courtyards have limited accessibility with compliance issues. Two courtyards appear to function primarily as natural open space, but one courtyard has outdoor classroom and dining spaces that require improvements to surfacing materials, flush transitions between materials and inclusive seating.

Accessible curb ramps on Pond Street include detectable warnings, but the curb ramps on site and at the Beach Street crosswalk do not. Accessible parking spaces in both drop off loops are located near building entrances.

There are no accessible walkways to the softball or baseball fields; however, an accessible route exists to the bleachers at the track and field.

Emergency Vehicle Access

Emergency access is provided to the building from all 4 surrounding streets; however, access from Ames Street and Beach Street is restrictive in width and is paved as walkways.

Safety and Security Requirements

Access from all four adjacent streets should be maintained and improved to accommodate the largest emergency vehicles. The design of the site and landscape is an important component to

providing a safe educational environment and ability for building occupants to egress safely during emergencies.

Strategies including providing transition zones between vehicular and pedestrian areas with barriers to stop vehicles while allowing free pedestrian egress. Clear sightlines at eye level and from security cameras and adequate site lighting are also critical factors that allow time to see and respond to dangers.

Athletic Facilities

The existing red rubber 6-lane track with 8-lane straightway and irrigated natural grass field is positioned in the optimal north-south orientation. The west facing bleachers accommodate approx. 700 spectators.

The bleachers are aluminum deck and seats on steel structure and are ADA accessible except for handrails at stairs and ramps which do not meet handrail design requirements. The wooden press box only has stair access.



LED sports lighting and 4-foot high black vinyl coated chain link fencing were recently installed.



A wooden shed for storage and concessions is located behind the softball backstop. This concession building has code compliance issues, and replacement is anticipated with the school project.



A dated (and faded) scoreboard with incandescent bulbs is located adjacent to a flagpole outside the northwest corner of the track. Multiple storage containers, sheds and an electrical cabinet are located along the access from Beach Street between the bleachers and Beach Street.



Track events include shot put and javelin located on the leaching field above the wastewater treatment building, resilient long and triple jump runways with sand pits north of the track, resilient high jump in the north “D” zone within the track and discus within the south “D” zone. Portable netting separating the field from the “D” zones is visible in some aerial photos.

There is southeast oriented softball field that overlaps with a natural grass multipurpose field used for football practice. The northeast oriented baseball field has a shortened right field, approximately 275 feet to the outfield fence and enclosed dugouts. A 200' x 300' multipurpose rectangular natural grass field overlaps left and center field of the baseball outfield. These fields have an in-ground irrigation system. The water source for the irrigation systems originates from the west side of the existing school building.



A bronze memorial plaque is mounted to one of the enclosed dugouts.



November 12, 2018

Page 10 of 16

The softball field has HID sports lighting. The baseball field does not have sports lighting. There is minimal spectator seating for these fields.



There is a chain link fence in poor condition around the perimeter of this combined field area, but no permanent outfield fence for softball or baseball.



Four unlighted tennis courts exist in north-south orientation adjacent to the Beach St access.



The court pavement has substantial thermal cracking through the full depth of the asphalt in several locations, and the perimeter chain link fencing is a light gauge in moderate to poor condition.



The long-term value of post-tensioned concrete pavement should be considered with the court renovation or replacement. Five tennis courts is the recommended minimum number of courts.

Outdoor Educational Spaces

The south courtyard, the largest of the three, has several outdoor spaces that appear to be used for education and dining. The west end has several composite lumber picnic tables and a wood swing set on crushed stone.



A paved patio bordered by a stone wall with a concrete cap inlaid with mosaics is located along the north side.



A circular wall made out of stacked precast concrete pieces is located within the tree grove, and includes openings into the framed center space.



The southeast corner is an outdoor classroom enclosed by a low concrete block wall with movable benches and podium set on precast concrete pavers.



A crushed stone pathway with concrete pavers inlaid with stamped ceramic pieces connect some of these spaces, and 4x4 wood posts topped with plastic identification labels are located within the courtyard for a self-guided tour.



Raised planters with tools and watering hoses exist in multiple locations. We observed bird and bat houses within this space as well.



The south-facing plaza adjacent to the gym foyer is another gathering/activity space for large groups of people. A memorial bench is located here.



Site Lighting Design Standards (page 148 Zoning By-Law)

Site lighting shall be designed with the lower illumination levels consistent with good design practice and IESNA recommendations. Maximum illumination levels shall not exceed 5 foot-candles at any location. Light trespass shall be limited to 0.25 foot-candles at all property lines, except at curb cuts. Fixtures and poles shall be compatible in style with on-site buildings.

Maximum pole height shall be 24 feet in parking lots and 16 feet along pedestrian walkways and in pedestrian areas. Maximum height for building mounted fixtures shall be 10 feet above finished grade of properties directly abutting offsite residences, except for balcony fixtures and as required by State Building Code.

Fixtures shall avoid upward projection of light consistent with “dark skies” principals and shall avoid point sources of light visible from off-site locations. All exterior lighting shall be energy efficient and shall incorporate zones and timers to reduce lighting levels at non-peak times.

Landscape Character and Other Location Considerations

A wooded conservation area and wetland exists west of the stadium track and narrow wooded areas exist between the athletic fields and adjacent Pond and Beach Streets.

Considerable invasive species such as oriental bittersweet, glossy buckthorn and Japanese knotweed were observed in these narrow wooded areas.

November 12, 2018

Page 15 of 16

A vegetation management plan to remove invasive species (which are mostly undergrowth) is in keeping with the zoning landscape requirements. In addition, the removal of poor quality and competing trees will improve lake views and enhance the public appearance of the school.



A donor brick wall exists along the main entrance walkway.



Painted graphics on asphalt pavement around storm drains both on and off campus are an artistic expression of environmental stewardship.

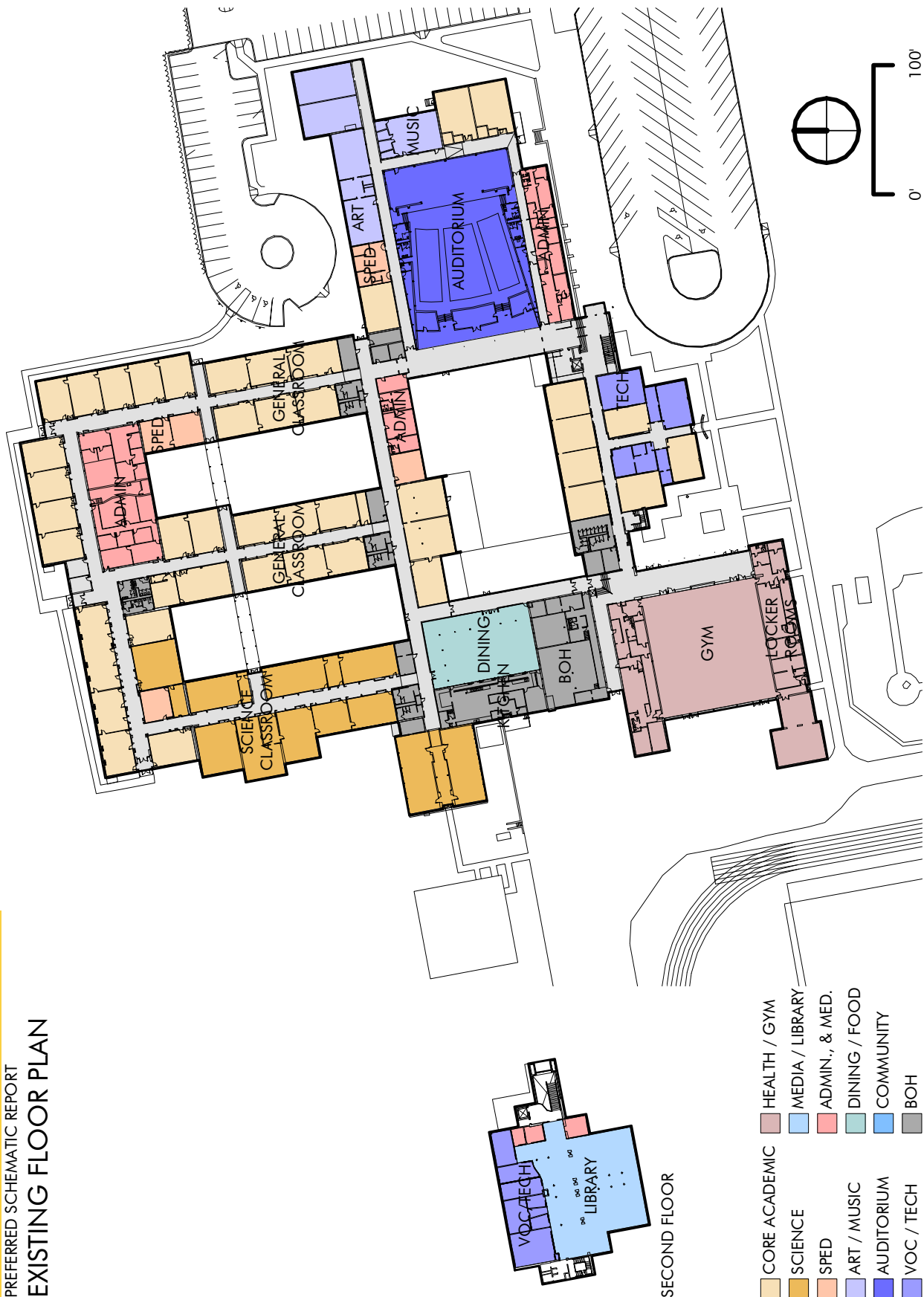


Lake Massapoag to the south is an environmental, educational and recreational resource for the high school students. This connection is important to any proposed design. The Town sign exemplifies the community's values with its motto, "A Better Place to Live Because It's Naturally Beautiful"

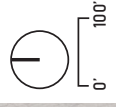
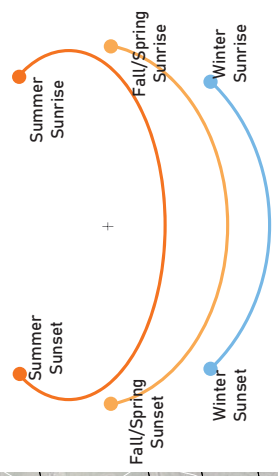
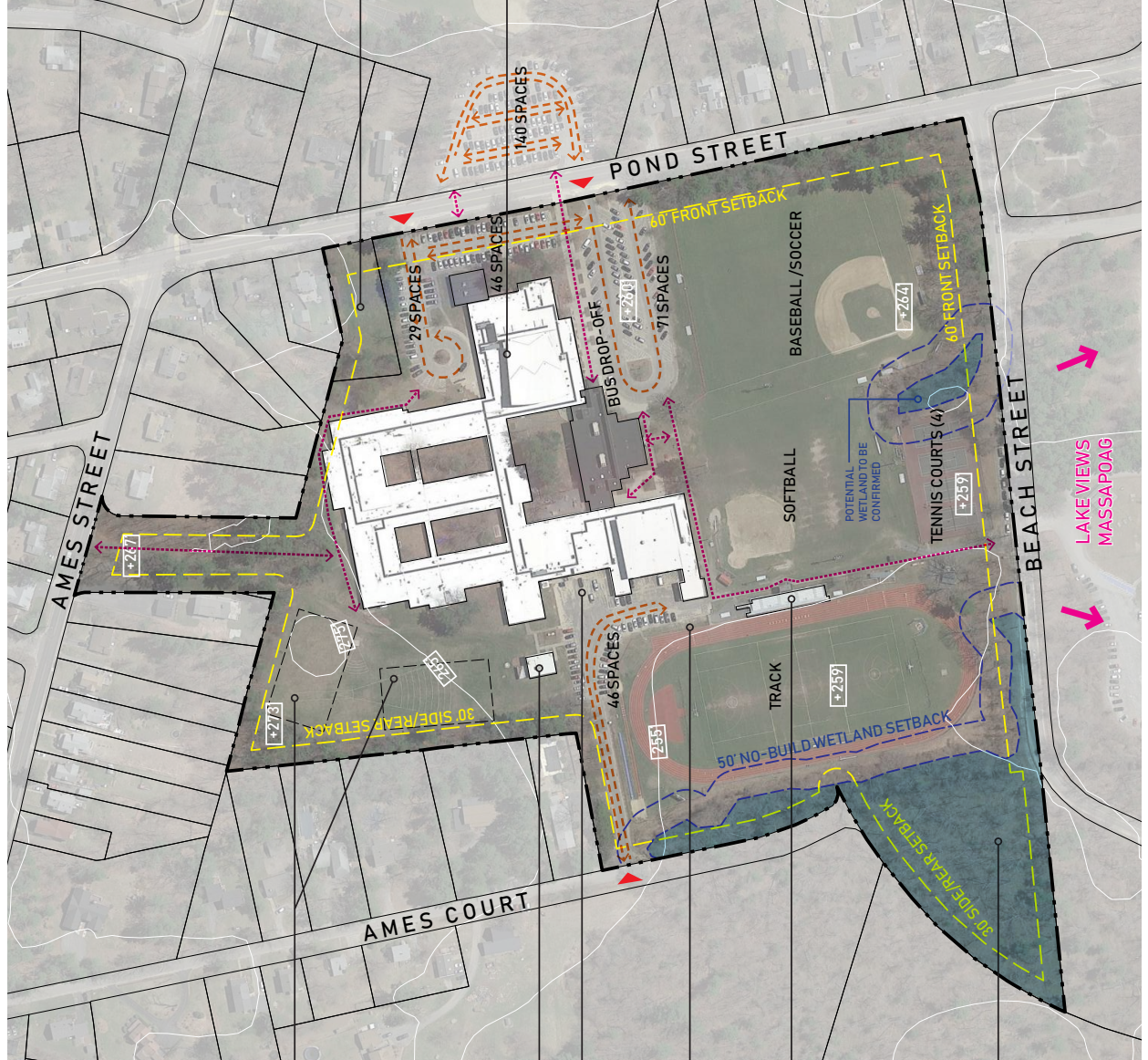


End of Report

EXISTING FLOOR PLAN



332 TOTAL
PARKING SPACES



3.2

EVALUATION OF PHASING AND CONSTRUCTION SCHEDULE



3.2 EVALUATION OF PHASING AND CONSTRUCTION SCHEDULE

Evaluation of phasing and construction schedule

The potential impact of construction and phasing was analyzed for each of the three options under consideration during the PSR phase. Directly following this narrative are construction phasing diagrams for options R-1, AR-1 and N-4. The renovation option R-1 would require temporary modular swing space on site. It is assumed that the addition / renovation option AR-1 could be accomplished without the use of swing space.

RENOVATION – OPTION R-1

This option anticipates a complete interior and exterior upgrade to the existing building. As such, areas of the building will need to be entirely vacated to accommodate this scope as it is unrealistic to anticipate that students would remain while construction took place. Given that the Town of Sharon has indicated that there is no available existing swing space in the community, it is assumed that portable modular classrooms would be brought to the site and deployed as classrooms during the construction period. For the purposes of planning, temporary swing space for 450 students, over a third of the population, has been identified as adequate to allow areas of the building to be emptied during various construction phases. This should allow at least one third of the existing classrooms to be taken off line at any given time.

Five total phases are shown in the phasing approach. All five phases are nine months in duration which results in a construction duration that extends from the fall of 2020 to the summer of 2024. The phases are sequenced so that each phase can isolate a portion of the building while the rest of the building remains operational and in service. Both phases four and five will result in loss of program spaces for some or all of the school year as they involve the gym, cafeteria, library and auditorium. While it is possible that some phases could possibly be reduced to six months, given that they will all most likely include hazardous materials abatement as well as envelope removal and repair, nine months appears to be the more prudent approach for preliminary planning.

Phasing for Option R-1 results in the longest construction duration of the three options under consideration with all the proposed renovations being conducted adjacent to an operational and active school. Students being required to move between the existing building and

temporary classrooms will increase the level of disruption posed by this option.

RENOVATION / ADDITION – OPTION AR-1

The approach for this option is to construct a large addition that holds all core academic classrooms. During construction of this new part of the building the existing school can operate much as it did pre-construction as there will be a defined location where the new and existing structures meet. Some limited modifications to the existing building will be required to provide temporary egress during construction. Once the new addition is complete the existing classroom wings that are on the north side of the school can be fully abated and removed. Removing the existing classrooms as a second phase will allow access to the north side of the building for the third phase that includes both renovations and new construction within the courtyard adjacent to the entrance and library section of the school. The second phase demolition also makes room for work on the replacement softball field and site improvements which benefits the overall schedule.

A total of three phases are identified in this phasing approach. It is assumed that the new wing will take at least 18 months to complete. Phase two which is a demolition phase is shown as six months which is realistic given that there will be comprehensive abatement as well as complete building demolition. The third phase is a combination of renovation, reconfiguration and addition to the existing building. The final phase three will most likely result in having the remaining portion of the building empty with the loss of existing program space during the school year of the gym, cafeteria, kitchen area and auditorium and arts areas. Twelve months has been identified as the duration for this phase. This assumption would need to be reviewed in greater detail given that there is a lot of scope to be completed in that limited period.

Phasing for Option AR-1 results in a planned construction duration of three years between the fall of 2020 and the fall of 2023. It can be anticipated that final site work could possibly extend to the spring of 2024. Students will be attending school in a building that is under construction or demolition over the three year period with a significant move at the end of phase one into the new addition.

NEW CONSTRUCTION – OPTION N-4

3.2 EVALUATION OF PHASING AND CONSTRUCTION SCHEDULE

The new construction option assumes a replacement building constructed to the south of the existing High School. The site of the new building will allow the current pick up and drop off zone to remain active along with vehicular and pedestrian access across the site to the football field which will remain in use. A softball field, baseball field and tennis courts will be displaced by the new construction. Tennis can use the Middle School courts and provisions for softball and baseball have already been reviewed and discussed by the district. After completion of the new building, all school operations will relocate and abatement and demolition of the existing building can start. Once the old building is removed new roadways, parking, softball, baseball, and tennis will be constructed. During the demolition phase the existing auto loop and parking can remain in use for the new building until new replacement roadways are installed on site.

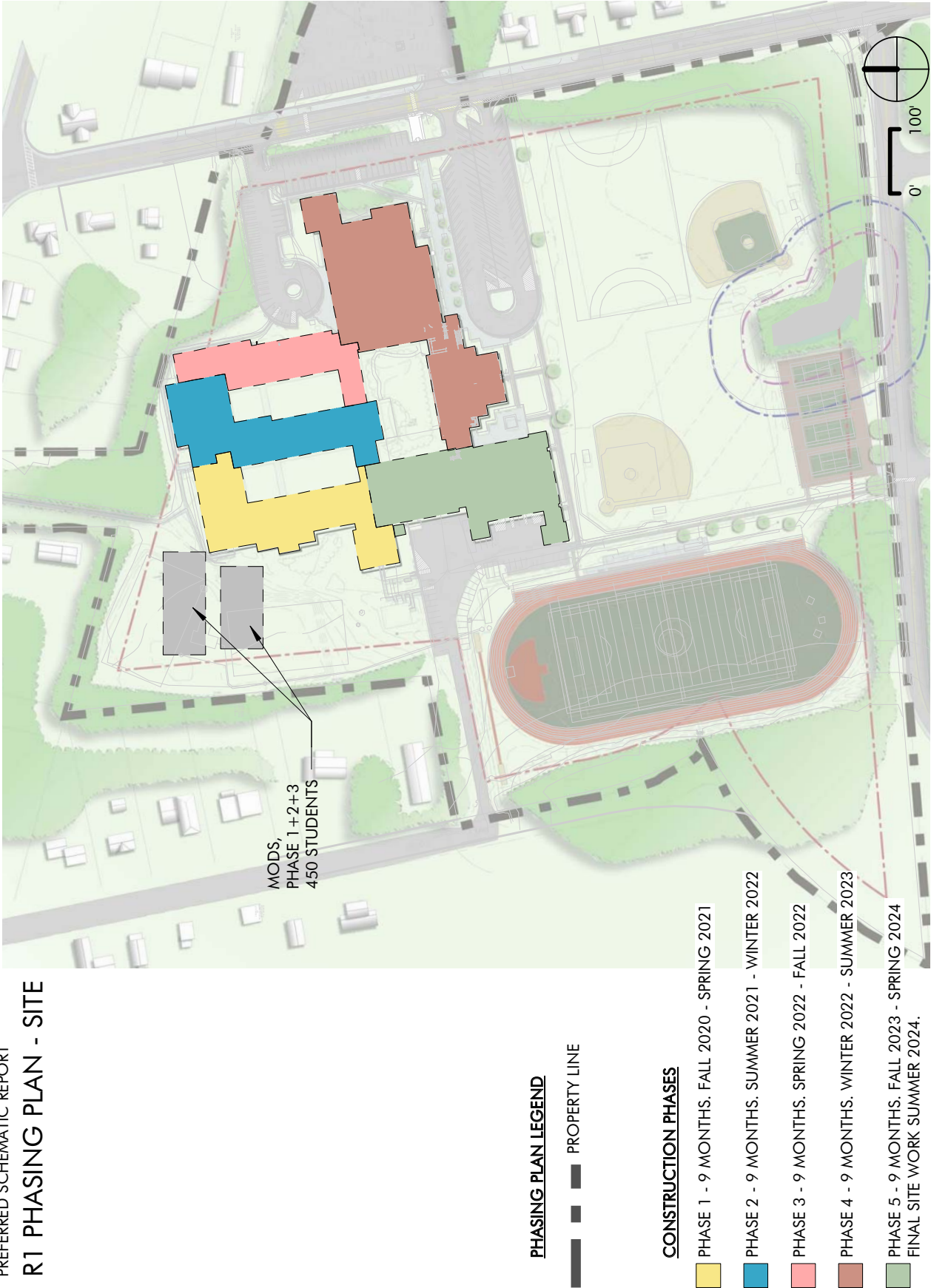
The phasing plan calls for two overall phases, the new construction phase which is anticipated to take 18 to 20 months and the second demolition and site construction phase. There will be limited on site area within the confines of the construction enclosure in the first phase. It is likely that some contractor parking will be required off site. The new site offers multiple locations for a separate and dedicated construction entrance, the most obvious being to the south.

Based on the estimated duration for each phase, construction of the replacement option might extend from the fall of 2020 to the spring and summer of 2023. The exact duration of final site work will need to be studied to establish how long it will take to complete the new fields, roads and parking area and that will inform the final completion date. The replacement option will have the least disruption to ongoing school operations during construction as the new building can be constructed without impacting on the existing building and in the shortest overall duration.

R1



R1 PHASING PLAN - SITE



SHARON HIGH SCHOOL

03/21/19

PREFERRED SCHEMATIC REPORT

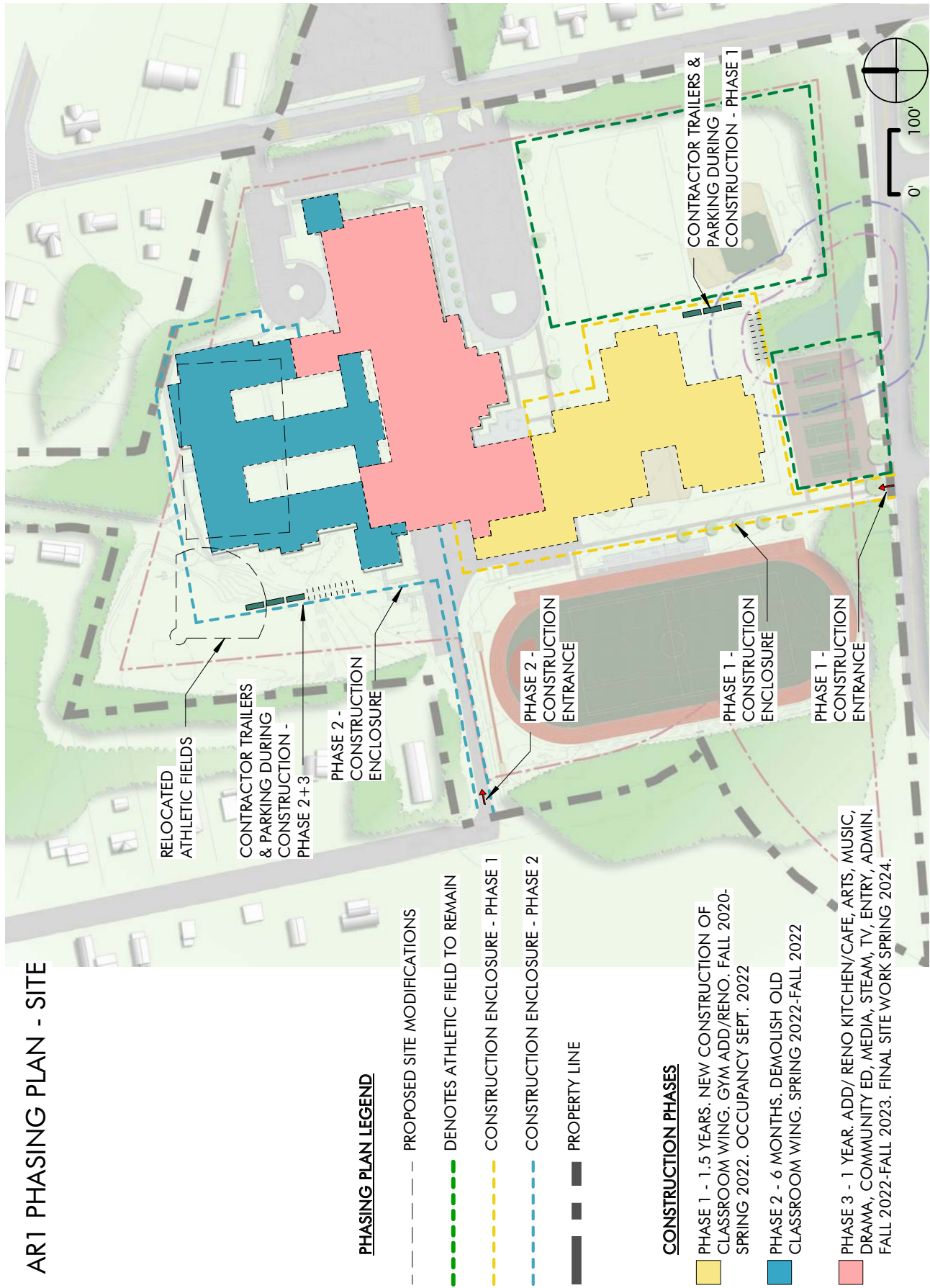
R1 PHASING PLAN



AR1



ART PHASING PLAN - SITE

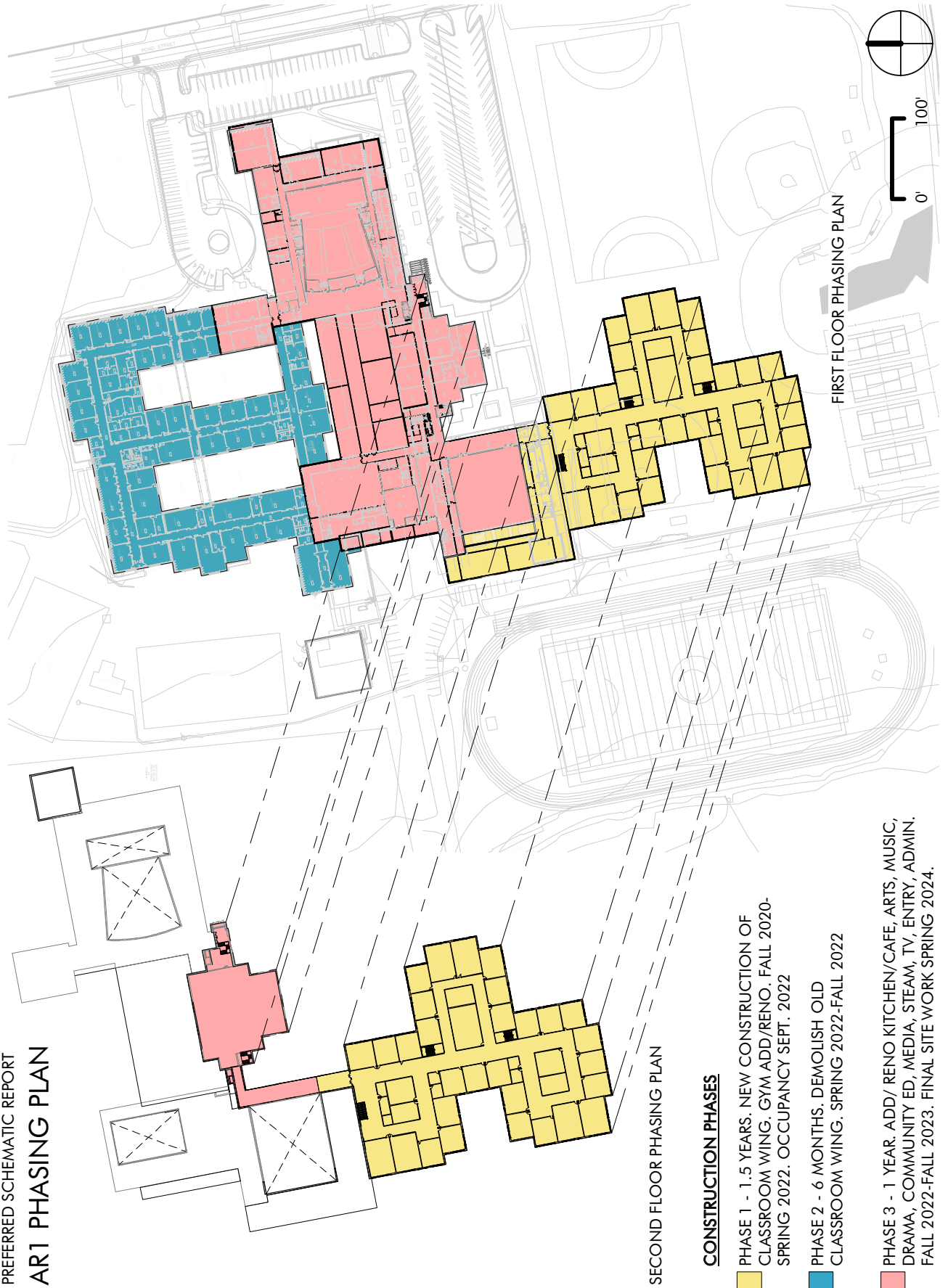


SHARON HIGH SCHOOL

03/21/19

PREFERRED SCHEMATIC REPORT

ART PHASING PLAN



CONSTRUCTION PHASES

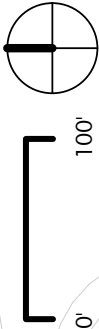
PHASE 1 - 1.5 YEARS. NEW CONSTRUCTION OF CLASSROOM WING. GYM ADD/RENO. FALL 2020-SPRING 2022. OCCUPANCY SEPT. 2022

PHASE 2 - 6 MONTHS. DEMOLISH OLD CLASSROOM WING. SPRING 2022-FALL 2022

PHASE 3 - 1 YEAR. ADD/RENO KITCHEN/CAFE, ARTS, MUSIC, DRAMA, COMMUNITY ED, MEDIA, STEAM, TV, ENTRY, ADMIN. FALL 2022-FALL 2023. FINAL SITE WORK SPRING 2024.



- DEMOLITION LEGEND**
- INDICATES DEMOLISHED
 - INDICATES EXISTING



N4



N4 - PHASING DIAGRAM

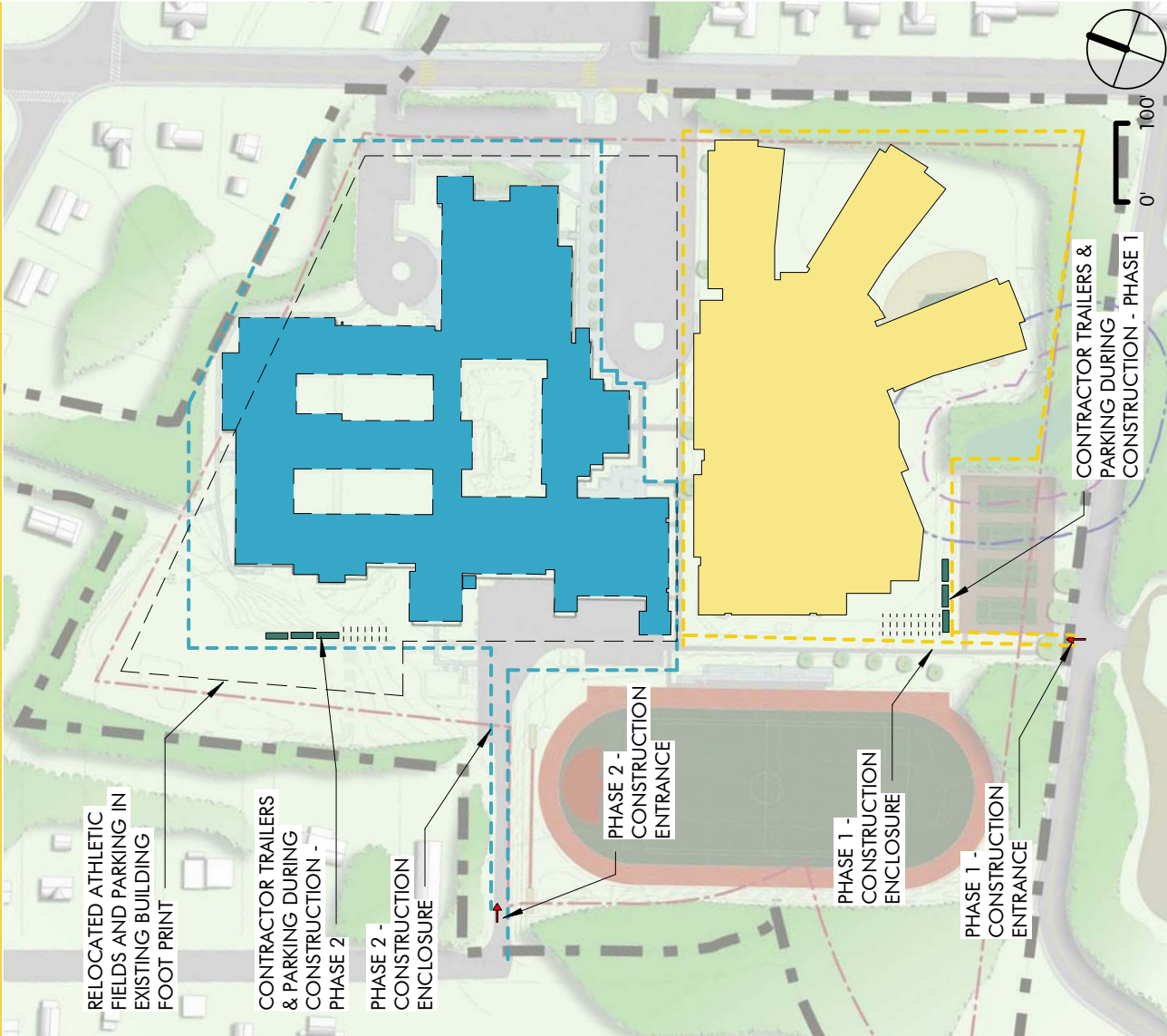
03/21/2019

PHASING PLAN LEGEND

- PROPOSED SITE MODIFICATIONS
- CONSTRUCTION ENCLOSURE - PHASE 1
- CONSTRUCTION ENCLOSURE - PHASE 2
- PROPERTY LINE

CONSTRUCTION PHASES

- PHASE 1 - 1.5 YEARS. NEW CONSTRUCTION OF REPLACEMENT SCHOOL. FALL 2020-SPRING 2022. OCCUPANCY SEPT. 2022
- PHASE 2 - EXISTING HIGH SCHOOL REMAINS OPEN DURING CONSTRUCTION. DEMOLITION OF EXISTING BUILDING FOLLOWING REPLACEMENT BUILDING CONSTRUCTION. DEMOLITION - SUMMER/FALL 2022. FINAL SITE WORK AS REQUIRED 2023.



3.3

ALTERNATIVES



3.3 ALTERNATIVES

EVALUATION OF ALTERNATIVES

Conceptual plans for three options are included in this PSR submission:

R1	Renovation
AR-1	Addition / Renovation
N-4	Replacement

Evaluation of the options is summarized as follows:

OPTION R-1

The code renovation option anticipates minimal modifications to interior partitions. However the scope includes a comprehensive upgrade to the building envelope to meet current energy and building codes and significant upgrades to interior spaces to bring the building into code compliance. It is anticipated that major program spaces such as the auditorium would be fully renovated. Very limited site work is anticipated in this option as the site would remain as it is currently configured.

This option can't accommodate the MSBA space template for the approved student population. The existing building is already too small for the current enrollment and for course offerings and activities in place at the high school. Many of the constraints cited by the District as impediments to teaching and learning are also not solved by a code upgrade including lack of space for collaboration of students and teachers, constrained corridors with long travel distances, inadequate cafeteria, gym and theater, and classrooms that are too small.

There is no available swing space in Sharon, requiring the use of modular classrooms as temporary space during construction, adding cost and substantial disruption to this approach. The planning for this option includes modular classrooms on site with students moving between the building and temporary classrooms for the duration of construction.

OPTION AR-1

The addition and renovation option, AR1, anticipates a large addition as a first phase. This addition would be constructed to the south of the existing school on the softball field. This large addition would allow the existing school to remain operational during this phase

with limited disruption. Once this addition is complete, students would start to use the new space for a majority of their core academic classes. The second phase includes demolition of portions of the existing building and additions and renovations to the existing building. It is anticipated that this would cause significant disruption to ongoing programming at the school. The preliminary approach assumes that various program spaces such as cafeteria, gym and theater would be closed for large parts of the school year to allow renovations. Given parent concerns about students attending a school under renovation with the associated distractions and disruptions to everyday teaching and learning, this is a drawback to this option.

In developing this addition and renovation, the working assumption is that a large addition that accommodates all new core academic classrooms would be the most viable approach as it allows school to continue in a new wing once renovations are underway. The only location that makes sense for such a large addition and does not totally disrupt roadways and fields is to the south, and this results in a long classroom wing. This long wing creates extensive circulation for students as they move between classes and this does not meet one of the stated District goals of reducing student travel time. In addition, this also adds to gross square footage which results in this option being the largest floor area due to inefficiencies in the plan. The size of this option in combination with the anticipated phasing premium that would be required makes it the most costly of the three alternatives under consideration.

OPTION N-4

The replacement option, N4, is a new building constructed next to the existing school on the current baseball and softball fields. The new building would have classrooms on two floors. The main entrance would be located to the north adjacent to parking and roadways, the classroom wings would be located on the east and south sides of the building with the gym and locker rooms as well as service on the west side of the facility next to the existing football field which is to remain.

The site plan anticipates a new parking lot in the center of the site with replacement baseball, softball and tennis facilities adjacent. The site plan improves pick-up drop-off sequencing and on site vehicular traffic. The new plan also limits the number of entrances and exits,

3.3 ALTERNATIVES

limiting access to the building to two major entrances which responds to a District concern that the existing school has too many ways in and out of the building resulting in security and supervision concerns. The fact that this replacement school can be constructed next to the existing high school limits disruption to the ongoing school programs during the construction phase and simplifies construction phasing and logistics which reduces anticipated construction costs.

R1



PREFERRED SCHEMATIC REPORT

R1 FLOOR PLAN

SPACE REQUIREMENTS SUMMARY

CORE ACADEMICS SPACES

EXISTING: 42,735 SQ FT
MSBA GUIDELINE: 59,640 SQ FT
DIFFERENCE: -16,905 SQ FT

DINING & FOOD SERVICE

EXISTING: 8,408 SQ FT
MSBA GUIDELINE: 10,426 SQ FT
DIFFERENCE: -2,018 SQ FT

SPECIAL EDUCATION

EXISTING: 8,788 SQ FT
MSBA GUIDELINE: 13,090 SQ FT
DIFFERENCE: -4,302 SQ FT

MEDICAL

EXISTING: 614 SQ FT
MSBA GUIDELINE: 1,110 SQ FT
DIFFERENCE: -496 SQ FT

ARTS & MUSIC

EXISTING: 3,555 SQ FT
MSBA GUIDELINE: 8,200 SQ FT
DIFFERENCE: -4,645 SQ FT

ADMINISTRATION & GUIDANCE

EXISTING: 4,066 SQ FT
MSBA GUIDELINE: 5,014 SQ FT
DIFFERENCE: -948 SQ FT

VOCATIONS & TECHNOLOGY

EXISTING: 3,116 SQ FT
MSBA GUIDELINE: 12,800 SQ FT
DIFFERENCE: -9,684 SQ FT

CUSTODIAL & MAINTENANCE

EXISTING: 942 SQ FT
MSBA GUIDELINE: 2,563 SQ FT
DIFFERENCE: 1,621 SQ FT

HEALTH & PHYSICAL EDUCATION

EXISTING: 16,467 SQ FT
MSBA GUIDELINE: 23,200 SQ FT
DIFFERENCE: -6,733 SQ FT

OTHER

EXISTING: 777 SQ FT
MSBA GUIDELINE: 0 SQ FT
DIFFERENCE: +777 SQ FT

MEDIA CENTER

EXISTING: 9,299 SQ FT
MSBA GUIDELINE: 7,713 SQ FT
DIFFERENCE: +1,586 SQ FT

TOTAL NET

EXISTING: 109,944 SQ FT
MSBA GUIDELINE: 154,154 SQ FT
DIFFERENCE: -44,210 SQ FT

AUDITORIUM / DRAMA

EXISTING: 11,177 SQ FT
MSBA GUIDELINE: 10,400 SQ FT
DIFFERENCE: +777 SQ FT

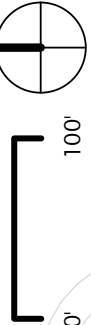
TOTAL BUILDING GROSS

EXISTING: 168,422 SQ FT
MSBA GUIDELINE: 225,000 SQ FT
DIFFERENCE: -56,578 SQ FT

* ALL SPACES ARE UNDER THE MSBA GUIDELINE EXCEPT FOR SPACES IN MEDIA CENTER, AUDITORIUM/DRAMA AND OTHER CATEGORIES.

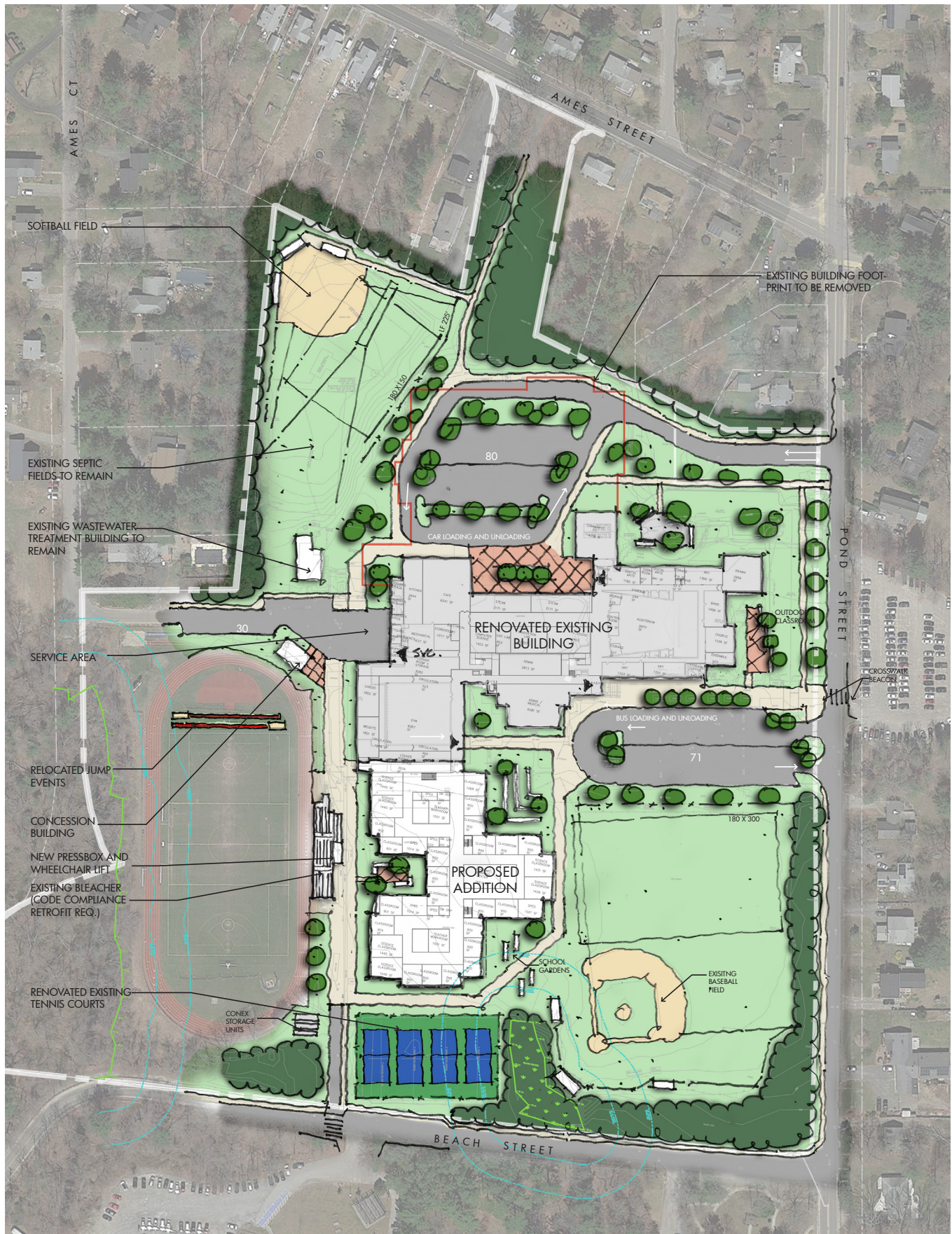
DEPARTMENT LEGEND

- CORE ACADEMIC
- SCIENCE
- SPED
- ART / MUSIC
- AUDITORIUM
- VOC / TECH
- HEALTH / GYM
- MEDIA / LIBRARY
- ADMIN., & MED.
- DINING / FOOD
- COMMUNITY
- BOH



AR1





SITE PLAN CONCEPT - ADD-RENO OPTION
SHARON HIGH SCHOOL, SHARON, MA

SHARON HIGH SCHOOL

03/21/19

PREFERRED SCHEMATIC REPORT

AR1 FIRST FLOOR PLAN

SPACE REQUIREMENTS SUMMARY

CORE ACADEMICS SPACES

EXISTING: 42,735 SQ FT
MSBA GUIDELINE: 59,640 SQ FT
PROPOSED: 62,280 SQ FT

DINING & FOOD SERVICE

EXISTING: 8,408 SQ FT
MSBA GUIDELINE: 10,426 SQ FT
PROPOSED: 10,426 SQ FT

SPECIAL EDUCATION

EXISTING: 8,788 SQ FT
MSBA GUIDELINE: 13,090 SQ FT
PROPOSED: 12,430 SQ FT

MEDICAL

EXISTING: 614 SQ FT
MSBA GUIDELINE: 1,110 SQ FT
PROPOSED: 1,110 SQ FT

ARTS & MUSIC

EXISTING: 3,555 SQ FT
MSBA GUIDELINE: 8,200 SQ FT
PROPOSED: 8,200 SQ FT

ADMINISTRATION & GUIDANCE

EXISTING: 4,066 SQ FT
MSBA GUIDELINE: 5,014 SQ FT
PROPOSED: 5,014 SQ FT

VOCATIONS & TECHNOLOGY

EXISTING: 3,116 SQ FT
MSBA GUIDELINE: 12,800 SQ FT
PROPOSED: 12,800 SQ FT

CUSTODIAL & MAINTENANCE

EXISTING: 942 SQ FT
MSBA GUIDELINE: 2,563 SQ FT
PROPOSED: 2,563 SQ FT

HEALTH & PHYSICAL EDUCATION

EXISTING: 16,467 SQ FT
MSBA GUIDELINE: 23,200 SQ FT
PROPOSED: 26,655 SQ FT

OTHER

EXISTING: 777 SQ FT
MSBA GUIDELINE: 0 SQ FT
PROPOSED: 2,515 SQ FT

MEDIA CENTER

EXISTING: 9,299 SQ FT
MSBA GUIDELINE: 7,713 SQ FT
PROPOSED: 7,713 SQ FT

TOTAL NET

EXISTING: 109,944 SQ FT
MSBA GUIDELINE: 154,154 SQ FT
PROPOSED: 154,154 SQ FT

AUDITORIUM / DRAMA

EXISTING: 11,177 SQ FT
MSBA GUIDELINE: 10,400 SQ FT
PROPOSED: 13,280 SQ FT

TOTAL BUILDING GROSS

EXISTING: 168,422 SQ FT
MSBA GUIDELINE: 225,000 SQ FT
PROPOSED: 249,928 SQ FT

* ALL SPACES MEET OR EXCEED THE MSBA GUIDELINE. THE PROPOSED TOTAL BUILDING GROSS IS 24,928 SQ FT LARGER THAN THE MSBA GUIDELINE.

DEPARTMENT LEGEND

- CORE ACADEMIC
- SCIENCE
- SPED
- ART / MUSIC
- AUDITORIUM
- VOC / TECH
- HEALTH / GYM
- MEDIA / LIBRARY
- ADMIN., & MED.
- DINING / FOOD
- COMMUNITY
- BOH



PREFERRED SCHEMATIC REPORT

AR1 SECOND FLOOR PLAN

SPACE REQUIREMENTS SUMMARY

CORE ACADEMICS SPACES

EXISTING: 42,735 SQ FT
MSBA GUIDELINE: 59,640 SQ FT
PROPOSED: 62,280 SQ FT

DINING & FOOD SERVICE

EXISTING: 8,408 SQ FT
MSBA GUIDELINE: 10,426 SQ FT
PROPOSED: 10,426 SQ FT

SPECIAL EDUCATION

EXISTING: 8,788 SQ FT
MSBA GUIDELINE: 13,090 SQ FT
PROPOSED: 12,430 SQ FT

MEDICAL

EXISTING: 614 SQ FT
MSBA GUIDELINE: 1,110 SQ FT
PROPOSED: 1,110 SQ FT

ARTS & MUSIC

EXISTING: 3,555 SQ FT
MSBA GUIDELINE: 8,200 SQ FT
PROPOSED: 8,200 SQ FT

ADMINISTRATION & GUIDANCE

EXISTING: 4,066 SQ FT
MSBA GUIDELINE: 5,014 SQ FT
PROPOSED: 5,014 SQ FT

VOCATIONS & TECHNOLOGY

EXISTING: 3,116 SQ FT
MSBA GUIDELINE: 12,800 SQ FT
PROPOSED: 12,800 SQ FT

CUSTODIAL & MAINTENANCE

EXISTING: 942 SQ FT
MSBA GUIDELINE: 2,563 SQ FT
PROPOSED: 2,563 SQ FT

HEALTH & PHYSICAL EDUCATION

EXISTING: 16,467 SQ FT
MSBA GUIDELINE: 23,200 SQ FT
PROPOSED: 26,655 SQ FT

OTHER

EXISTING: 777 SQ FT
MSBA GUIDELINE: 0 SQ FT
PROPOSED: 2,515 SQ FT

MEDIA CENTER

EXISTING: 9,299 SQ FT
MSBA GUIDELINE: 7,713 SQ FT
PROPOSED: 7,713 SQ FT

TOTAL NET

EXISTING: 109,944 SQ FT
MSBA GUIDELINE: 154,154 SQ FT
PROPOSED: 134,154 SQ FT

AUDITORIUM / DRAMA

EXISTING: 11,177 SQ FT
MSBA GUIDELINE: 10,400 SQ FT
PROPOSED: 13,280 SQ FT

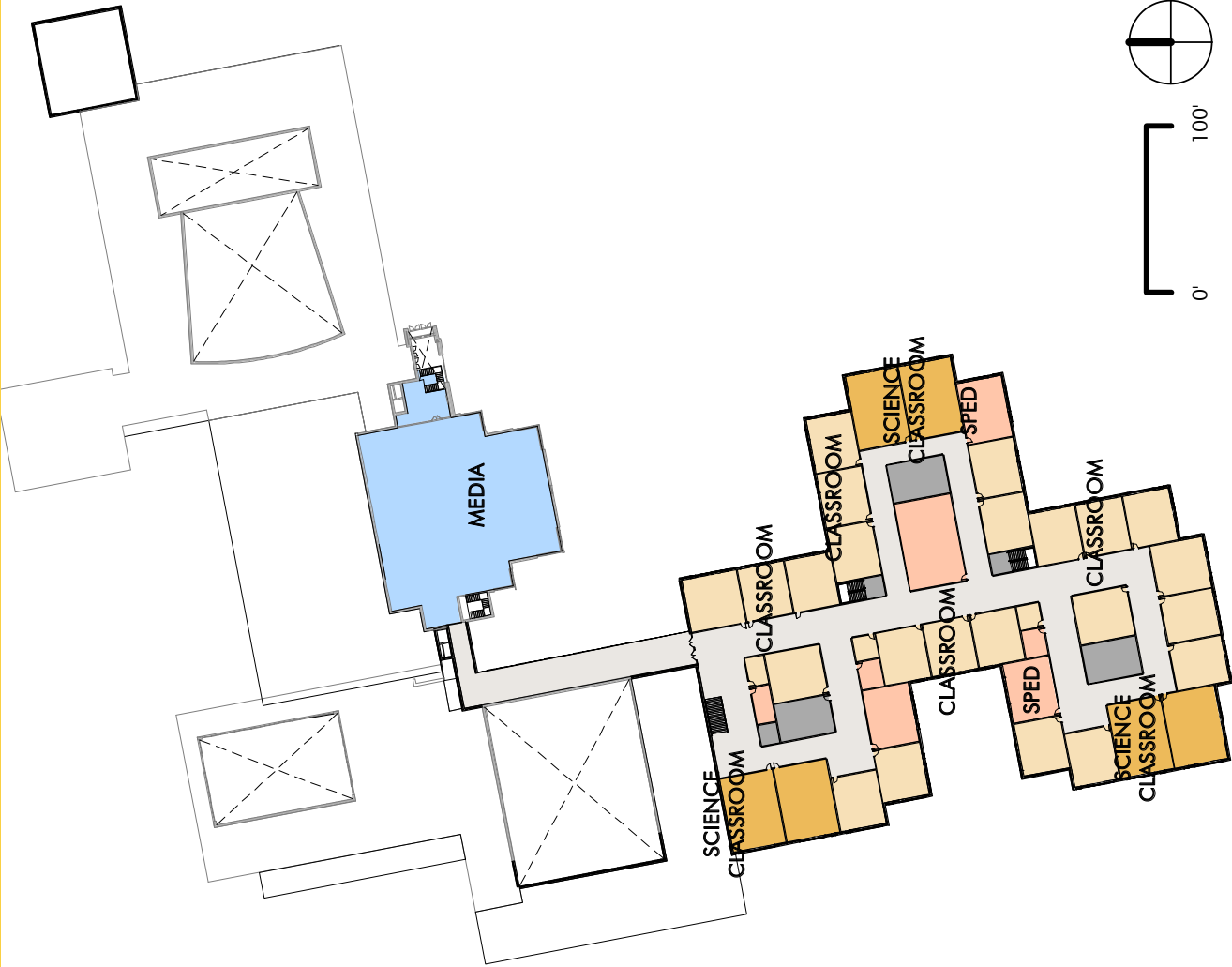
TOTAL BUILDING GROSS

EXISTING: 168,422 SQ FT
MSBA GUIDELINE: 225,000 SQ FT
PROPOSED: 249,928 SQ FT

* ALL SPACES MEET OR EXCEED THE MSBA GUIDELINE. THE PROPOSED TOTAL BUILDING GROSS IS 24,928 SQ FT LARGER THAN THE MSBA GUIDELINE.

DEPARTMENT LEGEND

- CORE ACADEMIC
- SCIENCE
- SPED
- ART / MUSIC
- AUDITORIUM
- VOC / TECH
- HEALTH / GYM
- MEDIA / LIBRARY
- ADMIN., & MED.
- DINING / FOOD
- COMMUNITY
- BOH



N4





SITE PLAN CONCEPT - NEW CONSTRUCTION OPTION
SHARON HIGH SCHOOL, SHARON, MA

SHARON HIGH SCHOOL PSR

03/21/2019

PREFERRED SCHEMATIC REPORT

N4 - FIRST FLOOR PLAN

SPACE REQUIREMENTS SUMMARY

CORE ACADEMICS SPACES		DINING & FOOD SERVICE	
EXISTING: 42,735 SQ FT	EXISTING: 8,408 SQ FT	EXISTING: 8,408 SQ FT	EXISTING: 8,408 SQ FT
MSBA GUIDELINE: 59,640 SQ FT	MSBA GUIDELINE: 10,426 SQ FT	MSBA GUIDELINE: 10,426 SQ FT	MSBA GUIDELINE: 10,426 SQ FT
PROPOSED: 62,280 SQ FT	PROPOSED: 10,426 SQ FT	PROPOSED: 10,426 SQ FT	PROPOSED: 10,426 SQ FT
SPECIAL EDUCATION		MEDICAL	
EXISTING: 8,788 SQ FT	EXISTING: 614 SQ FT	EXISTING: 614 SQ FT	EXISTING: 614 SQ FT
MSBA GUIDELINE: 13,090 SQ FT	MSBA GUIDELINE: 1,110 SQ FT	MSBA GUIDELINE: 1,110 SQ FT	MSBA GUIDELINE: 1,110 SQ FT
PROPOSED: 12,430 SQ FT	PROPOSED: 1,110 SQ FT	PROPOSED: 1,110 SQ FT	PROPOSED: 1,110 SQ FT
ARTS & MUSIC		ADMINISTRATION & GUIDANCE	
EXISTING: 3,555 SQ FT	EXISTING: 4,066 SQ FT	EXISTING: 4,066 SQ FT	EXISTING: 4,066 SQ FT
MSBA GUIDELINE: 8,200 SQ FT	MSBA GUIDELINE: 5,014 SQ FT	MSBA GUIDELINE: 5,014 SQ FT	MSBA GUIDELINE: 5,014 SQ FT
PROPOSED: 8,200 SQ FT	PROPOSED: 5,014 SQ FT	PROPOSED: 5,014 SQ FT	PROPOSED: 5,014 SQ FT
VOCATIONS & TECHNOLOGY		CUSTODIAL & MAINTENANCE	
EXISTING: 3,116 SQ FT	EXISTING: 942 SQ FT	EXISTING: 942 SQ FT	EXISTING: 942 SQ FT
MSBA GUIDELINE: 12,800 SQ FT	MSBA GUIDELINE: 2,563 SQ FT	MSBA GUIDELINE: 2,563 SQ FT	MSBA GUIDELINE: 2,563 SQ FT
PROPOSED: 12,800 SQ FT	PROPOSED: 2,563 SQ FT	PROPOSED: 2,563 SQ FT	PROPOSED: 2,563 SQ FT
HEALTH & PHYSICAL EDUCATION		OTHER	
EXISTING: 16,467 SQ FT	EXISTING: 777 SQ FT	EXISTING: 777 SQ FT	EXISTING: 777 SQ FT
MSBA GUIDELINE: 23,200 SQ FT	MSBA GUIDELINE: 0 SQ FT	MSBA GUIDELINE: 0 SQ FT	MSBA GUIDELINE: 0 SQ FT
PROPOSED: 26,655 SQ FT	PROPOSED: 2,515 SQ FT	PROPOSED: 2,515 SQ FT	PROPOSED: 2,515 SQ FT
MEDIA CENTER		TOTAL NET	
EXISTING: 9,299 SQ FT	EXISTING: 109,944 SQ FT	EXISTING: 109,944 SQ FT	EXISTING: 109,944 SQ FT
MSBA GUIDELINE: 7,713 SQ FT	MSBA GUIDELINE: 154,154 SQ FT	MSBA GUIDELINE: 154,154 SQ FT	MSBA GUIDELINE: 154,154 SQ FT
PROPOSED: 7,713 SQ FT	PROPOSED: 154,154 SQ FT	PROPOSED: 154,154 SQ FT	PROPOSED: 154,154 SQ FT
AUDITORIUM / DRAMA		TOTAL BUILDING GROSS	
EXISTING: 11,177 SQ FT	EXISTING: 168,422 SQ FT	EXISTING: 168,422 SQ FT	EXISTING: 168,422 SQ FT
MSBA GUIDELINE: 10,400 SQ FT	MSBA GUIDELINE: 225,000 SQ FT	MSBA GUIDELINE: 225,000 SQ FT	MSBA GUIDELINE: 225,000 SQ FT
PROPOSED: 13,280 SQ FT	PROPOSED: 240,874 SQ FT	PROPOSED: 240,874 SQ FT	PROPOSED: 240,874 SQ FT

* ALL SPACES MEET OR EXCEED THE MSBA GUIDELINE. THE PROPOSED TOTAL BUILDING GROSS IS 15,874 SQ FT LARGER THAN THE MSBA GUIDELINE.

DEPARTMENT LEGEND

CORE ACADEMIC	HEALTH / GYM
SCIENCE	MEDIA / LIBRARY
SPED	ADMIN., & MED.
ART / MUSIC	DINING / FOOD
AUDITORIUM	COMMUNITY
VOC / TECH	BOH



PREFERRED SCHEMATIC REPORT

N4 - SECOND FLOOR PLAN

SPACE REQUIREMENTS SUMMARY

CORE ACADEMICS SPACES

EXISTING: 42,735 SQ FT
MSBA GUIDELINE: 59,640 SQ FT
PROPOSED: 62,280 SQ FT

DINING & FOOD SERVICE

EXISTING: 8,408 SQ FT
MSBA GUIDELINE: 10,426 SQ FT
PROPOSED: 10,426 SQ FT

SPECIAL EDUCATION

EXISTING: 8,788 SQ FT
MSBA GUIDELINE: 13,090 SQ FT
PROPOSED: 12,430 SQ FT

MEDICAL

EXISTING: 614 SQ FT
MSBA GUIDELINE: 1,110 SQ FT
PROPOSED: 1,110 SQ FT

ARTS & MUSIC

EXISTING: 3,555 SQ FT
MSBA GUIDELINE: 8,200 SQ FT
PROPOSED: 8,200 SQ FT

ADMINISTRATION & GUIDANCE

EXISTING: 4,066 SQ FT
MSBA GUIDELINE: 5,014 SQ FT
PROPOSED: 5,014 SQ FT

VOCATIONS & TECHNOLOGY

EXISTING: 3,116 SQ FT
MSBA GUIDELINE: 12,800 SQ FT
PROPOSED: 12,800 SQ FT

CUSTODIAL & MAINTENANCE

EXISTING: 942 SQ FT
MSBA GUIDELINE: 2,563 SQ FT
PROPOSED: 2,563 SQ FT

HEALTH & PHYSICAL EDUCATION

EXISTING: 16,467 SQ FT
MSBA GUIDELINE: 23,200 SQ FT
PROPOSED: 26,655 SQ FT

OTHER

EXISTING: 777 SQ FT
MSBA GUIDELINE: 0 SQ FT
PROPOSED: 2,515 SQ FT

MEDIA CENTER

EXISTING: 9,299 SQ FT
MSBA GUIDELINE: 7,713 SQ FT
PROPOSED: 7,713 SQ FT

TOTAL NET

EXISTING: 109,944 SQ FT
MSBA GUIDELINE: 154,154 SQ FT
PROPOSED: 154,154 SQ FT

AUDITORIUM / DRAMA

EXISTING: 11,177 SQ FT
MSBA GUIDELINE: 10,400 SQ FT
PROPOSED: 13,280 SQ FT

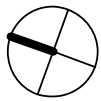
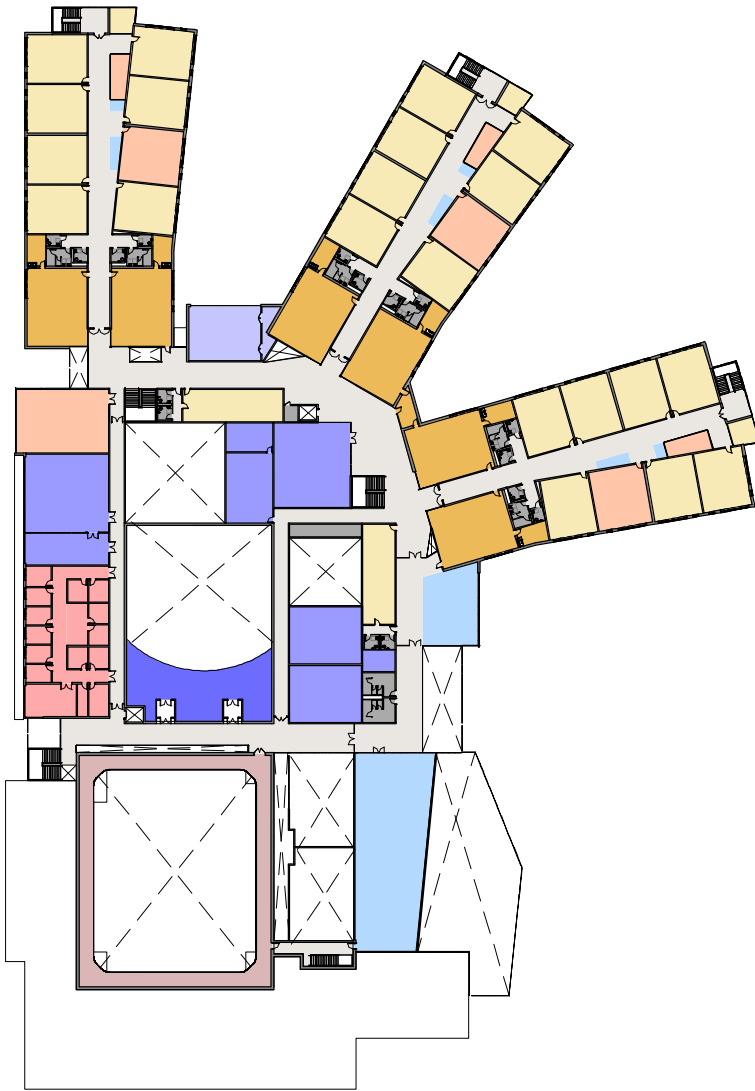
TOTAL BUILDING GROSS

EXISTING: 168,422 SQ FT
MSBA GUIDELINE: 225,000 SQ FT
PROPOSED: 240,874 SQ FT

* ALL SPACES MEET OR EXCEED THE MSBA GUIDELINE. THE PROPOSED TOTAL BUILDING GROSS IS 15,874 SQ FT LARGER THAN THE MSBA GUIDELINE.

DEPARTMENT LEGEND

- | | |
|---------------|-----------------|
| CORE ACADEMIC | HEALTH / GYM |
| SCIENCE | MEDIA / LIBRARY |
| SPED | ADMIN., & MED. |
| ART / MUSIC | DINING / FOOD |
| AUDITORIUM | COMMUNITY |
| VOC / TECH | BOH |



0' 100'

3.4

OUTLINE OF STRUCTURAL SYSTEMS



PROPOSED SCHEME R-1 – Renovations & Code Upgrades Only

The proposed scheme will require repairs and only minor renovations and upgrades to the existing school triggered by requirements for compliance with the International Existing Building Code. All of the proposed renovations will essentially be Architectural in nature and will require no major reconfiguration of the structure. The proposed scheme requires replacement of all mechanical equipment, and renovations related to ADA requirements. The scheme requires reconfiguration of numerous demising walls.

PRIMARY STRUCTURAL CODE ISSUES RELATED TO THE EXISTING STRUCTURE

Based on the proposed scope, we would recommend following the compliance requirements of the Prescriptive Compliance Method since it will be the most cost effective method for this proposed scheme. As the existing school was designed as an open plan concept school with no major full height demising walls separating the classrooms, the reconfiguration of partitions would not be considered as reconfiguration of existing spaces.

PROPOSED STRUCTURAL SCHEME

As the existing school is an open plan concept school, reconfiguration of the partitions would not be considered as reconfiguration of the existing spaces; thus, the work area for the project would be less than fifty percent of the gross area of the school. Based on this, clipping of existing masonry walls is not required. The proposed scheme does not call for any major modifications to the existing structure. The structural scope is essentially what is triggered by following the compliance requirements of the Prescriptive Compliance Method.

Based on the scope of the proposed scheme, no structural upgrades are triggered or required. The replacement mechanical units can be supported on the existing framing, if the proposed units are lighter in weight than the existing units. Some of the mechanical equipment may be required to be supported on dunnage platforms.

PROPOSED SCHEME AR-1 – Addition/Renovation

The proposed scheme requires renovation of the entire school and reconfiguration of the majority of the demising walls. The scheme calls for the demolition of essentially all the academic spaces and the renovation of the existing core spaces (Gymnasium, Auditorium, Music spaces, Media Center, Administrative spaces, etc.). The scheme requires construction of a single story structure in the existing courtyard, which will house the STEAM program. The existing courtyard would be open due to the proposed demolition of the existing academic wings. The scheme also calls for a two story addition housing the remainder of the academic spaces.

PRIMARY STRUCTURAL CODE ISSUES RELATED TO THE EXISTING STRUCTURE

Due to the extent of the renovations and additions to the existing structure, the existing structure will have to be upgraded by the addition of some masonry shear walls and braced frames. All of the existing masonry walls will be required to be clipped to the floor or roof structure. The structure will essentially be required to be upgraded to meet the requirements of the Code for New Construction.

PROPOSED STRUCTURAL SCHEME

The proposed two story addition will be structurally separated from the existing structure. It is possible that the single story STEAM addition may have to be structurally connected to the existing structure.

Due to the extent of the proposed renovations and reconfiguration of the interior spaces, additional reinforced masonry shear walls and braced frames will be required. The proposed shear walls would be located at the existing column lines. An allowance for 8, 20 ft. long, full height shear walls should be made in the project budget. These new shear walls will be supported on new 2 ft. – 0 in. wide x 1 ft. – 0 in. deep reinforced concrete foundations. An allowance should be made for 6 additional braced bays between existing columns. An allowance for reinforcement or replacement of existing column footings at the proposed braced frames should be made in the project budget.

Due to the replacement of the entire mechanical and HVAC system, an allowance should be made for reinforcement of the existing roof framing to support the new units. This cost should be carried as a percentage cost of the mechanical units in the budget.

All of the existing masonry walls will be required to be clipped to the existing structure with steel angle clips at 4 ft. – 0 in. on center.

PROPOSED ADDITIONS

SUBSTRUCTURE

Foundations

Based on the foundations of the existing structure, the columns of the proposed addition would bear on reinforced concrete footings and the perimeter foundation walls would bear on continuous reinforced concrete strip footings extending at least 4 ft. – 0 in. below grade. With the assumed bearing capacity of the soil of 2.0 tons/sf, a typical interior footing would be 9 ft. – 0 in. x 9 ft. – 0 in. x 24 in. deep and a typical exterior footing would be 8 ft. x 8 ft. x 24 in. in the two story addition. Typical interior footings in the single story addition would be 7 ft. x 7 ft. x 24 in. deep. The typical exterior footings would be 6 ft. x 6 ft. x 24 in. deep. The exterior foundation walls would be 14 to 16 in. thick reinforced cast-in-place concrete walls in 24 to 36 in. wide x 12 in. deep continuous reinforced concrete strip footings around the perimeter of the additions extending a minimum of 4 ft. – 0 in. below finished grade.

Slabs-on-Grade

Based on the existing school construction, the lowest level of the proposed additions would be a 5 in. thick concrete slab-on-grade reinforced with welded wire fabric over a vapor barrier on 2 in. thick rigid insulation on 8 in. of compacted granular structural fill and a base course of 8 in. of compacted gravel.

SUPERSTRUCTURE

Floor Construction

Typical Floor Construction

A 5 ¼ in. light weight concrete composite metal deck slab reinforced with welded wire fabric on wide flange steel beams spanning between steel girders and columns. The weight of the structural steel is estimated to be 13 psf for the typical framing.

Roof Construction

Typical Roof Construction

The roof construction would be galvanized, corrugated 3 in. deep, Type 'N' metal roof deck spanning between wide flange steel beams and girders. At locations of roof supported mechanical equipment, a concrete slab will be provided similar to the typical supported slab. The weight of the structural steel is estimated to be 13 psf.

Vertical Framing Elements

Columns

Columns will be hollow structural steel columns. Typical columns would be HSS 8 x 8 columns and the columns at the double story spaces be HSS 12 x 12.

Lateral Load-Resisting System

The typical lateral load resisting system for the additions and the existing structures would be concentric braced frames comprised of HSS structural steel members and reinforced masonry shear walls.

PROPOSED SCHEME N-4 – New Construction

SUBSTRUCTURE

Foundations

Based on the foundations of the existing structure, the columns of the proposed structure would bear on reinforced concrete spread footings and the perimeter foundation walls would bear on continuous reinforced concrete strip footings extending at least 4'-0" below grade. With the assumed bearing capacity of the soil of 2 tons/sf, a typical interior footing would be 9 ft. – 0 in. x 9 ft. – 0 in. x 24 in. deep and the typical exterior footings would be 8 ft. x 8 ft. x 24 in. deep in the two story areas. Typical interior footings for the single story structure would be 6 ft. x 6 ft. x 24 in. deep. Typical exterior footings at the Gymnasium, Cafeteria and Auditorium would be 8 ft. x 8 ft. x 24 in. deep. The exterior foundation walls would be 14 in. to 16 in. thick, reinforced cast-in-place concrete walls on 24 to 36 in. wide continuous reinforced concrete strip footings around the perimeter of the building extending a minimum of 4 ft. – 0 in. below finished grade.

Slabs-on-Grade

Based on the existing school construction, the lowest level of the proposed structure would be a 5 in. thick concrete slab-on-grade reinforced with welded wire fabric over a vapor barrier on 2 in. thick rigid insulation on 8 in. of compacted granular structural fill and a base course of 8 in. of compacted gravel.

SUPERSTRUCTURE

Floor Construction

Typical Floor Construction

A 5 ¼ in. light weight concrete composite metal deck slab reinforced with welded wire fabric on wide flange steel beams spanning between steel girders and columns. The weight of the structural steel is estimated to be 14 psf for the typical framing.

Roof Construction

Typical Roof Construction

The roof construction would be galvanized, corrugated 3 in. deep, Type 'N' metal roof deck spanning between wide flange steel beams and girders. At locations of roof supported mechanical equipment, a concrete slab will be provided similar to the typical supported slab. The weight of the structural steel is estimated to be 13 psf.

Low Roof Structure

The roof would be a continuation of the adjacent floor and would be similar to the typical floor construction of 5 ¼ in. light weight concrete composite metal deck slab reinforced with welded wire fabric on wide flange steel beams spanning between steel girders and columns. This roof will be supporting the mechanical units. The units would be screened by a screen comprised of structural steel posts and beams. The weight of the structural steel is estimated to be 15 psf.

Gymnasium and Auditorium Roof Framing

The roof construction would be acoustic, galvanized, corrugated 3 in. deep, Type 'NA' metal roof deck at the Gymnasium and 3 in. deep Type 'N' metal roof deck at the Auditorium, spanning between steel beams and steel trusses spaced at 30 feet on center. The weight of the structural steel framing is estimated to be 11 psf. Allow for 250 plf for weight of steel trusses.

VERTICAL FRAMING ELEMENTS

Columns

Columns will be hollow structural steel columns. Typical columns would be HSS 8 x 8 columns and the columns at the double story spaces at the Gymnasium, Cafeteria and Auditorium would be HSS 12 x 12.

Lateral Load-Resisting System

The proposed school structure will be divided into two parts separated by way of an expansion joint.

The typical lateral load resisting system for the two story academic wings would be ordinary concentric braced frames comprised of HSS structural steel members. The lateral load resisting system for the core spaces would be a combination of reinforced masonry shear walls, ordinary moment frames of structural steel and ordinary concentric braced frames.

3.5

UTILITIES EVALUATION



PROPOSED OPTION: R1– Renovation Only

Option Description

Option R1 represents a renovation-only scope for the proposed work at Sharon High School.

Method of Obtaining Utilities

WATER SYSTEMS

The existing school site is fed from a single 6-inch water service. The feed extends along the south side of the high school, running from the 8-inch water main located in Pond Street. The 6-inch service line, after running more or less parallel to the school on the opposite side of the southern entrance drive and parking lot, enters the school – after splitting – as a 6-inch CLDI fire protection service and a 4-inch CLDI domestic water service. Irrigation lines are present for all athletic fields on-site, including under the baseball and soccer fields, as well as a separate system for the football field/track. The material and condition of the water service is unknown at this time.

There are multiple fire hydrants located at various points around the existing school building. There is likely adequate fire protection volume and pressures in the area, however, a hydrant flow test will need to be performed to confirm pressures and flow volume at the school site. The fire hydrant located at the rear of the school building is fed by a small service line that extends from the building, rather than the main service line, based on available record plans and observed infrastructure on-site.

The existing condition and material of the water service is unknown at this time and therefore it should be assumed that the existing water service will need to be replaced as part of option R1. A new connection would be made from the existing building (in the same location as the current water service) to the 8" inch main located in Pond Street. Existing services would need to be maintained to each school during any construction activities on-site. Any required water shut downs would need to be coordinated with the municipality and the fire department. Please refer to the MEP narrative for additional information on interior plumbing.

SANITARY SEWER

Sewerage effluent from the existing High School building is conveyed to a wastewater treatment plant and ultimately to a subsurface disposal system located at the rear of the building. Based on record plans for the site, the existing 6-inch sewer service (unknown material and condition) extends from the building to an existing pretreatment tank, located adjacent to the track & football field at the rear of the school. Overflow from the pretreatment tank flows to a flow equalization tank and ultimately to the treatment building located at the rear of the site.

No external grease traps were observed, on the site visit or on record plans. A video inspection of any sanitary lines to be reused is recommended to gauge the condition of the existing sewer pipes.

As part of the R1 project option, the existing sewer connections from the building to the wastewater treatment plant would be maintained and reused. However, we would recommend that the services be cleaned and inspected to determine if they're in adequate condition to be reused. Service would need to be maintained to the school during any construction activities on-site. See MEP and WWTP narrative for additional information on interior plumbing and the existing wastewater treatment plant on-site.

SITE DRAINAGE

The site topography generally slopes from East to West, largely draining to on-site structures and the wetlands located at the 'rear' / eastern property line. It generally flows in the north-south direction, with the notable exception of the mound associated with the subsurface disposal system for the treatment plant. Grading around the High School generally directs water away from the building foundation.

There is existing drainage infrastructure for runoff conveyance surrounding the existing high school building and within the parking lot areas. The majority of the impervious area is collected in a system of underground pipes, drainage structures, and oil/gas separators that eventually drains to the 21-inch drainage main located in Pond Street. The roof drains from the existing building are mainly daylighted to splash pads; and runoff is encouraged to drain to nearby drainage inlets via overland flow. There is little to no runoff rate mitigation in the form of detention/infiltration located on-site, though a small recharge system appears to be located near a recent building addition along the south side of the school. Generally, any treatment provided appears to be from oil/water separators located at various points around the site (record plans show a total of five, with various sizes). No water quality hoods were noted on inlets during Nitsch's site inspection.

Runoff from the rear of the site and from the athletic fields does not connect to the onsite infrastructure that connects to the Town infrastructure located in Pond Street.

Runoff from the baseball field and tennis courts to the south of the school are collected by a series of underdrains and catch basins. The runoff is then conveyed to an existing catch basin located on Beach Street; no material or size of the drainage main located in Beach Street is provided on the record plans. No mitigation for water quality or runoff rate is apparent for this area.

Additionally, there are three discharges from other drainage collection systems at the school and surrounding athletic fields that daylight in the wetlands systems located along the rear of the site. A small series of catch basins in the rear parking lot and the grassed areas surrounding the wastewater treatment plan collect runoff from these areas and discharge to a 12" drain that runs along the rear entrance to the school (from Ames Court). Near the property line, this 12" trunk line turns south and discharges to the adjacent wetlands area. No flow or quality mitigation is apparent in this area. The underdrain system for the track/football field and a small series of catch basins collecting runoff from grassed areas east of the track/football field discharges to a flared-end section adjacent to the wetlands at the rear of the site. Finally, at a low point of the track/football field at the southwest corner, a basin and small pipe (6-inch) drain a small area of the track to the wetlands areas. Pretreatment is not noted for any of these systems prior to discharge, though it is noted only one system collects runoff from an appreciable amount of impervious area.

While the remainder of site work would be fairly minimal, it is anticipated, at minimum, compliant stormwater systems will need to be designed for any new areas of impervious being proposed. This would include deep sump catch basins, drainage manholes and potentially some underground detention/infiltration systems or porous pavement to mitigate increases in runoff from new impervious areas.

All new systems will be designed according to the MassDEP standards for a redevelopment and will reduce both stormwater discharge rates and volumes for the 2-year, 10-year, 25-year, and 100-year 24-hour rainfall events at all the discharge points. Proposed drainage for the new project will consist of updating the existing drainage system (if required by MassDEP review) and installing a new drainage system incorporating elements necessary (catch basins, Low Impact Development measures, retention/detention ponds) for a sustainable and cost-efficient design to meet the MassDEP stormwater standards and any stormwater requirements in the Town of Sharon.

OTHER UTILITIES

Electric and Tel-Com services feed the building from underground lines extending from a utility pole next to the northern/front entrance drive for the high school. The electric service connects to a transformer located adjacent to the entrance of the school from the 'north' parking lot/dropoff area on Pond Street. There appears to be an electric service that extends from the rear of the school building to the wastewater treatment plant. A generator provided adjacent to the wastewater treatment plant is for emergencies/backup. Site lighting around the school appears to be adequate in some areas and limited in other areas. The site lighting would likely require upgrading as part of any proposed redevelopment of the site. Electric Service is provided by Eversource. Telephone service is provided by Verizon and cable services by Comcast for this area of Sharon.

The High School currently uses a gas boiler in the building to provide heat and hot water. A gas service of unknown size runs from Pond Street along the edge of the athletic fields adjacent to the southern entrance drive/parking lot before entering the building at the meter located on the rear (west side) of the existing building. An additional gas service also appears to enter at the front of the building. Columbia Gas provides gas service for the Town of Sharon.

There is at least one underground oil tank on site located in the parking lot area, labelled on record utility plans as an underground diesel oil tank. This tank is located at the rear of the building, near the gas penetration into the school. It is unknown at this time if this tank is still active or if it has been abandoned and properly "retired" per MA DEP regulations. If the tank is still active and will not be reused as part of any new construction on the site, it will need to be abandoned or removed per MA DEP regulations.

Upgrades to the electric, tel-com, gas services, and site lighting will likely be required as part of the R1 project option. Refer to the plumbing and electrical narratives for additional information.

PROPOSED OPTION: AR1 – Addition/Renovation

Option Description

Option AR1 represents the addition/renovation scope of work both to bring Sharon High School into compliance with applicable building codes and accessibility regulations and add the necessary additional building space while reusing a significant portion of the existing building.

Method of Obtaining Utilities

WATER SYSTEMS

The existing school site is fed from a single 6-inch water service. The feed extends along the south side of the high school, running from the 8-inch water main located in Pond Street. The 6-inch service line, after running more or less parallel to the school on the opposite side of the southern entrance drive and parking lot, enters the school – after splitting – as a 6-inch CLDI fire protection service and a 4-inch CLDI domestic water service. Irrigation lines are present for all athletic fields on-site, including under the baseball and soccer fields, as well as a separate system for the football field/track. The material and condition of the water service is unknown at this time.

There are multiple fire hydrants located at various points around the existing school building. There is likely adequate fire protection volume and pressures in the area, however, a hydrant flow test will need to be performed to confirm pressures and flow volume at the school site. The fire hydrant located at the rear of the school building is fed by a small service line that extends from the building, rather than the main service line, based on available record plans and observed infrastructure on-site.

The existing water service would likely need to be updated to accommodate the renovations to the existing high school building and the construction of the building addition. Additionally, a new connection(s) may be required to the 8" inch main located in Pond Street and/or Beach Street to provide redundant water connections for the site. A new dedicated fire service line would likely be required for the addition to the high school building. The existing water service and fire hydrants would need to be maintained for the school during any construction activities on-site. Portions of the irrigation system underneath the baseball fields will need to be removed to accommodate the new building addition. Any required water shut downs would need to be coordinated with the municipality and the fire department. Please refer to the MEP narrative for additional information on interior plumbing.

SANITARY SEWER

Sewerage effluent from the existing High School building is conveyed to a wastewater treatment plant and ultimately to a subsurface disposal system located at the rear of the building. Based on record plans for the site, the existing 6-inch sewer service (unknown material and condition) extends from the building to an existing pretreatment tank, located adjacent to the track & football field at the rear of the school. Overflow from the pretreatment tank flows to a flow equalization tank and ultimately to the treatment building located at the rear of the site.

No external grease traps were observed, on the site visit or on record plans. A video inspection of any sanitary lines to be reused is recommended to gauge the condition of the existing sewer pipes.

As part of the AR1 project option, a new sewer line connecting to the subsurface pretreatment tank would likely need to be constructed to accommodate the expanded high school building. It is anticipated that the

new school addition can be serviced by gravity to the treatment plant. However, the final finished floor elevation of the new addition will dictate invert elevations of the sewer services and depending on the location and elevation of these services they may require a new lift station or ejector pump to allow for connection to the WWTP. Sewer service would need to be maintained to the existing high school during any construction activities on-site. See MEP and WWTP narrative for additional information on interior plumbing and the wastewater treatment plant.

SITE DRAINAGE

The site topography generally slopes from East to West, largely draining to on-site structures and the wetlands located at the 'rear' / eastern property line. It generally flows in the north-south direction, with the notable exception of the mound associated with the subsurface disposal system for the treatment plant. Grading around the High School generally directs water away from the building foundation.

There is existing drainage infrastructure for runoff conveyance surrounding the existing high school building and within the parking lot areas. The majority of the impervious area is collected in a system of underground pipes, drainage structures, and oil/gas separators that eventually drains to the 21-inch drainage main located in Pond Street. The roof drains from the existing building are mainly daylighted to splash pads; and runoff is encouraged to drain to nearby drainage inlets via overland flow. There is little to no runoff rate mitigation in the form of detention/infiltration located on-site, though a small recharge system appears to be located near a recent building addition along the south side of the school. Generally, any treatment provided appears to be from oil/water separators located at various points around the site (record plans show a total of five, with various sizes). No water quality hoods were noted on inlets during Nitsch's site inspection.

Runoff from the rear of the site and from the athletic fields does not connect to the onsite infrastructure that connects to the Town infrastructure located in Pond Street.

Runoff from the baseball field and tennis courts to the south of the school are collected by a series of underdrains and catch basins. The runoff is then conveyed to an existing catch basin located on Beach Street; no material or size of the drainage main located in Beach Street is provided on the record plans. No mitigation for water quality or runoff rate is apparent for this area.

Additionally, there are three discharges from other drainage collection systems at the school and surrounding athletic fields that daylight in the wetlands systems located along the rear of the site. A small series of catch basins in the rear parking lot and the grassed areas surrounding the wastewater treatment plan collect runoff from these areas and discharge to a 12" drain that runs along the rear entrance to the school (from Ames Court). Near the property line, this 12" trunk line turns south and discharges to the adjacent wetlands area. No flow or quality mitigation is apparent in this area. The underdrain system for the track/football field and a small series of catch basins collecting runoff from grassed areas east of the track/football field discharges to a flared-end section adjacent to the wetlands at the rear of the site. Finally, at a low point of the track/football field at the southwest corner, a basin and small pipe (6-inch) drain a small area of the track to the wetlands areas. Pretreatment is not noted for any of these systems prior to discharge, though it is noted only one system collects runoff from an appreciable amount of impervious area.

The renovated high school building, building addition and any new impervious area will require a MassDEP standard-compliant stormwater systems to be designed for new areas of impervious. The site drainage will be designed according to the MassDEP standards for a redevelopment and will reduce both stormwater discharge rates and volumes for the 2-year, 10-year, 25-year, and 100-year 24-hour rainfall events at all the discharge points. Proposed drainage for the new high school site will consist of updating the existing drainage system and installing a new drainage system incorporating elements necessary (catch basins, Low Impact Development measures, retention/detention ponds) for a sustainable and cost-efficient design to meet the

appropriate standards. At a minimum, jetting, cleaning and inspection of the existing drainage systems located near the main parking lot area and the discharge near the athletic fields will be required as part of work.

Required stormwater mitigation can be achieved by retrofitting existing and installing new closed drainage systems incorporating deep sump catch basins, with hoods, directing runoff to grassed swales, porous pavement, and biofiltration BMPs (if appropriate). A retention/detention element will most likely be required as part of the proposed stormwater design, especially near the new building addition and near the new parking lot to the north end of the site. This could be in the form of underground pipes/arch chambers or a surface detention basin should conditions allow. Water Quality will also need to be addressed as part of the stormwater design. Proprietary Units such as Stormceptor or Vortechtechnics could be used along with other site integrated water quality options.

OTHER UTILITIES

Electric and Tel-Com services feed the building from underground lines extending from a utility pole next to the northern/front entrance drive for the high school. The electric service connects to a transformer located adjacent to the entrance of the school from the 'north' parking lot/dropoff area on Pond Street. There appears to be an electric service that extends from the rear of the school building to the wastewater treatment plant. A generator provided adjacent to the wastewater treatment plant is for emergencies/backup. Site lighting around the school appears to be adequate in some areas and limited in other areas. The site lighting would likely require upgrading as part of any proposed redevelopment of the site. Electric Service is provided by Eversource. Telephone service is provided by Verizon and cable services by Comcast for this area of Sharon.

The High School currently uses a gas boiler in the building to provide heat and hot water. A gas service of unknown size runs from Pond Street along the edge of the athletic fields adjacent to the southern entrance drive/parking lot before entering the building at the meter located on the rear (west side) of the existing building. An additional gas service also appears to enter at the front of the building. Columbia Gas provides gas service for the Town of Sharon.

There is at least one underground oil tank on site located in the parking lot area, labelled on record utility plans as an underground diesel oil tank. This tank is located at the rear of the building, near the gas penetration into the school. It is unknown at this time if this tank is still active or if it has been abandoned and properly "retired" per MA DEP regulations. If the tank is still active and will not be reused as part of any new construction on the site, it will need to be abandoned or removed per MA DEP regulations.

Upgrades to the electric, tel-com, gas services, and site lighting will be required as part of the AR1 project option. New services will likely be required for the reconstructed high school building to accommodate additional demand and a revised footprint. The services for the existing high school will need to be capped and abandoned, if no longer required for the remaining and proposed athletic fields in the area. Refer to the plumbing and electrical narratives for additional information.

SOFTBALL FIELD

EXISTING SEPTIC FIELDS-TO REMAIN

EXISTING WASTEWATER TREATMENT-BUILDING-TO REMAIN

Existing underground collection tank for wastewater treatment plan (approximate location)

SERVICE AREA

RELOCATED JUMP EVENTS

CONCESSION BUILDING

NEW PRESSBOX AND WHEELCHAIR LIFT

EXISTING BLEACHER (CODE COMPLIANCE RETROFIT REQ.)

RENOVATED EXISTING TENNIS COURTS

CONEX STORAGE UNITS

NEW SANITARY SERVICE FROM BUILDING ADDITION TO WASTEWATER TREATMENT PLANT

NEW DOMESTIC AND FIRE SERVICES FOR BUILDING ADDITION (IF NECESSARY)

Roof drain leader connections to new detention area will be required

Lift station (if necessary) providing connection to WWTP

NEW LOOPED WATER SERVICE CONNECTION TO MAIN AT BEACH STREET

NEW LOOPED WATER SERVICE CONNECTION TO MAIN AT BEACH STREET

RENOVATED EXISTING BUILDING

CAR LOADING AND UNLOADING

BUS LOADING AND UNLOADING

EXISTING WATER SERVICE FROM POND STREET

EXISTING GAS SERVICE FROM POND STREET

EXISTING BASEBALL FIELD

SCHOOL GARDENS

OUTDOOR CLASSROOM

EXISTING BUILDING FOOT-PRINT TO BE REMOVED

Anticipated location of underground infiltration system for new parking area (sizing approximate)

Anticipated location of underground infiltration system for building addition (sizing approximate)

180 X 300

180 X 165

11' 22"

80

POND STREET

BEACH STREET



TAPPÉ
ARCHITECTS



WARNER LARSON
LANDSCAPE ARCHITECTS

PROPOSED OPTION: N4 – New Construction

Option Description

Option N4 represents the exploration of a newly constructed 2-story HS on the existing soccer/baseball fields located on-site. The existing Sharon High School is demolished in this option.

Method of Obtaining Utilities

WATER SYSTEMS

The existing school site is fed from a single 6-inch water service. The feed extends along the south side of the high school, running from the 8-inch water main located in Pond Street. The 6-inch service line, after running more or less parallel to the school on the opposite side of the southern entrance drive and parking lot, enters the school – after splitting – as a 6-inch CLDI fire protection service and a 4-inch CLDI domestic water service. Irrigation lines are present for all athletic fields on-site, including under the baseball and soccer fields, as well as a separate system for the football field/track. The material and condition of the water service is unknown at this time.

There are multiple fire hydrants located at various points around the existing school building. There is likely adequate fire protection volume and pressures in the area, however, a hydrant flow test will need to be performed to confirm pressures and flow volume at the school site. The fire hydrant located at the rear of the school building is fed by a small service line that extends from the building, rather than the main service line, based on available record plans and observed infrastructure on-site.

A new water service loop would need to be installed to accommodate the proposed new high school building. This new water service loop would likely require connections to both Pond Street and Beach Street to create redundancy. The new school building would require separate domestic and fire services to be fed from the new water service loop. The existing services from the site will need to be capped, removed and abandoned as necessary once the existing high school building is demolished. Service would need to be maintained to the operating buildings during any construction activities on-site. Any required water shut downs would need to be coordinated with the municipality and the fire department. Please refer to the MEP narrative for additional information.

SANITARY SEWER

Sewerage effluent from the existing High School building is conveyed to a wastewater treatment plant and ultimately to a subsurface disposal system located at the rear of the building. Based on record plans for the site, the existing 6-inch sewer service (unknown material and condition) extends from the building to an existing pretreatment tank, located adjacent to the track & football field at the rear of the school. Overflow from the pretreatment tank flows to a flow equalization tank and ultimately to the treatment building located at the rear of the site.

No external grease traps were observed, on the site visit or on record plans. A video inspection of any sanitary lines to be reused is recommended to gauge the condition of the existing sewer pipes.

As part of the N4 project option, a new sewer line would need to be constructed to connect the new building service(s) to the existing wastewater treatment plant. It is anticipated that the new school building can be serviced by gravity to the treatment plant. However, the final finished floor elevation of the new building will dictate invert elevations of the sewer services and depending on the location and elevation of these services they may require a new lift station or ejector pump to allow for connection to the WWTP. Sewer service

would need to be maintained to the existing building during any construction activities on-site. See MEP and WWTP narrative for additional information on interior plumbing and the existing wastewater treatment plant.

SITE DRAINAGE

The site topography generally slopes from East to West, largely draining to on-site structures and the wetlands located at the 'rear' / eastern property line. It generally flows in the north-south direction, with the notable exception of the mound associated with the subsurface disposal system for the treatment plant. Grading around the High School generally directs water away from the building foundation.

There is existing drainage infrastructure for runoff conveyance surrounding the existing high school building and within the parking lot areas. The majority of the impervious area is collected in a system of underground pipes, drainage structures, and oil/gas separators that eventually drains to the 21-inch drainage main located in Pond Street. The roof drains from the existing building are mainly daylighted to splash pads; and runoff is encouraged to drain to nearby drainage inlets via overland flow. There is little to no runoff rate mitigation in the form of detention/infiltration located on-site, though a small recharge system appears to be located near a recent building addition along the south side of the school. Generally, any treatment provided appears to be from oil/water separators located at various points around the site (record plans show a total of five, with various sizes). No water quality hoods were noted on inlets during Nitsch's site inspection.

Runoff from the rear of the site and from the athletic fields does not connect to the onsite infrastructure that connects to the Town infrastructure located in Pond Street.

Runoff from the baseball field and tennis courts to the south of the school are collected by a series of underdrains and catch basins. The runoff is then conveyed to an existing catch basin located on Beach Street; no material or size of the drainage main located in Beach Street is provided on the record plans. No mitigation for water quality or runoff rate is apparent for this area.

Additionally, there are three discharges from other drainage collection systems at the school and surrounding athletic fields that daylight in the wetlands systems located along the rear of the site. A small series of catch basins in the rear parking lot and the grassed areas surrounding the wastewater treatment plan collect runoff from these areas and discharge to a 12" drain that runs along the rear entrance to the school (from Ames Court). Near the property line, this 12" trunk line turns south and discharges to the adjacent wetlands area. No flow or quality mitigation is apparent in this area. The underdrain system for the track/football field and a small series of catch basins collecting runoff from grassed areas east of the track/football field discharges to a flared-end section adjacent to the wetlands at the rear of the site. Finally, at a low point of the track/football field at the southwest corner, a basin and small pipe (6-inch) drain a small area of the track to the wetlands areas. Pretreatment is not noted for any of these systems prior to discharge, though it is noted only one system collects runoff from an appreciable amount of impervious area.

The new high school building and all new parking lots and impervious areas will require a MassDEP standard-compliant stormwater systems to be designed for new areas of impervious. The site drainage will be designed according to the MassDEP standards for a redevelopment and will reduce both stormwater discharge rates and volumes for the 2-year, 10-year, 25-year, and 100-year 24-hour rainfall events at all the discharge points. Proposed drainage for the new high school site will consist of updating the existing drainage system and installing a new drainage system incorporating elements necessary (catch basins, Low Impact Development measures, retention/detention ponds) for a sustainable and cost-efficient design to meet the appropriate standards. At a minimum, jetting, cleaning and inspection of the existing drainage systems to be maintained will be required as part of work.

Required stormwater mitigation can be achieved by retrofitting existing and installing new closed drainage systems incorporating deep sump catch basins, with hoods, directing runoff to grassed swales, porous pavement, and biofiltration BMPs (if appropriate). A retention/detention element will be required as part of the proposed stormwater design. This could be in the form of underground pipes/arch chambers or a surface detention basin should conditions allow. Water Quality will also need to be addressed as part of the stormwater design. Proprietary Units such as Stormceptor or Vortechincs could be used along with other site integrated water quality options.

OTHER UTILITIES

Electric and Tel-Com services feed the building from underground lines extending from a utility pole next to the northern/front entrance drive for the high school. The electric service connects to a transformer located adjacent to the entrance of the school from the 'north' parking lot/dropoff area on Pond Street. There appears to be an electric service that extends from the rear of the school building to the wastewater treatment plant. A generator provided adjacent to the wastewater treatment plant is for emergencies/backup. Site lighting around the school appears to be adequate in some areas and limited in other areas. The site lighting would likely require upgrading as part of any proposed redevelopment of the site. Electric Service is provided by Eversource. Telephone service is provided by Verizon and cable services by Comcast for this area of Sharon.

The High School currently uses a gas boiler in the building to provide heat and hot water. A gas service of unknown size runs from Pond Street along the edge of the athletic fields adjacent to the southern entrance drive/parking lot before entering the building at the meter located on the rear (west side) of the existing building. An additional gas service also appears to enter at the front of the building. Columbia Gas provides gas service for the Town of Sharon.

There is at least one underground oil tank on site located in the parking lot area, labelled on record utility plans as an underground diesel oil tank. This tank is located at the rear of the building, near the gas penetration into the school. It is unknown at this time if this tank is still active or if it has been abandoned and properly "retired" per MA DEP regulations. If the tank is still active and will not be reused as part of any new construction on the site, it will need to be abandoned or removed per MA DEP regulations.

Upgrades to the electric, tel-com, gas services, and site lighting will be required as part of the N4 project option. New services will be required for the new building, and the services for the existing high school will need to be maintained during construction and capped and abandoned, if no longer required for remaining and (if any) proposed athletic fields in the area. Refer to the plumbing and electrical narratives for additional information.

Ames Street

Beach Street

SOFTBALL FIELD

EXISTING SEPTIC FIELDS TO REMAIN

EXISTING WASTEWATER TREATMENT BUILDING TO REMAIN

Existing underground collection tank for wastewater treatment plan (approximate location)

RELOCATED JUMP EVENTS

CONCESSION BUILDING

NEW PRESSBOX AND WHEELCHAIR LIFT

EXISTING BLEACHER (CODE COMPLIANCE RETROFIT REQ.)

SERVICE AREA

OUTDOOR CAFE SEATING WITH VIEWS TO THE LAKE

NEW SANITARY SERVICE FROM BUILDING TO WASTEWATER TREATMENT PLANT

LIFT STATION (IF NECESSARY) PROVIDING CONNECTION TO WWTP

NEW LOOPED WATER SERVICE CONNECTION TO MAIN WITHIN BEACH STREET

ANTICIPATED LOCATION OF UNDERGROUND/ABOVEGROUND INFILTRATION SYSTEM FOR BUILDING (SIZING APPROXIMATE)

NEW SEWER SERVICE

NEW DOMESTIC AND FIRE SERVICES FOR BUILDING ADDITION

PROPOSED BUILDING

ROOF DRAIN LEADER CONNECTIONS TO NEW DETENTION AREA WILL BE REQUIRED (TYP.)

SCHOOL GARDENS

NEW LOOPED WATER SERVICE CONNECTION TO MAIN WITHIN BEACH STREET

EXISTING BUILDING FOOTPRINT

BASEBALL FIELD

ANTICIPATED LOCATION OF UNDERGROUND/ABOVEGROUND INFILTRATION SYSTEM FOR NEW PARKING AREA (SIZING APPROXIMATE)

ANTICIPATED LOCATION OF UNDERGROUND/ABOVEGROUND INFILTRATION SYSTEM FOR BUILDING (SIZING APPROXIMATE)

NEW WATER SERVICE CONNECTION TO PROPOSED BUILDING

BUS LOADING AND UNLOADING

CROSSWALK BEACON

NEW GAS SERVICE FROM POND STREET, FOLLOWS EXISTING PATH OF GAS SERVICE, ANTICIPATED TO BE REPLACED.

ANTICIPATED LOCATION OF UNDERGROUND/ABOVEGROUND INFILTRATION SYSTEM FOR BUILDING (SIZING APPROXIMATE)

OUTDOOR CLASSROOM

OUTDOOR CLASSROOM

GATED EMERGENCY ACCESS



TAPPÉ
ARCHITECTS



SCALE: 1" = 60'-0"



3.6

OUTLINE OF MEPFP SYSTEMS





SHARON HIGH SCHOOL
HEATING, VENTILATING AND AIR CONDITIONING
RENOVATION OPTION

A. General:

1. This system description applies to addition/ renovation Renovation Option. Systems are based on a total building area consisting of approximately 168,400 square feet.
2. This option will be constructed in multiple phases. It is assumed that portions of the existing building will remain in operation during the phased renovations.
3. Heating, air conditioning and ventilation systems shall be high-efficiency systems meeting MSBA Sustainable Building Design Guidelines exceeding the level of energy efficiency required by the current MA Energy Code (ASHRAE 90.1-2013) by 20%.

B. Design Conditions:

1. Chapter 13 - Energy Efficiency of the Massachusetts State Building Code (Ninth Edition) Climate Zone/5a: Outside: Winter 5°F; Summer 91°F DB/73°F WB. Inside: 72°F heating, 75°F cooling. Controls for unoccupied temperature setback will be provided.
2. Outside Ventilation Air: Outside air will be provided at the rate of approximately 15 cfm/person for classrooms in accordance with criteria provided in the 2015 International Mechanical Code. Science classrooms will be exhausted at a rate of 1.0 CFM/sf during occupied periods. Art classrooms will be exhausted at a rate of 0.7 CFM/sf during occupied periods. Ventilation rates for other spaces rates will be in accordance with the 2015 International Mechanical Code.
3. Occupied spaces will be designed for 75°F during cooling season and 72°F during heating season. Unoccupied cooling season temperatures are not controlled as equipment is off. Recommended unoccupied heating set point temperature is 62°F (+/-) adjustable.

C. Hot Water Heating System:

1. Heating hot water will be provided for rooftop units and heating of vestibules, stairways, toilet rooms, storage rooms, etc.
2. Provide high efficiency boilers consisting of two gas-fired condensing hot water boilers. Boilers shall be 2,000 MBH each. The hot water boiler system will have approximately 67% backup capacity should one boiler fail.
3. Each boiler will be provided with a 180 GPM constant flow circulating pump to maintain the manufacturer's minimum flow requirements.
4. Hot water distribution shall be variable secondary flow from boilers to building equipment distribution. There shall be two variable speed pumps at 260 GPM each with variable frequency drives. Each pump shall provide 100% of the hot water flow with one pump available in stand-by mode.
5. The piping system will contain a 30% inhibited propylene glycol solution for freeze protection and corrosion protection.

6. The system will be designed to utilize lower temperature supply water (140°F – 150°F maximum) to maximize boiler efficiency. Maximum return water temperatures will be 130°F or less to ensure condensing of boiler combustion gases maintain a high efficiency operation. Hot water supply temperature will be reset to lower than maximum design temperature during warmer weather.
7. Heating terminal units such as fin tube radiation, heating coils and cabinet unit heaters will require larger surface areas and unit sizes due to the low water temperature.
8. Control of boiler water temperature and sequencing of the boilers will be provided by the boiler manufacturer's control system. A Mod-Bus interface shall be provided for interface with the central Building Management System (BMS).

D. Classrooms Wings:

1. The systems serving heating, cooling and ventilation for classrooms shall be a variable refrigerant flow (VRF) fan coil system with condensing unit mounted on the roof. Each classroom will be provided with ventilation air from a self-contained rooftop energy recovery ventilation unit which also provides a portion of the classroom cooling capacity.
2. There will one rooftop heat recovery unit and one VRF condensing unit serving each of the three classroom pods/wings. The system will be 3-pipe heat recovery type for maximum efficiency.
3. The HRU's will be variable air volume and will include supply and exhaust fans with variable frequency drives, a total energy recovery wheel, and a hot gas reheat coil for free reheat during the cooling season. Pre-heating of the outdoor air after the heat recovery function will be provided by a hot water heating coil. Cooling will be provided by a self-contained DX evaporator coil and condensing unit.
4. A typical classroom will be served by one 600 CFM ducted fan coil unit located above the ceiling.
5. The ventilation supply air to each classroom shall be provided with a modulating supply air volume control terminal to vary supply air volume based on room carbon dioxide concentration when the room is occupied. A typical classroom will be provided with 400 CFM of ventilation supply air to a ceiling diffuser.
6. Exhaust air from each classroom shall be controlled by a variable volume exhaust terminal to track the supply air to the room and maintain a neutral pressure balance.
7. Systems will be interfaced to the local space vacancy sensor to reduce ventilation air and reset the space cooling and heating set point temperatures when the room is unoccupied during normal operating hours.
8. A carbon dioxide sensor will be provided in classrooms to provide monitoring and modulating control of ventilation air.
9. System Capacities:
 - a. HRU-A, B and C – 7,200 CFM, 35 tons each
 - b. VRF-A, B and C – 30 tons.

E. Vocations & Technology:

1. The systems serving heating, cooling and ventilation for vocational and technology classrooms including TV Studio, Digital Arts, STEAM, Computer Science, Innovation/Maker, and CAD Lab shall be a variable refrigerant flow (VRF) fan coil system with condensing unit mounted on the roof. Each classroom will be provided with ventilation air from a self-contained rooftop energy recovery ventilation unit which also provides a portion of the classroom cooling capacity.
2. There will one rooftop heat recovery unit and one VRF condensing unit.
3. The HRU's will be variable air volume and will include supply and exhaust fans with variable frequency drives, a total energy recovery wheel, and a hot gas reheat coil for free reheat during the cooling season. Pre-heating of the outdoor air after the heat recovery function will be provided by a hot water heating coil. Cooling will be provided by a self-contained DX evaporator coil and condensing unit.
4. A typical classroom will be served by ducted fan coil unit located above the ceiling of approximately 800 CFM to 1,000 CFM.
5. The ventilation supply air to each classroom shall be provided with a modulating supply air volume control terminal to vary supply air volume based on room carbon dioxide concentration when the room is occupied. A typical classroom will be provided with 500 CFM of ventilation supply air to a ceiling diffuser.
6. Exhaust air from each classroom shall be controlled by a variable volume exhaust terminal to track the supply air to the room and maintain a neutral pressure balance.
7. Systems will be interfaced to the local space vacancy sensor to reduce ventilation air and reset the space cooling and heating set point temperatures when the room is unoccupied during normal operating hours.
8. A carbon dioxide sensor will be provided in classrooms to provide monitoring and modulating control of ventilation air.
9. System Capacities:
 - a. HRU-1 – 1,200 CFM, 5 tons
 - b. VRF-1 – 5 tons.

F. Self-Contained Rooftop Units:

1. Self-contained rooftop air conditioning units will be provided for the following areas; Band, PE Alternatives, Media, Auditorium, Stage, and Cafeteria. The systems will provide heating, cooling and ventilation for each area and shall be either single zone variable air volume or multiple zone variable air volume with variable air volume terminals (VAV).
2. Rooftop air conditioning units (RTU) will include self-contained DX cooling with integral air-cooled condensing units, supply and return fans with variable frequency drives, hot water heating coil, MERV-8 pre-filter, MERV-13 final filter, and 100% outside air economizer.
3. Music/Band, PE Alternatives, Media and Cafeteria will be provided with VAV terminals for local space temperature control.
4. The Auditorium, Stage, and Gymnasium units will be single zone with a variable frequency drive to modulate the supply air during periods of low occupancy.

5. All RTUs will be provided with space carbon dioxide (CO₂) sensors to provide modulation of outside air based on occupancy demand.
6. Systems will be interfaced to the local space vacancy sensor to reduce ventilation air and reset the space cooling and heating set point temperatures when the room is unoccupied during normal operating hours.
7. A carbon dioxide sensor will be provided in each high occupancy room to provide monitoring and modulating control of ventilation air.
8. System Capacities:
 - a. RTU-1 – Band; 1,500 CFM, 5 tons
 - b. RTU-2 – PE Alternatives; 3,000 CFM – 7.5 tons.
 - c. RTU-3 – Media; 10,000 CFM – 25 tons
 - d. RTU-4 – Auditorium; 7,500 CFM – 22 tons
 - e. RTU-5 – Stage; 4,000 CFM – 10 tons
 - f. RTU-6 – Cafeteria; 6,000 CFM – 20 tons

G. Gymnasium:

1. Two rooftop heating and ventilating units will be provided for the gymnasium. The systems will provide heating and outdoor ventilation air for the space.
2. Rooftop heating and ventilating air conditioning units (H&V) will include supply and return fans with variable frequency drives, hot water heating coil, MERV-8 pre-filter, MERV-13 final filter, and 100% outside air economizer.
3. The units will be provided with variable frequency drives to modulate the supply air during periods of low occupancy.
4. Space carbon dioxide (CO₂) sensors will be provided to modulate outside air based on occupancy demand.
5. System Capacities:
 - a. H&V-1A and 1B – 7,500 CFM

H. Locker Rooms:

1. A heating and ventilating heat recovery ventilation unit will be provided for the locker areas. The system will provide heating and outdoor ventilation air for the space.
2. Rooftop heating and ventilating heat recovery unit (HRU) will include supply and return fans, fixed plate sensible heat recovery exchanger, hot water heating coil, MERV-8 pre-filters on the supply and exhaust air, supply air MERV-13 final filter, and face & bypass frost control and outside air economizer.
3. System Capacities:
 - a. HRU-2 – 4,000 CFM

SHARON HIGH SCHOOL HEATING, VENTILATING AND AIR CONDITIONING OPTION AR1

A. General:

1. This system description applies to addition/ renovation Option AR1. Systems are based on a total building area consisting of approximately 225,000 square feet.
2. This option will be constructed in multiple phases. It is assumed that the existing building will remain in operation during the construction of the new addition.
3. Heating, air conditioning and ventilation systems shall be high-efficiency systems meeting MSBA Sustainable Building Design Guidelines exceeding the level of energy efficiency required by the current MA Energy Code (ASHRAE 90.1-2013) by 20%.

B. Design Conditions:

1. Chapter 13 - Energy Efficiency of the Massachusetts State Building Code (Ninth Edition) Climate Zone/5a: Outside: Winter 5°F; Summer 91°F DB/73°F WB. Inside: 72°F heating, 75°F cooling. Controls for unoccupied temperature setback will be provided.
2. Outside Ventilation Air: Outside air will be provided at the rate of approximately 15 cfm/person for classrooms in accordance with criteria provided in the 2015 International Mechanical Code. Science classrooms will be exhausted at a rate of 1.0 CFM/sf during occupied periods. Art classrooms will be exhausted at a rate of 0.7 CFM/sf during occupied periods. Ventilation rates for other spaces rates will be in accordance with the 2015 International Mechanical Code.
3. Occupied spaces will be designed for 75°F during cooling season and 72°F during heating season. Unoccupied cooling season temperatures are not controlled as equipment is off. Recommended unoccupied heating set point temperature is 62°F (+/-) adjustable.

C. Hot Water Heating System:

1. Heating hot water will be provided for rooftop units and heating of vestibules, stairways, toilet rooms, storage rooms, etc.
2. Provide high efficiency boilers consisting of two gas-fired condensing hot water boilers. Boilers shall be 2,500 MBH each. The hot water boiler system will have approximately 67% backup capacity should one boiler fail.
3. Each boiler will be provided with a 200 GPM constant flow circulating pump to maintain the manufacturer's minimum flow requirements.
4. Hot water distribution shall be variable secondary flow from boilers to building equipment distribution. There shall be two variable speed pumps at 320 GPM each with variable frequency drives. Each pump shall provide 100% of the hot water flow with one pump available in stand-by mode.
5. The piping system will contain a 30% inhibited propylene glycol solution for freeze protection and corrosion protection.



SHARON HIGH SCHOOL
HEATING, VENTILATING AND AIR CONDITIONING
OPTION AR1

A. General:

1. This system description applies to addition/ renovation Option AR1. Systems are based on a total building area consisting of approximately 225,000 square feet.
2. This option will be constructed in multiple phases. It is assumed that the existing building will remain in operation during the construction of the new addition.
3. Heating, air conditioning and ventilation systems shall be high-efficiency systems meeting MSBA Sustainable Building Design Guidelines exceeding the level of energy efficiency required by the current MA Energy Code (ASHRAE 90.1-2013) by 20%.

B. Design Conditions:

1. Chapter 13 - Energy Efficiency of the Massachusetts State Building Code (Ninth Edition) Climate Zone/5a: Outside: Winter 5°F; Summer 91°F DB/73°F WB. Inside: 72°F heating, 75°F cooling. Controls for unoccupied temperature setback will be provided.
2. Outside Ventilation Air: Outside air will be provided at the rate of approximately 15 cfm/person for classrooms in accordance with criteria provided in the 2015 International Mechanical Code. Science classrooms will be exhausted at a rate of 1.0 CFM/sf during occupied periods. Art classrooms will be exhausted at a rate of 0.7 CFM/sf during occupied periods. Ventilation rates for other spaces rates will be in accordance with the 2015 International Mechanical Code.
3. Occupied spaces will be designed for 75°F during cooling season and 72°F during heating season. Unoccupied cooling season temperatures are not controlled as equipment is off. Recommended unoccupied heating set point temperature is 62°F (+/-) adjustable.

C. Hot Water Heating System:

1. Heating hot water will be provided for rooftop units and heating of vestibules, stairways, toilet rooms, storage rooms, etc.
2. Provide high efficiency boilers consisting of two gas-fired condensing hot water boilers. Boilers shall be 2,500 MBH each. The hot water boiler system will have approximately 67% backup capacity should one boiler fail.
3. Each boiler will be provided with a 200 GPM constant flow circulating pump to maintain the manufacturer's minimum flow requirements.
4. Hot water distribution shall be variable secondary flow from boilers to building equipment distribution. There shall be two variable speed pumps at 320 GPM each with variable frequency drives. Each pump shall provide 100% of the hot water flow with one pump available in stand-by mode.
5. The piping system will contain a 30% inhibited propylene glycol solution for freeze protection and corrosion protection.

6. The system will be designed to utilize lower temperature supply water (140°F – 150°F maximum) to maximize boiler efficiency. Maximum return water temperatures will be 130°F or less to ensure condensing of boiler combustion gases maintain a high efficiency operation. Hot water supply temperature will be reset to lower than maximum design temperature during warmer weather.
7. Heating terminal units such as fin tube radiation, heating coils and cabinet unit heaters will require larger surface areas and unit sizes due to the low water temperature.
8. Control of boiler water temperature and sequencing of the boilers will be provided by the boiler manufacturer's control system. A Mod-Bus interface shall be provided for interface with the central Building Management System (BMS).

D. Classrooms Pods/Wings:

1. The systems serving heating, cooling and ventilation for classrooms shall be a variable refrigerant flow (VRF) fan coil system with condensing unit mounted on the roof. Each classroom will be provided with ventilation air from a self-contained rooftop energy recovery ventilation unit which also provides a portion of the classroom cooling capacity.
2. There will one rooftop heat recovery unit and one VRF condensing unit serving each of the three classroom pods/wings. The system will be 3-pipe heat recovery type for maximum efficiency.
3. The HRU's will be variable air volume and will include supply and exhaust fans with variable frequency drives, a total energy recovery wheel, and a hot gas reheat coil for free reheat during the cooling season. Pre-heating of the outdoor air after the heat recovery function will be provided by a hot water heating coil. Cooling will be provided by a self-contained DX evaporator coil and condensing unit.
4. A typical classroom will be served by one 600 CFM ducted fan coil unit located above the ceiling.
5. The ventilation supply air to each classroom shall be provided with a modulating supply air volume control terminal to vary supply air volume based on room carbon dioxide concentration when the room is occupied. A typical classroom will be provided with 400 CFM of ventilation supply air to a ceiling diffuser.
6. Exhaust air from each classroom shall be controlled by a variable volume exhaust terminal to track the supply air to the room and maintain a neutral pressure balance.
7. Systems will be interfaced to the local space vacancy sensor to reduce ventilation air and reset the space cooling and heating set point temperatures when the room is unoccupied during normal operating hours.
8. A carbon dioxide sensor will be provided in classrooms to provide monitoring and modulating control of ventilation air.
9. System Capacities:
 - a. HRU-A, B and C – 10,500 CFM, 50 tons each
 - b. VRF-A, B and C – 40 tons.

E. Vocations & Technology:

1. The systems serving heating, cooling and ventilation for vocational and technology classrooms including TV Studio, Digital Arts, STEAM, Computer Science, Innovation/Maker, and CAD Lab shall be a variable refrigerant flow (VRF) fan coil system with condensing unit mounted on the roof. Each classroom will be provided with ventilation air from a self-contained rooftop energy recovery ventilation unit which also provides a portion of the classroom cooling capacity.
2. There will one rooftop heat recovery unit and one VRF condensing unit.
3. The HRU's will be variable air volume and will include supply and exhaust fans with variable frequency drives, a total energy recovery wheel, and a hot gas reheat coil for free reheat during the cooling season. Pre-heating of the outdoor air after the heat recovery function will be provided by a hot water heating coil. Cooling will be provided by a self-contained DX evaporator coil and condensing unit.
4. A typical classroom will be served by ducted fan coil unit located above the ceiling of approximately 800 CFM to 1,000 CFM.
5. The ventilation supply air to each classroom shall be provided with a modulating supply air volume control terminal to vary supply air volume based on room carbon dioxide concentration when the room is occupied. A typical classroom will be provided with 500 CFM of ventilation supply air to a ceiling diffuser.
6. Exhaust air from each classroom shall be controlled by a variable volume exhaust terminal to track the supply air to the room and maintain a neutral pressure balance.
7. Systems will be interfaced to the local space vacancy sensor to reduce ventilation air and reset the space cooling and heating set point temperatures when the room is unoccupied during normal operating hours.
8. A carbon dioxide sensor will be provided in classrooms to provide monitoring and modulating control of ventilation air.
9. System Capacities:
 - a. HRU-1 – 4,500 CFM, 20 tons
 - b. VRF-1 – 20 tons.

F. Community Education:

1. The system serving heating, cooling and ventilation for Community Education will be a variable refrigerant flow (VRF) fan coil system with condensing unit mounted on the roof. Each space will be provided with ventilation air from a rooftop energy recovery ventilation (ERV) unit.
2. There will one rooftop energy recovery unit and one VRF condensing unit.
3. The ERV will be constant air volume and will include supply and exhaust fans, a total energy recovery wheel, MERV-8 pre-filters, MERV-13 Final filters. Heating of the outdoor air after the heat recovery function will be provided by a hot water heating coil. The unit will not be provided with DX cooling.
4. A typical space will be served by ducted fan coil unit located above the ceiling of approximately 800 CFM to 1,000 CFM.

5. The ventilation supply air to each space will be ducted directly to the return air of the space fan coil unit.
6. Exhaust air from each space will be direct ducted.
7. System Capacities:
 - a. ERV-1 – 500 CFM
 - b. VRF-1 – 7.5 tons.

G. Self-Contained Rooftop Units:

1. Self-contained rooftop air conditioning units will be provided for the following areas; Music/Band, PE Alternatives, Media, Auditorium, Stage, Drama Classroom, Cafeteria. The systems will provide heating, cooling and ventilation for each area and shall be either single zone variable air volume or multiple zone variable air volume with variable air volume terminals (VAV).
2. Rooftop air conditioning units (RTU) will include self-contained DX cooling with integral air-cooled condensing units, supply and return fans with variable frequency drives, hot water heating coil, MERV-8 pre-filter, MERV-13 final filter, and 100% outside air economizer.
3. Music/Band, PE Alternatives, Media and Cafeteria will be provided with VAV terminals for local space temperature control.
4. The Auditorium, Stage, and Gymnasium units will be single zone with a variable frequency drive to modulate the supply air during periods of low occupancy.
5. All RTUs will be provided with space carbon dioxide (CO₂) sensors to provide modulation of outside air based on occupancy demand.
6. Systems will be interfaced to the local space vacancy sensor to reduce ventilation air and reset the space cooling and heating set point temperatures when the room is unoccupied during normal operating hours.
7. A carbon dioxide sensor will be provided in each high occupancy room to provide monitoring and modulating control of ventilation air.
8. System Capacities:
 - a. RTU-1 – Music/Band/Chorus; 5,000 CFM, 15 tons
 - b. RTU-2 – PE Alternatives; 5,000 CFM – 15 tons.
 - c. RTU-3 – Media; 8,000 CFM – 20 tons
 - d. RTU-4 – Auditorium; 8,000 CFM – 25 tons
 - e. RTU-5 – Stage; 4,000 CFM – 10 tons
 - f. RTU-6 – Drama Classroom; 3,000 CFM – 7.5 tons
 - g. RTU-7 – Cafeteria; 8,000 CFM – 25 tons

H. Gymnasium:

1. Two rooftop heating and ventilating units will be provided for the gymnasium. The systems will provide heating and outdoor ventilation air for the space.
2. Rooftop heating and ventilating air conditioning units (H&V) will include supply and return fans with variable frequency drives, hot water heating coil, MERV-8 pre-filter, MERV-13 final filter, and 100% outside air economizer.
3. The units will be provided with variable frequency drives to modulate the supply air during periods of low occupancy.
4. Space carbon dioxide (CO₂) sensors will be provided to modulate outside air based on occupancy demand.
5. System Capacities:
 - a. H&V-1A and 1B – 10,000 CFM

I. Locker Rooms:

1. A heating and ventilating heat recovery ventilation unit will be provided for the locker areas. The system will provide heating and outdoor ventilation air for the space.
2. Rooftop heating and ventilating heat recovery unit (HRU) will include supply and return fans, fixed plate sensible heat recovery exchanger, hot water heating coil, MERV-8 pre-filters on the supply and exhaust air, supply air MERV-13 final filter, and face & bypass frost control and outside air economizer.
3. System Capacities:
 - a. HRU-2 – 6,000 CFM

J. Kitchen:

1. The kitchen hood will be provided with a roof mounted up-blast kitchen exhaust rated for grease exhaust application.
2. A 100% outside air makeup air heating unit will be provided for kitchen exhaust makeup air. The system will provide makeup air and heating for the space.
3. Rooftop makeup air unit (MAU) will include supply fan, gas-fired heater, MERV-8 pre-filters, and MERV-13 final filter. The supply fan will be provided with a variable frequency drive to modulate makeup air based on hood exhaust demand.
4. System Capacities:
 - a. MAU-1 – 3,500 CFM
 - b. KEF-1 – 4,500 CFM

K. Ductless Split Air Conditioning Systems:

1. Main network MDF room, elevator machine room, and lighting/projection room will be provided with ductless split air-source heat pump systems.

2. Assume three 2-ton systems and one 3-ton system.

L. Miscellaneous Areas:

1. All normally occupied areas will be air conditioned except for corridors and the Kitchen. The kitchen is partially tempered by using transfer air from the Cafeteria for make-up air and some direct cooling air from Cafeteria unit, but not intended to provide full cooling.
2. Corridors will be provided with ventilation air from the HRU systems. Air quantities in excess of basic ventilation requirements will be provided for building exhaust makeup air as required. Corridors will not be fully air conditioned with the exception of areas that have direct solar loads or areas that may be normally occupied.
3. Vestibules, stairways, exit doors, toilet rooms, storage rooms, and other miscellaneous spaces with exterior exposures or roof above will be provided with cabinet unit heaters, convectors, fin-tube radiation, or hydronic radiant panels for space heating.

M. Building Management System (BMS):

1. Provide direct digital control (DDC) BMS with local and unitary controls and web interface for remote access, alarms, and monitoring of all HVAC equipment in the building.
2. BMS system shall be connected to building electrical and gas sub-meters. Daily, weekly, and annual energy uses shall be reported for each meter.



SHARON HIGH SCHOOL
HEATING, VENTILATING AND AIR CONDITIONING
OPTION N4

A. General:

1. This system description applies to new building Option N4. Systems are based on a new building consisting of approximately 225,000 square feet.
2. The new building will be constructed in one phase. The existing building will remain in operation during the construction of the new building.
3. Heating, air conditioning and ventilation systems shall be high-efficiency systems meeting MSBA Sustainable Building Design Guidelines exceeding the level of energy efficiency required by the current MA Energy Code (ASHRAE 90.1-2013) by 20%.

B. Design Conditions:

1. Chapter 13 - Energy Efficiency of the Massachusetts State Building Code (Ninth Edition) Climate Zone/5a: Outside: Winter 5°F; Summer 91°F DB/73°F WB. Inside: 72°F heating, 75°F cooling. Controls for unoccupied temperature setback will be provided.
2. Outside Ventilation Air: Outside air will be provided at the rate of approximately 15 cfm/person for classrooms in accordance with criteria provided in the 2015 International Mechanical Code. Science classrooms will be exhausted at a rate of 1.0 CFM/sf during occupied periods. Art classrooms will be exhausted at a rate of 0.7 CFM/sf during occupied periods. Ventilation rates for other spaces rates will be in accordance with the 2015 International Mechanical Code.
3. Occupied spaces will be designed for 75°F during cooling season and 72°F during heating season. Unoccupied cooling season temperatures are not controlled as equipment is off. Recommended unoccupied heating set point temperature is 62°F (+/-) adjustable.

C. Hot Water Heating System:

1. Heating hot water will be provided for rooftop units and heating of vestibules, stairways, toilet rooms, storage rooms, etc.
2. Provide high efficiency boilers consisting of two gas-fired condensing hot water boilers. Boilers shall be 2,500 MBH each. The hot water boiler system will have approximately 67% backup capacity should one boiler fail.
3. Each boiler will be provided with a 200 GPM constant flow circulating pump to maintain the manufacturer's minimum flow requirements.
4. Hot water distribution shall be variable secondary flow from boilers to building equipment distribution. There shall be two variable speed pumps at 320 GPM each with variable frequency drives. Each pump shall provide 100% of the hot water flow with one pump available in stand-by mode.
5. The piping system will contain a 30% inhibited propylene glycol solution for freeze protection and corrosion protection.

6. The system will be designed to utilize lower temperature supply water (140°F – 150°F maximum) to maximize boiler efficiency. Maximum return water temperatures will be 130°F or less to ensure condensing of boiler combustion gases maintain a high efficiency operation. Hot water supply temperature will be reset to lower than maximum design temperature during warmer weather.
7. Heating terminal units such as fin tube radiation, heating coils and cabinet unit heaters will require larger surface areas and unit sizes due to the low water temperature.
8. Control of boiler water temperature and sequencing of the boilers will be provided by the boiler manufacturer's control system. A Mod-Bus interface shall be provided for interface with the central Building Management System (BMS).

D. Classrooms Wings:

1. The systems serving heating, cooling and ventilation for classrooms shall be a variable refrigerant flow (VRF) fan coil system with condensing unit mounted on the roof. Each classroom will be provided with ventilation air from a self-contained rooftop energy recovery ventilation unit which also provides a portion of the classroom cooling capacity.
2. There will one rooftop heat recovery unit and one VRF condensing unit serving each of the three classroom pods/wings. The system will be 3-pipe heat recovery type for maximum efficiency.
3. The HRU's will be variable air volume and will include supply and exhaust fans with variable frequency drives, a total energy recovery wheel, and a hot gas reheat coil for free reheat during the cooling season. Pre-heating of the outdoor air after the heat recovery function will be provided by a hot water heating coil. Cooling will be provided by a self-contained DX evaporator coil and condensing unit.
4. A typical classroom will be served by one 600 CFM ducted fan coil unit located above the ceiling.
5. The ventilation supply air to each classroom shall be provided with a modulating supply air volume control terminal to vary supply air volume based on room carbon dioxide concentration when the room is occupied. A typical classroom will be provided with 400 CFM of ventilation supply air to a ceiling diffuser.
6. Exhaust air from each classroom shall be controlled by a variable volume exhaust terminal to track the supply air to the room and maintain a neutral pressure balance.
7. Systems will be interfaced to the local space vacancy sensor to reduce ventilation air and reset the space cooling and heating set point temperatures when the room is unoccupied during normal operating hours.
8. A carbon dioxide sensor will be provided in classrooms to provide monitoring and modulating control of ventilation air.
9. System Capacities:
 - a. HRU-A, B and C – 10,500 CFM, 50 tons each
 - b. VRF-A, B and C – 40 tons.

E. Vocations & Technology:

1. The systems serving heating, cooling and ventilation for vocational and technology classrooms including TV Studio, Digital Arts, STEAM, Computer Science, Innovation/Maker, and CAD Lab shall be a variable refrigerant flow (VRF) fan coil system with condensing unit mounted on the roof. Each classroom will be provided with ventilation air from a self-contained rooftop energy recovery ventilation unit which also provides a portion of the classroom cooling capacity.
2. There will one rooftop heat recovery unit and one VRF condensing unit.
3. The HRU's will be variable air volume and will include supply and exhaust fans with variable frequency drives, a total energy recovery wheel, and a hot gas reheat coil for free reheat during the cooling season. Pre-heating of the outdoor air after the heat recovery function will be provided by a hot water heating coil. Cooling will be provided by a self-contained DX evaporator coil and condensing unit.
4. A typical classroom will be served by ducted fan coil unit located above the ceiling of approximately 800 CFM to 1,000 CFM.
5. The ventilation supply air to each classroom shall be provided with a modulating supply air volume control terminal to vary supply air volume based on room carbon dioxide concentration when the room is occupied. A typical classroom will be provided with 500 CFM of ventilation supply air to a ceiling diffuser.
6. Exhaust air from each classroom shall be controlled by a variable volume exhaust terminal to track the supply air to the room and maintain a neutral pressure balance.
7. Systems will be interfaced to the local space vacancy sensor to reduce ventilation air and reset the space cooling and heating set point temperatures when the room is unoccupied during normal operating hours.
8. A carbon dioxide sensor will be provided in classrooms to provide monitoring and modulating control of ventilation air.
9. System Capacities:
 - a. HRU-1 – 4,500 CFM, 20 tons
 - b. VRF-1 – 20 tons.

F. Community Education:

1. The system serving heating, cooling and ventilation for Community Education will be a variable refrigerant flow (VRF) fan coil system with condensing unit mounted on the roof. Each space will be provided with ventilation air from a rooftop energy recovery ventilation (ERV) unit.
2. There will one rooftop energy recovery unit and one VRF condensing unit.
3. The ERV will be constant air volume and will include supply and exhaust fans, a total energy recovery wheel, MERV-8 pre-filters, MERV-13 Final filters. Heating of the outdoor air after the heat recovery function will be provided by a hot water heating coil. The unit will not be provided with DX cooling.
4. A typical space will be served by ducted fan coil unit located above the ceiling of approximately 800 CFM to 1,000 CFM.

5. The ventilation supply air to each space will be ducted directly to the return air of the space fan coil unit.
6. Exhaust air from each space will be direct ducted.
7. System Capacities:
 - a. ERV-1 – 500 CFM
 - b. VRF-1 – 7.5 tons.

G. Self-Contained Rooftop Units:

1. Self-contained rooftop air conditioning units will be provided for the following areas; Music/Band, PE Alternatives, Media, Auditorium, Stage, Drama Classroom, Cafeteria. The systems will provide heating, cooling and ventilation for each area and shall be either single zone variable air volume or multiple zone variable air volume with variable air volume terminals (VAV).
2. Rooftop air conditioning units (RTU) will include self-contained DX cooling with integral air-cooled condensing units, supply and return fans with variable frequency drives, hot water heating coil, MERV-8 pre-filter, MERV-13 final filter, and 100% outside air economizer.
3. Music/Band, PE Alternatives, Media and Cafeteria will be provided with VAV terminals for local space temperature control.
4. The Auditorium, Stage, and Gymnasium units will be single zone with a variable frequency drive to modulate the supply air during periods of low occupancy.
5. All RTUs will be provided with space carbon dioxide (CO₂) sensors to provide modulation of outside air based on occupancy demand.
6. Systems will be interfaced to the local space vacancy sensor to reduce ventilation air and reset the space cooling and heating set point temperatures when the room is unoccupied during normal operating hours.
7. A carbon dioxide sensor will be provided in each high occupancy room to provide monitoring and modulating control of ventilation air.
8. System Capacities:
 - a. RTU-1 – Music/Band/Chorus; 5,000 CFM, 15 tons
 - b. RTU-2 – PE Alternatives; 5,000 CFM – 15 tons.
 - c. RTU-3 – Media; 8,000 CFM – 20 tons
 - d. RTU-4 – Auditorium; 8,000 CFM – 25 tons
 - e. RTU-5 – Stage; 4,000 CFM – 10 tons
 - f. RTU-6 – Drama Classroom; 3,000 CFM – 7.5 tons
 - g. RTU-7 – Cafeteria; 8,000 CFM – 25 tons

H. Gymnasium:

1. Two rooftop heating and ventilating units will be provided for the gymnasium. The systems will provide heating and outdoor ventilation air for the space.
2. Rooftop heating and ventilating air conditioning units (H&V) will include supply and return fans with variable frequency drives, hot water heating coil, MERV-8 pre-filter, MERV-13 final filter, and 100% outside air economizer.
3. The units will be provided with variable frequency drives to modulate the supply air during periods of low occupancy.
4. Space carbon dioxide (CO₂) sensors will be provided to modulate outside air based on occupancy demand.
5. System Capacities:
 - a. H&V-1A and 1B – 10,000 CFM

I. Locker Rooms:

1. A heating and ventilating heat recovery ventilation unit will be provided for the locker areas. The system will provide heating and outdoor ventilation air for the space.
2. Rooftop heating and ventilating heat recovery unit (HRU) will include supply and return fans, fixed plate sensible heat recovery exchanger, hot water heating coil, MERV-8 pre-filters on the supply and exhaust air, supply air MERV-13 final filter, and face & bypass frost control and outside air economizer.
3. System Capacities:
 - a. HRU-2 – 6,000 CFM

J. Kitchen:

1. The kitchen hood will be provided with a roof mounted up-blast kitchen exhaust rated for grease exhaust application.
2. A 100% outside air makeup air heating unit will be provided for kitchen exhaust makeup air. The system will provide makeup air and heating for the space.
3. Rooftop makeup air unit (MAU) will include supply fan, gas-fired heater, MERV-8 pre-filters, and MERV-13 final filter. The supply fan will be provided with a variable frequency drive to modulate makeup air based on hood exhaust demand.
4. System Capacities:
 - a. MAU-1 – 3,500 CFM
 - b. KEF-1 – 4,500 CFM

K. Ductless Split Air Conditioning Systems:

1. Main network MDF room, elevator machine room, and lighting/projection room will be provided with ductless split air-source heat pump systems.

2. Assume three 2-ton systems and one 3-ton system.

L. Miscellaneous Areas:

1. All normally occupied areas will be air conditioned except for corridors and the Kitchen. The kitchen is partially tempered by using transfer air from the Cafeteria for make-up air and some direct cooling air from Cafeteria unit, but not intended to provide full cooling.
2. Corridors will be provided with ventilation air from the HRU systems. Air quantities in excess of basic ventilation requirements will be provided for building exhaust makeup air as required. Corridors will not be fully air conditioned with the exception of areas that have direct solar loads or areas that may be normally occupied.
3. Vestibules, stairways, exit doors, toilet rooms, storage rooms, and other miscellaneous spaces with exterior exposures or roof above will be provided with cabinet unit heaters, convectors, fin-tube radiation, or hydronic radiant panels for space heating.

M. Building Management System (BMS):

1. Provide direct digital control (DDC) BMS with local and unitary controls and web interface for remote access, alarms, and monitoring of all HVAC equipment in the building.
2. BMS system shall be connected to building electrical and gas sub-meters. Daily, weekly, and annual energy uses shall be reported for each meter.

OPTION AR1: RENOVATION & ADDITION

FIRE PROTECTION

A. General

- 1) A renovation to the existing building, and an addition, will require the existing sprinkler system to be extended into the new addition.
- B. To comply with current codes, the existing building and addition will require a complete sprinkler system installation per the Massachusetts State Building Code, Chapter 34. The Fire Protection system would be designed to meet the requirements of NFPA 13 "Installation of Sprinkler Systems" and Chapter 9 of the Massachusetts State Building Code, 780 CMR, "Fire Protection Systems".
- C. The existing double check valve backflow preventer assembly (DCVA) should have service performed on it to remove the paint spill that has clogged one of the test ports. Once complete, the equipment should be retested and approved by the town fire department.
- D. Fire protection piping main feeds to the fire protection systems from the alarm check valves will extend out to the building through the first-floor ceiling space. The piping will then extend to all areas of the building to provide complete sprinkler cover age throughout. Potential sprinkler zoning will be coordinated with any new fire wall layouts.
- E. The fire protection design will include a combination standpipe system located in all egress stairways. These standpipes will feed the sprinkler system as well as provide a fire department hose connection at each level of the building.
- F. The sprinkler system risers will feed the sprinkler system at each floor level. Each floor will be a separate zone. The floor control valve assembly at the riser that feeds each floor will contain a flow switch and tamper switch. An inspector's test connection will be installed on the floor control valve station. If the auditorium stage is greater than 1,000 square feet, fire department valves will be required on each side of the stage.
- G. Sprinkler heads installed in gypsum or suspended ceilings will be glass bulb, quick response, chrome plated semi-recessed type. In areas without ceilings, brass upright sprinklers will be installed. Where upright sprinklers are subject to potential damage, such as in storage rooms, protective cages will be installed. In areas where it is not possible to run piping above the ceiling the use of sidewall sprinkler heads would be recommended.
- H. The MDF room will be protected by a pre-action sprinkler system. A pre-action alarm valve with all required appurtenances will need to be located next to or near the MDF. Piping from this valve will extend into the room and connect to sprinkler heads. The piping system will be filled with compressed air. Once a sprinkler head activates, the air will discharge and open the pre-action alarm valve to allow water into the system and through the open sprinkler head.
- I. Sprinkler piping for the system will be as follows:

- Piping 2" and smaller shall be schedule 40 black steel with cast iron fittings with threaded joints.
 - Piping 2 ½" and larger shall be Schedule 10 black steel with malleable iron fittings with rolled grooved joints.
 - Dry sprinkler systems will be supplied with Schedule 10 galvanized piping throughout.
- J. All tamper and flow switches installed on the sprinkler system will be connected to the buildings fire alarm system. Each tamper and flow switch will be a dedicated point on the fire alarm system.
- K. The exterior fire department connection for the sprinkler system will be a flush type mounted on the exterior of the building within 100' of a fire hydrant. The exact type of connection (storz or siamese) will be coordinated with the Sharon Fire Department. Final location and number of fire department connections will also be coordinated with the Sharon Fire Department.
- L. The hydraulic requirements for the building will be as follows:
- Light Hazard - All offices, corridors and the auditorium hydraulically calculated to deliver 0.1 gpm per square foot over the most remote 1,500 square feet.
 - Ordinary Hazard - All storage rooms and mechanical rooms hydraulically calculated to deliver 0.15 gpm per square foot over the most remote 1,500 square feet.
 - Ordinary Hazard Group II - The stage area hydraulically calculated to deliver 0.2 gpm per square foot over the most remote 1,500 square feet.

PLUMBING

A. General

- 1) A major renovation to the existing building and a new addition would require that all existing plumbing systems be modified to comply with current codes.
- 2) All existing plumbing systems, or portions thereof, that were capable of remaining and being maintained should also be removed or modified to meet the requirements of any planned renovations.
- 3) All existing plumbing systems to be removed as part of the select building demolition should be removed back to the nearest point of connection of their respective system.
- 4) New above ground sanitary waste piping should be installed throughout remaining portions of the existing building to replace the existing older system that is currently in place.
- 5) New above ground domestic hot and cold water piping should be installed throughout remaining portions of the existing building to replace the existing older

systems that are currently in place.

- 6) Install new waste outlets as required to accept HVAC condensate and sprinkler waste discharge.

B. Plumbing Fixtures

- 1) All water closets, urinals and lavatories in the existing building should be replaced. Water closets should be replaced with new dual flush valve fixtures. A full flush will discharge at a rate of 1.6 gallons per flush (gpf). When only flushing liquid waste and paper, the reduced flush rate will be 1.1 gpf. Urinals should be replaced with 0.25 gpf fixtures. Lavatories should be replaced and new low-flow type faucets (0.5 gpm or less) added with temperature limit stops which will deliver water with a maximum temperature of 110°F. ADA requirements for fixture spacing, mounting heights and protection of any exposed piping will also need to be met during a renovation to the bathrooms.
- 2) The state plumbing code dictates the number of plumbing fixtures required in a building. Minimum plumbing fixture requirements will be determined once the total occupancy numbers for the building have been established based on the final plan layout.

C. Domestic Cold-Water System

- 1) The existing 4" domestic water line that enters the building is the original service to the building. Although the existing 4" domestic water service appears to be adequate to meet the current building water requirements, consideration should be given to replacing it with a new 6" dedicated domestic water service. The installation of a water meter on the new service will be provided to allow the town to be able to monitor water usage as may be required.

D. Domestic Hot Water System

- 1) The water heaters serving the building are original to the building and should be replaced. It is recommended to install new gas-fired storage type water heaters in the same locations as the existing. It is also recommended that redundant water heaters be included in the new system design. This would allow the system to continue to deliver hot water if one of the water heaters were to need service. The water heaters would be sized to provide hot water to all fixtures within the building.

E. Sanitary Waste and Vent System

- 1) The sanitary system in the existing building appears to be in fair to poor condition and replacement is required because of a possible fixture count change and probable relocation of fixtures in the renovation plan. Any new piping would connect to the existing waste and vent piping at a convenient point to be determined by further investigation.

F. Storm Drainage

- 1) The existing storm drainage system in the existing building appears to be in fair to poor condition. Replacement of the storm drain piping system is recommended.
- 2) New roof drains and storm water piping system will need to be added to the new addition. Discharge of the storm water will be coordinated with the civil engineer.
- 3) Backwater valves should be installed on all interior storm system piping originating from roof drains on lower roof sections as per the state plumbing code.

G. Natural Gas System

- 1) Currently the existing gas service doesn't appear to be adequate to meet the school's demand requirements. Gas piping should be reconfigured to serve all mechanical equipment that will require gas. Any new gas-fired kitchen equipment can be connected to the new capped gas service located just outside of the building near the kitchen. Final gas loads should be calculated to determine if the existing gas service needs to be upgraded to meet the new building demands.

H. Insulation

- 1) The pipe insulation that currently exists should be tested to determine the extent of any hazardous materials. The insulation should be removed and replaced with new fiberglass insulation with an all service jacket. Domestic water and horizontal storm drainage piping that is not currently insulated should have new insulation installed.
- 2) Insulation will also need to be provided on waste piping and water piping below handicapped lavatories and sinks.

I. Hose Bibbs and Wall Hydrants

- 1) During any renovation done to the building the existing hose bibbs in the toilet rooms should be removed and new wall mounted hose bibbs with an integral vacuum breaker and removable tee handle installed. In the new addition, hose bibbs will be provided in all bathrooms and mechanical spaces. New wall hydrants will be provided on the exterior of the building and their locations coordinated with the architect.

J. Cross Connection Control

- 1) The existing hose bibbs and wall hydrants do not have backflow prevention devices. Backflow devices should be integral to all new hose bibbs and wall hydrants installed during the renovation.
- 2) All service sink faucets installed during a renovation and in the new addition will also be supplied with integral vacuum breakers.
- 3) A new reduced pressure backflow preventer assembly should also be installed on the

existing 4" domestic water service (or on a new service if this is the preferred option) to further protect the town's domestic water system.

K. Boys, Girls and Pool Locker Room/Shower Areas

- 1) All locker room/shower areas should be completely renovated. Floor drains within any new shower stalls should be arranged so that the water from one shower does not enter the adjacent shower area. New shower valves should be installed with code compliant shower heads. Master mixing valves should be installed at each shower location. Valves shall be provided with limiting stops set to a maximum water temperature delivery of 112°F.
- 2) All plumbing fixtures will be replaced as discussed in the "Plumbing Fixture" section of this report.

L. Kitchen

- 1) If kitchen renovations include the addition of new or replaced gas-fired equipment this equipment can be connected to the new gas service located outside the building as noted above.
- 2) Any new gas equipment would be fed by gas piping connecting to a master shut-off valve that would be interconnected with the kitchen hood and exhaust system. Gas would only operate when the kitchen hood exhaust system is operating.
- 3) Additional floor sinks and/or floor drains would be added to any new equipment design to ensure proper drainage throughout the kitchen.
- 4) A new three-compartment sink with new grease trap should be included per state code requirements.
- 5) A new dishwasher with accompanying grease trap should also be provided per state code requirements.
- 6) A new exterior grease trap, located underground, outside of the kitchen portion of the building will also need to be considered as part of any new design or renovation to the kitchen. Venting of this exterior grease trap should enter back into the school building and exit to the atmosphere above the roof.

M. Science Wing

- 1) If the existing science wing is to be renovated in its current location, all existing lab sinks, and faucets should be replaced with new fixtures. Faucets should be low-flow type fixtures with a maximum delivery rate of 0.5 gpm. These fixtures connect to a separate lab waste system and this system can remain.
- 2) The existing lab waste system resides in a storage closet and can remain. However, this system does not include secondary containment around it, thus allowing any

- potential chemical spill to leak out into the surrounding corridors. Consideration should be given to providing a secondary containment curb of some sort in this room.
- 3) The existing protected hot and cold water systems serving the science wing should also be removed in their entirety. New protected hot and cold water systems should be created to serve the renovated science wing by installing reduced pressure backflow preventers on the hot and cold water piping designated to serve this area.
 - 4) New gas piping to each science classroom should feed an emergency shut-off valve located in a valve box on the wall near the classroom exit door. Piping from this valve would then feed any gas turrets within that classroom only.
 - 5) New emergency showers and eyewashes should be installed in each science classroom. A new tempered water system should be created to serve these fixtures. A new gas-fired water heater should be installed somewhere within the science wing and be dedicated to the new tempered water system. Water should be stored at 140°F and a master mixing valve should be mounted nearby and set to deliver tempered water to this wing at approximately 70°F-90°F per state plumbing code requirements. A tempered water return system will also be required to keep this system from becoming stagnant per state plumbing code requirements as well.

N. Pipe Materials

- 1) Below grade sanitary and storm drainage piping will be service weight bell and spigot cast iron with neoprene gasketed joints. Above grade sanitary and storm piping will be service weight hubless cast iron with Massachusetts approved stainless steel and neoprene no-hub connector assemblies.
- 2) All water supply and return piping shall be Type "L" copper.
- 3) All water supply and return piping insulation shall be in accordance with the Energy Code.
- 4) All gas piping will be threaded black steel piping up to 2 ½" size. Piping 3" and larger shall be welded.

ELECTRICAL

A. Power Distribution

- 1) The existing 3000A, 277/480V, 3 ϕ switchboard was replaced in 1997 and is sufficient for a renovation addition project. Aside from the main switchboard all other downstream distribution should be replaced. New electrical branch circuit panelboards will be provided in dedicated electrical rooms. Lighting loads, the elevator, large mechanical equipment and large kitchen electrical loads will be connected to 277/480V panelboards and all other loads will be connected to 120/208V panelboards.

B. Auxiliary Power Distribution

- 1) The existing diesel generator system is not sufficient for the renovation addition project. A new diesel generator system will provide backup power to optional standby and emergency distribution loads. The size of the generator will be approximately 200kW. The generator will be pad mounted on the exterior of the building. A dedicated 2hr emergency electrical room will be provided for the emergency lighting panelboards and automatic transfer switch. The optional standby panel and ATS can be located in the main electrical room.
- 2) It is estimated that the following items will be connected to the generator system.
 - a. Boilers and pumps for heating system to freeze protect the building.
 - b. Emergency lighting.
 - c. IT rooms (power & A/C) including network, door access, intrusion detection, CCTV, PA, telephones.
 - d. Fire alarm.
 - e. Kitchen freezers/coolers.
 - f. Sewage ejector pumps.
 - g. Hardwired flushometers.
- 3) An emergency power off (EPO) button will be located at the fire department responding area to de-energize generator.
- 4) An exterior mounted manual transfer switch will be provided to bypass permanent generator and allow connection of a temporary generator.
- 5) The generator will have a radiator mounted load bank to ensure the generator is exercised with a load at least 30% of rating.

C. Lighting

- 1) The new lighting systems will consist of energy efficient LED fixtures using the suggested below approaches:

Location	Illumination Level	Notes
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Location	Illumination Level	Notes
Corridors	5-10 FC	1'x4' or 2'x 2' recessed "indirect" style LED fixtures.
Private offices, small conference rooms	35-45 FC	Suspended direct/indirect LED fixtures.
Gymnasium	35-45 FC	High bay linear LED fixtures.
Auditorium	10-20FC	Recessed downlighting or suspended cylinders between clouds connected to a theatrical dimming system
Auditorium Performance	N/A	Theatrical lighting and border lights connected to a theatrical dimming system
Classrooms	30-35 FC	Suspended direct/indirect LED fixtures.
Bathrooms	10-20 FC	LED Slot fixtures over mirror supplemented with recessed LED downlights
Mechanical and electrical rooms	30+ FC	LED strips, pendant or surface.
Stairway	10-15 FC	Wall-mounted direct/indirect LED fixtures, high impact polycarb lens.

- 2) All lighting will be automatically controlled using a combination of ceiling occupancy sensors in classrooms, offices and smaller spaces and network programmable relays for larger spaces such as corridors and gymnasium. Perimeter spaces will have closed loop light level sensors 12' from window for 2 zone dimming control of primary and secondary daylight zones. Selected fixtures in egress paths will be connected to emergency panels.
- 3) Performance dimming systems will be provided for the auditorium.

D. Fire Alarm

- 1) The existing fire alarm system is functional but is not adequate for a renovation and addition project. The system should be replaced with a new addressable voice evacuation fire alarm control panel, automatic smoke and heat detectors, manual pull stations, audible and visible alarm signals, elevator recall, connections to automatic fire suppression systems, and connection to the Fire Department. The new fire alarm system will report to the Fire Department through a radio master box.

- 2) A remote voice evacuation panel will be provided for the auditorium.
- 3) The fire alarm control panel will be located in the main electric room with an LCD remote annunciator located at the Main entrance where the fire department responds to an alarm condition.
- 4) Audio speakers and visual high intensity strobes alarm devices will be installed per NFPA-72.
- 5) Since the building will be covered by a sprinkler system, full automatic detection is not required. Smoke detectors will be provided only where required by Code. Fire suppression systems shall be tied to the fire alarm control panel. Interface & control modules will be provided for elevator recall, air handling unit shut down, gas shut off, door hold release, door hardware bypass and any other systems requiring control under an alarm condition.
- 6) The building will be provided with a Bi-Directional Amplifier (BDA) system for emergency responders. The BDA system will have capabilities to boost fire department and police department radio communications within the building.

E. Telephone/Data

- 1) A new backbone system consisting of fiber optic cables and copper cables will be extended to the main telephone/data room (MDF) and all intermediate closets (IDF). All horizontal data, telephone, and CATV cabling will be extended from MDF and IDF rooms. The MDF and IDF rooms will be provided with 19" racks, fiber optic and unshielded twisted pair (UTP) patch panels. Ladder style cable tray will be provided for organizing cabling distribution.
- 2) All wiring, outlets and terminations will be installed to comply with EIA/TIA 568.
- 3) Horizontal cabling will consist of Category 6 UTP plenum rated cabling for telephone and data connected to modular telephone and data jacks. While CATV service will be brought to the building, horizontal distribution outlets is not anticipated at this time. In general, cabling will be extended in conduit from outlets to the ceiling space, but will be routed exposed above ceiling supported by J hooks.
- 4) Wireless Access Point points will be provided throughout building wide wireless network access.

F. Public Address/Class Change/Master Clock

- 1) The new public address system will consist of amplifiers, ceiling mounted speakers located throughout the corridors, classrooms, offices and gymnasium. The paging system will be accessed through the telephone system, and "all call" paging will be accomplished via telephone handsets. The new telephone switch (PBX) and PA control console will be located in the MDF. The PA system can also incorporate talk back speakers if desired.

- 2) A master clock system will be provided and be connected to the PA system for programmed class change signals. Clocks will be provided in all classrooms, shared offices, conference rooms and administration rooms.

G. CCTV/Intrusion Detection/Door Access

- 1) New security systems will consist of the following:
 - a. Intrusion detection for the exterior doors via door contacts
 - b. Intrusion detection in all first floor and basement corridors via motion detectors
 - c. Card access control points for main entrance.
 - d. CCTV surveillance system via POE (Power Over Ethernet) cameras connected to a central digital video recorder system in the main telecoms room.
- 2) The security video recording system shall be capable of recording a minimum of 30 days archive capacity. Cameras are to be provided internally at each entrance location and each stairwell and elevator lobby. Cameras externally will cover vehicle entrances, mains entrances as well as the 4 corners of the building.
- 3) This security access control and intrusion detection system will consist of a security system control panel, system operator keypads, door contact switches, and motion detectors. System shall transmit an alarm signal to the central station upon detection of an unauthorized building entry. The card access system will allow multiple levels of authority.

H. Audio Visual systems

- 1) Classrooms will have wall mounted short throw data projector with Smartboard.
- 2) Flat panel visual displays will be provided throughout the school, such as in corridors, media center, cafeteria and other break out areas, for messaging and school branding.
- 3) A performance sound system will be provided for the auditorium.
- 4) Local sound systems will be provided for the gymnasium, band, cafeteria and other large gathering areas.

OPTION N: NEW CONSTRUCTION

FIRE PROTECTION

A. General

- 1) Construction of a new school will require a new sprinkler system will be installed. The sprinkler system will include the following features.
- B. A new building will require a complete sprinkler system installation per the Massachusetts State Building Code, Chapter 34. The Fire Protection system would be designed to meet the requirements of NFPA 13 "Installation of Sprinkler Systems" and Chapter 9 of the Massachusetts State Building Code, 780 CMR, "Fire Protection Systems".
- C. A new dedicated 8" sprinkler service, connected to the town water system in the street, should be brought into the building. The exact entrance location will need to be coordinated with the Architect. As the sprinkler service enters the building a Massachusetts approved double check valve backflow preventer assembly, complete with OS&Y valves on the inlet and outlet, will be required.
- D. The building will be protected by three types of sprinkler systems and each will protect the following areas:
- Wet sprinkler system – base building system
 - Dry sprinkler system – to protect areas subject to freezing; i.e. loading docks and outdoor walkways covered by building overhangs, etc.
 - Pre-action sprinkler system – to protect the MDF room
- E. The alarm check valves for the wet and dry sprinkler systems will be installed on separate risers after the double check valve assembly in the water service entrance room. The alarm check valves will be complete with standard trim packages including pressure gauges, retard chamber, 2" main drain, water flow indicator and supervisory switches. The dry alarm valve will be supplied with an air compressor and associated appurtenances.
- F. Fire protection piping main feeds to the fire protection systems from the alarm check valves will extend out to the building through the first-floor ceiling space. The piping will then extend to all areas of the building to provide complete sprinkler cover age throughout. Potential sprinkler zoning will be coordinated with any new fire wall layouts.
- G. The fire protection design will include a combination standpipe system located in all egress stairways. These standpipes will feed the sprinkler system as well as provide a fire department hose connection at each level of the building.
- H. The sprinkler system standpipes will feed the sprinkler system at each floor level. Each floor will be a separate zone. The floor control valve assembly at the riser that feeds each floor will contain a flow switch and tamper switch. An inspector's test connection will be installed on the floor control valve station. If an auditorium stage is greater than 1,000

square feet, fire department valves will be required on each side of the stage.

- I. Sprinkler heads installed in gypsum or suspended ceilings will be glass bulb, quick response, chrome plated semi-recessed type. In areas without ceilings, brass upright sprinklers will be installed. Where upright sprinklers are subject to potential damage, such as in storage rooms, protective cages will be installed. In areas where it is not possible to run piping above the ceiling the use of sidewall sprinkler heads would be recommended.
- J. The MDF room will be protected by a pre-action sprinkler system. A pre-action alarm valve with all required appurtenances will need to be located next to or near the MDF. Piping from this valve will extend into the room and connect to sprinkler heads. The piping system will be filled with compressed air. Once a sprinkler head activates, the air will discharge and open the pre-action alarm valve to allow water into the system and through the open sprinkler head.
- K. Sprinkler piping for the system will be as follows:
 - Piping 2" and smaller shall be schedule 40 black steel with cast iron fittings with threaded joints.
 - Piping 2 1/2" and larger shall be Schedule 10 black steel with malleable iron fittings with rolled grooved joints.
 - Dry sprinkler systems will be supplied with Schedule 10 galvanized piping throughout.
- L. All tamper and flow switches installed on the sprinkler system will be connected to the buildings fire alarm system. Each tamper and flow switch will be a dedicated point on the fire alarm system.
- M. The exterior fire department connection for the sprinkler system will be a flush type mounted on the exterior of the building within 100' of a fire hydrant. The exact type of connection (storz or siamese) will be coordinated with the Sharon Fire Department. Final location and number of fire department connections will also be coordinated with the Sharon Fire Department.
- N. The hydraulic requirements for the building will be as follows:
 - Light Hazard - All offices, corridors and the auditorium hydraulically calculated to deliver 0.1 gpm per square foot over the most remote 1,500 square feet.
 - Ordinary Hazard - All storage rooms and mechanical rooms hydraulically calculated to deliver 0.15 gpm per square foot over the most remote 1,500 square feet.
 - Ordinary Hazard Group II - The stage area hydraulically calculated to deliver 0.2 gpm per square foot over the most remote 1,500 square feet.

PLUMBING

A. General

- 1) The new high school building will be provided with the following plumbing systems.

B. Plumbing Fixtures

- 1) Plumbing fixtures will be new high efficiency, water conserving type, and wall-hung for optimum sanitary purposes. Automatic hard-wired flushometer valves and lavatory faucets are to be provided.
- 2) Fixture flow rates should be provided as follows:
 - Water closets (dual flush type) at 1.6 gpf or 1.1 gpf
 - Urinals - 0.25 gpf
 - Lavatories - 0.5 gpm or less
 - Showers – 1.5 gpm
- 3) The state plumbing code dictates the number of plumbing fixtures required in a building. Minimum plumbing fixture requirements will be determined once the total occupancy numbers for the building have been established based on the final plan layout.

C. Domestic Cold Water

- 1) Domestic cold water connecting to all fixtures as required. Domestic cold-water service piping shall extend 10'-0" beyond the building exterior for connection to the site water distribution piping system.

D. Domestic Hot Water

- 1) Domestic hot water will be produced and stored in two high-efficiency condensing type gas-fired domestic water storage heaters with a single code-compliant insulated tank sized to meet the highest hourly demand. There will be two insulated distribution and recirculation loops for domestic hot water; one for the kitchen (140°F) and a main building loop (125°F). All lavatories qualifying as "public" lavatories will be provided with individual mixing valves below the fixture to reduce hot water discharge temperatures to 110°F maximum per code. Mixing valves for hand sinks in the kitchen shall reduce discharge temperature to 120°F maximum.

E. Sanitary Waste & Vent System

- 1) Sanitary waste and vent connecting to all fixtures as required. Sanitary waste service piping shall extend 10'-0" beyond the building exterior for connection to the site sanitary piping system.

F. Storm Drainage

- 1) Roof drainage will be a combination of roof drains with internal roof drain piping serving flat roofs, and gutters and downspouts serving sloped roof portions of the building. Internal roof drain piping will convey storm water to underground piping and exit the building through foundation walls to connection with site storm drainage

piping. The Plumbing sub-contractor will be responsible for underground service piping to a point 10'-0" beyond the building exterior. Horizontal roof leaders above grade within the building shall be insulated.

- 2) Waste outlets to accept HVAC condensate and sprinkler discharge shall be provided as needed and connect to the storm water piping system.

G. Natural Gas System

- 1) Natural gas service provided by the local gas company serving the town. The gas company shall provide the underground service, gas meter and gas regulator. Contractor's work will begin on the discharge side of the gas meter and extend to all equipment requiring natural gas.

H. Hose Bibbs and Wall Hydrants

- 1) Freeze proof wall hydrants shall be provided around the perimeter of the building.
- 2) Hose bibbs will be provided in all bathrooms with more than one flushing fixture and all mechanical spaces and will be provided with cross connection protection.

I. Kitchen

- 1) The cafeteria kitchen is to be provided with all plumbing connections noted on the food service drawings. Piping from the local grease interceptors and from kitchen floor drains subject to the introduction of fats, oil or grease will be by a dedicated grease waste piping system leading to the exterior grease trap. There will be three local grease interceptors; one for the three-compartment pot sink, one for the ware-washing/garbage disposer and one dedicated to automatic dishwasher drainage. The grease waste discharge from these interceptors will be piped to an exterior grease trap.
- 2) Grease waste piping system from the new kitchen to an exterior grease trap located outside of the building. Grease trap vent piping shall enter the new building underground and exit through the roof of the building per state code requirements.

J. Science Labs

- 1) Lab waste and vent connecting to all fixtures as required. Lab waste piping shall discharge into a central acid neutralization system located on the lowest level of the building. System shall monitor and adjust the pH level of the waste and then discharge this waste to the sanitary waste piping system outside the building, as part of the underground system.
- 2) Non-potable (protected) hot and cold water systems shall be created to serve the new science labs by installing reduced pressure backflow preventers on the hot and cold water piping designated to serve this area.

- 3) New emergency showers and eyewashes should be installed in each science classroom. A new tempered water system should be created to serve these fixtures. A new gas-fired water heater should be installed somewhere within the science wing and be dedicated to the new tempered water system. Water should be stored at 140°F and a master mixing valve should be mounted nearby and set to deliver tempered water to this wing at approximately 70°F-90°F per state plumbing code requirements. A tempered water return system will also be required to keep this system from becoming stagnant per state plumbing code requirements as well.
- 4) A dedicated gas piping main will serve the new science labs of the building. Gas will be supplied to each classroom. Each classroom will be equipped with an emergency gas shut-off valve located in a valve box near the exit door of the classroom. Gas will distribute from this location to bench or countertop gas turrets as required. Each science classroom will also be supplied with one emergency shower/eyewash unit as required by code. These units will be supplied with tempered water as required by code. Floor drains with trap primer connections will be provided under each shower/eyewash unit to protect against water damage when in use or due to accidental discharge.

K. Pipe Materials

- 1) Below grade sanitary and storm drainage piping will be service weight bell and spigot cast iron with neoprene gasketed joints. Above grade sanitary and storm piping will be service weight hubless cast iron with Massachusetts approved stainless steel and neoprene no-hub connector assemblies.
- 2) All water supply and return piping shall be Type "L" copper.
- 3) All water supply and return piping insulation shall be in accordance with the Energy Code.
- 4) All gas piping will be threaded black steel piping up to 2 1/2" size. Piping 3" and larger shall be welded.

ELECTRICAL

A. Power Distribution

- 1) The new electrical service will be secondary metered. A utility owned primary feeder will extend from Pond St to a pad mounted utility owned transformer. The project will provide the transformer pad and two empty 4" conduits from the pad to a utility pole on Pond St. The Utility company will provide the primary feeder conductors and the transformer.
- 2) The new secondary distribution system for the new building will consist of a 3000A, 277/480V, 3 ϕ , 4w switchboard with new underground secondary service conductors extended to a new utility transformer. New electrical branch circuit panelboards will be

provided in dedicated electrical rooms. Lighting loads, the elevator, large mechanical equipment and large kitchen electrical loads will be connected to 277/480V panelboards and all other loads will be connected to 120/208V panelboards.

B. Auxiliary Power Distribution

- 1) A new diesel generator system will provide backup power to optional standby and emergency distribution loads. The size of the generator will be approximately 200kW. The generator will be pad mounted on the exterior of the building. A dedicated 2hr emergency electrical room will be provided for the emergency lighting panelboards and automatic transfer switch. The optional standby panel and ATS can be located in the main electrical room.
- 2) It is estimated that the following items will be connected to the generator system.
 - a. Boilers and pumps for heating system to freeze protect the building.
 - b. Emergency lighting.
 - c. IT rooms (power & A/C) including network, door access, intrusion detection, CCTV, PA, telephones.
 - d. Fire alarm.
 - e. Kitchen freezers/coolers.
 - f. Sewage ejector pumps.
 - g. Hardwired flushometers.
- 3) An emergency power off (EPO) button will be located at the fire department responding area to de-energize generator.
- 4) An exterior mounted manual transfer switch will be provided to bypass permeant generator and allow connection of a temporary generator.
- 5) The generator will have a radiator mounted load bank to ensure the generator is exercised with a load at least 30% of rating.

C. Lighting

- 1) The new lighting systems will consist of energy efficient LED fixtures using the suggested below approaches:

Location	Illumination Level	Notes
Corridors	5-10 FC	1'x4' or 2'x 2' recessed "indirect" style LED fixtures.
Private offices, small conference rooms	35-45 FC	Suspended direct/indirect LED fixtures.
Gymnasium	35-45 FC	High bay linear LED fixtures.

Location	Illumination Level	Notes
Auditorium	10-20FC	Recessed downlighting or suspended cylinders between clouds connected to a theatrical dimming system
Auditorium Performance	N/A	Theatrical lighting and border lights connected to a theatrical dimming system
TV Studio	20FC	LED wraparound work lights
TV Studio Performance	N/A	Theatrical lighting attached to Studio Pipe grid structure and connected to TV studio dimming systme
Classrooms	30-35 FC	Suspended direct/indirect LED fixtures.
Bathrooms	10-20 FC	LED Slot fixtures over mirror supplemented with recessed LED downlights
Mechanical and electrical rooms	30+ FC	LED strips, pendant or surface.
Stairway	10-15 FC	Wall-mounted direct/indirect LED fixtures, high impact polycarb lens.

- 2) All lighting will be automatically controlled using a combination of ceiling occupancy sensors in classrooms, offices and smaller spaces and network programmable relays for larger spaces such as corridors and gymnasium. Perimeter spaces will have closed loop light level sensors 12' from window for 2 zone dimming control of primary and secondary daylight zones. Selected fixtures in egress paths will be connected to emergency panels.
- 3) Performance dimming systems will be provided for the auditorium and TV studio for production.

D. Fire Alarm

- 1) The new system will consist of an addressable voice evacuation fire alarm control panel, automatic smoke and heat detectors, manual pull stations, audible and visible alarm signals, elevator recall, connections to automatic fire suppression systems, and connection to the Fire Department. The new fire alarm system will report to the Fire Department through a radio master box.
- 2) A remote voice evacuation panel will be provided for the auditorium.

- 3) The fire alarm control panel will be located in the main electric room with an LCD remote annunciator located at the Main entrance where the fire department responds to an alarm condition.
- 4) Audio speakers and visual high intensity strobes alarm devices will be installed per NFPA-72.
- 5) Since the building will be covered by a sprinkler system, full automatic detection is not required. Smoke detectors will be provided only where required by Code. Fire suppression systems shall be tied to the fire alarm control panel. Interface & control modules will be provided for elevator recall, air handling unit shut down, gas shut off, door hold release, door hardware bypass and any other systems requiring control under an alarm condition.
- 6) The building will be provided with a Bi-Directional Amplifier (BDA) system for emergency responders. The BDA system will have capabilities to boost fire department and police department radio communications within the building.

E. Telephone/Data

- 1) A new backbone system consisting of fiber optic cables and copper cables will be extended to the main telephone/data room (MDF) and all intermediate closets (IDF). All horizontal data, telephone, and CATV cabling will be extended from MDF and IDF rooms. The MDF and IDF rooms will be provided with 19" racks, fiber optic and unshielded twisted pair (UTP) patch panels. Ladder style cable tray will be provided for organizing cabling distribution.
- 2) All wiring, outlets and terminations will be installed to comply with EIA/TIA 568.
- 3) Horizontal cabling will consist of Category 6 UTP plenum rated cabling for telephone and data connected to modular telephone and data jacks. While CATV service will be brought to the building, horizontal distribution outlets is not anticipated at this time. In general, cabling will be extended in conduit from outlets to the ceiling space, but will be routed exposed above ceiling supported by J hooks.
- 4) Wireless Access Point points will be provided throughout building wide wireless network access.

F. Public Address/Class Change/Master Clock

- 1) The new public address system will consist of amplifiers, ceiling mounted speakers located throughout the corridors, classrooms, offices and gymnasium. The paging system will be accessed through the telephone system, and "all call" paging will be accomplished via telephone handsets. The new telephone switch (PBX) and PA control console will be located in the MDF. The PA system can also incorporate talk back speakers if desired.
- 2) A master clock system will be provided and be connected to the PA system for

programmed class change signals. Clocks will be provided in all classrooms, shared offices, conference rooms and administration rooms.

G. CCTV/Intrusion Detection/Door Access

- 1) New security systems will consist of the following:
 - a. Intrusion detection for the exterior doors via door contacts
 - b. Intrusion detection in all first floor and basement corridors via motion detectors
 - c. Card access control points for main entrance.
 - d. CCTV surveillance system via POE (Power Over Ethernet) cameras connected to a central digital video recorder system in the main telecoms room.
- 2) The security video recording system shall be capable of recording a minimum of 30 days archive capacity. Cameras are to be provided internally at each entrance location and each stairwell and elevator lobby. Cameras externally will cover vehicle entrances, mains entrances as well as the 4 corners of the building.
- 3) This security access control and intrusion detection system will consist of a security system control panel, system operator keypads, door contact switches, and motion detectors. System shall transmit an alarm signal to the central station upon detection of an unauthorized building entry. The card access system will allow multiple levels of authority.

H. Audio Visual systems

- 1) Classrooms will have wall mounted short throw data projector with Smartboard.
- 2) Flat panel visual displays will be provided throughout the school, such as in corridors, media center, cafeteria and other break out areas, for messaging and school branding.
- 3) A performance sound system will be provided for the auditorium.
- 4) Local sound systems will be provided for the gymnasium, band, cafeteria and other large gathering areas.
- 5) The TV studio will have production sound intercom system.

OPTION R1: CODE UPGRADES

FIRE PROTECTION

- A. In general, the fire protection system is in good condition.
- B. The existing double check valve backflow preventer assembly (DCVA) should have service performed on it to remove the paint spill that has clogged one of the test ports. Once complete, the equipment should be retested and approved by the town fire department.
- C. Although some sprinkler heads show signs of aging, replacement need only happen if relocation of a head may be required due to space planning changes. Yearly testing of the sprinkler zones and the fire alarm system should allow for early detection of any future problems.

PLUMBING

A. Plumbing Fixtures

- 1) All water closets, urinals and lavatories in the existing building appear to be in fair condition. Removal and replacement of fixtures is only required in approximately 30% of the total. If replaced, water closets should be replaced with new dual flush valve fixtures. A full flush will discharge at a rate of 1.6 gallons per flush (gpf). When only flushing liquid waste and paper, the reduced flush rate will be 1.1 gpf. Urinals should be replaced with 0.25 gpf fixtures. Lavatories should be replaced and new low-flow type faucets (0.5 gpm or less) added with temperature limit stops which will deliver water with a maximum temperature of 110°F. ADA requirements for fixture spacing, mounting heights and protection of any exposed piping will also need to be met during any renovation to the bathrooms.
- 2) The state plumbing code dictates the number of plumbing fixtures required in a building. Minimum plumbing fixture requirements should be re-verified once the total occupancy numbers for the building have been established based on the final plan layout.

B. Domestic Cold Water System

- 1) The 4" water line that enters the building is the original service to the building. Although the 4" line which feeds the domestic water service appears to be adequate to meet the current building water requirements, this would be a good time to replace the water meter and extend new piping throughout the building. The cold water piping observed appears to be original to the building and is in fair to poor condition. Valves observed on this system also appeared to be older and in poor condition. The ability of these valves to operate properly if needed appears doubtful. Replacement of the cold water piping system and valves is recommended.

C. Domestic Hot Water System

- 1) The existing water heaters serving the building appear to be in good condition at this time and can remain. Like the domestic old water system, the hot water piping observed appears to be original to the building and is in fair to poor condition. Valves observed on this system also appeared to be older and in poor condition. The ability of these valves to operate properly if needed appears doubtful. Replacement of the hot water piping system and valves is recommended.

D. Sanitary Waste and Vent System

- 1) The existing sanitary waste and vent system in the existing building appears to be in fair to poor condition. Replacement of the sanitary waste and vent piping system is recommended.

E. Storm Drainage

- 1) The existing storm drainage system in the existing building appears to be in fair to poor condition. Replacement of the storm drain piping system is recommended.
- 2) Backwater valves should be installed on all interior storm system piping originating from roof drains on lower roof sections as per the state plumbing code.

F. Natural Gas System

- 1) Based on reports from building personnel, the existing gas service may not be adequate to meet the current demands of the school. Gas pressure issues have been reports at the science wing. It is recommended that a current gas load survey be conducted to determine the needs for the school and then have those results shared with the local gas company to determine if the existing gas service needs to be upgraded.

G. Insulation

- 1) The insulation that currently exists should be tested to determine the extent of any hazardous materials. The insulation should be removed and replaced with new fiberglass insulation with an all service jacket. Piping to remain, which is not currently insulated, should have new insulation installed. All new domestic water and horizontal storm water piping will be insulated.
- 2) Insulation will also need to be provided on waste piping and water piping below handicapped lavatories and sinks.

H. Hose Bibbs and Wall Hydrants

- 1) During any renovation done to the building, the existing hose bibbs in the toilet rooms should be removed and new wall mounted hose bibbs with an integral vacuum breaker and removable tee handle installed. New wall hydrants should be provided on the exterior of the building as well.

I. Cross Connection Control

- 1) As stated previously, the existing hose bibbs and wall hydrants do not have backflow prevention devices. Backflow devices will be integral to all new hose bibbs and wall hydrants installed during the renovation.
- 2) All service sink faucets installed during a renovation will also have integral vacuum breakers.
- 3) A new reduced pressure backflow preventer assembly should also be installed on the existing 4" domestic water service to further protect the town's domestic water system.

J. Boys, Girls and Pool Locker Room/Shower Areas

- 1) All locker room/shower areas should be completely renovated. Floor drains within any new shower stalls should be arranged so that the water from one shower does not enter into the adjacent shower area. New shower valves should be installed with code compliant shower heads. Master mixing valves should be installed at each shower location. Valves shall be provided with limiting stops set to a maximum water temperature delivery of 112°F.
- 2) All plumbing fixtures within the locker room areas (water closets, urinals, lavatories, faucets etc.) should be replaced.

K. Kitchen

- 1) If kitchen renovations include the addition of new or replaced gas-fired equipment, this equipment can be connected to the existing gas service located outside the building as noted above. These gas loads should be included in the calculations for determining the adequacy of the existing gas service.
- 2) The interior floor-mounted grease traps serving the three-compartment sink and the dishwasher should be removed and replaced with new.
- 3) The existing fixtures and floor drains do not appear to be connected to a separate grease waste piping system. An exterior grease trap also doesn't exist. These fixtures should be re-piped to connect to a new underslab grease waste piping system and this system should discharge to an exterior grease trap.
- 4) As stated above, a new exterior grease trap, located underground, outside of the kitchen portion of the building will also need to be considered as part of any new design or renovation to the kitchen. Venting of this exterior grease trap should enter back into the school building and exit to the atmosphere above the roof.

L. Science Wing

- 1) If the existing science wing is to be renovated in its current location, all existing lab sinks and faucets should be replaced with new fixtures. Faucets should be low-flow

- type fixtures with a maximum delivery rate of 0.5 gpm. These fixtures connect to a separate lab waste system and this system can remain.
- 2) The existing lab waste system resides in a storage closet and can remain. However, this system does not include secondary containment around it, thus allowing any potential chemical spill to leak out into the surrounding corridors. Consideration should be given to providing a secondary containment curb of some sort in this room.
 - 3) The existing protected hot and cold water systems serving the science wing appear to be in good condition. These can remain.
 - 4) The existing main gas piping system serving the science wing could possibly be re-used. Gas piping to each science classroom is fed after an emergency shut-off valve located in a valve box on the wall near the classroom exit door. These can remain unless the labs undergo full renovation. In this case, these master shut-off valves should be relocated near the lab's exit door.
 - 5) All existing emergency showers in the science wing and connections to the cold water system should be removed. A new tempered water system should be created to serve the science wing. A new gas-fired water heater should be installed somewhere within the science wing and be dedicated to the new tempered water system. Water should be stored at 140°F and a master mixing valve should be mounted nearby and set to deliver tempered water to this wing at approximately 70°F-90°F per state plumbing code requirements.

M. Pipe Materials

- 1) Below grade sanitary and storm drainage piping will be service weight bell and spigot cast iron with neoprene gasketed joints. Above grade sanitary and storm piping will be service weight hubless cast iron with Massachusetts approved stainless steel and neoprene no-hub connector assemblies.
- 2) All water supply and return piping shall be Type "L" copper.
- 3) All water supply and return piping insulation shall be in accordance with the Energy Code.
- 4) All gas piping will be threaded black steel piping up to 2 ½" size. Piping 3" and larger shall be welded.

ELECTRICAL

A. Power Distribution

- 1) Under a 1997 project, a 3000A, 120/208V, 3 ϕ , 4w switchboard and several distribution panels were installed. The panels installed in 1997 feed a large number of original 1950's panelboards. While the switchboard and equipment installed in 1997 project are in good condition and capable of long term operation, the original 1950's panelboards, feeders and circuiting should be replaced. Approximately 60% of the existing distribution system should be replaced.

B. Auxiliary Power

- 1) A generator system was installed in the 1997. The system has separate distribution systems for emergency and optional standby loads as required by Code. The system and distribution is in good working condition; however, it has been reported that the generator system. The generator should be replaced with a larger 200kW generator. A current code requirement which must be added includes the addition of an exterior manual transformer switch for connection of temporary generator connection.

C. Lighting

- 1) The existing lighting systems consist of retrofitted fixtures over the years which are currently operable although do not provide modern day lighting quality. There are code requirements forcing the replacement of lighting fixtures.
- 2) Existing lighting controls do not meet current codes. To meet current energy code new automatic lighting controls, consisting primarily of occupancy sensors, will be necessary for full automatic control.
- 3) The auditorium's original house and theatrical dimming system has been retrofitted in piecemeal fashion over the years. The existing auditorium dimming system is in poor condition and should be replaced in its entirety.

D. Fire Alarm

- 1) The building has a fire alarm and voice evacuation system installed in 1997. The system is over 20 years old and may need software upgrades to continue operation, but in general is in working condition and meets current code requirements.
- 2) The building does not have a bidirectional amplifier system for emergency responder radio systems required by current code. A BDA system will be required.

E. Security Systems

- 1) Security systems consist of intrusion detection and CCTV surveillance systems. There is not any door access, card reader system. There are not any code requirements for security systems, but these systems are reaching the end of their useful life and should be replaced.

F. Structured Cabling

- 1) Horizontal structured cabling is functional but is not optimal. There are not any code requirements for upgrading the structured cabling so existing systems will remain.

3.7

CONSTRUCTION COST ESTIMATE





PM&C LLC

20 Downer Ave, Suite 1C
Hingham, MA 02043
(T) 781-740-8007
(F) 781-740-1012

PSR Report

**Sharon High School
Design Options**

Sharon, MA

Prepared for:

Tappe Architects, Inc.

March 7, 2019



Sharon High School
Design Options
Sharon, MA

07-Mar-19

PSR Report

MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
OPTION R1 RENOVATION ONLY				
	Sep-20			
RENOVATIONS TO EXISTING SCHOOL		168,422	\$259.57	\$43,716,697
REMOVE HAZARDOUS MATERIALS				\$1,719,300
WWTP Modifications/upgrades				\$450,000
SITEWORK				\$1,030,573
SUB-TOTAL		168,422	\$278.57	\$46,916,570
ESCALATION	6.0%			\$2,814,994
DESIGN AND PRICING CONTINGENCY	12.0%			\$5,967,788
SUB-TOTAL		168,422	\$330.71	\$55,699,352
GENERAL CONDITIONS	45	MTHS	\$160,000	\$7,200,000
GENERAL REQUIREMENTS	4.0%			\$2,227,974
BONDS	1.25%			\$696,242
INSURANCE	1.80%			\$1,184,824
PERMIT				Waived
FEE	2.5%			\$1,675,210
GMP CONTINGENCY	3.0%			\$1,670,981
PHASING PREMIUM				\$2,784,968
MODULAR CLASSROOMS - 18 CLASSROOMS FOR ENTIRE DURATION				\$2,400,000
TOTAL OF ALL CONSTRUCTION		168,422	\$448.51	\$75,539,551



Sharon High School
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Sharon, MA

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PSR Report

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
OPTION AR-1 RENOVATION + ADDITION				
	Sep-20			
RENOVATIONS TO EXISTING SCHOOL		104,442	\$291.14	\$30,407,001
ADDITIONS		145,486	\$303.40	\$44,139,842
PARTIAL DEMOLITION		63,980	\$8.00	\$511,840
REMOVE HAZARDOUS MATERIALS				\$1,719,300
WWTP Modifications/upgrades				\$450,000
SITEWORK				\$8,959,280
SUB-TOTAL		249,928	\$344.85	\$86,187,263
ESCALATION	6.0%			\$5,171,236
DESIGN AND PRICING CONTINGENCY	12%			\$10,963,020
SUB-TOTAL		249,928	\$409.40	\$102,321,519
GENERAL CONDITIONS	36	MTHS	\$160,000	\$5,760,000
GENERAL REQUIREMENTS	4.0%			\$4,092,861
BONDS	1.25%			\$1,279,019
INSURANCE	1.80%			\$2,042,161
PERMIT				Waived
FEE	2.5%			\$2,887,389
GMP CONTINGENCY	3.0%			\$3,069,646
PHASING PREMIUM	4.00%			\$4,092,861
MODULAR CLASSROOMS				NR
TOTAL OF ALL CONSTRUCTION		249,928	\$502.33	\$125,545,456

**Sharon High School**

Design Options

Sharon, MA

07-Mar-19

PSR Report

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
OPTION N-4 NEW BUILDING				
	Sep-20			
NEW BUILDING		240,874	\$305.06	\$73,481,470
DEMOLISH EXISTING SCHOOL		168,422	\$7.00	\$1,178,954
REMOVE HAZARDOUS MATERIALS				\$1,719,300
WWTP Modifications/upgrades				\$450,000
SITEWORK				\$10,236,987
SUB-TOTAL		240,874	\$361.46	\$87,066,711
ESCALATION - (assumed 3% PA)	6.0%			\$5,224,003
DESIGN AND PRICING CONTINGENCY	12%			\$11,074,886
SUB-TOTAL		240,874	\$429.13	\$103,365,600
GENERAL CONDITIONS	30	MTHS	\$160,000	\$4,800,000
GENERAL REQUIREMENTS	4.0%			\$4,134,624
BONDS	1.25%			\$1,292,070
INSURANCE	1.80%			\$2,044,661
PERMIT				Waived
FEE	2.5%			\$2,890,924
GMP CONTINGENCY	3.0%			\$3,100,968
MODULAR CLASSROOMS				NR
PHASING PREMIUM				Not Required
TOTAL OF ALL CONSTRUCTION		240,874	\$504.95	\$121,628,847

**Sharon High School**

Design Options

Sharon, MA

07-Mar-19

PSR Report

This PSR cost estimate was produced from drawings, narratives and other documentation prepared by Tappe Architects, Inc. and their design team dated February 19, 2019. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

This estimate includes all direct construction costs, Construction Manager's fee and design contingency. Cost escalation assumes start dates indicated and pricing includes escalation to mid-point.

Bidding conditions are expected to be public bidding under Chapter 149a of the Massachusetts General Laws to pre-qualified construction managers, and pre-qualified sub-contractors, open specifications for materials and manufactures.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

ITEMS NOT CONSIDERED IN THIS ESTIMATE

Items not included in this estimate are:

- Land acquisition, feasibility, and financing costs
- All professional fees and insurance
- Site or existing conditions surveys investigations costs, including to determine subsoil conditions
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items as indicated in the estimate
- Utility company back charges, including work required off-site
- Work to City streets and sidewalks, (except as noted in this estimate)
- Construction contingency
- Contaminated soils removal



Sharon High School
Design Options
Sharon, MA

07-Mar-19

PSR Report

GFA 168,422

CONSTRUCTION COST SUMMARY					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
CODE UPGRADES RENOVATION - OPTION R1					
A10 FOUNDATIONS					
A1010	Standard Foundations	\$25,000			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$215,181	\$240,181	1.43	0.5%
B10 SUPERSTRUCTURE					
B1010	Upper Floor Construction	\$0			
B1020	Roof Construction	\$84,000	\$84,000	\$0.50	0.2%
B20 EXTERIOR CLOSURE					
B2010	Exterior Walls	\$628,750			
B2020	Windows/Curtainwall	\$4,440,723			
B2030	Exterior Doors	\$91,480	\$5,160,953	\$30.64	11.8%
B30 ROOFING					
B3010	Roof Coverings	\$3,879,525			
B3020	Roof Openings	\$36,000	\$3,915,525	\$23.25	9.0%
C10 INTERIOR CONSTRUCTION					
C1010	Partitions	\$1,347,376			
C1020	Interior Doors	\$892,110			
C1030	Specialties/Millwork	\$1,757,641	\$3,997,127	\$23.73	9.1%
C20 STAIRCASES					
C2010	Stair Construction	\$20,000			
C2020	Stair Finishes	\$12,574	\$32,574	\$0.19	0.1%
C30 INTERIOR FINISHES					
C3010	Wall Finishes	\$1,515,798			
C3020	Floor Finishes	\$2,189,486			
C3030	Ceiling Finishes	\$1,852,642	\$5,557,926	\$33.00	12.7%
D10 CONVEYING SYSTEMS					
D1010	Elevator	\$150,000	\$150,000	\$0.89	0.3%
D20 PLUMBING					
D20	Plumbing	\$2,635,804	\$2,635,804	\$15.65	6.0%
D30 HVAC					
D30	HVAC	\$7,452,674	\$7,452,674	\$44.25	17.0%
D40 FIRE PROTECTION					
D40	Fire Protection	\$934,742	\$934,742	\$5.55	2.1%
D50 ELECTRICAL					
D5010	Electrical Systems	\$6,719,665	\$6,719,665	\$39.90	15.4%



Sharon High School
Design Options
Sharon, MA

07-Mar-19

PSR Report

GFA 168,422

CONSTRUCTION COST SUMMARY					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
CODE UPGRADES RENOVATION - OPTION R1					
E10 EQUIPMENT					
E10 Equipment		\$2,123,000	\$2,123,000	\$12.61	4.9%
E20 FURNISHINGS					
E2010 Fixed Furnishings		\$2,533,572			
E2020 Movable Furnishings		NIC	\$2,533,572	\$15.04	5.8%
F10 SPECIAL CONSTRUCTION					
F10 Special Construction		\$0	\$0	\$0.00	0.0%
F20 SELECTIVE BUILDING DEMOLITION					
F2010 Building Elements Demolition		\$2,178,954			
F2020 Hazardous Components Abatement		\$0	\$2,178,954	\$12.94	5.0%
TOTAL DIRECT COST (Trade Costs)			\$43,716,697	\$259.57	100.0%



Sharon High School
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Sharon, MA

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PSR Report

GFA 168,422

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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CODE UPGRADES RENOVATION - OPTION R1

GROSS FLOOR AREA CALCULATION

Level 1

155,181

Level 2

13,241

TOTAL GROSS FLOOR AREA (GFA)

168,422 sf

A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Allowance for foundation repair

1

ls

25,000.00

25,000

SUBTOTAL

25,000

A1020 SPECIAL FOUNDATIONS

No work in this section

SUBTOTAL

A1030 LOWEST FLOOR CONSTRUCTION

Cut and patch existing slab for new plumbing

155,181

sf

1.00

155,181

Waterproof existing tunnels

1

ea

50,000.00

50,000

Equipment pads

1

ls

10,000.00

10,000

SUBTOTAL

215,181

TOTAL - FOUNDATIONS

\$240,181

B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

SUBTOTAL

-

B1020 ROOF CONSTRUCTION

Roof Structure - Steel:

Dunnage to roofs for new RTU's

20

tns

4,200.00

84,000

SUBTOTAL

84,000

TOTAL - SUPERSTRUCTURE

\$84,000

B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS - solid

Masonry restoration to ETR walls; flashings, lintel replacement

62,875

sf

62,875

sf

10.00

628,750

SUBTOTAL

628,750

B2020 WINDOWS/CURTAINWALL

Exterior Wall Area - Glazed

37,125

sf

061000 ROUGH CARPENTRY

Wood blocking at openings

21,838

lf

12.00

262,056

070001 WATERPROOFING, DAMPPROOFING AND CAULKING

Backer rod & double sealant

21,838

lf

9.00

196,542

080001 METAL WINDOWS

Windows, double glazed; 60% of glazed area

22,275

sf

95.00

2,116,125

Curtainwall, double glazed; 40% of glazed area

14,850

sf

125.00

1,856,250

Sunshades; horizontal

1

ls

20,000.00

NR



Sharon High School
Design Options
Sharon, MA

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PSR Report

GFA 168,422

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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CODE UPGRADES RENOVATION - OPTION R1

60	089000 LOUVERS						
61	Louvers	150	sf	65.00	9,750		
62	SUBTOTAL					4,440,723	
63							
64	B2030 EXTERIOR DOORS						
65	Replace exterior glazed door, double	6	pr	8,000.00	48,000		
66	Replace exterior glazed door, single	10	ea	4,000.00	40,000		
67	Backer rod & double sealant	290	lf	9.00	2,610		
68	Wood blocking at openings	290	lf	3.00	870		
69	SUBTOTAL					91,480	
70							
71	TOTAL - EXTERIOR CLOSURE						\$5,160,953
72							
73							
74	B30 ROOFING						
75							
76	B3010 ROOF COVERINGS						
77	Replace existing roofing systems, EPDM	155,181	sf	25.00	3,879,525		
78	SUBTOTAL					3,879,525	
79							
80	B3020 ROOF OPENINGS						
81	Replace smoke hatches	4	ea	9,000.00	36,000		
82	SUBTOTAL					36,000	
83							
84	TOTAL - ROOFING						\$3,915,525
85							
86							
87	C10 INTERIOR CONSTRUCTION						
88							
89	C1010 PARTITIONS						
90	Anchor the top of all masonry partitions to the underside of the floor or structure above	168,422	gsf	6.00	NR		
91	Work to existing partitions	168,422	gsf	8.00	1,347,376		
92	SUBTOTAL					1,347,376	
93							
94	C1020 INTERIOR DOORS						
95	Replace existing doors and hardware	168,422	gsf	5.00	842,110		
96	Modify existing door openings for ADA clearances	1	ls	50,000.00	50,000		
97	SUBTOTAL					892,110	
98							
99	C1030 SPECIALTIES / MILLWORK						
100	Toilet Partitions and accessories	168,422	gsf	0.80	134,738		
101	Lockers	168,422	gsf	0.75	126,317		
102	Markerboards & tackboards	168,422	gsf	1.10	185,264		
103	Auditorium - catwalk, rails etc	1	ls	400,000.00	400,000		
104	Window sill; Solid surface	7,279	lf	50.00	363,950		
105							
106	055000 MISCELLANEOUS METALS						
107	Miscellaneous metals throughout building	168,422	sf	1.00	168,422		
108							
109	061000 ROUGH CARPENTRY						
110	Rough blocking	168,422	sf	0.50	84,211		
111							
112	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
113	Miscellaneous sealants throughout building	168,422	sf	1.50	252,633		
114							
115	101400 SIGNAGE						
116	Code compliant signage	168,422	sf	0.25	42,106		
117	SUBTOTAL					1,757,641	



Sharon High School
Design Options
Sharon, MA

07-Mar-19

PSR Report

GFA 168,422

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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CODE UPGRADES RENOVATION - OPTION R1

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TOTAL - INTERIOR CONSTRUCTION	\$3,997,127
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C20 STAIRCASES

C2010 STAIR CONSTRUCTION

Modify existing stairs	2	flt	10,000.00	20,000	
SUBTOTAL					20,000

C2020 STAIR FINISHES

High performance coating to stairs including all railings etc.	2	flt	3,000.00	6,000	
Rubber tile at stairs - landings	200	sf	10.00	2,000	
Rubber tile at stairs - treads & risers	240	lft	19.06	4,574	
SUBTOTAL					12,574

TOTAL - STAIRCASES	\$32,574
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C30 INTERIOR FINISHES

C3010 WALL FINISHES

Painting/wall finishes	168,422	gsf	9.00	1,515,798	
SUBTOTAL					1,515,798

C3020 FLOOR FINISHES

Allowance to replace floor finishes including patching/leveling existing	168,422	gsf	13.00	2,189,486	
SUBTOTAL					2,189,486

C3030 CEILING FINISHES

Replace existing ceiling finishes	168,422	gsf	11.00	1,852,642	
SUBTOTAL					1,852,642

TOTAL - INTERIOR FINISHES	\$5,557,926
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D10 CONVEYING SYSTEMS

D1010 ELEVATOR

Replace existing elevator; double sided	1	ea	150,000.00	150,000	
SUBTOTAL					150,000

TOTAL - CONVEYING SYSTEMS	\$150,000
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D20 PLUMBING

D20 PLUMBING, GENERALLY

Plumbing; Renovation; piping service & mains to remain. New equipment, fixtures, storm and above grade piping	168,422	sf	15.00	2,526,330	
Demo existing plumbing	168,422	sf	0.65	109,474	
SUBTOTAL					2,635,804

TOTAL - PLUMBING	\$2,635,804
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D30 HVAC



Sharon High School
Design Options
Sharon, MA

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PSR Report

GFA 168,422

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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CODE UPGRADES RENOVATION - OPTION R1

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D30 HVAC, GENERALLY

HVAC; New gas fired boilers, perimeter radiation, VRF w/HRU's to classrooms, votech & comm ed. DX Rtu's to music/band, PE, media, aud, drama & cafeteria. H&V RTU to gym & locker rooms. Kitchen MAU, ductless splits to equipment rooms

168,422 sf 43.00 7,242,146

Demo existing HVAC 168,422 sf 1.25 210,528

SUBTOTAL 7,452,674

TOTAL - HVAC

\$7,452,674

D40 FIRE PROTECTION

D40 FIRE PROTECTION, GENERALLY

Fire Protection; renovation (no fire pump req'd), reuse service and mains 168,422 sf 5.15 867,373

Demo existing fire protection 168,422 sf 0.40 67,369

SUBTOTAL 934,742

TOTAL - FIRE PROTECTION

\$934,742

D50 ELECTRICAL

D5010 SERVICE & DISTRIBUTION

Normal Power

Modify and make connections to existing switchgear 1 ls 25,000.00 25,000

Normal power transformers, panelboards and feeders 168,422 sf 4.00 673,688

200KW diesel emergency generator with sound / wp cover 1 ea 65,000.00 65,000

Emergency power transformers, panelboards and feeders 168,422 sf 2.25 378,950

Equipment wiring feed and connection

Equipment wiring feed and connection 168,422 sf 2.00 \$336,844

Kitchen Equipment wiring feed and connection 1 ls 25,000.00 \$25,000

SUBTOTAL 1,504,482

D5020 LIGHTING & POWER

LED lighting allowance 168,422 sf 5.50 926,321

Exit lighting 168,422 sf 0.25 42,106

Lighting controls

Automated lighting controls system 168,422 sf 1.00 168,422

Branch devices

Branch devices 168,422 sf 0.50 84,211

Lighting and branch circuitry

Branch circuitry 168,422 sf 6.00 1,010,532

SUBTOTAL 2,231,592

D5030 COMMUNICATION & SECURITY SYSTEMS

Fire Alarm

New FA system 168,422 sf 2.50 421,055

Telephone/Data/CATV

Fit-Out Closets, devices and cabling 168,422 sf 2.50 421,055

Rough-in 168,422 sf 1.00 168,422

Clock/PA System

Clock/PA System 168,422 sf 1.00 168,422



Sharon High School
Design Options
Sharon, MA

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PSR Report

GFA 168,422

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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CODE UPGRADES RENOVATION - OPTION R1

224	Classroom speech reinforcement	168,422	sf	0.80	134,738		
225	<u>Auditorium / Drama</u>						
226	Stage lighting and dimming system	1	ls	250,000.00	250,000		
227	Sound system	1	ls	125,000.00	125,000		
228	<u>Gymnasium</u>						
229	Sound system	1	ls	10,000.00	10,000		
230	Score board	1	ls	12,000.00	12,000		
231	Gymnasium equipment feed and connections	1	ls	15,000.00	15,000		
232	<u>AV / Media Center</u>						
233	AV equipment provided by others				By Others		
234	Rough-in only	168,422	sf	1.00	168,422		
235	<u>Security System</u>						
236	Security System	168,422	sf	3.50	589,477		
237	SUBTOTAL					2,483,591	

D5040 OTHER ELECTRICAL SYSTEMS

240	<u>Miscellaneous</u>						
241	Demolition work	1	ls	150,000.00	150,000		
242	Job conditions	1	ls	135,000.00	135,000		
243	Temporary power	1	ls	125,000.00	125,000		
244	Fees & Permits	1	ls	90,000.00	90,000		
245	SUBTOTAL					500,000	

TOTAL - ELECTRICAL	\$6,719,665
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E10 EQUIPMENT

E10 EQUIPMENT, GENERALLY

254	Food Service equipment	1	ls	600,000.00	600,000		
255	Residential Appliances	1	ls	25,000.00	25,000		
256	Theater rigging	1	ls	235,000.00	235,000		
257	Theater AV	1	ls	400,000.00	400,000		
258	Science room equipment	6	ea	35,000.00	210,000		
259	Gym wall pads	1	ls	10,000.00	10,000		
260	Basketball backstops; swing up; electric operated	6	loc	10,000.00	60,000		
261	Gymnasium dividing net; electrically operated	1	ls	30,000.00	30,000		
262	Telescoping bleachers (800 seats)	1	ls	150,000.00	150,000		
263	Auditorium seating	1,300	ea	310.00	403,000		
264	SUBTOTAL					2,123,000	

TOTAL - EQUIPMENT	\$2,123,000
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E20 FURNISHINGS

E2010 FIXED FURNISHINGS

272	Window blinds	37,125	sf	7.00	259,875		
273	Casework - new	168,422	gsf	13.50	2,273,697		
274	SUBTOTAL					2,533,572	

E2020 MOVABLE FURNISHINGS

277	All movable furnishings to be provided and installed by owner						
278	SUBTOTAL					NIC	

TOTAL - FURNISHINGS	\$2,533,572
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Sharon High School
Design Options
Sharon, MA

07-Mar-19

PSR Report

GFA 168,422

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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CODE UPGRADES RENOVATION - OPTION R1

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F10 SPECIAL CONSTRUCTION

F10 SPECIAL CONSTRUCTION
SUBTOTAL

-

TOTAL - SPECIAL CONSTRUCTION

F20 SELECTIVE BUILDING DEMOLITION

F2010 BUILDING ELEMENTS DEMOLITION

Remove exterior closure	100,000	sf	10.00	1,000,000	
Remove roofing	155,181	sf	2.00	included w/ roofing	
Interior demolition	168,422	gsf	5.00	842,110	
Temporary enclosures/protection	168,422	sf	2.00	336,844	
SUBTOTAL					2,178,954

F2020 HAZARDOUS COMPONENTS ABATEMENT

See summary
SUBTOTAL

TOTAL - SELECTIVE BUILDING DEMOLITION

\$2,178,954



PSR Report

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITEWORK OPTION R1

G SITEWORK

G10 SITE PREPARATION & DEMOLITION

Allowance for site fencing	5,774	lf	12.00	69,288	
Allowance for site gates and contractor lay down	1	ls	20,000.00	20,000	
Pavement/curbing removal	166,279	sf	1.00	included w/ paving	
Miscellaneous demolition	1	ls	25,000.00	25,000	
<u>Site Earthwork</u>					
Strip topsoil and store				No work - ETR	
Fine grading at new work	18,475	sy	1.00	18,475	
Cut and Fill				No work - ETR	
Silt fence	4,331	lf	10.00	43,310	
Silt fence/erosion control, wash bays, stock piles, protect wetlands	1	ls	30,000.00	30,000	
<u>Hazardous Waste Remediation</u>					
Remove existing underground fuel storage tanks				NIC	
Dispose/treat contaminated soils					
SUBTOTAL					206,073

G20 SITE IMPROVEMENTS

<u>New Asphalt Paving; parking lot and bus loop; mill only</u>	166,279	sf			
Gravel base; 12"	6,158	cy	40.00	NR	
New asphalt paving; mill	18,475	sy	20.00	369,500	
VGC; reset existing and replace selected lengths	5,409	lf	20.00	ETR	
Line painting including crosswalk and heap space hatching	1	ls	30,000.00	30,000	
New signage	1	ls	20,000.00	20,000	
<u>Site Improvements</u>					
Flag pole	1	ea	5,000.00	5,000	
Replace bleachers; 700 seats	1	ls	266,000.00	ETR	
New press box with LULA	1	ls	160,000.00	ETR	
Resurface running track; base to remain	40,000	sf	7.22	ETR	
Resurface tennis courts	24,000	sf	5.56	ETR	
Fencing to tennis courts	640	lf	60.00	ETR	
Upgrades to ramps and guardrails etc.	1	ls	50,000.00	50,000	
Site improvements; benches, walls, fences etc.	1	ls	50,000.00	50,000	
SUBTOTAL					524,500
<u>Landscaping</u>					
Topsoil - amend existing topsoil; minimum 6"				ETR	
Lawn - aerate and reseed existing	1	ls	25,000.00	25,000	
Allowance for new plantings/landscaping	1	ls	50,000.00	ETR	
SUBTOTAL					25,000

G30 CIVIL MECHANICAL UTILITIES

<u>Water</u>				ETR	
<u>Sanitary</u>					
Sanitary; replace all existing grease traps and science waste traps	1	ls	30,000.00	30,000	
Upgrade existing WWTP system				see summary	
Connect to existing	2	loc	10,000.00	20,000	
<u>Stormwater</u>					
Allowance to modify existing drainage systems	1	ls	150,000.00	150,000	
Gas service				assume ETR	
SUBTOTAL					200,000

G40 ELECTRICAL UTILITIES

Connect to existing riser pole				ETR	
Primary ductbank, 2-4" conduit empty				ETR	
Manhole				ETR	
Transformer				By Utility Co	



PSR Report

<i>CSI</i>				<i>UNIT</i>	<i>EST'D</i>	<i>SUB</i>	<i>TOTAL</i>
<i>CODE</i>	<i>DESCRIPTION</i>	<i>QTY</i>	<i>UNIT</i>	<i>COST</i>	<i>COST</i>	<i>TOTAL</i>	<i>COST</i>

SITEWORK OPTION R1

60	Transformer pad					ETR	
61	Secondary ductbank						
62	Secondary service					ETR	
63	<u>Site lighting</u>						
64	Site lighting					ETR	
65	Sports lighting					NR	
66	<u>Site communications and security</u>						
67	Site Security					NIC	
68	Communication riser pole					NIC	
69	Telecom handhole					NIC	
70	Telecom ductbank, 4-4" conduit, empty					ETR	
71	Crosswalk beacon	1	ls	75,000.00	75,000		
72	SUBTOTAL						75,000
73							
74							
	TOTAL - SITE DEVELOPMENT						\$1,030,573



Sharon High School
Design Options
Sharon, MA

07-Mar-19

PSR Report

GFA 104,442

CONSTRUCTION COST SUMMARY					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
OPTION AR-1 RENOVATION					
A10 FOUNDATIONS					
A1010	Standard Foundations	\$193,500			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$152,102	\$345,602	\$3.31	1.1%
B10 SUPERSTRUCTURE					
B1010	Upper Floor Construction	\$0			
B1020	Roof Construction	\$344,306	\$344,306	\$3.30	1.1%
B20 EXTERIOR CLOSURE					
B2010	Exterior Walls	\$2,022,009			
B2020	Windows/Curtainwall	\$1,572,387			
B2030	Exterior Doors	\$59,120	\$3,653,516	\$34.98	12.0%
B30 ROOFING					
B3010	Roof Coverings	\$2,302,550			
B3020	Roof Openings	\$36,000	\$2,338,550	\$22.39	7.7%
C10 INTERIOR CONSTRUCTION					
C1010	Partitions	\$1,963,956			
C1020	Interior Doors	\$547,210			
C1030	Specialties/Millwork	\$1,173,077	\$3,684,243	\$35.28	12.1%
C20 STAIRCASES					
C2010	Stair Construction	\$20,000			
C2020	Stair Finishes	\$12,574	\$32,574	\$0.31	0.1%
C30 INTERIOR FINISHES					
C3010	Wall Finishes	\$939,978			
C3020	Floor Finishes	\$1,357,746			
C3030	Ceiling Finishes	\$1,148,862	\$3,446,586	\$33.00	11.3%
D10 CONVEYING SYSTEMS					
D1010	Elevator	\$0	\$0	\$0.00	0.0%
D20 PLUMBING					
D20	Plumbing	\$1,686,738	\$1,686,738	\$16.15	5.5%
D30 HVAC					
D30	HVAC	\$4,778,222	\$4,778,222	\$45.75	15.7%
D40 FIRE PROTECTION					
D40	Fire Protection	\$590,098	\$590,098	\$5.65	1.9%
D50 ELECTRICAL					
D5010	Electrical Systems	\$4,432,141	\$4,432,141	\$42.44	14.6%
E10 EQUIPMENT					
E10	Equipment	\$1,908,000	\$1,908,000	\$18.27	6.3%



Sharon High School
Design Options
Sharon, MA

07-Mar-19

PSR Report

GFA 104,442

CONSTRUCTION COST SUMMARY					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
OPTION AR-1 RENOVATION					
E20 FURNISHINGS					
E2010	Fixed Furnishings	\$1,339,845			
E2020	Movable Furnishings	NIC	\$1,339,845	\$12.83	4.4%
F10 SPECIAL CONSTRUCTION					
F10	Special Construction	\$0	\$0	\$0.00	0.0%
F20 SELECTIVE BUILDING DEMOLITION					
F2010	Building Elements Demolition	\$1,826,580			
F2020	Hazardous Components Abatement	\$0	\$1,826,580	\$17.49	6.0%
TOTAL DIRECT COST (Trade Costs)			\$30,407,001	\$291.14	100.0%



Sharon High School
Design Options
Sharon, MA

07-Mar-19

PSR Report

GFA 104,442

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 RENOVATION

GROSS FLOOR AREA CALCULATION

Level 1 92,102
Level 2 12,340

TOTAL GROSS FLOOR AREA (GFA) 104,442 sf

A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Allowance for foundation repair	1	ls	25,000.00	25,000	
Allowance for foundations at new braced frames	6	loc	5,000.00	30,000	
Foundations for new shear walls	160	lf	200.00	32,000	
New foundations at connection to new	355	lf	300.00	106,500	
SUBTOTAL					193,500

A1020 SPECIAL FOUNDATIONS

No work in this section
SUBTOTAL

A1030 LOWEST FLOOR CONSTRUCTION

Cut and patch existing slab for new plumbing	92,102	sf	1.00	92,102	
Waterproof existing tunnels	1	ea	50,000.00	50,000	
Equipment pads	1	ls	10,000.00	10,000	
SUBTOTAL					152,102

TOTAL - FOUNDATIONS \$345,602

B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

No work in this section
SUBTOTAL -

B1020 ROOF CONSTRUCTION

New braced frames; 6 LOC	6	tns	8,000.00	48,000	
Seismic bracing/ lateral bracing	92,102	sf	3.00	276,306	
Allowance for dunnage	1	ls	20,000.00	20,000	
SUBTOTAL					344,306

TOTAL - SUPERSTRUCTURE \$344,306

B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS - solid assumed 65%

New brick exterior wall (Utility Brick)- 80%	27,459	sf			
	21,967	sf	34.00	746,878	
New metal panel - 20%	5,492	sf	75.00	411,900	
6" LGMF	27,459	sf	8.00	219,672	
Batt insulation in cavity	21,967	sf	3.00	65,901	
Rigid insulation; 2" thick	27,459	sf	2.50	68,648	
Air and Vapor barrier	27,459	sf	6.50	178,484	
Exterior sheathing	27,459	sf	3.00	82,377	
Interior GWB	21,967	sf	3.20	70,294	
Backup to inside face of retaining wall	3,438	sf	10.20	35,068	
Misc. metals at masonry	21,967	sf	1.50	32,951	
Staging	27,459	sf	4.00	109,836	
SUBTOTAL					2,022,009



Sharon High School
Design Options
Sharon, MA

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PSR Report

GFA 104,442

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 RENOVATION

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B2020 WINDOWS/CURTAINWALL

Exterior Wall Area - Glazed Assume 35%

12,363 sf

061000 ROUGH CARPENTRY

Wood blocking at openings

7,272 lf 12.00 87,264

070001 WATERPROOFING, DAMPPROOFING AND CAULKING

Backer rod & double sealant

7,272 lf 9.00 65,448

080001 METAL WINDOWS

Windows, double glazed; 60% of glazed area

7,418 sf 100.00 741,800

Curtainwall, double glazed; 40% of glazed area

4,945 sf 125.00 618,125

Sunshades; horizontal

1 ls 50,000.00 50,000

089000 LOUVERS

Louvers

150 sf 65.00 9,750

SUBTOTAL

1,572,387

B2030 EXTERIOR DOORS

Replace exterior glazed door, double

4 pr 8,000.00 32,000

Replace exterior glazed door, single

6 ea 4,000.00 24,000

Backer rod & double sealant

260 lf 9.00 2,340

Wood blocking at openings

260 lf 3.00 780

SUBTOTAL

59,120

TOTAL - EXTERIOR CLOSURE

\$3,653,516

B30 ROOFING

B3010 ROOF COVERINGS

Replace existing roofing systems, EPDM

92,102 sf 25.00 2,302,550

SUBTOTAL

2,302,550

B3020 ROOF OPENINGS

Replace smoke hatches

4 ea 9,000.00 36,000

SUBTOTAL

36,000

TOTAL - ROOFING

\$2,338,550

C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS

Anchor the top of all masonry partitions to the underside of the floor or structure above

104,442 gsf 2.00 208,884

New shear walls

2,400 sf 35.00 84,000

Work to existing partitions/new partitions

104,442 gsf 16.00 1,671,072

SUBTOTAL

1,963,956

C1020 INTERIOR DOORS

Replace existing doors and hardware

104,442 gsf 5.00 522,210

Modify existing door openings for ADA clearances

1 ls 25,000.00 25,000

SUBTOTAL

547,210

C1030 SPECIALTIES / MILLWORK

Toilet Partitions and accessories

104,442 gsf 0.80 83,554

Markerboards & tackboards

104,442 gsf 1.10 114,886



Sharon High School
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Sharon, MA

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GFA 104,442

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 RENOVATION

118	Auditorium - catwalk, rails etc	1	ls	400,000.00	400,000		
117	Lockers, full height	200	ea	400.00	80,000		
118	Window sill; Solid surface	2,424	lf	50.00	121,200		
119	Administration desk	1	ls	14,000.00	14,000		
120	Media center desk	1	ls	20,000.00	20,000		
121							
122	055000 MISCELLANEOUS METALS						
123	Miscellaneous metals throughout building	104,442	sf	1.00	104,442		
124							
125	061000 ROUGH CARPENTRY						
126	Rough blocking	104,442	sf	0.50	52,221		
127							
128	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
129	Miscellaneous sealants throughout building	104,442	sf	1.50	156,663		
130							
131	101400 SIGNAGE						
132	Code compliant signage	104,442	sf	0.25	26,111		
133	SUBTOTAL					1,173,077	
134							

TOTAL - INTERIOR CONSTRUCTION	\$3,684,243
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C20 STAIRCASES

140	C2010 STAIR CONSTRUCTION						
141	Modify existing stairs	2	flt	10,000.00	20,000		
142	SUBTOTAL					20,000	
143							
144	C2020 STAIR FINISHES						
145	High performance coating to stairs including all railings etc.	2	flt	3,000.00	6,000		
146	Rubber tile at stairs - landings	200	sf	10.00	2,000		
147	Rubber tile at stairs - treads & risers	240	lft	19.06	4,574		
148	SUBTOTAL					12,574	
149							

TOTAL - STAIRCASES	\$32,574
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C30 INTERIOR FINISHES

155	C3010 WALL FINISHES						
156	Painting/wall finishes	104,442	gsf	9.00	939,978		
157	SUBTOTAL					939,978	
158							
159	C3020 FLOOR FINISHES						
160	Allowance to replace floor finishes including patching/leveling existing	104,442	sf	13.00	1,357,746		
161							
162	SUBTOTAL					1,357,746	
163							
164	C3030 CEILING FINISHES						
165	Replace existing ceilings	104,442	sf	11.00	1,148,862		
166	SUBTOTAL					1,148,862	
167							

TOTAL - INTERIOR FINISHES	\$3,446,586
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D10 CONVEYING SYSTEMS

D1010 ELEVATOR



Sharon High School
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Sharon, MA

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PSR Report

GFA 104,442

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 RENOVATION

174

No work required

175

SUBTOTAL

176

177

TOTAL - CONVEYING SYSTEMS

178

179

180

D20 PLUMBING

181

182

D20 PLUMBING, GENERALLY

183

Plumbing; Renovation; piping service & mains to remain. New equipment, fixtures, storm and above grade piping

104,442

sf

15.50

1,618,851

184

Demo existing plumbing

104,442

sf

0.65

67,887

185

SUBTOTAL

1,686,738

186

187

TOTAL - PLUMBING

\$1,686,738

188

189

190

D30 HVAC

191

192

D30 HVAC, GENERALLY

193

HVAC; New gas fired boilers, perimeter radiation, VRF w/HRU's to classrooms, votech & comm ed. DX Rtu's to music/band, PE, media, aud, drama & cafeteria. H&V RTU to gym & locker rooms. Kitchen MAU, ductless splits to equipment rooms

104,442

sf

44.50

4,647,669

194

Demo existing HVAC

104,442

sf

1.25

130,553

195

SUBTOTAL

4,778,222

196

197

TOTAL - HVAC

\$4,778,222

198

199

200

D40 FIRE PROTECTION

201

202

D40 FIRE PROTECTION, GENERALLY

203

Fire Protection; renovation (no fire pump req'd), reuse service and mains

104,442

sf

5.25

548,321

204

Demo existing fire protection

104,442

sf

0.40

41,777

205

SUBTOTAL

590,098

206

207

TOTAL - FIRE PROTECTION

\$590,098

208

209

210

D50 ELECTRICAL

211

212

D5010 SERVICE & DISTRIBUTION

213

Normal Power

214

Modify and make connections to existing switchgear

1

ls

25,000.00

25,000

215

Normal power transformers, panelboards and feeders

104,442

sf

4.00

417,768

216

200KW diesel emergency generator with sound / wp cover

1

ea

65,000.00

65,000

217

Emergency power transformers, panelboards and feeders

104,442

sf

2.25

234,995

218

Equipment wiring feed and connection

219

Equipment wiring feed and connection

104,442

sf

2.00

208,884

220

Kitchen Equipment wiring feed and connection

1

ls

25,000.00

\$25,000

221

SUBTOTAL

976,647

222

D5020 LIGHTING & POWER

223

LED lighting allowance

104,442

sf

5.50

574,431



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Sharon, MA

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PSR Report

GFA 104,442

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 RENOVATION

224	Exit lighting	104,442	sf	0.25	26,111		
225	<u>Lighting controls</u>						
226	Automated lighting controls system	104,442	sf	1.00	104,442		
227	<u>Branch devices</u>						
228	Branch devices	104,442	sf	0.50	52,221		
229	<u>Lighting and branch circuitry</u>						
230	Branch circuitry	104,442	sf	6.00	626,652		
231	SUBTOTAL					1,383,857	

D5030 COMMUNICATION & SECURITY SYSTEMS

234	<u>Fire Alarm</u>						
235	New FA system	104,442	sf	2.50	261,105		
236	<u>Telephone/Data/CATV</u>						
237	Fit-Out Closets, devices and cabling	104,442	sf	2.50	261,105		
238	Rough-in	104,442	sf	1.00	104,442		
239	<u>Clock/PA System</u>						
240	Clock/PA System	104,442	sf	1.00	104,442		
241	Classroom speech reinforcement	104,442	sf	0.80	83,554		
242	<u>Auditorium / Drama</u>						
243	Stage lighting and dimming system	1	ls	250,000.00	250,000		
244	Sound system	1	ls	125,000.00	125,000		
245	<u>Gymnasium</u>						
246	Sound system	1	ls	10,000.00	10,000		
247	Score board	1	ls	12,000.00	12,000		
248	Gymnasium equipment feed and connections	1	ls	15,000.00	15,000		
249	<u>AV / Media Center</u>						
250	AV equipment provided by others				By Others		
251	Rough-in only	104,442	sf	1.00	104,442		
252	<u>Security System</u>						
253	Security System	104,442	sf	3.50	365,547		
254	SUBTOTAL					1,696,637	

D5040 OTHER ELECTRICAL SYSTEMS

257	<u>Miscellaneous</u>						
258	Demolition work	1	ls	100,000.00	100,000		
259	Job conditions	1	ls	125,000.00	125,000		
260	Temporary power	1	ls	85,000.00	85,000		
261	Fees & Permits	1	ls	65,000.00	65,000		
262	SUBTOTAL					375,000	

TOTAL - ELECTRICAL

\$4,432,141

E10 EQUIPMENT

E10 EQUIPMENT, GENERALLY

271	Food Service equipment	1	ls	600,000.00	600,000		
272	Theater rigging	1	ls	235,000.00	235,000		
273	Theater AV	1	ls	400,000.00	400,000		
274	Loading dock equipment	1	ls	20,000.00	20,000		
275	Gym wall pads	1	ls	10,000.00	10,000		
276	Basketball backstops; swing up; electric operated	6	loc	10,000.00	60,000		
277	Gymnasium dividing net; electrically operated	1	ls	30,000.00	30,000		
278	Telescoping bleachers (800 seats)	1	ls	150,000.00	150,000		
279	Auditorium seating	1,300	ea	310.00	403,000		
280	SUBTOTAL					1,908,000	



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Sharon, MA

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PSR Report

GFA 104,442

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 RENOVATION

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TOTAL - EQUIPMENT	\$1,908,000
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E20 FURNISHINGS

E2010 FIXED FURNISHINGS

Window blinds	12,363	sf	7.00	86,541	
Casework/millwork allowance	104,442	gsf	12.00	1,253,304	
SUBTOTAL					1,339,845

E2020 MOVABLE FURNISHINGS

All movable furnishings to be provided and installed by owner					
SUBTOTAL					NIC

TOTAL - FURNISHINGS	\$1,339,845
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F10 SPECIAL CONSTRUCTION

F10 SPECIAL CONSTRUCTION

SUBTOTAL					-
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TOTAL - SPECIAL CONSTRUCTION	
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F20 SELECTIVE BUILDING DEMOLITION

F2010 BUILDING ELEMENTS DEMOLITION

Remove exterior closure	39,822	sf	10.00	398,220	
Remove exterior closure for new connections	14,588	sf	12.00	175,056	
Remove roofing	92,102	sf	included w/ roofing		
Interior demolition	104,442	gsf	10.00	1,044,420	
Temporary enclosures/protection	104,442	sf	2.00	208,884	
SUBTOTAL					1,826,580

F2020 HAZARDOUS COMPONENTS ABATEMENT

See summary	
SUBTOTAL	

TOTAL - SELECTIVE BUILDING DEMOLITION	\$1,826,580
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Sharon High School
Design Options
Sharon, MA

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PSR Report

GFA 145,486

CONSTRUCTION COST SUMMARY					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
OPTION AR-1 NEW ADDITION					
A10 FOUNDATIONS					
A1010	Standard Foundations	\$1,709,377			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$1,930,568	\$3,639,945	\$25.02	8.2%
A20 BASEMENT CONSTRUCTION					
A2010	Basement Excavation	\$0			
A2020	Basement Walls	\$0	\$0	\$0.00	0.0%
B10 SUPERSTRUCTURE					
B1010	Upper Floor Construction	\$2,636,671			
B1020	Roof Construction	\$2,880,242	\$5,516,913	\$37.92	12.5%
B20 EXTERIOR CLOSURE					
B2010	Exterior Walls	\$3,362,435			
B2020	Windows	\$2,973,391			
B2030	Exterior Doors	\$57,848	\$6,393,674	\$43.95	14.5%
B30 ROOFING					
B3010	Roof Coverings	\$2,053,332			
B3020	Roof Openings	\$32,500	\$2,085,832	\$14.34	4.7%
C10 INTERIOR CONSTRUCTION					
C1010	Partitions	\$3,200,692			
C1020	Interior Doors	\$727,430			
C1030	Specialties/Millwork	\$1,081,678	\$5,009,800	\$34.43	11.3%
C20 STAIRCASES					
C2010	Stair Construction	\$151,000			
C2020	Stair Finishes	\$18,862	\$169,862	\$1.17	0.4%
C30 INTERIOR FINISHES					
C3010	Wall Finishes	\$1,309,374			
C3020	Floor Finishes	\$1,454,860			
C3030	Ceiling Finishes	\$1,600,346	\$4,364,580	\$30.00	9.9%
D10 CONVEYING SYSTEMS					
D1010	Elevator	\$140,000	\$140,000	\$0.96	0.3%
D20 PLUMBING					
D20	Plumbing	\$2,182,290	\$2,182,290	\$15.00	4.9%
D30 HVAC					
D30	HVAC	\$6,255,898	\$6,255,898	\$43.00	14.2%
D40 FIRE PROTECTION					
D40	Fire Protection	\$727,430	\$727,430	\$5.00	1.6%
D50 ELECTRICAL					
D5010	Complete System	\$5,309,685	\$5,309,685	\$36.50	12.0%



Sharon High School
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Sharon, MA

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PSR Report

GFA 145,486

CONSTRUCTION COST SUMMARY					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
OPTION AR-1 NEW ADDITION					
E10 EQUIPMENT					
E10	Equipment	\$230,000	\$230,000	\$1.58	0.5%
E20 FURNISHINGS					
E2010	Fixed Furnishings	\$2,113,933			
E2020	Movable Furnishings	NIC	\$2,113,933	\$14.53	4.8%
F10 SPECIAL CONSTRUCTION					
F10	Special Construction	\$0	\$0	\$0.00	0.0%
F20 HAZMAT REMOVALS					
F2010	Building Elements Demolition	\$0			
F2020	Hazardous Components Abatement	\$0	\$0	\$0.00	0.0%
TOTAL DIRECT COST (Trade Costs)			\$44,139,842	\$303.40	100.0%



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PSR Report

GFA 145,486

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 NEW ADDITION

GROSS FLOOR AREA CALCULATION

First Floor 83,106
Second Floor 62,380

TOTAL GROSS FLOOR AREA (GFA) 145,486 sf

A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

033000 CONCRETE

Strip Footings	269	CY
Foundation Walls	395	CY
Spread Footings	937	CY
Piers	163	CY
Total Foundation Concrete	1,764	CY

Strip footings

Formwork	5,008	sf	14.00	70,112
Re-bar	26,090	lbs.	1.40	36,526
Concrete material; 3,000 psi	269	cy	130.00	34,970
Placing concrete	269	cy	70.00	18,830

Foundation walls

Formwork	15,232	sf	18.00	274,176
Re-bar	38,080	lbs.	1.40	53,312
Concrete material; 3,000 psi	395	cy	130.00	51,350
Placing concrete	395	cy	70.00	27,650
Form shelf	1,904	lf	10.00	19,040

Spread Footings

Formwork	12,024	sf	16.00	192,384
Re-bar	69,328	lbs.	1.40	97,059
Concrete material; 3,000 psi	937	cy	130.00	121,810
Placing concrete	937	cy	70.00	65,590
Set anchor bolts grout plates	190	ea	150.00	28,500

Piers/Pilasters

Formwork	5,571	sf	20.00	111,420
Re-bar	19,560	lbs.	1.40	27,384
Concrete material; 3,000 psi	163	cy	130.00	21,190
Placing concrete	163	cy	80.00	13,040

070001 WATERPROOFING, DAMPPROOFING AND CAULKING

Dampproofing at brick shelf	11,424	sf	3.00	NR
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072100 THERMAL INSULATION

Insulation	7,616	sf	3.00	22,848
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312000 EARTHWORK

Strip footings

Excavation	2,668	cy	15.00	40,020
Remove off site	2,668	cy	12.00	32,016
Backfill with imported material	2,004	cy	30.00	60,120

Spread footings

Excavation	2,914	cy	16.00	46,624
Remove off site	2,914	cy	12.00	34,968
Backfill with imported material	1,977	cy	30.00	59,310

Miscellaneous

Gravel fill beneath footings, 12"	806	cy	40.00	32,240
Perimeter drain	1,904	lf	22.00	41,888
Underslab E&B for plumbing	1	ls	50,000.00	50,000
Dewatering for foundation work	1	ls	25,000.00	25,000

SUBTOTAL

1,709,377



PSR Report

GFA 145,486

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 NEW ADDITION

A1020 SPECIAL FOUNDATIONS

No work in this section

SUBTOTAL

-

A1030 LOWEST FLOOR CONSTRUCTION

New Slab on grade, 5" thick

Excavation of unsuitable soil	12,312	cy	12.00	147,744
Removal of unsuitable soils	12,312	cy	14.00	172,368
Replacement with structural fill	12,312	cy	36.00	443,232
Gravel fill, 16"	4,094	cy	40.00	163,760
Rigid insulation	83,106	sf	2.25	186,989
Vapor barrier	83,106	sf	0.75	62,330
Compact existing sub-grade	83,106	sf	0.75	62,330
Mesh reinforcing 15% lap	95,572	sf	1.10	105,129
Concrete - 5" thick; 4,000 psi	1,357	cy	135.00	183,195
Placing concrete	1,357	cy	45.00	61,065
Finishing and curing concrete	83,106	sf	2.50	207,765
Control joints - saw cut	83,106	sf	0.10	8,311

Miscellaneous

Elevator pit	1	ls	35,000.00	35,000
Connect to existing building	1,015	lf	90.00	91,350

SUBTOTAL

1,930,568

TOTAL - FOUNDATIONS

\$3,639,945

A20 BASEMENT CONSTRUCTION

A2010 BASEMENT EXCAVATION

No Work in this section

SUBTOTAL

-

A2020 BASEMENT WALLS

No Work in this section

SUBTOTAL

-

TOTAL - BASEMENT CONSTRUCTION

B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

Floor Structure - Steel:

Steel beams and columns, 13#/SF	405	tns	4,000.00	1,620,000
Premium for HSS	101	tns	300.00	30,300
Shear studs	12,476	ea	2.50	31,190

Floor Structure

2" 18 Ga. Metal galvanized floor Deck	62,380	sf	4.00	249,520
WWF reinforcement	71,737	sf	1.10	78,911
Concrete Fill to metal deck; 5-1/4" Light Weight	1,061	cy	175.00	185,675
Place and finish concrete	62,380	sf	3.00	187,140
Rebar to decks	18,714	lbs	1.40	26,200
Misc. angles	62,380	sf	0.50	31,190

Miscellaneous

Fire proofing to columns and beams	62,380	sf	2.75	171,545
Fire stopping floors	1	ls	25,000.00	25,000



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GFA 145,486

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 NEW ADDITION

120 SUBTOTAL 2,636,671

121
122 **B1020 ROOF CONSTRUCTION**

123 Roof Structure - Steel:

124 Steel beams and columns, 13#/SF 540 tns 4,000.00 2,160,000

125 Premium for HSS 135 tns 300.00 40,500

126 Roof Structure

127 3" 20 Ga. galvanized Metal Roof Deck 83,106 sf 4.00 332,424

128 Premium for acoustic deck at gym 7,200 sf 5.50 39,600

129 Miscellaneous

130 Concrete at roof, allow 10,000 sf 8.00 80,000

131 Fire proofing to columns, beams and deck 75,906 sf 3.00 227,718

132 SUBTOTAL 2,880,242

133	TOTAL - SUPERSTRUCTURE						\$5,516,913
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134
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136
137 **B20 EXTERIOR CLOSURE**

138
139 **B2010 EXTERIOR WALLS**

140 Exterior Wall Area - Solid Assume 65% 42,608 sf

141
142 042000 MASONRY

143 New brick exterior wall (Utility Brick)- 80% 34,086 sf 34.00 1,158,924

144 Staging to exterior wall 65,551 sf 4.00 262,204

145
146 055000 MISC. METALS

147 Stainless steel sign at main entrance 1 ls 10,000.00 10,000

148 Misc. metals at masonry 34,086 sf 1.50 51,129

149
150 070001 WATERPROOFING, DAMPPROOFING AND CAULKING

151 Air barrier 42,608 sf 6.50 276,952

152 Air barrier/flashing at windows 13,496 lf 6.25 84,350

153 Miscellaneous sealants to closure 42,608 sf 1.00 42,608

154
155 072100 THERMAL INSULATION

156 Insulation 42,608 sf 2.25 95,868

157
158 076400 CLADDING

159 Metal panel; 20% of solid area 8,522 sf 75.00 639,150

160 Roof equipment screen 1 ls 100,000.00 100,000

161
162 092900 GYPSUM BOARD ASSEMBLIES

163 6" metal stud backup 42,608 sf 9.00 383,472

164 Gypsum Sheathing 42,608 sf 2.75 117,172

165 Drywall lining to interior face of stud backup 42,608 sf 3.30 140,606

166
167 SUBTOTAL 3,362,435

168
169 **B2020 WINDOWS**

170 Exterior Wall Area - Glazed Assume 35% 22,943 sf

171
172 061000 ROUGH CARPENTRY

173 Wood blocking at openings 13,496 lf 12.00 161,952

174
175 070001 WATERPROOFING, DAMPPROOFING AND CAULKING

176 Backer rod & double sealant 13,496 lf 9.00 121,464

177
178 080001 METAL WINDOWS

179 Windows, double glazed; 60% of glazed area 13,766 sf 100.00 1,376,600



Sharon High School
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PSR Report

GFA 145,486

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 NEW ADDITION

180	Curtainwall, double glazed; 40% of glazed area	9,177	sf	125.00	1,147,125		
181	Sunshades; horizontal	1	ls	150,000.00	150,000		
182							
183	089000 LOUVERS						
184	Louvers	250	sf	65.00	16,250		
185	SUBTOTAL					2,973,391	
186							
187	B2030 EXTERIOR DOORS						
188	Glazed entrance doors including frame and hardware; double door	6	pr	8,000.00	48,000		
189	Glazed entrance doors including frame and hardware; single door	2	ea	4,000.00	8,000		
190	Backer rod & double sealant	154	lf	9.00	1,386		
191	Wood blocking at openings	154	lf	3.00	462		
192	SUBTOTAL					57,848	

TOTAL - EXTERIOR CLOSURE	\$6,393,674
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B30 ROOFING

199	B3010 ROOF COVERINGS						
200	Roofing complete	83,106	sf	22.00	1,828,332		
201	Fascia/soffits	1,800	lf	125.00	225,000		
202	SUBTOTAL					2,053,332	
203							
204	B3020 ROOF OPENINGS						
205	Skylights, allow	1	ls	30,000.00	30,000		
206	Roof hatch	1	loc	2,500.00	2,500		
207	SUBTOTAL					32,500	

TOTAL - ROOFING	\$2,085,832
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C10 INTERIOR CONSTRUCTION

213	C1010 PARTITIONS						
215	Miscellaneous partitions - glazing, GWB assemblies, etc.	145,486	gsf	22.00	3,200,692		
216	SUBTOTAL					3,200,692	
217							
218	C1020 INTERIOR DOORS						
219							
220	Doors; complete	145,486	gsf	5.00	727,430		
221	SUBTOTAL					727,430	
222							
223	C1030 SPECIALTIES / MILLWORK						
224	Toilet Partitions and accessories	145,486	gsf	0.80	116,389		
225	Backer panels in electrical closets	1	ls	1,000.00	1,000		
226	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	145,486	sf	1.00	145,486		
227	Window sill; Solid surface	4,499	lf	50.00	224,950		
228	Room Signs	145,486	gsf	0.40	58,194		
229	Fire extinguisher cabinets	48	ea	350.00	16,800		
230	Lockers, full height	200	ea	400.00	80,000		
231	Janitors Work Shop Accessories	1	ls	1,500.00	1,500		
232	Janitors Closet Accessories	3	rms	300.00	900		
233	Display cases	145,486	gsf	0.25	36,372		
234	Miscellaneous metals throughout building	145,486	sf	1.50	218,229		
235	Miscellaneous sealants throughout building	145,486	sf	1.25	181,858		
236	SUBTOTAL					1,081,678	

TOTAL - INTERIOR CONSTRUCTION	\$5,009,800
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Sharon High School
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GFA 145,486

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 NEW ADDITION

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C20 STAIRCASES

C2010 STAIR CONSTRUCTION

Feature stair	1	flt	75,000.00	75,000	
Metal pan stair	2	flt	35,000.00	70,000	
Concrete fill to stairs	3	flt	2,000.00	6,000	
SUBTOTAL					151,000

C2020 STAIR FINISHES

High performance coating to stairs including all railings etc.	3	flt	3,000.00	9,000	
Rubber tile at stairs - landings	300	sf	10.00	3,000	
Rubber tile at stairs - treads & risers	360	lft	19.06	6,862	
SUBTOTAL					18,862

TOTAL - STAIRCASES						\$169,862
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C30 INTERIOR FINISHES

C3010 WALL FINISHES

Wall finishes	145,486	sf	9.00	1,309,374	
SUBTOTAL					1,309,374

C3020 FLOOR FINISHES

Floor finishes	145,486	sf	10.00	1,454,860	
SUBTOTAL					1,454,860

C3030 CEILING FINISHES

Ceiling finishes	145,486	sf	11.00	1,600,346	
SUBTOTAL					1,600,346

TOTAL - INTERIOR FINISHES						\$4,364,580
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D10 CONVEYING SYSTEMS

D1010 ELEVATOR

New two stop elevator	1	ea	140,000.00	140,000	
SUBTOTAL					140,000

TOTAL - CONVEYING SYSTEMS						\$140,000
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D20 PLUMBING

D20 PLUMBING, GENERALLY

Plumbing; New equipment, fixtures, storm and piping	145,486	sf	15.00	2,182,290	
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SUBTOTAL					2,182,290
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TOTAL - PLUMBING						\$2,182,290
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D30 HVAC

D30 HVAC, GENERALLY

HVAC; New gas fired boilers, perimeter radiation, VRF w/HRU's to classrooms, votech & comm ed. DX Rtu's to music/band, PE, media, aud, drama & cafeteria. H&V RTU to gym & locker rooms. Kitchen MAU, ductless splits to equipment rooms	145,486	sf	43.00	6,255,898	
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SUBTOTAL					6,255,898
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TOTAL - HVAC						\$6,255,898
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D40 FIRE PROTECTION



Sharon High School
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GFA 145,486

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 NEW ADDITION

304 **D40 FIRE PROTECTION, GENERALLY**

305 Fire Protection (no fire pump req'd) **145,486** sf 5.00 727,430

306 SUBTOTAL 727,430

307 **TOTAL - FIRE PROTECTION \$727,430**

310 **D50 ELECTRICAL**

312 **D5010 SERVICE & DISTRIBUTION**

313 Normal Power

314 Modify and make connections to existing switchgear **1** ls 25,000.00 25,000

315 Normal power transformers, panelboards and feeders **145,486** sf 4.00 581,944

316 200KW diesel emergency generator with sound / wp **1** ea 65,000.00 65,000

317 cover

318 Emergency power transformers, panelboards and **145,486** sf 2.25 327,344

319 feeders

320 Equipment wiring feed and connection

321 Equipment wiring feed and connection **145,486** sf 2.00 290,972

322 Kitchen Equipment wiring feed and connection **1** ls 25,000.00 25,000

323 SUBTOTAL 1,315,260

324 **D5020 LIGHTING & POWER**

325 LED lighting allowance **145,486** sf 5.50 800,173

326 Exit lighting **145,486** sf 0.25 36,372

327 Lighting controls

328 Automated lighting controls system **145,486** sf 1.00 145,486

329 Branch devices

330 Branch devices **145,486** sf 0.50 72,743

331 Lighting and branch circuitry

332 Branch circuitry **145,486** sf 6.00 872,916

333 SUBTOTAL 1,927,690

334 **D5030 COMMUNICATION & SECURITY SYSTEMS**

335 Fire Alarm

336 New FA system **145,486** sf 2.50 363,715

337 Telephone/Data/CATV

338 Fit-Out Closets, devices and cabling **145,486** sf 2.50 363,715

339 Rough-in **145,486** sf 1.00 145,486

340 Clock/PA System

341 Clock/PA System **145,486** sf 1.00 145,486

342 Classroom speech reinforcement **145,486** sf 0.80 116,389

343 Auditorium / Drama

344 Stage lighting and dimming system **1** ls 250,000.00 w/ Reno

345 Sound system **1** ls 125,000.00 w/ Reno

346 Gymnasium

347 Sound system **1** ls 10,000.00 w/ Reno

348 Score board **1** ls 12,000.00 w/ Reno

349 Gymnasium equipment feed and connections **1** ls 15,000.00 w/ Reno

350 AV / Media Center

351 AV equipment provided by others By Others

352 Rough-in only **145,486** sf 0.50 72,743

353 Security System

354 Security System **145,486** sf 3.50 509,201

355 SUBTOTAL 1,716,735

D5040 OTHER ELECTRICAL SYSTEMS



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Sharon, MA

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GFA 145,486

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION AR-1 NEW ADDITION

356	Miscellaneous						
357	Temporary power	1	ls	100,000.00	100,000		
358	Job conditions	1	ls	150,000.00	150,000		
359	Fees & Permits	1	ls	100,000.00	100,000		
360	SUBTOTAL					350,000	

TOTAL - ELECTRICAL	\$5,309,685
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E10 EQUIPMENT

367	E10 EQUIPMENT, GENERALLY						
368	Kiln	1	ea	5,000.00	5,000		
369	Science room/ Prep room equipment	6	ea	35,000.00	210,000		
370	Electrically operated projection screens	1	loc	15,000.00	15,000		
371	SUBTOTAL					230,000	

TOTAL - EQUIPMENT	\$230,000
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E20 FURNISHINGS

378	E2010 FIXED FURNISHINGS						
379	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500		
380	Window blinds	22,943	sf	7.00	160,601		
381	Science classrooms; casework	6	rms	30,000.00	180,000		
382	Casework/millwork allowance	145,486	gsf	12.00	1,745,832		
383	SUBTOTAL					2,113,933	
385	E2020 MOVABLE FURNISHINGS						
386	All movable furnishings to be provided and installed by owner						
387	SUBTOTAL					NIC	

TOTAL - FURNISHINGS	\$2,113,933
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F10 SPECIAL CONSTRUCTION

394	F10 SPECIAL CONSTRUCTION						
395	No items in this section						
396	SUBTOTAL						

TOTAL - SPECIAL CONSTRUCTION

F20 SELECTIVE BUILDING DEMOLITION

403	F2010 BUILDING ELEMENTS DEMOLITION						
404	No items in this section						
405	SUBTOTAL						
407	F2020 HAZARDOUS COMPONENTS ABATEMENT						
408	See main summary for HazMat allowance				See Summary		
409	SUBTOTAL						

TOTAL - SELECTIVE BUILDING DEMOLITION

PSR Report

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITework OPTION AR1

G SITEWORK

G10 SITE PREPARATION & DEMOLITION

Site construction fence/barricades	5,500	lf	18.00	99,000		
Site construction fence gates	1	ls	20,000.00	20,000		
Pavement/curbing removal	166,279	sf	1.00	166,279		
Miscellaneous demolition including utilities	1	ls	50,000.00	50,000		
Phasing/site logistics	1	ls	100,000.00	100,000		
<u>Site Earthwork</u>						
Strip topsoil and store	3,704	cy	12.00	44,448		
Fine grading	30,191	sy	1.00	30,191		
Cut and Fill; assume balanced site	26,210	cy	8.00	209,680		
Fill at demo-ed building - tunnels, pits etc	1	ls	75,000.00	75,000		
Silt fence/erosion control, wash bays, stock piles	5,500	lf	12.00	66,000		
Silt fence maintenance and monitoring	1	ls	20,000.00	20,000		
<u>Hazardous Waste Remediation</u>						
Remove existing underground fuel storage tanks					NIC	
Dispose/treat contaminated soils						
SUBTOTAL						880,598

G20 SITE IMPROVEMENTS

<u>Asphalt Paving; parking lot and roadway</u>	113,000	sf				
gravel base; 12" thick	4,185	cy	40.00	167,400		
asphalt; 4 1/2" thick	12,556	sy	30.00	376,680		
VGC	4,528	lf	39.00	176,592		
Line painting including crosswalk and heap space hatching	1	ls	20,000.00	20,000		
HC curb cuts	4	loc	350.00	1,400		
Signage	1	ls	20,000.00	20,000		
<u>New Asphalt Paving; parking lot; mill only</u>	53,279	sf				
Gravel base; 12"	1,973	cy	40.00	NR		
New asphalt paving	5,920	sy	20.00	NR		
VGC; reset existing and replace selected lengths	881	lf	20.00	NR		
<u>Pedestrian Paving</u>						
Concrete paving	80,830	sf				
gravel base; 8" thick	2,006	cy	40.00	80,240		
4" concrete paving	80,830	sf	9.00	727,470		
Concrete pavers at plaza	15,400	sf	20.00	308,000		
<u>Tennis Courts; resurface only</u>	24,610	sf				
gravel base; 12" thick	911	cy	40.00	36,440		
asphalt; colorized rubber surface	2,734	sy	55.00	150,370		
Tennis Court fence; with graphics	653	lf	90.00	58,770		
<u>Site Improvements</u>						
Flag pole	1	ea	5,000.00	5,000		
Retrofit bleachers; 700 seats	1	ls	50,000.00	50,000		
New press box with LULA	1	ls	160,000.00	160,000		
Resurface running track; base to remain	40,000	sf	7.00	280,000		
Outdoor classrooms; planters, paving, boardwalks etc.	1	ls	200,000.00	200,000		
Outdoor café					N/A	
Baseball field	75,000	sf				
Topsoil - amend existing topsoil	1,389	cy	25.00	34,725		
Sports seed mix	75,000	sf	0.30	22,500		
Infield	1	ls	20,000.00	20,000		
Pitchers mound	1	ls	10,000.00	10,000		
Backstop	1	ls	35,000.00	35,000		
Benches/dugouts	1	ls	25,000.00	25,000		
Bleachers; 100 seats	1	ls	16,000.00	16,000		
CLF 6ft H	1,100	lf	55.00	60,500		
Scoreboard	1	ls	20,000.00	20,000		
Irrigation	75,000	sf	1.15	86,250		
Softball field	77,000	sf				

PSR Report

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITEWORK OPTION ARI							
61	Topsoil - amend existing topsoil	1,426	cy	25.00	35,650		
62	Sports seed mix	77,000	sf	0.30	23,100		
63	Infield	1	ls	20,000.00	20,000		
64	Pitchers mound	1	ls	10,000.00	10,000		
65	Backstop	1	ls	25,000.00	25,000		
66	Benches/dugouts	1	ls	25,000.00	25,000		
67	Bleachers; 100 seats	1	ls	16,000.00	16,000		
68	CLF 6ft H	1,100	lf	55.00	60,500		
69	Scoreboard	1	ls	20,000.00	20,000		
70	Irrigation	77,000	sf	1.15	88,550		
71	Multi-Purpose field	54,000	sf				
72	Topsoil - amend existing topsoil	1,000	cy	25.00	25,000		
73	Sports seed mix	54,000	sf	0.30	16,200		
74	CLF 6ft H	960	lf	55.00	52,800		
75	Irrigation	54,000	sf	1.15	NR		
76	Granite benches	7	ea	5,000.00	35,000		
77	Granite seatwalls	300	lf	450.00	135,000		
78	Bike racks	1	ls	20,000.00	20,000		
78	Storage Units	3	ea	10,000.00	30,000		
79	Ornamental bollards; allowance	20	ea	1,500.00	30,000		
80	Greenhouse	1	ls	65,000.00	NR		
81	Concession bathroom building approx 2000sf	1	ls	800,000.00	800,000		
82	Artificial turf field; complete including shock pad and organic infill gravel base and flat drains	100,000	sf	12.00	1,200,000		
83	Fencing/gates	1	ea	50,000.00	50,000		
84	SUBTOTAL					5,866,137	
85							
86	<u>Landscaping</u>						
87	Topsoil - amend existing topsoil; minimum 6"	3,704	cy	25.00	92,600		
88	Lawn - loam & seed	100,000	sf	0.25	25,000		
89	Planting allowance	1	ls	100,000.00	100,000		
90	SUBTOTAL					217,600	
91							
92	G30 CIVIL MECHANICAL UTILITIES						
93	<u>Water supply</u>						
94	New DI piping; 6" Domestic	500	lf	75.00	37,500		
95	New DI piping; 8" Fire; loop	2,000	lf	90.00	180,000		
96	Connect to existing	2	loc	10,000.00	20,000		
97	FD connection	1	ea	2,000.00	2,000		
98	Gate valves	4	ea	750.00	3,000		
99	Additional fire hydrants	3	ea	5,000.00	15,000		
100	<u>Sanitary;</u>						
101	Sanitary; replace all existing grease traps and science waste traps	1	ls	30,000.00	30,000		
102	Upgrade existing WWTP system				see summary		
103	Connect to existing	2	loc	10,000.00	20,000		
104	<u>Storm water; Pricing includes E&B and bedding</u>						
105	Allowance for drainage systems at new & existing paving	247,109	sf	5.00	1,235,545		
106	<u>Gas service</u>						
107	E&B trench for new gas pipe - install by plumbing				assume ETR		
108	SUBTOTAL					1,543,045	
109							
110	G40 ELECTRICAL UTILITIES						
111	Connect to existing riser pole	1	ea	1,000.00	1,000		
112	Primary ductbank, 2-4" conduit empty (from Pond St.)	250	lf	30.00	7,500		
113	Manhole	1	ea	8,500.00	8,500		
114	Transformer				By Utility Co		
115	Transformer pad	1	ea	2,000.00	Civil		
116	Secondary ductbank						



PSR Report

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITework OPTION AR1							
117	Secondary service, 3000A	100	lf	720.00	72,000		
118	Generator duct bank	100	lf	65.00	6,500		
119	<u>Site lighting</u>						
120	Site lighting	1	ls	160,000.00	160,000		
121	Sports lighting	1	ls	450,000.00	NR		
122	<u>Site communications and security</u>						
123	Communication riser pole	1	ea	1,000.00	1,000		
124	Telecom handhole	1	ea	1,500.00	1,500		
125	Telecom ductbank, 4-4" conduit, empty	250	lf	60.00	15,000		
126	Site Security and blue phones	1	ls	50,000.00	50,000		
127	<u>Civil Work</u>						
128	Excavation and backfill	700	lf	35.00	24,500		
129	Concrete encasement	700	lf	42.00	29,400		
130	Crosswalk beacon	1	ls	75,000.00	75,000		
130	SUBTOTAL					451,900	
131	TOTAL - SITE DEVELOPMENT						\$8,959,280
132							



Sharon High School
Design Options
Sharon, MA

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PSR Report

GFA 240,874

CONSTRUCTION COST SUMMARY					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
OPTION N-4 NEW BUILDING					
A10 FOUNDATIONS					
A1010	Standard Foundations	\$2,705,350			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$3,362,441	\$6,067,791	\$25.19	8.3%
A20 BASEMENT CONSTRUCTION					
A2010	Basement Excavation	\$0			
A2020	Basement Walls	\$0	\$0	\$0.00	0.0%
B10 SUPERSTRUCTURE					
B1010	Upper Floor Construction	\$3,776,750			
B1020	Roof Construction	\$5,210,837	\$8,987,587	\$37.31	12.2%
B20 EXTERIOR CLOSURE					
B2010	Exterior Walls	\$4,180,793			
B2020	Windows	\$3,721,360			
B2030	Exterior Doors	\$73,260	\$7,975,413	\$33.11	10.9%
B30 ROOFING					
B3010	Roof Coverings	\$3,901,462			
B3020	Roof Openings	\$62,500	\$3,963,962	\$16.46	5.4%
C10 INTERIOR CONSTRUCTION					
C1010	Partitions	\$5,299,228			
C1020	Interior Doors	\$1,204,370			
C1030	Specialties/Millwork	\$2,052,302	\$8,555,900	\$35.52	11.6%
C20 STAIRCASES					
C2010	Stair Construction	\$389,000			
C2020	Stair Finishes	\$37,436	\$426,436	\$1.77	0.6%
C30 INTERIOR FINISHES					
C3010	Wall Finishes	\$2,167,866			
C3020	Floor Finishes	\$2,408,740			
C3030	Ceiling Finishes	\$2,649,614	\$7,226,220	\$30.00	9.8%
D10 CONVEYING SYSTEMS					
D1010	Elevator	\$140,000	\$140,000	\$0.58	0.2%
D20 PLUMBING					
D20	Plumbing	\$3,613,110	\$3,613,110	\$15.00	4.9%
D30 HVAC					
D30	HVAC	\$10,357,582	\$10,357,582	\$43.00	14.1%
D40 FIRE PROTECTION					
D40	Fire Protection	\$1,204,370	\$1,204,370	\$5.00	1.6%
D50 ELECTRICAL					
D5010	Complete System	\$9,389,697	\$9,389,697	\$38.98	12.8%



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CONSTRUCTION COST SUMMARY					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
OPTION N-4 NEW BUILDING					
E10 EQUIPMENT					
E10 Equipment		\$2,278,000	\$2,278,000	\$9.46	3.1%
E20 FURNISHINGS					
E2010 Fixed Furnishings		\$3,295,402			
E2020 Movable Furnishings	NIC		\$3,295,402	\$13.68	4.5%
F10 SPECIAL CONSTRUCTION					
F10 Special Construction		\$0	\$0	\$0.00	0.0%
F20 HAZMAT REMOVALS					
F2010 Building Elements Demolition		\$0			
F2020 Hazardous Components Abatement		\$0	\$0	\$0.00	0.0%
TOTAL DIRECT COST (Trade Costs)			\$73,481,470	\$305.06	100.0%



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Sharon, MA

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GFA 240,874

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION N-4 NEW BUILDING

GROSS FLOOR AREA CALCULATION

Lower Level 154,901
Upper Level 85,973

TOTAL GROSS FLOOR AREA (GFA) 240,874 sf

A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

033000 CONCRETE

Strip Footings	302	CY		
Foundation Walls	535	CY		
Spread Footings	722	CY		
Piers	110	CY		
Total Foundation Concrete	1,669	CY		

Strip footings

Formwork	5,172	sf	14.00	72,408
Re-bar	25,860	lbs.	1.40	36,204
Concrete material; 3,000 psi	302	cy	130.00	39,260
Placing concrete	302	cy	70.00	21,140

Foundation walls

Formwork	20,688	sf	18.00	372,384
Re-bar	41,376	lbs.	1.40	57,926
Concrete material; 3,000 psi	535	cy	130.00	69,550
Placing concrete	535	cy	70.00	37,450
Form shelf	2,586	lf	10.00	25,860

Spread Footings; 6 x 6

Formwork	576	sf	16.00	9,216
Re-bar	5,440	lbs.	14.00	76,160
Concrete material; 3,000 psi	34	cy	130.00	4,420
Placing concrete	34	cy	70.00	2,380
Set anchor bolts grout plates	48	ea	150.00	7,200

Spread Footings; 8 x 8

Formwork	9,280	sf	16.00	148,480
Re-bar	115,520	lbs.	1.40	161,728
Concrete material; 3,000 psi	722	cy	130.00	93,860
Placing concrete	722	cy	70.00	50,540
Set anchor bolts grout plates	580	ea	150.00	87,000

Spread Footings; 9 x 9

Formwork	11,232	sf	16.00	179,712
Re-bar	157,280	lbs.	1.40	220,192
Concrete material; 3,000 psi	983	cy	130.00	127,790
Placing concrete	983	cy	70.00	68,810
Set anchor bolts grout plates	624	ea	150.00	93,600

Piers/Pilasters

Formwork	7,512	sf	20.00	150,240
Re-bar	27,500	lbs.	1.40	38,500
Concrete material; 3,000 psi	110	cy	130.00	14,300
Placing concrete	110	cy	80.00	8,800

070001 WATERPROOFING, DAMPPROOFING AND CAULKING

Dampproofing at brick shelf	10,344	sf	3.00	NR
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072100 THERMAL INSULATION

Insulation	10,344	sf	3.00	31,032
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312000 EARTHWORK

Strip footings

Excavation	1,916	cy	15.00	28,740
Remove off site	302	cy	12.00	3,624



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION N-4 NEW BUILDING							
57	Backfill with selected material	1,614	cy	12.00	19,368		
58	<u>Spread footings</u>						
59	Excavation	5,058	cy	16.00	80,928		
60	Remove off site	1,739	cy	12.00	20,868		
61	Backfill with selected material	3,319	cy	12.00	39,828		
62	<u>Miscellaneous</u>						
63	Gravel fill beneath footings, 12"	1,099	cy	40.00	43,960		
64	Perimeter drain	2,586	lf	22.00	56,892		
65	Underslab E&B for plumbing	1	ls	80,000.00	80,000		
66	Dewatering for foundation work	1	ls	25,000.00	25,000		
67	SUBTOTAL					2,705,350	
68							
69	A1020 SPECIAL FOUNDATIONS						
70	No Work in this section						
71	SUBTOTAL					-	
72							
73	A1030 LOWEST FLOOR CONSTRUCTION						
74	<u>New Slab on grade, 5" thick</u>						
75	Excavation of unsuitable soil	22,948	cy	12.00	275,376		
76	Removal of unsuitable soils	22,948	cy	14.00	321,272		
77	Replacement with structural fill	22,948	cy	36.00	826,128		
78	Structural fill, 8"	3,844	cy	36.00	138,384		
79	Gravel fill, 8"	3,844	cy	40.00	153,760		
80	Rigid insulation	154,901	sf	2.25	348,527		
81	Vapor barrier	154,901	sf	1.00	154,901		
82	Compact existing sub-grade	154,901	sf	0.50	77,451		
83	Mesh reinforcing 15% lap	178,136	sf	1.10	195,950		
84	Concrete - 5" thick; 4,000 psi	2,530	cy	135.00	341,550		
85	Placing concrete	2,530	cy	45.00	113,850		
86	Finishing and curing concrete	154,901	sf	2.00	309,802		
87	Control joints - saw cut	154,901	sf	0.10	15,490		
88	<u>Miscellaneous</u>						
89	Elevator pit	1	ea	35,000.00	35,000		
90	Loading dock	1	ls	40,000.00	40,000		
91	Equipment pads	1	ls	15,000.00	15,000		
92	SUBTOTAL					3,362,441	
93							
94	TOTAL - FOUNDATIONS						\$6,067,791
95							
96							
97	A20 BASEMENT CONSTRUCTION						
98							
99	A2010 BASEMENT EXCAVATION						
100	No Work in this section						
101	SUBTOTAL					-	
102							
103	A2020 BASEMENT WALLS						
104	No Work in this section						
105	SUBTOTAL					-	
106							
107	TOTAL - BASEMENT CONSTRUCTION						
108							
109							
110	B10 SUPERSTRUCTURE						
111		12.81	lbs/sf		-		
112	B1010 FLOOR CONSTRUCTION	1,543	tns		-		
113	<u>Floor Structure - Steel:</u>						
114	Steel beams and columns, 14#/SF	602	tns	4,000.00	2,408,000		
115	Premium for HSS	151	tns	300.00	45,300		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION N-4 NEW BUILDING

116	Shear studs	17,195	ea	2.50	42,988		
117	<u>Floor Structure</u>						
118	2" 18 Ga. Metal galvanized floor Deck	85,973	sf	3.75	322,399		
119	WWF reinforcement	98,869	sf	1.10	108,756		
120	Concrete Fill to metal deck; 5-1/4" Light Weight	1,463	cy	175.00	256,025		
121	Place and finish concrete	85,973	sf	3.00	257,919		
122	Rebar to decks	25,792	lbs	1.20	30,950		
123	Misc. angles	85,973	sf	0.50	42,987		
124	<u>Miscellaneous</u>						
125	Fire proofing to columns and beams	85,973	sf	2.75	236,426		
126	Fire stopping floors	1	ls	25,000.00	25,000		
127	SUBTOTAL					3,776,750	

B1020 ROOF CONSTRUCTION

130	<u>Roof Structure - Steel:</u>						
130	Steel beams and columns at low roof, 15#/SF	192	tns	4,000.00	768,000		
131	Steel beams and columns at Gym Aud roof, 11#/SF	110	tns	4,000.00	440,000		
131	Steel beams and columns at main roof, 13#/SF	581	tns	4,000.00	2,324,000		
131	Steel trusses at gym + Aud; 250 lbs PLF	58	tns	4,500.00	261,000		
132	Premium for HSS	221	tns	300.00	66,300		
133	<u>Roof Structure</u>						
134	3" 20 Ga. galvanized Metal Roof Deck	134,901	sf	3.50	472,154		
135	Acoustic deck at gym + Auditorium	20,000	sf	9.00	180,000		
136	<u>Miscellaneous</u>						
137	Concrete at roof	25,585	sf	8.00	204,680		
137	Intumescent paint	1	ls	150,000.00	150,000		
138	Fire proofing to columns, beams and deck	114,901	sf	3.00	344,703		
139	SUBTOTAL					5,210,837	

TOTAL - SUPERSTRUCTURE

\$8,987,587

B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS

147	Exterior Wall Area - Solid Assume 65%	52,375	sf				
148							
149	042000 MASONRY						
150	New brick exterior wall (Utility Brick)- 80%	41,900	sf	34.00	1,424,600		
151	Gym, assume 12" CMU back up	5,040	sf	28.00	141,120		
152	Staging to exterior wall	80,577	sf	4.00	322,308		
153							
154	055000 MISC. METALS						
155	Stainless steel sign at main entrance	1	ls	10,000.00	10,000		
156	Misc. metals at masonry	46,940	sf	1.50	70,410		
157							
158	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
159	Air barrier	52,375	sf	6.50	340,438		
160	Air barrier/flashing at windows	16,589	lf	6.25	103,681		
161	Miscellaneous sealants to closure	52,375	sf	1.00	52,375		
162							
163	072100 THERMAL INSULATION						
164	Insulation	52,375	sf	2.25	117,844		
165							
166	076400 CLADDING						
167	Metal panel; 20% of solid area	10,475	sf	75.00	785,625		
168	Roof equipment screen	1	ls	100,000.00	100,000		
169							



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OPTION N-4 NEW BUILDING

170	092900	GYPSUM BOARD ASSEMBLIES					
171		6" metal stud backup	47,335	sf	9.00	426,015	
172		Gypsum Sheathing	47,335	sf	2.75	130,171	
173		Drywall lining to interior face of stud backup	47,335	sf	3.30	156,206	
174							
175		SUBTOTAL				4,180,793	

B2020 WINDOWS

177		Exterior Wall Area - Glazed Assume 35%	28,202	sf			
178							
179	061000	ROUGH CARPENTRY					
180		Wood blocking at openings	16,589	lf	12.00	199,068	
181							
182	070001	WATERPROOFING, DAMPPROOFING AND CAULKING					
183		Backer rod & double sealant	16,589	lf	8.50	141,007	
184							
185	080001	METAL WINDOWS					
186		Windows, double glazed; 60% of glazed area	16,921	sf	100.00	1,692,100	
187		Curtainwall, double glazed; 40% of glazed area	11,281	sf	135.00	1,522,935	
188		Sunshades; horizontal	1	ls	150,000.00	150,000	
189							
190	089000	LOUVERS					
191		Louvers	250	sf	65.00	16,250	
192		SUBTOTAL				3,721,360	
193							

B2030 EXTERIOR DOORS

195		Glazed entrance doors including frame and hardware; double door	7	pr	8,000.00	56,000	
196							
197		Glazed entrance doors including frame and hardware; single door	3	ea	4,000.00	12,000	
198							
199		HM doors, frames and hardware- Double	2	pr	2,000.00	4,000	
200		Backer rod & double sealant	180	lf	4.00	720	
201		Wood blocking at openings	180	lf	3.00	540	
202		SUBTOTAL				73,260	

TOTAL - EXTERIOR CLOSURE

\$7,975,413

B30 ROOFING

B3010 ROOF COVERINGS

209		Roofing complete	162,646	sf	22.00	3,578,212	
210		Fascia/soffits	2,586	lf	125.00	323,250	
211		SUBTOTAL				3,901,462	

B3020 ROOF OPENINGS

213		Skylights, allow	1	ls	30,000.00	30,000	
214							
215		Stage vents	1	ls	30,000.00	30,000	
216		Roof hatch	1	loc	2,500.00	2,500	
217		SUBTOTAL				62,500	

TOTAL - ROOFING

\$3,963,962

C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS

225		Miscellaneous partitions - glazing, GWB assemblies, etc.	240,874	gsf	22.00	5,299,228	
226		SUBTOTAL				5,299,228	

C1020 INTERIOR DOORS

229		Doors; complete	240,874	gsf	5.00	1,204,370	
230		SUBTOTAL				1,204,370	



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OPTION N-4 NEW BUILDING

C1030 SPECIALTIES / MILLWORK

055000 MISCELLANEOUS METALS

Auditorium - catwalk, rails etc	1	ls	400,000.00	400,000		
Miscellaneous metals throughout building	240,874	sf	1.50	361,311		

061000 ROUGH CARPENTRY

Backer panels in electrical closets	1	ls	10,000.00	10,000		
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064020 INTERIOR ARCHITECTURAL WOODWORK

Administration desk	1	ls	14,000.00	14,000		
Media center desk	1	ls	20,000.00	20,000		
Window sill; Solid surface	3,318	lf	50.00	165,900		

070001 WATERPROOFING, DAMPPROOFING AND CAULKING

Miscellaneous sealants throughout building	240,874	sf	1.25	301,093		
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101100 VISUAL DISPLAY SURFACES

Marker boards/tackboards	240,874	sf	1.00	240,874		
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101400 DISPLAY CASES

Display cases	240,874	gsf	0.25	60,219		
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101400 SIGNAGE

Building directory	1	loc	3,000.00	3,000		
Room Signs	240,874	sf	0.35	84,306		
Other signage/graphics	1	ls	10,000.00	10,000		

102110 TOILET COMPARTMENTS

Toilet partitions and accessories	240,874	sf	0.80	192,699		
Janitors Closet Accessories	3	rms	300.00	900		

104400 FIRE PROTECTION SPECIALTIES

Fire extinguisher cabinets	80	ea	350.00	28,000		
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105000 LOCKERS

Lockers, full height	800	opes	200.00	160,000		
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SUBTOTAL 2,052,302

TOTAL - INTERIOR CONSTRUCTION

\$8,555,900

C20 STAIRCASES

C2010 STAIR CONSTRUCTION

Feature stair	2	flt	75,000.00	150,000		
Metal pan stair; egress stair	5	flt	25,000.00	125,000		
Concrete fill to stairs	7	flt	2,000.00	14,000		
Guardrail at open to below	1	ls	100,000.00	100,000		
SUBTOTAL					389,000	

C2020 STAIR FINISHES

High performance coating to stairs including all railings etc.	7	flt	3,000.00	21,000		
Rubber tile at stairs - landings	500	sf	10.00	5,000		
Rubber tile at stairs - treads & risers	600	lft	19.06	11,436		
SUBTOTAL					37,436	

TOTAL - STAIRCASES

\$426,436

C30 INTERIOR FINISHES



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION N-4 NEW BUILDING

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C3010 WALL FINISHES

Wall finishes 240,874 sf 9.00 2,167,866
SUBTOTAL 2,167,866

C3020 FLOOR FINISHES

Floor finishes 240,874 sf 10.00 2,408,740
SUBTOTAL 2,408,740

C3030 CEILING FINISHES

Ceiling finishes 240,874 sf 11.00 2,649,614
SUBTOTAL 2,649,614

TOTAL - INTERIOR FINISHES

\$7,226,220

D10 CONVEYING SYSTEMS

D1010 ELEVATOR

New elevator; 2 stop; passenger 1 ea 140,000.00 140,000
SUBTOTAL 140,000

TOTAL - CONVEYING SYSTEMS

\$140,000

D20 PLUMBING

D20 PLUMBING, GENERALLY

Plumbing; New equipment, fixtures, storm and piping 240,874 sf 15.00 3,613,110
SUBTOTAL 3,613,110

TOTAL - PLUMBING

\$3,613,110

D30 HVAC

D30 HVAC, GENERALLY

HVAC; New gas fired boilers, perimeter radiation, VRF w/HRU's to classrooms, votech & comm ed. DX Rtu's to music/band, PE, media, aud, drama & cafeteria. H&V RTU to gym & locker rooms. Kitchen MAU, ductless splits to equipment rooms 240,874 sf 43.00 10,357,582
SUBTOTAL 10,357,582

TOTAL - HVAC

\$10,357,582

D40 FIRE PROTECTION

D40 FIRE PROTECTION, GENERALLY

Fire Protection; (no fire pump req'd) 240,874 sf 5.00 1,204,370
SUBTOTAL 1,204,370

TOTAL - FIRE PROTECTION

\$1,204,370

D50 ELECTRICAL

D5010 SERVICE & DISTRIBUTION

Normal Power
3000A 480/277V switchboard 1 ea 100,000.00 100,000
Normal power transformer's, panelboards and feeders 240,874 sf 4.50 1,083,933
200KW diesel emergency generator with sound / wp cover 1 ea 65,000.00 65,000
Emergency power transformers, panelboards and feeders 240,874 sf 2.50 602,185
Equipment wiring feed and connection



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OPTION N-4 NEW BUILDING

355	Equipment wiring feed and connection	240,874	sf	2.00	481,748		
356	Kitchen Equipment wiring feed and connection	1	ls	25,000.00	25,000		
356	SUBTOTAL					2,357,866	

D5020 LIGHTING & POWER

359	LED lighting allowance	240,874	sf	5.50	1,324,807		
360	Exit lighting	240,874	sf	0.25	60,219		
361	<u>Lighting controls</u>						
362	Automated lighting controls system	240,874	sf	1.00	240,874		
363	<u>Branch devices</u>						
364	Branch devices	240,874	sf	0.50	120,437		
365	<u>Lighting and branch circuitry</u>						
366	Branch circuitry	240,874	sf	6.00	1,445,244		
367	SUBTOTAL					3,191,581	

D5030 COMMUNICATION & SECURITY SYSTEMS

370	<u>Fire Alarm</u>						
371	New FA system	240,874	sf	2.50	602,185		
372	<u>Telephone/Data/CATV</u>						
373	Fit-Out Closets, devices and cabling	240,874	sf	2.50	602,185		
374	Rough-in	240,874	sf	1.00	240,874		
375	<u>Clock/PA System</u>						
376	Clock/PA System	240,874	sf	1.00	240,874		
377	Classroom speech reinforcement	240,874	sf	0.80	192,699		
378	<u>Gymnasium</u>						
379	Sound system	1	ls	10,000.00	10,000		
379	Scoreboard	1	ls	7,500.00	7,500		
380	Gymnasium equipment feed and connections	1	ls	15,000.00	15,000		
380	<u>Auditorium / Drama</u>						
381	Stage lighting and dimming system	1	ls	250,000.00	250,000		
382	Sound system	1	ls	125,000.00	125,000		
383	<u>AV / TV Studio / Media Center</u>						
384	AV equipment provided by others					By Others	
385	Rough-in only	240,874	sf	1.00	240,874		
386	<u>Security System</u>						
387	Security System	240,874	sf	3.50	843,059		
388	SUBTOTAL					3,370,250	

D5040 OTHER ELECTRICAL SYSTEMS

391	<u>Miscellaneous</u>						
392	Temporary power	1	ls	150,000.00	150,000		
392	Job conditions	1	ls	200,000.00	200,000		
393	Fees & Permits	1	ls	120,000.00	120,000		
394	SUBTOTAL					470,000	

TOTAL - ELECTRICAL

\$9,389,697

E10 EQUIPMENT

401	E10 EQUIPMENT, GENERALLY						
402	Food Service equipment	1	ls	600,000.00	600,000		
403	Theater rigging	1	ls	235,000.00	235,000		
404	Theater AV	1	ls	400,000.00	400,000		
405	Gym wall pads	1	ls	20,000.00	20,000		
406	Basketball backstops; swing up; electric operated	6	loc	10,000.00	60,000		
407	Gymnasium dividing net; electrically operated	1	ls	30,000.00	30,000		
408	Volleyball net and standards	1	ls	5,000.00	5,000		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION N-4 NEW BUILDING

409	Telescoping bleachers (800 seats)	1	ls	150,000.00	150,000		
410	Kiln	1	ea	5,000.00	5,000		
411	Science room/ Prep room equipment	6	ea	35,000.00	210,000		
412	Loading dock equipment	1	ls	20,000.00	20,000		
413	Blackbox	1	ls	125,000.00	125,000		
414	Electrically operated projection screens	1	loc	15,000.00	15,000		
415	Auditorium seating	1,300	ea	310.00	403,000		
416	SUBTOTAL					2,278,000	

TOTAL - EQUIPMENT	\$2,278,000
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E20 FURNISHINGS

E2010 FIXED FURNISHINGS

423	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500		
425	Window blinds	28,202	sf	7.00	197,414		
426	Counters, base cabinets, tall storage in classrooms and other rooms	240,874	gsf	12.00	2,890,488		
427	Science classrooms; casework	6	rms	30,000.00	180,000		
428	SUBTOTAL					3,295,402	

E2020 MOVABLE FURNISHINGS

430	All movable furnishings to be provided and installed by owner						
432	SUBTOTAL					NIC	

TOTAL - FURNISHINGS	\$3,295,402
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F10 SPECIAL CONSTRUCTION

F10 SPECIAL CONSTRUCTION

439	No items in this section						
441	SUBTOTAL						

TOTAL - SPECIAL CONSTRUCTION	
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F20 SELECTIVE BUILDING DEMOLITION

F2010 BUILDING ELEMENTS DEMOLITION

448	No items in this section						
449	SUBTOTAL						

F2020 HAZARDOUS COMPONENTS ABATEMENT

453	See main summary for HazMat allowance				See Summary		
454	SUBTOTAL						

TOTAL - SELECTIVE BUILDING DEMOLITION	
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PSR Report

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITEWORK OPTION N4

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G SITEWORK

G10 SITE PREPARATION & DEMOLITION

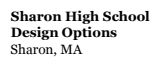
Site construction fence/barricades	5,500	lf	18.00	99,000	
Site construction fence gates	1	ls	20,000.00	20,000	
Pavement/curbing removal	166,279	sf	1.00	166,279	
Miscellaneous demolition including utilities	1	ls	200,000.00	200,000	
Phasing/site logistics	1	ls	150,000.00	150,000	
<u>Site Earthwork</u>					
Strip topsoil and store	3,704	cy	12.00	44,448	
Fine grading	29,438	sy	1.00	29,438	
Cut and Fill; assume balanced site	46,320	cy	8.00	370,560	
Fill at demo-ed building - tunnels, pits etc	1	ls	150,000.00	150,000	
Silt fence/erosion control, wash bays, stock piles	5,500	lf	12.00	66,000	
Silt fence maintenance and monitoring	1	ls	20,000.00	20,000	
<u>Hazardous Waste Remediation</u>					
Remove existing underground fuel storage tanks					NIC
Dispose/treat contaminated soils					
SUBTOTAL					1,315,725

G20 SITE IMPROVEMENTS

<u>Asphalt Paving; parking lot and roadway</u>							
gravel base; 12" thick	131,137	sf					
asphalt; 4 1/2" thick	4,857	cy	40.00	194,280			
VGC	14,571	sy	30.00	437,130			
Line painting including crosswalk and heap space hatching	8,699	lf	39.00	339,261			
HC curb cuts	1	ls	20,000.00	20,000			
Signage	4	loc	350.00	1,400			
<u>Pedestrian Paving</u>							
Concrete paving	1	ls	20,000.00	20,000			
gravel base; 8" thick	85,743	sf					
4" concrete paving	2,128	cy	40.00	85,120			
Concrete pavers at plaza	85,743	sf	9.00	771,687			
<u>Tennis Courts:</u>							
gravel base; 12" thick	29,294	sf					
asphalt; colorized rubber surface	1,085	cy	40.00	43,400			
Tennis Court fence; with graphics	3,255	sy	55.00	179,025			
<u>Site Improvements</u>							
Flag pole	1,325	lf	90.00	119,250			
Retrofit bleachers; 700 seats	1	ea	5,000.00	5,000			
New press box with LULA	1	ls	50,000.00	50,000			
Resurface running track; base to remain	1	ls	160,000.00	160,000			
Outdoor classrooms; planters, paving, boardwalks etc.	40,000	sf	7.00	280,000			
Outdoor café	1	loc	200,000.00	200,000			
Pergola	1	loc	50,000.00	50,000			
Stone steps	1	ls	10,000.00	10,000			
Table and chairs						By Owner	
<u>Baseball field</u>							
Topsoil - amend existing topsoil	75,000	sf					
Sports seed mix	1,389	cy	25.00	34,725			
Infield	75,000	sf	0.30	22,500			
Pitchers mound	1	ls	20,000.00	20,000			
Backstop	1	ls	10,000.00	10,000			
Benches/dugouts	1	ls	35,000.00	35,000			
Bleachers; 100 seats	1	ls	25,000.00	25,000			
CLF 6ft H	1	ls	16,000.00	16,000			
Scoreboard	1,100	lf	55.00	60,500			
Irrigation	1	ls	20,000.00	20,000			
Softball field	75,000	sf	1.15	86,250			
Topsoil - amend existing topsoil	77,000	sf					
	1,426	cy	25.00	35,650			

PSR Report

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITEWORK OPTION N4							
62	Sports seed mix	77,000	sf	0.30	23,100		
63	Infield	1	ls	20,000.00	20,000		
64	Pitchers mound	1	ls	10,000.00	10,000		
65	Backstop	1	ls	25,000.00	25,000		
66	Benches/dugouts	1	ls	25,000.00	25,000		
67	Bleachers; 100 seats	1	ls	16,000.00	16,000		
68	CLF 6ft H	1,100	lf	55.00	60,500		
69	Scoreboard	1	ls	20,000.00	20,000		
70	Irrigation	77,000	sf	1.15	88,550		
71	Granite benches	7	ea	5,000.00	35,000		
72	Granite seatwalls	300	lf	450.00	135,000		
73	Bike racks	1	ls	20,000.00	20,000		
74	Storage Units	3	ea	10,000.00	30,000		
75	Ornamental bollards; allowance	20	ea	1,500.00	30,000		
76	Greenhouse	1	ls	65,000.00	NR		
77	Concession bathroom building approx 2000sf	1	ls	800,000.00	800,000		
78	Artificial turf field; complete including shock pad and organic infill gravel base and flat drains	100,000	sf	12.00	1,200,000		
79	Fencing/gates	1	ea	50,000.00	50,000		
80	SUBTOTAL					6,294,628	
81							
82	<u>Landscaping</u>						
83	Topsoil - amend existing topsoil; minimum 6"	3,704	cy	25.00	92,600		
84	Lawn - loam & seed	140,000	sf	0.25	35,000		
85	Planting allowance	1	ls	150,000.00	150,000		
86	SUBTOTAL					277,600	
87							
88	G30 CIVIL MECHANICAL UTILITIES						
89	<u>Water supply</u>						
90	New DI piping; 6" Domestic	500	lf	75.00	37,500		
91	New DI piping; 8" Fire; loop	2,000	lf	90.00	180,000		
92	Connect to existing	2	loc	10,000.00	20,000		
93	FD connection	1	ea	2,000.00	2,000		
94	Gate valves	4	ea	750.00	3,000		
95	Additional fire hydrants	3	ea	5,000.00	15,000		
96	<u>Sanitary;</u>						
97	Sanitary; replace all existing grease traps and science waste traps	1	ls	30,000.00	30,000		
98	Upgrade existing WWTP system				see summary		
99	Connect to existing	2	loc	10,000.00	20,000		
100	<u>Storm water; Pricing includes E&B and bedding</u>						
101	Allowance for drainage systems at new & existing paving	264,939	sf	6.00	1,589,634		
102	<u>Gas service</u>						
103	E&B trench for new gas pipe - install by plumbing				assume ETR		
104	SUBTOTAL					1,897,134	
105							
106	G40 ELECTRICAL UTILITIES						
107	Connect to existing riser pole	1	ea	1,000.00	1,000		
108	Primary ductbank, 2-4" conduit empty (from Pond St.)	250	lf	30.00	7,500		
109	Manhole	1	ea	8,500.00	8,500		
110	Transformer				By Utility Co		
111	Transformer pad	1	ea	2,000.00	Civil		
112	Secondary ductbank						
113	Secondary service, 3000A	100	lf	720.00	72,000		
114	Generator duct bank	100	lf	65.00	6,500		
115	<u>Site lighting</u>						
116	Site lighting	1	ls	160,000.00	160,000		
117	Sports lighting	1	ls	450,000.00	NR		
118	<u>Site communications and security</u>						
119	Communication riser pole	1	ea	1,000.00	1,000		



PSR Report

SITework OPTION N4

120
121
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Sharon High School
Sharon, MA

March 5, 2019

GRAND SUMMARY

R-1 RENOVATION	\$75,381,717
AR-1 RENOVATION ADDITION	\$123,985,803
N-4 REPLACEMENT	\$120,942,079

STUDY
Sharon High School
Sharon, MA

5-Mar-19

Designer: Tappe Architects, Inc.

R - 1 BASE REPAIR

	GSF		COST PER S.F.	TOTAL
RENOVATION	168,422	GSF	\$263.14	\$44,318,421
HAZARDOUS WASTE REMOVAL				\$1,719,300
MODULAR CLASSROOM				\$2,400,000
SITE COST				\$1,336,050
TOTAL DIRECT COST				----- \$49,773,771
CM AT RISK CHPTR 149A				
DESIGN CONTINGENCY		12%		\$5,972,852
CM CONTINGENCY		3.0%		\$1,672,399
ESCALATION (FALL 2020)		6.0%		\$3,344,797
GENERAL CONDITIONS	45	MOS	\$160,000	\$7,200,000
GENERAL REQUIREMENTS		3.5%		\$2,378,734
BUILDING PERMIT		0%		\$0
P&P BOND & INSURANCE		2%		\$1,406,851
PROFIT		2.5%		\$1,793,735
PHASING PREMIUM		2.5%		\$1,838,578
TOTAL CONSTRUCTION COST				----- \$75,381,717
COST PER SF				\$447.58

STUDY
Sharon High School
Sharon, MA

5-Mar-19

Designer: Tappe Architects, Inc.

AR - 1 RENOVATION ADDITION

	GSF		COST PER S.F.	TOTAL
ADDITION	145,486	GSF	\$307.01	\$44,665,842
RENOVATION	104,442	GSF	\$292.51	\$30,550,288
DEMOLITION	63,980	GSF	\$8.00	\$511,840
HAZARDOUS WASTE REMOVAL				\$1,719,300
SITE COST				\$9,401,555
TOTAL DIRECT COST				----- \$86,848,825
CM AT RISK CHPTR 149A				
DESIGN CONTINGENCY		12%		\$10,421,859
CM CONTINGENCY		3.0%		\$2,918,121
ESCALATION (FALL 2020)		6.0%		\$5,836,241
GENERAL CONDITIONS	36	MOS	\$160,000	\$5,760,000
GENERAL REQUIREMENTS		3.5%		\$3,912,477
BUILDING PERMIT		0%		\$0
P&P BOND & INSURANCE		2%		\$2,313,950
PROFIT		2.5%		\$2,950,287
PHASING PREMIUM		2.5%		\$3,024,044
TOTAL CONSTRUCTION COST				----- \$123,985,803
COST PER SF				\$496.09

STUDY
Sharon High School
Sharon, MA

5-Mar-19

Designer: Tappe Architects, Inc.

N-4 REPLACEMENT

	GSF		COST PER S.F.	TOTAL
BUILDING COST	240,874	GSF	\$309.39	\$74,524,972
DEMOLITION	168,422	GSF	\$7.00	\$1,178,954
HAZARDOUS WASTE REMOVAL				\$1,719,300
SITE COST				\$10,983,440
TOTAL DIRECT COST				----- \$88,406,666
CM AT RISK CHPTR 149A				
DESIGN CONTINGENCY		12%		\$10,608,800
CM CONTINGENCY		3.0%		\$2,970,464
ESCALATION (FALL 2020)		6.0%		\$5,940,928
GENERAL CONDITIONS	24	MOS	\$160,000	\$3,840,000
GENERAL REQUIREMENTS		3.5%		\$3,911,840
BUILDING PERMIT		0%		\$0
P&P BOND & INSURANCE		2%		\$2,313,574
PROFIT		2.5%		\$2,949,807
TOTAL CONSTRUCTION COST				----- \$120,942,079
COST PER SF				\$502.10

PROJECT: Sharon High School
 LOCATION: Sharon, MA
 CLIENT: PMA Consultants
 DATE: 05-Mar-19

No.: 19015

SUMMARY

A. SUBSTRUCTURE

A10 - FOUNDATIONS

A1010 STANDARD FOUNDATIONS

A1020 SPECIAL FOUNDATIONS

A1030 SLAB ON GRADE

A20 - BASEMENT CONSTRUCTION

A2010 BASEMENT EXCAVATION

A2020 BASEMENT WALLS

B. SHELL

B10 - SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

B1020 ROOF CONSTRUCTION

B20 - EXTERIOR ENCLOSURE

B2010 EXTERIOR WALLS

B2020 EXTERIOR WINDOWS

B2030 EXTERIOR DOORS

B30 - ROOFING

B3010 ROOF COVERINGS

B3020 ROOF OPENINGS

C. INTERIORS

C10 - INTERIOR CONSTRUCTION

C1010 PARTITIONS

C1020 INTERIOR DOORS

C1030 FITTINGS

C20 - STAIRS

C2010 STAIR CONSTRUCTION

C2020 STAIR FINISHES

OPT R-1 RENO ESTIMATE TOTAL	OPT AR-1 ADD ESTIMATE TOTAL	OPT AR-1 RENO ESTIMATE TOTAL	OPT N-4 REPL ESTIMATE TOTAL
25,000	2,425,792	242,341	3,933,723
0	0	0	0
166,800	1,048,738	109,300	1,976,145
0	0	0	0
0	0	0	0
0	2,630,060	30,850	3,558,558
84,000	2,789,375	318,306	5,158,840
531,880	3,353,839	2,316,000	4,124,353
4,255,000	3,086,916	1,543,886	3,735,865
121,150	103,550	17,600	121,150
3,724,344	1,891,000	2,300,000	3,541,000
60,400	60,150	27,750	87,900
1,530,603	3,056,264	1,815,502	4,570,579
1,149,790	955,567	712,908	1,630,657
1,620,242	896,350	1,135,184	2,116,854
32,500	198,750	38,750	443,500
9,638	35,538	9,638	76,870

Sharon High School

C30 - INTERIOR FINISHES
 C3010 WALL FINISHES
 C3020 FLOOR FINISHES
 C3030 CEILING FINISHES

D. SERVICES

D10 - CONVEYING
 D1010 ELEVATORS & LIFTS
 D1010 ESCALATORS & MOVING WALKS
 D1090 OTHER CONVEYING SYSTEMS

D20 - PLUMBING

D2010 PLUMBING

D30 - HVAC

D3010 HVAC

D40 - FIRE PROTECTION

D4010 SPRINKLERS
 D4020 STANDPIPES
 D4030 FIRE PROTECTION SPECIALTIES
 D4090 OTHER FIRE PROTECTION SYSTEMS

D50 - ELECTRICAL

D5010 ELECTRICAL SERVICE & DISTRIBUTION
 D5020 LIGHTING & BRANCH WIRING
 D5030 COMMUNICATION & SECURITY
 D5090 OTHER ELECTRICAL SYSTEMS

E. EQUIPMENT & FURNISHINGS**E10 - EQUIPMENT**

E1010 COMMERCIAL EQUIPMENT
 E1020 INSTITUTIONAL EQUIPMENT
 E1030 VEHICULAR EQUIPMENT
 E1090 OTHER EQUIPMENT

E20 - FURNISHINGS

E 2010 FIXED FURNISHINGS
 E2020 MOVABLE FURNISHINGS

F. SPECIAL CONSTRUCTION & DEMOLITION**F10 - SPECIAL CONSTRUCTION**

F1010 SPECIAL STRUCTURES

OPT R-1 RENO ESTIMATE TOTAL	OPT AR-1 ADD ESTIMATE TOTAL	OPT AR-1 RENO ESTIMATE TOTAL	OPT N-4 REPL ESTIMATE TOTAL
1,686,750	934,555	1,217,414	2,143,997
1,890,047	1,360,304	1,199,218	2,422,032
2,105,275	1,818,575	1,305,525	3,010,925
200,750	115,750	0	115,750
0	0	0	0
0	0	0	0
2,652,647	2,291,405	1,644,962	3,793,766
8,284,256	6,983,328	5,013,216	11,561,952
866,583	733,784	490,877	1,207,108
0	0	0	0
0	0	0	0
0	0	0	0
1,108,294	889,027	543,098	1,385,045
1,557,904	1,345,746	966,089	2,228,085
1,869,484	1,614,895	1,159,306	2,673,701
2,016,011	1,741,467	1,250,171	2,883,262
2,165,900	212,900	1,953,000	2,290,900
0	0	0	0
0	0	0	0
338,700	3,500	335,200	338,700
2,367,822	2,088,716	1,447,347	3,393,758
0	0	0	0
0	0	0	0

Sharon High School

F20 - SELECTIVE BUILDING DEMOLITION				
F2010 BUILDING ELEMENTS DEMOLITION				
F2020 HAZARDOUS COMPONENTS ABATEMENT				
G. BUILDING SITEWORK				
G10 - SITE PREPARATION				
G1010 SITE CLEARING	85,150	0	337,375	417,889
G1020 SITE DEMOLITION & RELOCATIONS	75,000	0	565,807	557,016
G1030 SITE EARTHWORK	0	0	485,118	730,561
G1040 HAZARDOUS WASTE REMEDIATION	0	0	0	0
G20 - SITE IMPROVEMENTS				
G2010 ROADWAYS	382,000	0	741,300	940,668
G2020 PARKING LOTS	0	0	0	0
G2030 PEDESTRIAN PAVING	0	0	776,506	701,117
G2040 SITE DEVELOPMENT	100,000	0	4,060,049	5,129,218
G2050 LANDSCAPING	0	0	314,749	371,320
G30 - SITE MECHANICAL UTILITIES				
G3010 WATER SUPPLY	0	0	253,452	253,452
G3020 SANITARY SEWER	468,900	0	479,900	494,900
G3030 STORM SEWER	150,000	0	961,000	961,000
G3040 HEATING DISTRIBUTION	0	0	0	0
G3050 COOLING DISTRIBUTION	0	0	0	0
G3060 FUEL DISTRIBUTION	0	0	18,750	18,750
G3090 OTHER SITE MECHANICAL UTILITIES	0	0	0	0
G40 - SITE ELECTRICAL UTILITIES				
G4010 ELECTRICAL DISTRIBUTION	0	0	99,500	99,500
G4020 SITE LIGHTING	75,000	0	308,050	308,050
G4030 SITE COMMUNICATIONS & SECURITY	0	0	0	0
G4090 OTHER SITE ELECTRICAL UTILITIES	0	0	0	0
G90 - OTHER SITE CONSTRUCTION				
G9010 SERVICE AND PEDESTRIAN TUNNELS	0	0	0	0
G9090 OTHER SITE SYSTEMS	0	0	0	0
TOTAL DIRECT COST	47,373,771	44,665,842	41,671,143	87,440,142

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
A. SUBSTRUCTURE										
A10 - FOUNDATIONS										
A1010 STANDARD FOUNDATIONS										
033000 CAST IN PLACE CONCRETE										
Wall Footing 1' x 3':										
4000 psi, NW, (incl. placement)	\$205.00	CY								
Formwork	\$7.50	SFCA								
Rebar	\$1.20	LBS								
			162	33,210					173	35,465
			2,918	21,885					3,120	23,400
			8,100	9,720					8,650	10,380
Column Footing 6' x 6 x 2'										
4000 psi, NW, (incl. placement)	\$205.00	CY								
Formwork	\$8.50	SFCA								
Rebar	\$1.20	LBS								
			85	17,425					83	17,015
			1,536	13,056					1,488	12,648
			6,375	7,650					6,225	7,470
Column Footing 8' x 8 x 2'										
4000 psi, NW, (incl. placement)	\$205.00	CY								
Formwork	\$8.50	SFCA								
Rebar	\$1.20	LBS								
			460	94,300					692	141,860
			6,208	52,768					9,344	79,424
			34,500	41,400					51,900	62,280
Column Footing 9' x 9 x 2'										
4000 psi, NW, (incl. placement)	\$205.00	CY								
Formwork	\$8.50	SFCA								
Rebar	\$1.20	LBS								
			576	118,080					1,746	357,930
			6,912	58,752					20,952	178,092
			43,200	51,840					130,950	157,140
Foundation Wall:										
4000 psi, NW, (incl. placement)	\$210.00	CY								
Formwork - 4'	\$15.00	SFCA								
			432	90,720					516	108,360
			17,496	262,440					20,912	313,680

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Brick Shelf	\$15.00	LF	2,187	32,805					2,614	39,210
Reinforcing steel	\$1.20	LBS	64,800	77,760					77,400	92,880
Grade Beam @ brace frames	\$850.00	CY	30	25,500					40	34,000
Aud Wall Footing	\$400.00	CY							34	13,600
Aud Knee wall	\$1,050.00	CY							36	37,800
12" Elevator mat	\$575.00	CY	6	3,450					6	3,450
Elevator pit wall	\$800.00	CY	6	4,800					6	4,800
Elev. sump pit	\$1,200.00	LS	1	1,200					1	1,200
Canopy pier	\$1,200.00	EA	8	9,600					8	9,600
Pilasters	\$1,200.00	CY	60	72,000					75	90,000
Equipment pads	\$6,500.00	LS	1	6,500					1	6,500
Loading Dock	\$35,000.00	LS	1	35,000					1	35,000
Concrete heating, protection and sup	\$1.50	SF	83,106	124,659					156,568	234,852
RENOVATED BUILDING:										
New Elevator Pit	\$25,000.00	LS								
Underpin and rework at Add.	\$100,000.00	LS	1	100,000						
New Brace Frame Foundations	\$12,500.00	LOC					6	75,000		
New Foundation at Bldg Removal	\$300.00	LF					355	106,500		
072100 INSULATION										
2" Rigid ext. found. insul w/prot.bd	\$3.30	SF	8,748	28,868					10,456	34,505
071000 DAMPPROOF., WATERPROOF. & CAULKING*										
Foundation dampproofing	\$2.05	SF	8,748	17,933					10,456	21,435
Elev. pit waterproofing	\$4,100.00	EA	1	4,100					1	4,100
310000 EARTHWORK										

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DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Masonry Veneer:										
Jumbo Brick Veneer - 70% of area	\$33.00	SF			24,614	812,262			31,535	1,040,655
Precast window lintel	\$65.00	LF			1,952	126,880			2,625	170,625
Precast window sill - typ.	\$45.00	LF			1,952	87,840			2,625	118,125
Canopy col. -complete (8 EA)	\$4,000.00	EA			8	32,000			8	32,000
Precast trim and detail allowance	\$5.00	SF			24,614	123,070			31,535	157,675
Masonry flashing	\$0.65	SF			24,614	15,999			31,535	20,498
12" cmu back - up	\$28.00	SF							5,040	141,120
RENOVATION:										
Replace Entire Exterior Wall	\$100.00	SF								
Masonry Restoration	\$5.00	SF	100,000	500,000			23,000	2,300,000		
<u>054000 COLD FORMED METAL FRAMING</u>										
3" Soffit/eave framing	\$5.25	SF			4,374	22,964			5,228	27,447
3" Canopy ceiling framing	\$5.25	SF			1,500	7,875			1,500	7,875
1/2" Dens glass sheathing -soffit	\$3.00	SF			4,374	13,122			5,228	15,684
1/2" Dens glass sheathing -ceiling	\$3.00	SF			1,500	4,500			1,500	4,500
8" x 18 Ga. stud @ typical wall	\$10.25	SF			35,163	360,421			38,010	389,603
1/2" Dens glass sheathing-ext. wall	\$3.05	SF			35,163	107,247			38,010	115,931
<u>050001 MISCELLANEOUS & ORNAMENTAL IRON*</u>										
Galv, loose lintel	\$40.00	LF			1,952	78,080			2,625	105,000
*Relieving angle carried w/Structure										
<u>071326 AIR & VAPOR BARRIERS</u>										
Adhered air & vapor barrier - wall	\$8.00	SF			35,163	281,304			43,050	344,400
Adhered air & vapor barrier - soffit/c	\$8.00	SF			4,374	34,992			5,228	41,824

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DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
B2030 EXTERIOR DOORS										
<u>080001 METAL WINDOWS*</u>										
7' Alum. Doors (Incl. Hardware):										
Entry - dbl	\$8,800.00	EA	8	70,400	6	52,800	2	17,600	8	70,400
Egress - dbl	\$8,800.00	EA	2	17,600	2	17,600			2	17,600
Auto opener - allow	\$6,500.00	PR	2	13,000	2	13,000			2	13,000
Classroom - sgl		N/A								
*Storefront at entries W /B 2020										
<u>081113 HOLLOW METALWORK</u>										
Insulated HM Doors and Frame:										
Receiving - dbl	\$2,700.00	EA	1	2,700	1	2,700			1	2,700
Elec/mech rm - sgl	\$1,350.00	EA	1	1,350	1	1,350			1	1,350
Elec/mech rm - dbl	\$2,700.00	EA	1	2,700	1	2,700			1	2,700
Storage - dbl	\$2,700.00	EA	1	2,700	1	2,700			1	2,700
Gym - dbl	\$5,000.00	EA	1	5,000	1	5,000			1	5,000
<u>083323 SPECIAL DOORS</u>										
OH Doors	\$5,000.00	EA	1	5,000	1	5,000			1	5,000
<u>090007 PAINTING*</u>										
Paint HM Door & frame - sgl	\$100.00	EA	1	100	1	100			1	100
Paint HM Door & frame - dbl	\$150.00	EA	4	600	4	600			4	600
				-----		-----		-----		-----
				\$121,150		\$103,550		\$17,600		\$121,150
TOTAL B20 - EXTERIOR ENCLOSURE				\$4,908,030		\$6,544,305		\$3,877,486		\$7,981,368

[illegible]

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
*Mechanical equip screen is included with B1020 & B2010										
				----- \$60,400		----- \$60,150		----- \$27,750		----- \$87,900
TOTAL B30 ROOFING				\$3,784,744		\$1,951,150		\$2,327,750		\$3,628,900
<u>C. INTERIORS</u>										
C10 - INTERIOR CONSTRUCTION										
C1010 PARTITIONS										
040001 MASONRY*										
8" CMU elev. shaft wall	\$31.00	SF	1,600	49,600	1,600	49,600			1,600	49,600
8" CMU - allow	\$24.00	SF			15,000	360,000		168,000	22,000	528,000
050001 MISCELLANEOUS & ORNAMENTAL IRON*										
CMU angle brace frame - 4' 0C	\$75.00	EA	35	2,625	300	22,500		9,375	410	30,750
Loose lintels	\$38.00	LF	75	2,850	400	15,200		7,600	600	22,800
Expansion joints	\$225.00	LF			978	220,050			250	56,250
061000 ROUGH CARPENTRY										
Interior blocking	\$0.30	GSF	168,422	50,527	145,486	43,646		31,333	240,874	72,262
Misc. rough carpentry	\$1.00	GSF	168,422	168,422	145,486	145,486		104,442	240,874	240,874
072100 INSULATION										
Firestopping	\$0.35	GSF	168,422	58,948	145,486	50,920		36,555	240,874	84,306

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DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Main office -sgl	\$3,600.00	EA	2	7,200			2	7,200	2	7,200
Aluminum Storefront: Vestibule 10'	\$84.00	SF	400	33,600					600	50,400
Main office 10'	\$84.00	SF	250	21,000	600	50,400	500	42,000	500	42,000
<u>083323 SPECIAL DOORS</u>										
Dish drop window	\$3,000.00	EA	1	3,000			1	3,000	1	3,000
Kitchen OH grille	\$4,500.00	EA	1	4,500			1	4,500	1	4,500
Corridor security grate	\$40,000.00	LS	1	40,000			1	40,000	1	40,000
				-----		-----		-----		-----
				\$1,149,790		\$955,567		\$712,908		\$1,630,657
<u>C 1030 FITTINGS</u>										
<u>050001 MISCELLANEOUS & ORNAMENTAL IRON*</u>										
Gym equip. support & frame	\$15,000.00	LS	1	15,000			1	15,000	1	15,000
OT/PT swing support	\$1,500.00	LS	1	1,500			1	1,500	1	1,500
Auditorium metals	\$320,000.00	LS	1	320,000			1	320,000	1	320,000
Catwalk	\$95,000.00	LS	1	95,000			1	95,000	1	95,000
Misc. metals	\$2.00	GSF	168,422	336,844	145,486	290,972	104,442	208,884	240,874	481,748
<u>062000 FINISH CARPENTRY</u>										
Utility & closet shelving	\$15,000.00	LS	1	15,000	1	15,000			1	15,000
Typ. window sill/apron (nic cw-gym)	\$48.00	LF			1,952	93,696			2,608	125,184
Built - in corridor benches	\$425.00	LF	50	21,250	50	21,250	25	10,625	75	31,875
Proscenium trim @ stage front panel	\$65,000.00	LS	1	65,000			1	65,000	1	65,000

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Misc. wood trim	\$0.50	GSF	168,422	84,211	145,486	72,743	104,442	52,221	280,874	140,437
Custom Casework:										
Admin desk	\$15,000.00	LS	1	15,000			1	15,000	1	15,000
Circulation desk	\$20,000.00	LS	1	20,000			1	20,000	1	20,000
<u>102113 COMPARTMENTS & CUBICLES</u>										
Solid Plastic Toilet Partitions:										
Std. partition	\$1,150.00	EA	40	46,000	25	28,750	20	23,000	45	51,750
HC partition	\$1,350.00	EA	30	40,500	20	27,000	15	20,250	35	47,250
Urinal screen	\$275.00	EA	10	2,750	8	2,200	4	1,100	12	3,300
<u>102813 TOILET & BATH ACCESSORIES</u>										
Toilet Accessories	\$0.18	GSF	168,422	30,316	145,486	26,187	104,442	18,800	280,784	50,541
<u>101100 MARKERBOARDS & TACKBOARDS</u>										
Markerboards, Tackboards	\$1.10	GSF	168,422	185,264	145,486	160,035	104,442	114,886	280,784	308,862
Display cases - allow	\$0.20	GSF	168,422	33,684	145,486	29,097	104,442	20,888	280,784	56,157
<u>109000 MISCELLANEOUS SPECIALTIES</u>										
Metal corridor locker (12"x15"x72")	\$295.00	EA	600	177,000	200	59,000	200	59,000	400	118,000
Kitchen staff locker - allow	\$265.00	EA	15	3,975			15	3,975	15	3,975
Wall & corner guards - allow	\$25,000.00	LS	1	25,000			1	25,000	1	25,000
Fire extinguisher and cab - allow	\$550.00	EA	30	16,500	20	11,000	10	5,500	30	16,500
Cubicle curtain track w/ curtain - hee	\$1,500.00	EA	2	3,000			2	3,000	2	3,000
Misc. specialties	\$0.20	GSF	168,422	33,684	145,486	29,097	104,442	20,888	280,784	56,157
<u>101400 IDENTIFYING DEVICES</u>										

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Building directory - allow	\$5,000.00	EA	1	5,000	1	5,000			1	5,000
Dedication plaque	\$3,500.00	EA	1	3,500	1	3,500			1	3,500
Door signage plaque	\$0.15	GSF	168,422	25,263	145,486	21,823	104,442	15,666	280,784	42,118
				-----		-----		-----		-----
				\$1,620,242		\$896,350		\$1,135,184		\$2,116,854
TOTAL C10 - INTERIOR CONSTRUCTION				\$4,300,635		\$4,908,182		\$3,663,594		\$8,318,089
C20 - STAIRS										
C2010 STAIR CONSTRUCTION										
<u>050001 MISCELLANEOUS & ORNAMENTAL IRON*</u>										
Metal Pan Stair w/Rails:										
Monumental lobby	\$75,000.00	FLT			1	\$75,000			2	150,000
Egress stair	\$25,000.00	FLT			2	\$50,000			5	125,000
Stage stair (2 flt)	\$4,500.00	FLT	2	9,000			2	9,000	2	9,000
Upgrade existing Stairs	\$9,500.00	FLT	2	19,000			2	19,000		
Interior Rails:										
Ramp wall rail	\$125.00	LF					50	6,250	50	6,250
Lobby guardrail	\$350.00	LF			200	\$70,000			400	140,000
Stage stair wall rail	\$125.00	LF	36	4,500			36	4,500	36	4,500
<u>033000 CAST IN PLACE CONCRETE</u>										
Conc stair pan fill - full flt	\$1,250.00	FLTS			3	\$3,750			7	8,750

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DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
C30 - INTERIOR FINISHES										
C3010 WALL FINISHES										
062000 FINISH CARPENTRY										
Auditorium Paneling	\$55.00	SF	4,000	220,000			4,000	220,000	4,000	220,000
Auditorium Millwork	\$165,000.00	LS	1	165,000			1	165,000	1	165,000
Lobby and Café Millwork	\$150,000.00	LS	1	150,000			1	150,000	1	150,000
Corridor millwork	\$0.50	SF	168,422	84,211	145,486	72,743	104,442	52,221	240,874	120,437
071000 DAMPPROOF., WATERPROOF. & CAULKING*										
Joint sealants - interior	\$0.55	GSF	168,422	92,632	145,486	80,017	104,442	57,443	240,874	132,481
098400 ACOUSTICAL WALL TREATMENT										
Tectum Wall Panel: 2" Gymnasium -allow	\$20.00	SF	2,800	56,000			2,800	56,000	2,800	56,000
Fabric Wrapped Acoustical Panels - Allow:										
Stage	\$32.00	SF	500	16,000			500	16,000	500	16,000
Café	\$32.00	SF	750	24,000			750	24,000	750	24,000
Corridor	\$32.00	SF	1,500	48,000	750	24,000	750	24,000	1,500	48,000
Music class rm	\$32.00	SF	500	16,000	500	16,000			500	16,000
Band class rm	\$32.00	SF	500	16,000	500	16,000			500	16,000
IMC	\$32.00	SF	350	11,200	350	11,200			350	11,200
090002 TILE*										
Ceramic Wall Tile:										

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Toilet rm	\$14.00	SF	17,500	245,000	16,500	231,000	5,500	77,000	22,000	308,000
Janitor closet	\$14.00	SF	200	2,800	200	2,800	100	1,400	300	4,200
Stair hall	\$14.00	SF	1,500	21,000	3,000	42,000	1,500	21,000	5,500	77,000
Corridor	\$14.00	SF	8,500	119,000	9,000	126,000	6,500	91,000	16,000	224,000
Kitchen	\$14.00	SF	1,500	21,000			1,500	21,000	1,500	21,000
Café - allow	\$14.00	SF	1,200	16,800			1,200	16,800	1,200	16,800
<u>090007 PAINTING*</u>										
Vinyl wall covering		NIC								
Interior painting- walls	\$2.15	GSF	168,422	362,107	145,486	312,795	104,442	224,550	240,874	517,879
<u>C3020 FLOOR FINISHES</u>										
<u>033000 CAST IN PLACE CONCRETE</u>										
Sealed Concrete - mech / elec rm	\$0.95	SF	5,000	4,750	2,500	\$2,375	5,000	4,750	7,500	7,125
<u>093000 TILE</u>										
Quarry Tile Flooring:										
Kitchen	\$19.00	SF	2,800	53,200			2,800	53,200	2,800	53,200
Ceramic Tile:										
Toilet Room	\$29.00	SF	7,500	217,500	5,600	162,400	3,000	87,000	8,600	249,400
Waterproofing	\$8.00	SF	1,500				1,500	12,000	2,600	20,800
Janitor Closet	\$26.00	SF	400	10,400	300	7,800	100	2,600	400	10,400
Porcelain Tile:										

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Entry P.T flooring	\$26.00	SF	2,500	65,000	2,000	52,000	2,000	52,000	4,000	104,000
<u>090005 RESILIENT FLOORING*</u>										
Concrete moisture mitigation	\$1.00	SF			132,186	132,186			194,274	194,274
Floor Prep	\$2.00	SF	127,022	254,044			71,142	142,284		
Linoleum Tile Flooring	\$6.85	SF	127,022	870,101	132,186	905,474	71,142	487,323	194,274	1,330,777
Rubber base	\$0.45	GSF	168,422	75,790	145,486	65,469	104,442	46,999	240,874	108,393
<u>095000 WOOD FLOOR</u>										
Wood sports flooring	\$21.00	SF	11,000	231,000			11,000	\$231,000	11,000	231,000
Stage wood flooring - maple	\$15.50	SF	1,800	27,900			1,800	\$27,900	1,800	27,900
Vented base	\$6.50	LF	425	2,763			425	\$2,763	425	2,763
<u>096800 CARPET</u>										
Admin/Media carpet	\$5.00	SF	10,000	50,000	2,500	\$12,500	7,500	\$37,500	10,000	50,000
Concrete moisture mitigation	\$1.00	SF	10,000	10,000	2,500	\$2,500	7,500	\$7,500	10,000	10,000
<u>124813 MATS</u>										
Alum. Entrance Grille:										
Main entry	\$44.00	SF	400	17,600	400	\$17,600	100	\$4,400	500	22,000
<u>C3030 CEILING FINISHES</u>										
				\$1,890,047		\$1,360,304		\$1,199,218		\$2,422,032

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Ceiling Finishes	\$12.50	SF	168,422	2,105,275	145,486	1,818,575	104,442	1,305,525	240,874	3,010,925
				----- \$2,105,275		----- \$1,818,575		----- \$1,305,525		----- \$3,010,925
TOTAL C30 - INTERIOR FINISHES				\$5,682,073		\$4,113,434		\$3,722,158		\$7,576,954
<u>D. SERVICES</u>										
D10 - CONVEYING										
D1010 ELEVATORS & LIFTS										
<u>140001 ELEVATORS*</u>										
Stage lift		N/A								
Passenger elevator - NEW	\$55,000.00	STOP			2	\$110,000			2	\$110,000
Passenger elevator - RENO	\$65,000.00	STOP	3	195,000						
<u>050001 MISCELLANEOUS & ORNAMENTAL IRON*</u>										
Elev. framing	\$3,000.00	EA	1	3,000	1	\$3,000			1	\$3,000
Elev. pit ladder	\$1,500.00	EA	1	1,500	1	\$1,500			1	\$1,500
Elev. Sump grate	\$750.00	EA	1	750	1	\$750			1	\$750
Elev. Louver	\$500.00	EA	1	500	1	\$500			1	\$500
				----- \$200,750		----- \$115,750		----- \$0		----- \$115,750

DESCRIPTION	UNIT COST	UNIT	QUANTITY	OPT R-1 RENO TOTAL	QUANTITY	OPT AR-1 ADD TOTAL	QUANTITY	OPT AR-1 RENO TOTAL	QUANTITY	OPT N-4 REPL TOTAL
TOTAL D10 - CONVEYING				\$200,750		\$115,750		\$0		\$115,750
D20 - PLUMBING										
D2010 PLUMBING FIXTURES										
Plumbing *includes science labs, acid waste and gas piping	\$15.75	GSF	168,422	2,652,647	145,486	2,291,405	104,442	1,644,962	240,874	3,793,766
				----- \$2,652,647		----- \$2,291,405		----- \$1,644,962		----- \$3,793,766
TOTAL D20 - PLUMBING				\$2,652,647		\$2,291,405		\$1,644,962		\$3,793,766
D30 - HVAC										
D3010 HVAC										
HVAC Renovation Phased Premium *VRF W/ PERM HW HEAT	\$48.00 \$200,000.00	GSF LS	168,422 1	8,084,256 200,000	145,486	6,983,328	104,442	5,013,216	240,874	11,561,952
				----- \$8,284,256		----- \$6,983,328		----- \$5,013,216		----- \$11,561,952
TOTAL D30 - HVAC				\$8,284,256		\$6,983,328		\$5,013,216		\$11,561,952

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
D40 - FIRE PROTECTION										
D4010 SPRINKLERS										
<u>210001 FIRE SUPPRESSION*</u>										
Sprinkler system - wet	\$4.70	GSF	168,422	791,583	145,486	683,784	104,442	490,877	240,874	1,132,108
Exterior Dry head	\$25,000.00	LS			1	25,000			1	25,000
Precision system	\$25,000.00	EA	1	25,000	1	25,000			2	50,000
Renovation Phased Premium	\$50,000.00	LS	1	50,000						
*excludes fire pump										
				-----		-----		-----		-----
				\$866,583		\$733,784		\$490,877		\$1,207,108
TOTAL D40 - FIRE PROTECTION				\$866,583		\$733,784		\$490,877		\$1,207,108
D50 - ELECTRICAL										
D5010 ELECTRICAL SERVICE & DISTRIBUTION										
<u>260001 ELECTRICAL*</u>										
Electrical	\$5.20	GSF	168,422	875,794	145,486	756,527	104,442	543,098	240,874	1,252,545
200 kw Emergency Generator	\$132,500.00	LS	1	132,500	1	\$132,500			1	\$132,500
Renovation Phased Premium	\$100,000.00	LS	1	100,000						
				-----		-----		-----		-----
				\$1,108,294		\$889,027		\$543,098		\$1,385,045

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
D5020 LIGHTING & BRANCH WIRING										
<u>260001 ELECTRICAL*</u>										
Lighting	\$7.00	GSF	168,422	1,178,954	145,486	1,018,402	104,442	731,094	240,874	1,686,118
Lighting Control	\$2.25	GSF	168,422	378,950	145,486	327,344	104,442	234,995	240,874	541,967
				-----		-----		-----		-----
				\$1,557,904		\$1,345,746		\$966,089		\$2,228,085
D5030 COMMUNICATION & SECURITY										
<u>260001 ELECTRICAL*</u>										
Security	\$2.10	GSF	168,422	353,686	145,486	305,521	104,442	219,328	240,874	505,835
Tele/data cabling, racks and switches:	\$8.00	GSF	168,422	1,347,376	145,486	1,163,888	104,442	835,536	240,874	1,926,992
Local Sound Systems	\$1.00	GSF	168,422	168,422	145,486	145,486	104,442	104,442	240,874	240,874
				-----		-----		-----		-----
				\$1,869,484		\$1,614,895		\$1,159,306		\$2,673,701
D5090 OTHER ELECTRICAL SYSTEMS										
<u>260001 ELECTRICAL*</u>										
Fire Alarm	\$3.00	GSF	168,422	505,266	145,486	436,458	104,442	313,326	240,874	722,622
Devices	\$2.65	GSF	168,422	446,318	145,486	385,538	104,442	276,771	240,874	638,316
Clocks and PA	\$2.50	GSF	168,422	421,055	145,486	363,715	104,442	261,105	240,874	602,185
Gym/Café Sound System	\$1.00	GSF	168,422	168,422	145,486	145,486	104,442	104,442	240,874	240,874
Lighting Protection	\$0.45	GSF	168,422	75,790	145,486	65,469	104,442	46,999	240,874	108,393

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Mechanical Wiring	\$0.65	GSF	168,422	109,474	145,486	94,566	104,442	67,887	240,874	156,568
BDA	\$0.72	GSF	168,422	121,264	145,486	104,750	104,442	75,198	240,874	173,429
Misc. Electrical	\$1.00	GSF	168,422	168,422	145,486	145,486	104,442	104,442	240,874	240,874
				-----		-----		-----		-----
				\$2,016,011		\$1,741,467		\$1,250,171		\$2,883,262
TOTAL D50 - ELECTRICAL				\$6,551,693		\$5,591,135		\$3,918,664		\$9,170,092
<u>E. EQUIPMENT & FURNISHINGS</u>										
E10 - EQUIPMENT										
E1010 COMMERCIAL EQUIPMENT										
<u>113100 RESIDENTIAL APPLIANCES</u>										
SPED Learning Ctr	20,000.00	LS	1	20,000	1	20,000			1	20,000
Teacher work rm:										
Refrigerator/freezer	2,500.00	EA	4	10,000	4	10,000			4	10,000
Microwave oven	300.00	EA	4	1,200	4	1,200			4	1,200
Trainers Room (1EA):										
Icemaker	1,200.00	EA	1	1,200	1	1,200			1	1,200
Refrigerator/freezer	2,500.00	EA	1	2,500	1	2,500			1	2,500
Staff Lunch Room (2EA):										
Refrigerator/freezer	2,500.00	EA	2	5,000	2	5,000			2	5,000
Microwave oven	300.00	EA	2	600	2	600			2	600

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Custodian break rm refrigerator	2,500.00	EA	1	2,500	1	2,500			1	2,500
Medical office refrigerator - full size	2,500.00	EA	1	2,500	1	2,500			1	2,500
Medical office refrigerator - under c	2,000.00	EA	1	2,000	1	2,000			1	2,000
Main Office Break Room (1EA):										
Refrigerator/freezer	2,500.00	EA	1	2,500	1	2,500			1	2,500
Microwave oven	300.00	EA	1	300	1	300			1	300
<u>115300 LABORATORY EQUIPMENT</u>										
Science Prep Room (6 EA):										
Water distiller	1,200.00	EA	6	7,200	6	7,200			6	7,200
Acid storage cabinets	1,000.00	EA	6	6,000	6	6,000			6	6,000
Flammable material storage cab. - al	2,500.00	EA	6	15,000	6	15,000			6	15,000
Refrigerator/freezer	2,500.00	EA	6	15,000	6	15,000			6	15,000
Dishwasher - under -counter	500.00	EA	6	3,000	6	3,000			6	3,000
Ice maker - under counter	750.00	EA	6	4,500	6	4,500			6	4,500
First aid cabinet	300.00	EA	6	1,800	6	1,800			6	1,800
Central Chemical Storage Prep. Rm:										
Acid storage cabinets - allow	1,000.00	EA	6	6,000	6	6,000			6	6,000
Flammable material storage cab. - al	2,500.00	EA	6	15,000	6	15,000			6	15,000
Science Class (11 EA):										
Safety glasses monitor case	1,000.00	EA	11	11,000	11	11,000			11	11,000
First aid cabinet	300.00	EA	11	3,300	11	3,300			11	3,300
Lab fume hood	6,800.00	EA	11	74,800	11	74,800			11	74,800
<u>114000 FOOD SERVICE EQUIPMENT</u>										
Kitchen equipment & casework	\$600,000.00	LS	1	600,000			1	600,000	1	600,000
<u>11900 THEATRICAL EQUIPMENT</u>										

Prepared by: A. M. Fogarty & Associates, Inc.
SHARON HIGH SCHOOL PSR 2-193/6/20193:51 PM

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Smart boards		NIC								
Metal storage shelving		NIC								
Book security equipment		NIC								
Kiln	\$3,500.00	EA	1	3,500	1	3,500			1	3,500
				----- \$338,700		----- \$3,500		----- \$335,200		----- \$338,700
TOTAL E10 - EQUIPMENT				\$2,504,600		\$216,400		\$2,288,200		\$2,629,600
E20 - FURNISHINGS										
E 2010 FIXED FURNISHINGS										
129000 MISC. FURNISHINGS										
Meco shade - manual	\$5.25	SF	16,500	\$86,625	9,220	\$48,405	7,120	\$37,380	12,516	65,709
Moto Op shade	\$27.50	SF			2,500	\$68,750			2,500	68,750
Int. office/class window shades	\$7,500.00	LS	1	\$7,500	1	\$7,500			1	7,500
<u>123553 CLASSROOM CASEWORK</u>										
Casework	\$13.50	GSF	168,422	\$2,273,697	145,486	\$1,964,061	104,442	\$1,409,967	240,874	3,251,799
				----- \$2,367,822		----- \$2,088,716		----- \$1,447,347		----- \$3,393,758
TOTAL E20 - FURNISHINGS				\$2,367,822		\$2,088,716		\$1,447,347		\$3,393,758

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
<u>F. SPECIAL CONSTRUCTION & DEMOLITION</u>										
F10 - SPECIAL CONSTRUCTION		N/A								
F1040 SPECIAL FACILITIES				\$0		\$0		\$0		\$0
TOTAL F10 - SPECIAL CONSTRUCTION				\$0		\$0		\$0		\$0
<u>F20 - SELECTIVE BUILDING DEMOLITION</u>										
F2010 BUILDING ELEMENTS DEMOLITION										
Demolish existing courtyard improve	\$6.00	GSF	35,405	212,430			35,405	212,430	35,405	\$212,430
Interior Gut and Removals	\$10.00	GSF	168,422	1,684,220			104,442	1,044,420	104,442	\$1,044,420
Temporary wall and Support	150,000	LS					1	150,000	1	\$150,000
				\$1,896,650		\$0		\$1,406,850		\$212,430
F2020 HAZARDOUS COMPONENTS ABATEMENT										
Hazardous Waste Allowance										
Full Abatement -memo 2/19/19	\$1,719,300.00	LS	1	1,719,300			1	1,719,300	1	1,719,300

[illegible]

SHARON HIGH SCHOOL

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
G1040 HAZARDOUS WASTE REMEDIATION	Buried fuel tank rem'l	Already Completed								
				\$0		\$0		\$485,118		\$730,561
TOTAL G10 - SITE PREPARATION				\$160,150		\$0		\$1,388,300		\$1,705,466
G20 - SITE IMPROVEMENTS										
G2010 ROADWAYS										
321000 PAVING AND CURBING										
Site -Entry Drive and Parking :										
8" Conc loading area pavement	13.00	SF						67,600	4,900	63,700
Fire Access drive -Beach St	28.00	SY					8,232		719	20,132
Typ Bituminous pavement	28.00	SY					326,368		13,416	375,648
12" Gravel base @ roadways	32.00	CY					133,600		4,894	156,608
Granite Curbing	40.00	LF					183,000		7,552	302,080
Parking/traffic signage	7,500.00	LS					7,500		1	7,500
Parking line panting	15,000.00	LS					15,000		1	15,000
Patch at New Utilities	10,000.00	LS								
Mill existing	2.00	SF	186,000	372,000						

[illegible]

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
G2040 SITE DEVELOPMENT										
323000 SITE IMPROVEMENTS										
Outdoor Classroom:										
Permeable pavement	23.00	SF							7,200	165,600
8" Gravel base @ pavement	31.00	CY							179	5,549
Seat wall (50% perim)	500.00	LF							300	150,000
Outdoor Café:									N/A	
Permeable pavement	23.00	SF							4,560	104,880
8" Gravel base @ pavement	31.00	CY							113	3,503
Seat wall	500.00	LF							218	109,000
Furniture	25,000.00	LS							1	25,000
Shade steel pergola	100,000.00	LS							1	100,000
Renovate Tennis Court:										
Resurface Bit pavement	15.00	SY							2,833	42,495
Synthetic court surface	4.80	SF							25,500	122,400
Replace Net post	2,200.00	EA							8	17,600
Replace Nets & hdw	1,200.00	EA							4	4,800
Replace 12'H Perim. chain link fence	65.00	LF							660	42,900
Replace Chain link gates	3,000.00	EA							2	6,000
Add Windscreen w/ graphics @ peri	50.00	LF							660	33,000
New Tennis Court:										
8" Gravel base	33.00	CY							741	24,453
Bit pavement	27.00	SY							3,333	89,991
Synthetic court surface	4.80	SF							29,997	143,986
Net post	2,200.00	EA							8	17,600
Nets & hdw	1,200.00	EA							4	4,800

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
12"H Perim. chain link fence	65.00	LF							1,320	85,800
Chain link gates	3,000.00	EA							4	12,000
Windscreen w/ graphics @ perim fer	50.00	LF							1,200	60,000
Refurbish Stadium:										
Resurface track	7.00	SF							32,840	229,880
Field - Strip & stock pile loam - 6"	16.00	CY							1,800	28,800
Main Sports Field (97,290SF):										
Synthetic Field Surface	9.50	SF							97,290	924,255
12" Dynamic Stone base	36.00	CY							3,600	129,600
Filter fabric	0.80	SF							97,290	77,832
Perm Curb	48.00	LF							1,288	61,824
Flat panel drainage sys.	1.50	SF							97,290	145,935
Misting System	25,000.00								1	25,000
Retrofit bleachers- ADA	50,000.00	LS							1	50,000
Add press box-complete w/lift	150,000.00	LS							1	150,000
Replace Scoreboard	35,000.00	EA							1	35,000
Replace Field goal	5,000.00	EA							2	10,000
Misc Track equipment	30,000.00	LS							1	30,000
New fence & gates	45.00	LF							1,500	67,500
New concessions & toilet BLDG	800,000.00	LS							1	800,000
Concessions patio permeable pavem	22.00	SF							1,500	33,000
8" Gravel base @ pavement	32.00	CY							37	1,184
Conex storage unit	5,000.00	EA							3	15,000
Refurbish Stadium Improvements	100,000.00	LS								
New Baseball & Multipurpose Field (180x300):										
Baseball Field - Drainage	30,000.00	LS							1	30,000
Baseball bleacher-100 seat	15,000.00	LOC							1	15,000
Backstop & fencing	60,000.00	LS							1	60,000
Infield surface	28,000.00	LS							1	28,000

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Home plate & pitching rubber	3,000.00	LS							1	3,000
Outfield /soccer field - 6" loam	55.00	CY							2,037	112,035
Outfield /soccer field - rake seed & f	0.35	SF							110,000	38,500
Irrigation -town water	1.00	SF							110,000	110,000
Varsity roofed dugout (30'x10')	25,000.00	EA							2	50,000
Foul pole	3,800.00	EA							2	7,600
Scoreboard - complete	25,000.00	EA							1	25,000
4' Gate - sgl	2,500.00	EA							2	5,000
8' Gate - dbl	4,000.00	EA							2	8,000
6' Outfield fence w/prot.	42.00	EA							1,050	44,100
Sports netting	50.00	LF							750	37,500
Misc Field equipment	20,000.00	LS							1	20,000
Refurbish Baseball & Multipurpose	100,000.00	LS					1	100,000		
New Softball & Practice Field (180x150):										
Softball Field - Drainage	20,000.00	LS					1	20,000	1	20,000
Softball bleacher -100 seat	15,000.00	LOC					1	15,000	1	15,000
Backstop & fencing	45,000.00	LS					1	45,000	1	45,000
Infield surface	18,500.00	LS					1	18,500	1	18,500
Home plate & pitching rubber	3,000.00	LS					1	3,000	1	3,000
Outfield /soccer field - 6" loam	55.00	CY					115	6,325	115	6,325
Outfield /soccer field - rake seed & f	0.35	SF					6,200	2,170	6,200	2,170
Irrigation -town water	1.00	SF					6,200	6,200	6,200	6,200
Varsity roofed dugout (30'x10')	25,000.00	EA					2	50,000	2	50,000
Foul pole	3,800.00	EA					2	7,600	2	7,600
Scoreboard - complete	25,000.00	EA					1	25,000	1	25,000
4' Gate - sgl	2,500.00	EA					2	5,000	2	5,000
8' Gate - dbl	4,000.00	EA					2	8,000	2	8,000
6' Outfield fence w/prot.	42.00	LF					850	35,700	850	35,700
Additional site fill -above leaching fi	50,000.00	LS					1	50,000	1	50,000
Refurbish Softball Field	25,000.00	LS								
Allowance:										

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
Granite seat wall @ main entrance	500.00	LF					100	50,000	100	50,000
Site stair		NIC								
Site ramp		NIC								
Site retaining Walls	300.00	LF					150	45,000	150	45,000
Loading dock	W /BLDG									
Trash receptacle	1,000.00	EA					3	3,000	3	3,000
Flagpole	4,500.00	EA					1	4,500	1	4,500
Bike racks	600.00	EA					16	9,600	16	9,600
Bike shelters		NIC								
Mech/elec pad protection bollards	1,200.00	EA					10	12,000	10	12,000
Drop off decorative bollards	2,100.00	EA					25	52,500	25	52,500
Board walk decking @ wet land over	50,000.00	LOC							1	50,000
Garden box planter	2,200.00	EA					4	8,800	5	11,000
Access drive vehicle gate	4,500.00	EA					1	4,500	1	4,500
Enhance fencing - Pond st	45.00	LF					500	22,500	500	22,500
Enhance signage - Pond st	20,000.00	LS					1	20,000	1	20,000
Site sign	25,000.00	EA					1	25,000	1	25,000
Replace Misc Site Improvements	100,000.00	LS	1	100,000						
				\$100,000				\$4,060,049		\$5,129,218
G2050 LANDSCAPING										
329000 PLANTING										
Plantings - reno/add	100,000.00	LS					1	100,000	1	150,000
Plantings - new	150,000.00	LS								
Lawn (NIC Athletic Fields):										
Lawn 6" Loam - augment existing	25.00	CY		0			4,278	106,950	4,409	110,225
75% Rake seed and fertilize	0.35	SF		0			230,996	80,849	238,060	83,321
25% Drought Resis Planting allowan	0.35	SF		0			77,000	26,950	79,354	27,774

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
*Sports fields are included with G2040				\$0		\$0		\$314,749		\$371,320
TOTAL G20 - SITE IMPROVEMENTS				\$482,000		\$0		\$5,892,604		\$7,142,323
G30 - SITE MECHANICAL UTILITIES										
G3010 WATER SUPPLY										
330000 UTILITIES										
Street connection	15,000.00	EA					2	30,000	2	30,000
4" Domestic	44.00	LF					20	880	20	880
6" Fire	65.00	LF					20	1,300	20	1,300
8" Main loop	84.00	LF					2,000	168,000	2,000	168,000
Hydrant - allow	74.00	EA					3	222	3	222
6" Hydrant valve	1,300.00	EA					3	3,900	3	3,900
6" Hydrant service (20 lf/ea)	85.00	LF					60	5,100	60	5,100
8" Gate valve	1,600.00	EA					4	6,400	4	6,400
6" Gate valve	1,400.00	EA					1	1,400	1	1,400
4" Gate valve	1,250.00	EA					1	1,250	1	1,250
ST cut & patch	5,000.00	LOC					2	10,000	2	10,000
Temporary service	25,000.00	LS					1	25,000	1	25,000
Well - irrigation sys		NIC								
				\$0		\$0		\$253,452		\$253,452
G3020 SANITARY SEWER										

DESCRIPTION	UNIT COST	UNIT	OPT R-1 RENO		OPT AR-1 ADD		OPT AR-1 RENO		OPT N-4 REPL	
			QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
330000 UTILITIES										
On site Septic:										
Septic fields	REMAINS									
Upgrade waste water treatment BLD	450,000.00	LS	1	450,000			1	450,000	1	450,000
Pretreatment tank		LS	Existing							
Equalization tank		LS	Existing							
Clean inspect existing	4,000.00	LS	1	4,000						
PVC bldg treatment plant	75.00	LF	Existing				200	15,000	400	30,000
New Grease trap	8,500.00	EA	1	8,500			1	8,500	1	8,500
New Sanitary manhole	3,200.00	EA	2	6,400			2	6,400	2	6,400
Lift sta. / ejec pump		TBD								
*Allowance is included in memo 2/19/19										
				-----		-----		-----		-----
				\$468,900		\$0		\$479,900		\$494,900
G3030 STORM SEWER										
330000 UTILITIES										
Site Drainage:										
Catch basin	3,000.00	EA					40	\$120,000	40	\$120,000
Drain manhole	3,000.00	EA					30	\$90,000	30	\$90,000
Area drain	1,400.00	EA					5	\$7,000	5	\$7,000
Stormceptor	12,500.00	EA					2	\$25,000	2	\$25,000
Misc. Structures	5,000.00	EA					5	\$25,000	5	\$25,000
Piping:										
12"-18" CPP typical	82.00	LF					4,000	\$328,000	4,000	\$328,000
Underground Retention Sys	24.00	SF					9,000	\$216,000	9,000	\$216,000

TAPPÉ ARCHITECTS

3.8

PERMITTING REQUIREMENTS



PROPOSED OPTION: R1– Renovation Only

Option Description

Option R1 represents a renovation-only scope for the proposed work at Sharon High School.

Permitting

WETLANDS PROTECTION ACT (310 CMR 10.00)

A review of the Massachusetts Department of Environmental Protection (DEP) wetland mapping indicates a number of wetland resources on-site. Additionally, wetlands flagging has been completed for this project and is included in the survey. There is an area of wetlands near the soccer fields and tennis courts, and the proposed renovation is within the vicinity of this flagged area. Additionally, there are wetlands located adjacent to the track & football field.

The Sharon Conservation Commission has a 25-to 50-foot no-disturb boundary associated with all resource areas on previously developed sites, protected under their rules and regulations. This is expanded to a 75-foot no disturb area in areas determined to be of higher value, including water resource protection overlay districts – and the Sharon High School is located within the Surface Water Protection District. This is above and beyond standard MA DEP restrictions. Within the Town of Sharon Wetlands Rules and Regulations, there are additional limitations placed on development in the outer 25- to 50-feet of the resource area buffer zones. In a conversation Nitsch Engineering had with Gregory Meister, the Conservation Administrator for the Sharon Conservation Commission, the specific standards may be relaxed in certain cases like the Sharon High School site, which has largely already been developed to this point.

Though wetlands are located on-site, the existing building (and thus any proposed renovation work) is not within the resource areas associated with these wetlands. Thus, no filings would be anticipated unless disturbance is proposed within 100 feet of a wetland resource area on a different area of the project. The limits of the outlined resource may need to be confirmed with the Conservation Commission.

SITE PLAN APPROVAL

The R1 project option likely does not require Site Plan Approval through the Town of Sharon Planning Board, as the schools fall under the Dover Amendment. However, it is anticipated that the project team will at a minimum meet with both the Town of Sharon Planning Boards to discuss the project and whether a cursory submission may be appropriate.

If required, the site plan approval submission will likely require the following documents for review: Existing Conditions Plan, Proposed Layout Plan, Landscape Plan, Utility Plan, Grading Plan, Details, Building Elevations, Stormwater Calculations and Lighting/Photometric Plan.

NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM DESIGNATION

According to the 13th edition of the Natural Heritage and Endangered Species Program (NHESP) Massachusetts Natural Heritage Atlas, work for project option R1 is not located within the Estimated and Propriety Habitat of Rare Species or Priority Habitat of Rare Species.

STORMWATER MANAGEMENT PERMIT

The Town of Sharon has a local stormwater regulation that requires all land disturbances of more than one-acre to submit an application for a stormwater permit. The Town's Stormwater Manager will refer this

permit to the Planning Board, Zoning Board of Appeals, Conservation Commission, or Board of Selectman (depending on the scope of the project). If no site disturbance is proposed outside of renovating the existing building, it is not anticipated a stormwater management permit will be required for the work.

The Project design and construction will comply with the Sharon Stormwater Management bylaws and the MassDEP Stormwater Handbook & Standards to the maximum extent practicable. The design team will further explore if permitting will be required with the Town's Stormwater Manager for stormwater management if this option is chosen.

TOWN OF SHARON SPECIAL PERMIT (EARTHWORK/IMPERVIOUS COVERAGE)

The Town of Sharon has a water resource protection overlay district in the Town that includes the High School site. Per the Town's zoning bylaws, a Special Permit is required from the Board of Appeals for any site proposing impervious coverage over 15% of the lot area or natural vegetation covering less than 40% of the lot area. The site as currently configured would require a special permit if being constructed today, due to the amount of impervious coverage on the site and the size of the building. If impervious area is proposed to be increased on-site, the site will exceed the 15% lot area threshold and may require a Special Permit for development in the water resource protection overlay district.

ENVIRONMENTAL PROTECTION AGENCY (NPDES PROGRAM)

Construction activities that disturb more than one (1) acre are regulated under the United States Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) Program. In Massachusetts, the EPA issues NPDES permits to operators of regulated construction sites. Regulated projects are required to develop and implement Stormwater Pollution Prevention Plans (SWPPP) in order to obtain permit coverage. It is anticipated project option R1 will likely disturb more than one (1) acre and will require this permit.

MASSACHUSETTS ENVIRONMENTAL POLICY ACT

Development of this site option does not appear to trigger any Massachusetts Environmental Policy Act (MEPA) thresholds and will likely not require an Environmental Notification Form (ENF) or Environmental Impact Report (EIR) to be filed with MEPA.

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE PERMIT

A modification of the existing MADEP discharge permit associated with the on-site Waste Water Treatment Plant (WWTP) will be required assuming the redevelopment of the site does not increase sewerage flows over and above what the current MADEP discharge permit allows. It is not anticipated that the redevelopment of the project site would exceed the current allowable limits of the active discharge permit but a new permit would be required if that occurs.

MASSACHUSETTS HISTORICAL COMMISSION

A Massachusetts Historical Commission (MHC) Project Notification Form will be submitted to the MHC during the Schematic Design Phase of the project. It is not anticipated at this time that there will be any issues with the notification as the building to be demolished is not of historical significance.

Table 1 – Permitting Schedule

Permit	Permitting Authority	Anticipated Filing Date	Anticipated Approval Date
ANRAD (IF REQUIRED)	Town of Sharon Conservation Commission	During Schematic Design Phase	30-60 Days after submission of the application
RDA or NOI (IF REQUIRED)	Town of Sharon Conservation Commission	During Design Development Phase	Prior to Construction Documents Phase
Town of Sharon Stormwater Permit (IF REQUIRED)	Town of Sharon Planning Board, Conservation Commission, or Board of Selectmen	During Design Development Phase	Prior to Construction Documents Phase
Town of Sharon Special Permit (Water Resource Protection District) (IF REQUIRED)	Town of Sharon Board of Appeals	During Design Development Phase	Prior to Construction Documents Phase
Site Plan Review (IF REQUIRED)	Town of Sharon Planning Board	During Design Development Phase	Prior to Construction Documents Phase
Project Notification Form	Massachusetts Historical Commission	During Schematic Design Phase	Prior to Design Development Phase
Sewer Discharge Permit (Modification)	MADEP	During Design Development Phase	6-7 months after filing
NPDES Notice of Intent	NPDES/EPA	2 weeks prior to Construction	Start of Construction

PROPOSED OPTION: AR1 – Addition/Renovation

Option Description

Option AR1 represents the addition/renovation scope of work both to bring Sharon High School into compliance with applicable building codes and accessibility regulations and add the necessary additional building space while reusing a significant portion of the existing building.

Permitting

WETLANDS PROTECTION ACT (310 CMR 10.00)

A review of the Massachusetts Department of Environmental Protection (DEP) wetland mapping indicates a number of wetland resources on-site. Additionally, wetlands flagging has been completed for this project and is included in the survey. There is an area of wetlands near the soccer fields and tennis courts, and the proposed renovation is within the vicinity of this flagged area. Additionally, there are wetlands located adjacent to the track & football field.

The Sharon Conservation Commission has a 25-to 50-foot no-disturb boundary associated with all resource areas on previously developed sites, protected under their rules and regulations. This is expanded to a 75-foot no disturb area in areas determined to be of higher value, including water resource protection overlay districts – and the Sharon High School is located within the Surface Water Protection District. This is above and beyond standard MA DEP restrictions. It is noted the footprint of the proposed addition for this option appears to fall within the anticipated 75-foot No Disturb zone, within an area of previously pervious soccer field. Within the Town of Sharon Wetlands Rules and Regulations, there are additional limitations placed on development in the outer 25- to 50-feet of the resource area buffer zones. In a conversation Nitsch Engineering had with Gregory Meister, the Conservation Administrator for the Sharon Conservation Commission, the specific standards may be relaxed in certain cases like the Sharon High School site, which has largely already been developed to this point.

Due to the proximity of the proposed site development to the resource area buffer zones, a Notice of Intent (NOI) will need to be filed with the Conservation Commissions of Sharon, as well as MassDEP, for the AR1 project option.

The proposed building addition footprint appears to fall within the 100-foot buffer zone, and also a portion of what would expected to be the 75-foot no disturb zone. Should any resource areas be directly affected, wetlands replication may need to be proposed as part of the overall project. If the Conservation Commission agrees with our determination the wetlands resources in this area will require a 75-foot No Disturb zone (as the site is within a Water Resource Protection District), the footprint of the building may need to be modified to be pulled away from this buffer.

SITE PLAN APPROVAL

The AR1 project option may not require Site Plan Approval through the Town of Sharon Planning Board as the school falls under the Dover Amendment. However, it is anticipated that the project team will at a minimum meet with the Town of Sharon Planning Board to discuss the project and whether a cursory submission may be appropriate.

If required, the site plan approval submission will likely require the following documents for review: Existing Conditions Plan, Proposed Layout Plan, Landscape Plan, Utility Plan, Grading Plan, Details, Building Elevations, Stormwater Calculations and Lighting/Photometric Plan.

NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM DESIGNATION

According to the 13th edition of the Natural Heritage and Endangered Species Program (NHESP) Massachusetts Natural Heritage Atlas, work for project option AR1 is not located within the Estimated and Propriety Habitat of Rare Species or Priority Habitat of Rare Species.

STORMWATER MANAGEMENT PERMIT

The Town of Sharon has a local stormwater regulation that requires all land disturbances of more than one-acre to submit an application for a stormwater permit. The Town's Stormwater Manager will refer this permit to the Planning Board, Zoning Board of Appeals, Conservation Commission, or Board of Selectman (depending on the scope of the project). Due to the size of this project, it should be anticipated that this permit will need to be filed as part of the permitting process for the project.

The Project design and construction will comply with the Sharon Stormwater Management bylaws and the MassDEP Stormwater Handbook & Standards to the maximum extent practicable.

TOWN OF SHARON SPECIAL PERMIT (EARTHWORK/IMPERVIOUS COVERAGE)

The Town of Sharon has a water resource protection overlay district in the Town that includes the High School site. Per the Town's zoning bylaws, a Special Permit is required from the Board of Appeals for any site proposing impervious coverage over 15% of the lot area or natural vegetation covering less than 40% of the lot area. The site as currently configured would require a special permit if being constructed today, due to the amount of impervious coverage on the site and the size of the building. With the new building, impervious area will be increased on-site, and reconfigured site will exceed the 15% lot area threshold and require a Special Permit for development in the water resource protection overlay district.

ENVIRONMENTAL PROTECTION AGENCY (NPDES PROGRAM)

Construction activities that disturb more than one (1) acre are regulated under the United States Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) Program. In Massachusetts, the EPA issues NPDES permits to operators of regulated construction sites. Regulated projects are required to develop and implement Stormwater Pollution Prevention Plans (SWPPP) in order to obtain permit coverage. Project option AR1 will disturb more than one (1) acre and will require this permit.

MASSACHUSETTS ENVIRONMENTAL POLICY ACT

Development of this site option does not appear to trigger any Massachusetts Environmental Policy Act (MEPA) thresholds and will not require an Environmental Notification Form (ENF) or Environmental Impact Report (EIR) to be filed with MEPA. Further evaluation may be required as the Project proceeds through Schematic Design.

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE PERMIT

A modification of the existing MADEP discharge permit associated with the on-site Waste Water Treatment Plant (WWTP) will be required assuming the redevelopment of the site does not increase sewerage flows over and above what the current MADEP discharge permit allows. It is not anticipated that the redevelopment of the project site would exceed the current allowable limits of the active discharge permit but a new permit would be required if that occurs.

MASSACHUSETTS HISTORICAL COMMISSION

A Massachusetts Historical Commission (MHC) Project Notification Form will be submitted to the MHC during the Schematic Design Phase of the project. It is not anticipated at this time that there will be any issues with the notification as the building to be demolished is not of historical significance.

Table 1 – Permitting Schedule

Permit	Permitting Authority	Anticipated Filing Date	Anticipated Approval Date
ANRAD (IF REQUIRED)	Town of Sharon Conservation Commission	During Schematic Design Phase	30-60 Days after submission of the application
RDA or NOI (IF REQUIRED)	Town of Sharon Conservation Commission	During Design Development Phase	Prior to Construction Documents Phase
Town of Sharon Stormwater Permit	Town of Sharon Planning Board, Conservation Commission, or Board of Selectmen	During Design Development Phase	Prior to Construction Documents Phase
Town of Sharon Special Permit (Water Resource Protection District)	Town of Sharon Board of Appeals	During Design Development Phase	Prior to Construction Documents Phase
Site Plan Review (IF REQUIRED)	Town of Sharon Planning Board	During Design Development Phase	Prior to Construction Documents Phase
Project Notification Form	Massachusetts Historical Commission	During Schematic Design Phase	Prior to Design Development Phase
Sewer Discharge Permit (Modification)	MADEP	During Design Development Phase	6-7 months after filing
NPDES Notice of Intent	NPDES/EPA	2 weeks prior to Construction	Start of Construction

PROPOSED OPTION: N4 – New Construction

Option Description

Option N4 represents the exploration of a newly constructed 2-story HS on the existing soccer/baseball fields located on-site. The existing Sharon High School is demolished in this option.

Permitting

WETLANDS PROTECTION ACT (310 CMR 10.00)

A review of the Massachusetts Department of Environmental Protection (DEP) wetland mapping indicates a number of wetland resources on-site. Additionally, wetlands flagging has been completed for this project and is included in the survey. There is an area of wetlands near the soccer fields and tennis courts, and the proposed building is within the vicinity of this flagged area. Additionally, there are wetlands located adjacent to the track & football field.

The Sharon Conservation Commission has a 25-to 50-foot no-disturb boundary associated with all resource areas on previously developed sites, protected under their rules and regulations. This is expanded to a 75-foot no disturb area in areas determined to be of higher value, including water resource protection overlay districts – and the Sharon High School is located within the Surface Water Protection District. This is above and beyond standard MA DEP restrictions. It is noted the footprint of the proposed building for this option appears to fall within the anticipated 75-foot No Disturb zone, within an area of previously pervious soccer field. Within the Town of Sharon Wetlands Rules and Regulations, there are additional limitations placed on development in the outer 25- to 50-feet of the resource area buffer zones. In a conversation Nitsch Engineering had with Gregory Meister, the Conservation Administrator for the Sharon Conservation Commission, the specific standards may be relaxed in certain cases like the Sharon High School site, which has largely already been developed to this point. It is noted the existing soccer and baseball fields are unlikely to be considered ‘previously developed,’ as they’re currently pervious areas.

Due to the proximity of the proposed site development to the resource area buffer zones, a Notice of Intent (NOI) will need to be filed with the Conservation Commissions of Sharon, as well as MassDEP, for the N4 project option.

The proposed building footprint appears to fall within the 100-foot buffer zone, and also a portion of what would expected to be the 75-foot no disturb zone. Should any resource areas be directly affected, wetlands replication may need to be proposed as part of the overall project. If the Conservation Commission agrees with our determination the wetlands resources in this area will require a 75-foot No Disturb zone (as the site is within a Water Resource Protection District), the footprint of the building may need to be modified to be pulled away from this buffer.

SITE PLAN APPROVAL

The N4 project option may not require Site Plan Approval through the Town of Sharon Planning Board as the school falls under the Dover Amendment. However, it is anticipated that the project team will at a minimum meet with the Town of Sharon Planning Board to discuss the project and whether a cursory submission may be appropriate.

If required, the site plan approval submission will likely require the following documents for review: Existing Conditions Plan, Proposed Layout Plan, Landscape Plan, Utility Plan, Grading Plan, Details, Building Elevations, Stormwater Calculations and Lighting/Photometric Plan.

NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM DESIGNATION

According to the 13th edition of the Natural Heritage and Endangered Species Program (NHESP) Massachusetts Natural Heritage Atlas, work for project option N4 is not located within the Estimated and Propriety Habitat of Rare Species or Priority Habitat of Rare Species.

STORMWATER MANAGEMENT PERMIT

The Town of Sharon has a local stormwater regulation that requires all land disturbances of more than one-acre to submit an application for a stormwater permit. The Town's Stormwater Manager will refer this permit to the Planning Board, Zoning Board of Appeals, Conservation Commission, or Board of Selectman (depending on the scope of the project). Due to the size of this project, it should be anticipated that this permit will need to be filed as part of the permitting process for the project.

The Project design and construction will comply with the Sharon Stormwater Management bylaws and the MassDEP Stormwater Handbook & Standards to the maximum extent practicable.

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ENVIRONMENTAL PROTECTION AGENCY (NPDES PROGRAM)

Construction activities that disturb more than one (1) acre are regulated under the United States Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) Program. In Massachusetts, the EPA issues NPDES permits to operators of regulated construction sites. Regulated projects are required to develop and implement Stormwater Pollution Prevention Plans (SWPPP) in order to obtain permit coverage. Project option N4 will disturb more than one (1) acre and will require this permit.

MASSACHUSETTS ENVIRONMENTAL POLICY ACT

Development of this site option does not appear to trigger any Massachusetts Environmental Policy Act (MEPA) thresholds and will not require an Environmental Notification Form (ENF) or Environmental Impact Report (EIR) to be filed with MEPA. Further evaluation may be required as the Project proceeds through Schematic Design.

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE PERMIT

A modification of the existing MADEP discharge permit associated with the on-site Waste Water Treatment Plant (WWTP) will be required assuming the redevelopment of the site does not increase sewerage flows over and above what the current MADEP discharge permit allows. It is not anticipated that the redevelopment of the project site would exceed the current allowable limits of the active discharge permit but a new permit would be required if that occurs.

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Town of Sharon Special Permit (Water Resource Protection District)	Town of Sharon Board of Appeals	During Design Development Phase	Prior to Construction Documents Phase
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Project Notification Form	Massachusetts Historical Commission	During Schematic Design Phase	Prior to Design Development Phase
Sewer Discharge Permit (Modification)	MADEP	During Design Development Phase	6-7 months after filing
NPDES Notice of Intent	NPDES/EPA	2 weeks prior to Construction	Start of Construction

3.9

PROPOSED PROJECT DESIGN AND CONSTRUCTION SCHEDULE



3.9 PROPOSED PROJECT DESIGN AND CONSTRUCTION SCHEDULE

Proposed Project Design & Construction Schedule

As noted in the phasing and construction schedule narrative, the three options under consideration have different anticipated construction durations. However, it is anticipated that the design phase will be similar for each option.

Following the PSR submission on March 21, 2019, the project team expects to proceed into the Schematic Design phase. The goal is to complete a second and more detailed round of faculty programming early in this phase and before the end of the 2019 school year so that the Schematic Design is informed by the detailed requirements of the users. This will allow the project team to proceed with the schematic package over the spring and summer of 2019 with an anticipated submission on approximately September 11, 2019.

Following MSBA SD review and a late October MSBA Board Meeting to approve the Project Scope and Budget, the Town of Sharon would be in a position to schedule a local funding vote at their fall town meeting which is anticipated to be in the first half of November 2019. If the Town votes to fund the project at Town Meeting and a subsequent ballot vote, then the Design Team would proceed directly into Design Development and then the Construction Documents phase. If Design Development is submitted in the winter of 2020 then the project could anticipate a bid date of late in the year in 2020. Depending on whether the Town elects to proceed with Design Bid Build or Construction Manager at Risk, it is possible that early site and structural packages could be issued in advance of the final bid documents which would benefit the overall construction schedule with an earlier start. The main bid scope in either case would most likely start construction by the end of 2020 or early in 2021.

The difference in construction durations is as described in the phasing discussion and in summation as follows:

OPTION R-1

The renovation option would need to procure modular classrooms for temporary teaching and learning space early in the construction phase and then proceed into a series of up to five renovation phases. It is anticipated that construction duration would be in the range of three and a half years with a completion in the spring or summer of 2024.

OPTION AR-1

This renovation / addition option would proceed in three major phases. An addition phase, a demolition phase and a renovation phase. Some of the major site work could occur in the second demolition phase which would reduce any site work required after building construction is complete. It is anticipated that construction duration would be in the range of three years with a completion in the fall of 2023.

OPTION N-4

This replacement option would proceed in two major phases, new construction followed by demolition and site work. New construction would start in late fall of 2020 if there are early packages and would proceed until the summer of 2022. Existing building demolition would occur in the summer and fall of 2022 along with site work that would end in the fall of 2022 or more likely the spring of 2023 depending on the scope and duration.

3.10

SUMMARY OF PRELIMINARY DESIGN PRICING



Table 1 – Summary of Preliminary Design Pricing

SHARON HIGH SCHOOL PROJECT		Option (Description)	Total Gross Square Feet	Square Feet of Renovated Space (cost*/sf)	Square Feet of New Construction (cost*/sf)	Site, Building Takedown, Haz Mat. Cost*	Estimated Total Construction** (cost*/sf)	Estimated Total Project Costs
Base Repair	OPTION R1 Base Repair		168422	168422 \$432.19	0	\$2,749,873	\$75,539,551 \$448.51	\$94,424,438
Add/Reno	OPTION AR1 Addition/Renovation		249928	104442 \$446.60	145486 \$465.41	\$11,190,420	\$125,545,456 \$502.33	\$156,931,820
New Build	OPTION N4 New Construction		240874	0 \$	240874 \$450.42	\$13,135,241	\$121,628,847 \$504.95	\$152,036,059

* Marked Up Construction Costs

** Does not include Construction Contingency

*** District's Preferred Solution

**** Decas Not Priority SOI - Costs Escalated Out 5 Years

4

PREFERRED SOLUTION

4.1

PREFERRED SOLUTION



4.1 PREFERRED SOLUTION

PREFERRED SOLUTION

The Districts preferred solution is N4 which is new construction of a replacement building on fields to the south of the existing High School. This option was selected for a number of reasons:

EDUCATIONAL PROGRAM

The educational program establishes a series of goals and guidelines for the project including promoting a school environment that supports social and emotional well-being of learners. Providing a safe, secure and accessible school that is conducive for learning and adaptive to evolving learning practices. Implementing 21st century learning concepts, project based interdisciplinary instruction and technology integration.

The District intends to organize the new school departmentally consistent with current practice at the existing high school. A goal is to broaden current course offerings and to increase opportunities for interdisciplinary teaching and project based learning with a greater integration of academics and arts. There is a desire to promote greater staff collaboration and common planning and professional development.

PREFERRED SOLUTION

The preferred solution addresses various aspects of the Educational Program which is detailed within the updated Ed. Program document. In summary some of the strategies to achieve the Districts goals include:

Health and Wellness – the creation of six smaller classroom wings to accommodate core academic classrooms is intended to break down the apparent scale of the school into smaller areas that changes how the learning environment feels for students. The goal is to reduce the anxiety and intimidation that some students may experience in a school setting where a large number of students are together in one place. Alternative PE spaces and the gym are also directly adjoining the main entrance corridor, making these programs visible to the school community.

Integration of Academics and Arts – the proposed plan locates the arts in the center of the new building with students circulating around this area throughout the school day. The goal is to make the arts more visible to

every student and more integrated into the life of the school. A drama classroom / black box theater is readily accessible from the academic wings with the intention of having this space used for many different functions such as lectures, debate, and project based activities. Visual art classrooms are directly off the main circulation corridor and adjacent to science classrooms, creating a school environment that features academics and arts in close proximity.

Integration of Science – Science classrooms are located at the head of the classroom wings. This makes them adjacent to each other and to other academic classrooms within the wings, and also to the STEAM lab / project spaces and technology classrooms located in the center of the building on each floor. This flexibility of options allows the science department to expand its course offerings beyond what is currently available to broader cross curriculum subject matter.

The proposed plan is intended to offer greater flexibility and to support collaboration within departments as well as across departments to support the development of 21st century skills. Visible and central teacher planning centers will also enhance and support teacher common planning and collaboration.

EXISTING HIGH SCHOOL

The existing high school poses a number of challenges for teaching and learning that were identified by the District in their SOI and master plan. Many current classrooms are too small, the existing building does not support the curriculum already in place at Sharon High, and there is significant congestion in corridors leading to long travel distances for students.

The preferred option addresses these concerns. The replacement building is more condensed and less spread out with shorter hallways. The smaller academic wings reduces the number of students in any given hall way and reduces pinch points. There are also open spaces along the circulation zones to foster student collaboration.

GRADE CONFIGURATION

There is no proposed change to the grade configuration at the High School or within the Sharon School District associated with the preferred option.

4.1 PREFERRED SOLUTION

PROPOSED CONFIGURATION

The preferred option is a two story school with classrooms on both floors. An auditorium and gymnasium are located near the front entrance on the main entry corridor, allowing for a community facility that can be used after hours and on weekends. Arts, technology, and physical education / wellness are located at the center of the building with academic wings along the perimeter. The cafeteria and library are located on the south side of the building with views to the adjacent lake while the main entrance and community functions are located on the north side of the building adjacent to parking, pick up and drop off, and athletic facilities.

SITE DESIGN

The preferred option is located on a flat parcel that is currently two athletic fields. The proposed site plan will allow students to enter the same corridor from the north side of the site and the south side of the site. This will accommodate students who come by bus and also students who park in a satellite lot to the south. The orientation of the building offers good solar orientation for a possible future PV array and for daylighting the two outdoor areas between the classroom wings that have been identified as optimal locations for outdoor learning. The existing football field to the west of the site will remain in its current configuration with proposed upgrades and in use during construction. The location of the new parking area will increase the length of the roadway into the site which should help with additional length for car queuing at pick up and drop off. Buses and cars are also segregated in the proposed plan which should improve on-site vehicle circulation and pedestrian safety.

CONSTRUCTION CONSIDERATIONS

The preferred option will be constructed adjacent to the existing school. Other than the loss of a softball and baseball field, it is anticipated that there should be limited disruption to the ongoing operations of the existing school while the new school is being constructed. Once the new school is built and open, existing parking and pick up and drop off can be utilized for the new school until the old school is demolished and the site can be reconfigured in compliance with the proposed site design.

Parent feedback at PTO meetings made it clear that there was significant concern about a phased approach to construction with students being relocated multiple

times to accommodate renovation and demolition which would happen in an addition renovation approach. The replacement option avoids much of this disruption to students while construction is underway.

4.2

EDUCATIONAL PROGRAM



4.2 EDUCATIONAL PROGRAM

Introduction & District/School Configuration:

Sharon Public Schools (SPS) is a high performing school district that is “committed to providing an inclusive, safe and healthy learning environment for all.” Our core values of acceptance, equity, honesty/integrity, respect, kindness and teamwork guides our practices and decision-making and are key to the success of our students.

Sharon is a suburban community of approximately 18,000 residents located approximately 22 miles south of Boston, and almost midway between Boston and Providence, Rhode Island. Incorporated in 1765, the town’s location, beautiful scenery and historically high-performing schools attract culturally, linguistically and religiously diverse families that deeply value education.

The school district serves approximately 3,700 students in its five schools which includes a high school (9-12), middle school (6-8), three elementary schools (K-5), and an early learning center (Pre-K). As the reputation of the community and its schools continues to spread throughout the Commonwealth, the district has seen exceptional growth over the past several years. Over the past 15 years, the enrollment in Sharon Public schools (SPS) has consistently increased by approximately 600 students. Currently, the overall enrollment in SPS is 3,548 students. This school year, SPS enrolled the largest kindergarten class in seventeen years of 247 students. We reached the projected enrollment in kindergarten two years earlier than was projected. The ten-year projected enrollment for SPS is 3,988 students, which is an additional 400 students above the current enrollment. The make-up of the new students enrolling in SPS show a shift in the past five years in our demographics with non-English speaking families with a 30% increase (# of students here).

According to the Sharon 2017 Annual Town Report, “...80% of the total budget for the Town is allocated to the School Department.” Residential property taxes account for roughly fifty percent of the allocated budget to the school department. According to the Department of Elementary and Secondary Education (DESE); Sharon’s per expenditure is \$16,316.98 which is slightly higher than the state average of \$16,014.90.

SPS prides itself in being academically rigorous, socially conscious and ensuring the highest quality education for our students. Upon graduation, 92% of students matriculate to four-year public or private colleges/universities, 2% matriculate to two-year academic institutions, and the rest pursue work, military, or life exploration in the form of a gap year.

As of 2017, the four-year adjusted cohort graduation rate was 98.3%, and the drop-out rate stood at less than 1%. The attendance rate for students at Sharon High School is 95.9%. The faculty attendance rate is also high at 94.6%, which is indicative of our educators’ commitment.

Sharon High School offers a strong college preparatory program to its students. Current graduation requirements include four years of Math and English, three years of Social Studies and Science, two years of the same Foreign Language, one year/two semesters of Unified Arts, one year/two semesters of Wellness, and additional course credits that can fulfill the 102-credit standard. The Program of Studies is published annually and includes over twenty Advanced Placement course options. Students can also pursue educational interests as well as meet some graduation requirements by taking courses through The Virtual High School, Dual-Enrollment at Massasoit Community College, or by proposing and completing an independent study.

The Sharon community is very active and supportive of our schools. Through parent and community partnerships such as the Sharon Education Foundation (SEF), Parent-Teacher-Student-Organization (PTSO), Friends of Art & Music Education (FAME), and Sports Boosters; grants and funds are provided to enhance our work with additional programming and supplies. Additional learning opportunities for our students and staff are realized through additional community partnerships with the Council on Aging, Sharon Pluralism Network, Police, Fire & Emergency Departments, and the Norfolk County District Attorney’s office. Annual events such as the Financial Literacy Fair, Sharon Green Day, and Veterans and Memorial Day Activities are further examples of the kind of enrichment that exists in town.

4.2 EDUCATIONAL PROGRAM

SPS has a unique structure to ensure a strong connection with the community through the Community Education program which is a primary department within the school district. Over the past, five years, the programs and services offered through Community Education has seen exceptional growth. The Community Education program, currently serves 1050 students in all programs including the summer programs. They also offer programs for adults throughout the year that serves 738 of Sharon's adult residents. The Community Education Program is in high demand both by students and adults but has been limited in regards to the availability of adequate space for adult and summer programs.

Vision for Learning

The Sharon Public Schools is committed to providing an inclusive, safe, and healthy learning environment for all. Our District is dedicated to developing an educational foundation that fosters academics, model citizenship, and cultural diversity, in collaboration with all stakeholders. We maintain the vision that all students will apply their skills and knowledge to inspire our global society.

Our mission is to provide an educational community that nurtures each student on their unique journey to be lifelong learners and caring and engaged citizens of our world.

In order to achieve our vision and mission, we have four strategic objectives that guide the teaching and learning process in our district.

- Social-emotional learning- Promote student success by ensuring a healthy school environment that supports the social and emotional well-being and the mental health of each learner.
- Relationships and Culture- Foster an equitable and inclusive learning community that ensures respectful and culturally competent relationships.
- Learning Environments- Provide safe, secure, accessible environments conducive for learning and adaptive to changing teaching practices that meet the needs of each learner.
- Curriculum and Professional Development- Implement a consistent curriculum with responsive instructional practices that meet the needs of each learner.

We are committed to achieving vision through the implementation of our objectives by adopting and implementing the principles of universal design for learning, exploring 21st century learning concepts, project-based and interdisciplinary instruction, and technology integration.

It should be noted that there are currently no plans to move away from a departmental organization and we do not propose any changes to our departmental approach at this time.

Class Size:

Class size is an important element of ensuring that students receive the best educational opportunities. The Sharon School Committee is committed to ensuring that class sizes remain at a manageable range by supporting and approving budgets to ensure a reasonable class size.

Class size is established through the collective bargaining agreement between the Sharon School Committee and the Sharon Teachers' Association. The current guidelines have been created over time and are guided by best practice, as well as space availability. As outlined in the collective bargaining agreement, the class sizes are as follows:

4.2 EDUCATIONAL PROGRAM

- Special Education programs and services follow the outlined regulations permitted by the Department of Elementary and Secondary Education.
- Elementary class sizes range from twenty-two to twenty-eight students with the potential to increase to thirty students if there is an unusual increase in enrollment after the opening of schools.
- Middle school class sizes for academic courses except for physical education range from twenty-two to twenty-six students; physical education range from twenty-five to thirty students.
- High school class sizes for the following classes range from fifteen to twenty-five students: English, Foreign Language, Science, Mathematics, Social Studies, Physical Education, and Health and Wellness.
 - NOTE: Due to space and safety concerns in science classrooms and laboratory spaces, a maximum of 24 students per classroom have been enrolled in Science classes
- Technology classes that depend on a computer lab, range from 15-20 students
- Music, maximum 50 students
- Art-Intro, maximum 22 students
- Art-Clay and AP Art, maximum of 16 students
- Other Art classes, maximum of 18 students

Currently, the average class sizes by grade and/or subject area are as follows:

Elementary

K	1st	2nd	3rd	4th	5th
22	20	21	23	20	24

Sharon Middle

6th	7th	8th
18	23	22

Sharon High

	9	10	11	12
ELA	22	20	19	22
Social Studies	21	23	21	22
Math/Comp Sci	21	20	19	22
Science	21	20	22	20
Foreign Lang	15	17	18	15

Note: We do not propose any further changes in the class size guidelines.

4.2 EDUCATIONAL PROGRAM

Sharon High School Schedule:

The school day begins at 8:05 a.m. and ends at 2:40 p.m. Prior to the 2010-2011 school year, the school day began at 7:25 a.m. and ended at 2:00 p.m. The schedule consists of 6-periods that rotate on a 6-day schedule with each period meeting 5 days per cycle.

Sample Schedule:

SHARON HIGH SCHOOL - BELL SCHEDULE						
Time/Day	A	B	C	D	E	F
Block One 8:05 am – 9:00 am (55 minutes)	Period 1	Period 6	Period 5	Period 4	Period 3	Period 2
Passing (4 minutes)						
Block Two 9:04 am – 9:59 am (55 minutes)	Period 2	Period 1	Period 6	Period 5	Period 4	Period 3
Eagle Block 9:59 am – 10:44 am (45 minutes)	Directed Study <i>Mon, Wed, Fri: Chorus, Band, & Orchestra Tue, Thurs: Designated Ensembles</i>	Directed Study <i>Mon, Wed, Fri: Chorus, Band, & Orchestra Tue, Thurs: Designated Ensembles</i>	Directed Study <i>Mon, Wed, Fri: Chorus, Band, & Orchestra Tue, Thurs: Designated Ensembles</i>	Directed Study <i>Mon, Wed, Fri: Chorus, Band, & Orchestra Tue, Thurs: Designated Ensembles</i>	Directed Study <i>Mon, Wed, Fri: Chorus, Band, & Orchestra Tue, Thurs: Designated Ensembles</i>	Directed Study <i>Mon, Wed, Fri: Chorus, Band, & Orchestra Tue, Thurs: Designated Ensembles</i>
Passing (4 minutes)						
Block Three 10:48 am – 11:43 am (55 minutes)	Period 3	Period 2	Period 1	Period 6	Period 5	Period 4
Passing (4 minutes)						
Block Four 11:47 am – 1:41 pm (86 minute class) (28 minute lunch) 1 st Lunch: Gr. 11 2 nd Lunch: Gr. 9 3 rd Lunch: Gr. 10 4 th Lunch: Gr. 12 + PE	Period 4 and Lunch 1 st Lunch: 11:43 – 12:11 2 nd Lunch: 12:14 – 12:42 3 rd Lunch: 12:46 – 1:14 4 th Lunch: 1:17 – 1:45	Period 3 and Lunch 1 st Lunch: 11:43 – 12:11 2 nd Lunch: 12:14 – 12:42 3 rd Lunch: 12:46 – 1:14 4 th Lunch: 1:17 – 1:45	Period 2 and Lunch 1 st Lunch: 11:43 – 12:11 2 nd Lunch: 12:14 – 12:42 3 rd Lunch: 12:46 – 1:14 4 th Lunch: 1:17 – 1:45	Period 1 and Lunch 1 st Lunch: 11:43 – 12:11 2 nd Lunch: 12:14 – 12:42 3 rd Lunch: 12:46 – 1:14 4 th Lunch: 1:17 – 1:45	Period 6 and Lunch 1 st Lunch: 11:43 – 12:11 2 nd Lunch: 12:14 – 12:42 3 rd Lunch: 12:46 – 1:14 4 th Lunch: 1:17 – 1:45	Period 5 and Lunch 1 st Lunch: 11:43 – 12:11 2 nd Lunch: 12:14 – 12:42 3 rd Lunch: 12:46 – 1:14 4 th Lunch: 1:17 – 1:45
Passing (4 minutes)						
Block Five 1:45 pm – 2:40 pm (55 minutes)	Period 5	Period 4	Period 3	Period 2	Period 1	Period 6
Dropped Period	Day A - Period 6	Day B - Period 5	Day C - Period 4	Day D - Period 3	Day E - Period 2	Day F - Period 1

For the 2009-2010 school year, a 45-minute directed study (“Eagle Block”) was added to the schedule (9:59 a.m. - 10:44 a.m.) to address the needs of our students and faculty. We were faced with conflicts regarding our music programs and extra-curricular activities, equitable distribution of students amongst the Wellness Department and an impact on clinical counseling services.

Additionally, Eagle Block provides students with opportunities to access school-based services, academic and social-emotional interventions and supports.

The lunch period is 114 minutes long, during which students attend class for 86 minutes and lunch for 28 minutes. Lunches have historically been organized by grade.

The master schedule is developed collaboratively by administration and school counseling. Course offerings include full-year and semester classes. Students request courses for September beginning the preceding March. Course sections are based on the number of student requests in the course request phase.

A committee was created during the 2015-2016 school year to consider the possibility of transitioning to a trimester schedule. Among the considered benefits to this type of schedule were opportunities for students to take a broader array of electives, an expansion of the visual and performing arts programs, and elimination of mid-year examinations. Although the committee did not conclude that a transition to trimesters was appropriate at the time, the conversation is likely to reemerge in the near future. At present, there are no imminent plans to change the schedule.

Professional collaboration time is built into the schedule. Currently, all members of ELA, Foreign Language, Mathematics,

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Science, Social Studies, and Special Education have a common period off for the purpose of collaboration on four of the six days in the cycle. Departmental professional development is currently built into these common planning periods, including full-department, grade-level, and curriculum partner collaboration.

Our current facilities impede our ability to explore cross curricular collaboration and professional development offerings during the school day.

The vision for future collaboration includes opportunities for teachers in all disciplines (including unified arts, PE/wellness) to have common planning time and increased time and space for cross-disciplinary collaboration.

The advantage of our current scheduling methodology is the involvement and leadership of the process by the School Counselors. Our school counselors have a very good understanding of the individual students and their unique needs, goals and aspirations. A disadvantage to the current scheduling methodology is the way in which classes are determined by the number of students who select a class or have interest in the specific class selection. Students have been faced with not being able to take their top selected course because there may not be enough students who select the class in order for the class to run. In addition, the scheduling is managed solely by administration and the counseling department with limited opportunities for teacher input. In the future, it would be advantageous for us to develop class scheduling teams that are integrated and inclusive of a cross section of departments who share students.

Teaching Methodology and Structure:

Administrative and Academic Organization/Structure - Curriculum Delivery:

Sharon High School is a traditional college-preparatory school that is organized by departments. Due to the limits of available classroom space, many teachers share classrooms that are available, regardless of the department assignment. While the teachers are organized by departments, many classrooms are located outside of their department. There are no policies that determine how we are organized or room assignments.

The district implemented the Digitally Enhanced Learning Initiative five years ago which provides a 1:1 computer to enhance the teaching and learning process. Currently, students in grades 9-11 have their own laptop which is used in many of their classes. While the current 12th graders were a year ahead of the implementation of the initiative, they do have access to technology laptop carts or they bring their own device. We value responsible technology use and integration and believe that technology is an additional tool that enhances the learning experience.

In order to continue to enhance innovation by our students and teachers and meet 21st century college and career readiness expectations, we envision expanding our curricular offerings to allow students to explore various careers and build their 21st century skills.

Through the innovation and creativity of our staff, we have been able to create courses that peek the interests of our students and support their matriculation to post-secondary education and/or career. We have been able to continue our high performance although our current facility significantly inhibits our capacity to broaden our courses of study to include courses and programs that allow for project-based learning and career exploration.

Through community partnerships with Sharon Community Television, our students receive real-life opportunities to learn various aspects of communication, television and media. While our current facility has a functioning television studio, it is aging and there are limits to our students' experience during the school day. Students only have access to the television staff after school hours and have to leave the school campus to travel to the local television studio or satellite sites to work with the television staff.

Our students have a wide array of strengths and interest which correlates with the diversity of our student body. This attributes to the emphasis on the Arts, Science, Technology, Engineering and Mathematics. We have an award-winning

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theatre company and have secured many awards in various areas of the Sciences. Currently, many science classes, all of which have laboratory components, are taught in traditional classrooms that have been repurposed. The rooms are cramped and are thus considered unsafe based on MSBA standards and the National Science Teachers Association (NSTA) Safety Advisory Board recommendations for minimum square footage per occupant.

The current facility and school structure do not foster the opportunity for interdisciplinary and collaborative teaching. The current facility lacks adequate space for large groups of students to work collaboratively across classes. Currently, when classes want to meet together they either open the access door between classrooms and go back and forth or look for available times when other locations in the school are not occupied. When students are collaborating and working on projects, they use the hallways. Large interdisciplinary project-based learning rooms would provide the flexible spaces needed for students to develop and present their projects.

Currently, there are no specific areas specified for teacher planning and collaboration. This is often done in a classroom during a teacher's planning period. Therefore, it limits the depth of opportunity to collaborate and plan across departments.

The goal of a new Sharon High school would be to plan a newly reorganized school that fosters innovation, collaboration and integration of academics and the arts.

We envision a new school would provide:

- Flexible classroom space,
- Student collaboration and study spaces,
- Project rooms to support project-based learning,
- Teacher planning rooms for the faculty and staff to collaborate within and across disciplines,
- Privacy rooms to support students in need of additional academic and/or emotional supports,
- Flexible conference rooms to support student team meetings and individual parents/guardians' meetings,
- and innovation labs.

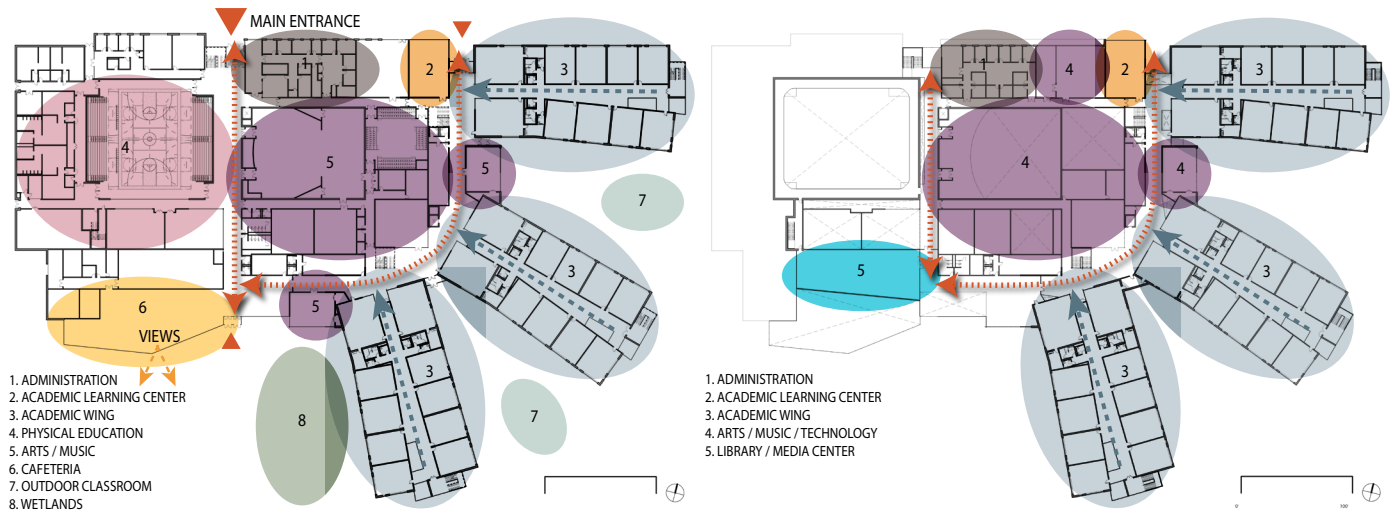
The new facility would need to be reflective and adaptable to the district's core values of acceptance, equity, honesty/integrity, respect/kindness, and teamwork.

Design Response:

The proposed preferred option is organized into six wings on two floors. These wings accommodate general classrooms and science classrooms organized together at the head of each corridor. These classroom wings lead to a large circulation corridor leading to performing arts and music on the first floor and technology classrooms on the second floor. Visual arts classrooms are also located along this circulation spine. In the center of the building on each floor is a large project space / STEAM classroom that can be used as a classroom or collaboration space used to support project-based learning. The organization is intended to make the performing, visual and musical arts visible to students on a daily basis and to foster cross pollination across disciplines. The goal of the plan is to support both collaborative and interdisciplinary learning as well as departmental expertise and instruction.

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OVERALL BUILDING ORGANIZATION



Academics, Programs and Services

Currently, Sharon High is organized and structured in a department model. This has been the structure and design of the school for many years which has been driven by our facilities. As our educational programming continues to evolve and expand, we would like to be organized based on 21st century learning concepts. While there is some interdisciplinary learning occurring at varying degrees, we desire to implement more project-based learning opportunities. While the concept of an academy model was discussed during the visioning sessions, the district does not believe this concept is appropriate to incorporate in the Sharon community. The goal however is to create a building that is flexible and structured in a way that allows for student and teacher collaboration in a socially and emotionally supportive environment.

Design Response:

The six wings (three per floor) shown in the preferred option allow the scale of classroom wings to be reduced to about 200 students per wing. This is intended to reduce the perceived size of these learning areas and address social, emotional and security challenges associated with large schools and the anxiety that these environments can produce for some students. The wings will house general curriculum classrooms and students will circulate through them during the course of the day.

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ACADEMIC WINGS



English Language Arts:

The Sharon High School English Language Arts Department focuses on strengthening reading, writing, and research skills. Instruction is delivered through a range of methods, which include lecture, Socratic discussion, and group and individual projects and investigations. Literature is used as a tool for learning about human nature, and to that effect, teachers also use their classrooms as interactive learning spaces, where students can role play and engage in activities that allow them to experience and explore some of the themes and questions proposed in their course texts. Teachers and students use technology for research, presentations, visual arts and texts, and writers' workshop. In grades 10 - 12, ELA and Social Studies interdisciplinary courses are offered, and these classes collaborate to make connections between history and literature.

In addition to full-year ELA classes, the department also offers semester-long electives in Film, Creative Writing, Journalism, and Comics and Culture. These courses are offered for elective credit, and they do not meet the graduation requirements for ELA course credits. These classes use technology for writers' workshop, research, film viewings, and Skype conversations with authors and interview subjects. Sharon High School has three computer labs, and one is used by the ELA department, though also shared with other departments. Other classes use laptop carts in lieu of the lab.

In the future, we would like to have more project-based and interdisciplinary learning opportunities so that students can

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further explore not only the connections between history and literature but also expand the connections between the electives offered and literature. Due to our space limitations, technology integration and the use of smart technologies have been limited. In the future, we are committed to more thoughtful and meaningful technology integration in the delivery of curriculum and instruction.

The ELA department also offers a Writing Center during our 45-minute Eagle Block. Due to lack of space, the writing center rotates from room to room which is inconvenient for both students and staff. Because there is no social space for students in the current building, the only space available to students is the library. As a result, the library is not a quiet, academic workspace.

Ideally, there would be adequate space to deliver core academics, electives and interventions. The space would include the following components:

- Open areas (or the potential for open areas through movable walls) in order to create collaborative learning environments and conference spaces.
- Classrooms with adequate shelving and storage for classroom libraries and showcasing student work and materials/tools for learning.
- Age appropriate desks and workspaces that are easy to move around.
- Blackout shades for effective use of technology.
- More white-board space, and projection systems in each room.

Additionally, there needs to be access and space to support the writing center with an expanded academic library that could serve as a quiet workspace, and flexible spaces that could serve as small lecture halls for presentations, public speaking, and outside/community speakers.

Design Response:

The preferred option includes a drama classroom to accommodate the needs of both the drama department and collaboration with the ELA department on lectures, Socratic discussions, and group and individual projects and investigations. It also allows creative expression that comes through the interdisciplinary course offerings.

Mathematics/Computer Science:

The Sharon High School Mathematics and Computer Science Department strives to provide appropriate courses for all students. Students are encouraged to take the courses at the level that best reflects their interests and strengths and allow for exploration so they are not locked into a particular level for their high school experience. Mathematics and science are a focused interest of a large number of our students who desire rigorous and challenging content and instruction, therefore, students are allowed to take more than one mathematics course when feasible. The mathematics and computer science courses are fully aligned with the Massachusetts Curriculum Frameworks and with National Council of Teachers of Mathematics (NCTM) and International Society for Technology in Education (ISTE) standards. All courses stress critical thinking, problem solving, written and oral communication, reasoning, and connections to other mathematics and computer science courses and real-life applications. All courses at Sharon High School incorporate the use of technology as a meaningful teaching and learning tool, and problem solving is a universal theme.

Currently, four years of Math are required for graduation. There is no current requirement for Computer Science and Computer Science courses do not satisfy the Math graduation requirement. Sharon High follows a traditional path of courses in Math leading to Calculus and Statistics in senior year. The department offers 3 AP classes in math, AP Calculus BC and AB and AP Statistics. It also offers 4 levels of calculus for seniors, 2 at the AP level and 2 at the standard level. There are four levels of Math taught at Sharon High: AP/Honors, Accelerated, Standard, and Foundations. The Computer Science Department offers four courses: AP Computers Science A, AP Computer Science Principles (both full

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year), Fundamentals of Python Programing (Semester), and Intro to Computer Science (semester).

The math classes meet in any room in the school as no classrooms are designated for Math instruction. Math instructors use traditional methods of instruction as well as more contemporary methods of project-based learning, collaborative groups, large and small group discussion, and direct instruction. While current space is functional, it presents difficulties when trying to implement project or collaborative group instruction. With lack of white board space and aging technology, having students working together or presenting their work to the class is difficult. In addition, the current furniture in the classroom makes rearranging for collaborative or project work extremely difficult and uncomfortable thus preventing some meaningful and innovative instruction from taking place. Spaces that are flexible and have flexible furnishings would better support the delivery of instruction in this area. This would promote more effective collaborative groups and project-based learning opportunities.

In planning for new space for math instruction, the classrooms should be large and have write-on walls that would allow collaboration at any point in the room. Flexible, comfortable seating should be available to allow for easy rearrangement for project-based and collaborative instruction to take place. There should be break out space where small groups could work and larger spaces where interdisciplinary groups could work together. A teleconferencing space or capabilities should be made available in classrooms to further permit collaboration with experts/schools outside Sharon High School.

Currently, the Math/Computer Science Department also offers a Math Center during our 45-minute Eagle Block. Due to lack of space, the math center rotates from room to room which is inconvenient for both students and staff. Because there is no social space for students in the current building, the only space available to students is the library. As a result, the library is not a quiet, academic workspace.

The computer science classroom currently utilizes a computer lab which is shared with a class from another department. The room is small and the technology is aging. It is not currently conducive to simulating a software programmer's project-based work environment. It presents difficulties in collaboration as there is no room for multiple or large screen workstations.

In planning for space for computer science, there needs to be a large, flexible space that can function as a computer lab but can also accommodate collaborative work among students. This would require large/multiscreen work stations throughout the room. As the computer science program expands to include hardware and network courses, large dedicated laboratory and/or project spaces would be optimal to support this expansion.

Based on student interest and need, we desire to expand our offerings to include business courses, such as accounting, finance, marketing etc. which would require space that is flexible, able to adapt easily to new technology and software, and permit project based and collaborative instruction/learning to take place.

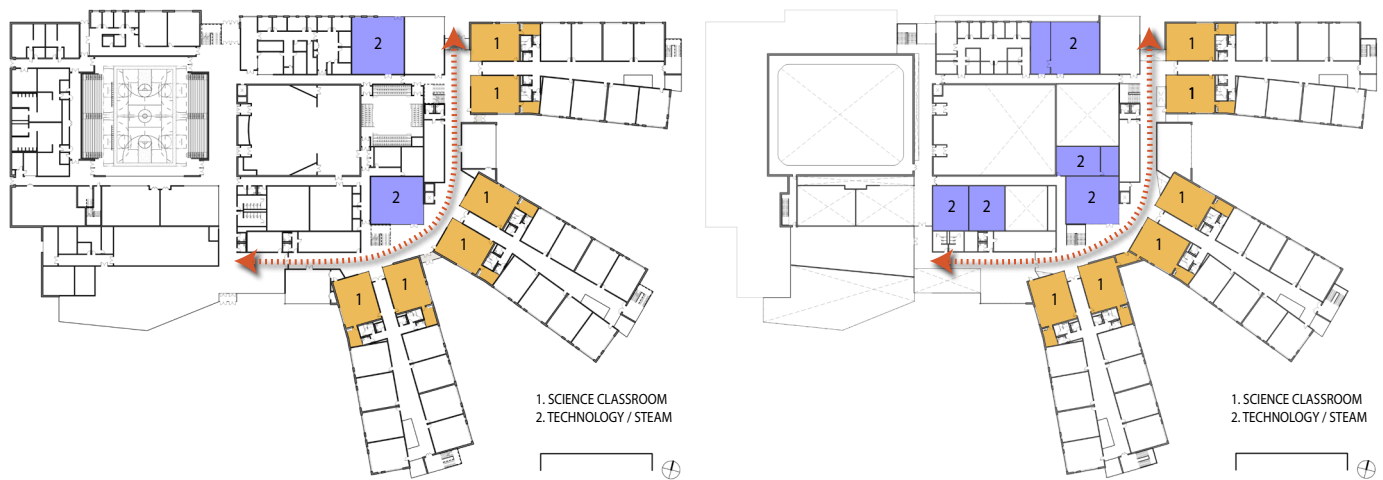
To accommodate these goals a proposed CAD lab would be wired for various technology including laptops with ethernet access points throughout the room and our current bank of 3D printers. The CAD lab would also have space with open counters and floor space so that students can assemble products and test design solutions. In addition to the three main science disciplines and engineering design, the science department currently offers several STEAM focused courses including forensic science, biotechnology, and environmental science. The current courses and/or any future STEAM focused courses could be accommodated within two STEAM labs. As a district we felt that designing flexible STEAM lab rooms would create opportunities for changing courses in the future and fall more in line with the MSBA's high school guidelines that consider not only current but future use of these spaces. The Innovation Lab would be an open space wired for technology around the room so that it could serve multiple uses and be accessed by all departments for groups and large projects. This lab could also house robotics courses in the future as the department does not currently offer robotics but would like to add it in the future.

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Design Response:

The preferred option is organized to distribute technology classrooms across the two floors of the building. The first floor has a STEAM classroom / Project Space and a TV studio. The second floor also houses a STEAM classroom along with graphics labs, cad lab and innovation lab. The technology classrooms are typically in close proximity to the twelve science classrooms that are proposed for the new school offering opportunities to expand science offerings and technology offerings such as robotics which could be offered on either floor in a STEAM lab.

TECHNOLOGY SPACES



Science:

The goal of the science department is to ensure that all students graduate from Sharon High School with the skills and knowledge necessary to become scientifically literate citizens who can make informed decisions. The curriculum emphasizes scientific process and inquiry skills, problem-solving, and non-fiction reading and writing. The department is continually working to move students from procedural-based laboratory activities to more inquiry-based laboratories.

Currently, three years of science is required for graduation although the majority of students take 4 or more science courses prior to graduation. Sharon High School follows a physics first course sequence where students take physics in grade 9, chemistry in grade 10, and biology in grade 11. Each of these core science courses are offered at the foundations, standard, and honors levels. Beginning in sophomore year, students may choose to take additional elective science courses beyond the 3 core sciences. By senior year, all science courses are elective-based. Currently the department offers 5 AP, 5 multileveled (standard/honors), 2 standard, and 2 honors elective options. Of these, 4 courses are semester based and 10 are full year electives. In the 2012-2013 school year, Biotechnology was developed as a STEAM-based science elective. Over the last 5 years, the department has added more STEAM (Science, Technology, Engineering, Arts and Mathematics) focused courses such as Advanced Engineering Design, Environmental Science, and Forensic Science. The department would like to consider adding other STEAM courses however there is no physical space in which to add more courses. For example, for the past 10 years, the department has considered adding robotics courses however there is no large available space in which to run this type of course. The department is also very interested in adding an innovation/maker lab for use by several disciplines and courses. In designing a new or renovated Sharon High School these needs should be considered and plan for spaces that are flexible, located so to integrate the curriculum areas, and large enough for student projects and collaboration. The science department utilizes thirteen rooms for current course offerings. In looking to the future, the department felt that a minimum of 12 rooms would be needed to meet the main science discipline demand while the CAD lab space would be used to house

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the engineering design courses. The district acknowledges the MSBA's high school lab guidelines and is committed to the future flexibility of science labs in planning for a new or renovated high school facility.

All Sharon High School science courses are designed to be lab-based courses. Currently, 13 rooms are used as science spaces. Of the 13 rooms, only 2 meet minimum space requirements for laboratory classrooms. Six rooms were designed as science labs many years ago however they are grossly undersized and thus cannot be used effectively. Future space considerations should consider the need for dedicated Science labs that ensure the safety of students and staff and support the goals of the department and district.

In planning for new science spaces, there should be flexible work space in all science classrooms. Rooms need to be designed so that there is a combination of content teaching space as well as lab space since classes blend content with hands-on experiences. A dedicated space for storage and sterilization of safety equipment should be readily available and accessible in every room. Ideally, this would be in a universal location in every science room. Drains in the floors especially underneath emergency showers is something that should be considered.

Currently, there is one chemical storage room which can only be accessed by 2 chemistry rooms and the main hallway. One central chemical storage room is needed so that teachers do not have to carry chemicals far distances to their classrooms for use in laboratories. The proposed plan locates a single chemical storage room in close proximity to the proposed chemistry classrooms which are grouped together on the same floor.

In building authentic learning opportunities including project-based learning and inquiry-based learning labs, space is often needed to be dedicated to these more long-term labs. For example, AP Biology students conduct a plant lab where plants are grown over a month of time in varying conditions. This means that the lab space used by the AP Biology classes cannot be accessed by other classes during that month of time. Ample and numerous lab spaces would be able to accommodate this need more easily.

Since each science discipline has slightly different needs for lab space and this is not likely to change significantly in the future, rooms should be designed as biology specific rooms, chemistry specific rooms, physics specific rooms, and flexible science rooms which could be used for any of the three core science disciplines or a variety of science electives. Most science classes, particularly the Astronomy and Environmental Science classes, should have easy access to an outdoor space for making observations and conducting experiments. Bringing classes outdoors allows for more space for experiments as needed and helps to make important connections to the content being taught in natural science classes.

Science electives at Sharon High School are very popular courses in which to enroll. In addition to AP science courses, the department currently offers a range of electives including but not limited to: Biotechnology, Engineering Design, Environmental Science, Anatomy and Physiology, Astronomy, and Forensic Science. Some of these courses have very specific building needs which would enhance their already robust curriculum.

Forensic Science was introduced in the 2015-2016 school year and has been consistently enrolled with 2-3 sections of seniors per year. Now that the course is in its fourth year, the teachers have identified a need that cannot be fulfilled in the current building. Space is needed in which to set up a crime scene and let it remain set up over the course of a week, since the course requires students to fully process a scene. A flexible, open, small room with a shower hose and drain would be ideal.

The engineering design curriculum allows students to use technology, 3D printers, and other readily available materials to design solutions and test their designs for various products. The ideal space would be climate controlled, wired for various technology including laptops with ethernet access points throughout the room. It would have an adjacent space with open counters and floor space so that students can assemble products and test design solutions.

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The environmental science course, AP Biology classes, and Biology courses all grow plants at varying times of year as a part of labs. A flexible space that could act as a greenhouse with outlets for grow lamps and water access would support the curriculum and instructional needs. Having such a space would allow for inclusion opportunities for students serviced in our Pathways special education program.

Design Response:

The twelve science classrooms listed in the space template are broken down into three disciplines of four rooms each on the proposed plans: Chemistry, Biology and Physics. These disciplines are located in horizontal or vertical proximity to one another. Located at the beginning of the classroom wings they are also in proximity to art and technology spaces. This allows the science department to expand their offerings by using technology spaces for subjects such as forensic science and engineering design. The Biology classrooms are located on the ground level with direct access to a shared courtyard. The goal here is to take advantage of the site which includes a wetland directly adjacent to the proposed school. The Chemistry department is located on the second floor with one chemical storage room in the center of the group of rooms. This adjacency limits travel distances for the handling of chemicals from the storage area to these classrooms. All science labs also have individual dedicated prep rooms. The physics classrooms are located on two floors and are stacked. They are all adjacent to a two story corridor space that can be used for vertical indoor experiments.

SCIENCE CLASSROOMS



Social Studies:

In the Social Studies Department, teachers and students do what historians, psychologists, geographers, sociologists, lawyers, economists, anthropologists, and archaeologists do. Students are taught to analyze, investigate, speculate, argue, classify, compare, generalize, hypothesize, question, and debate. Most of the Social Studies Department courses are historical in nature. Studying history means asking questions, answering questions, testing and revising answers in an ongoing attempt to know who we are, to understand how we got here and to determine where we might be going. The Social Studies department has been developing a curriculum for grades 6 through 12 that accomplishes what Howard Gardner describes in *The Unschooled Mind*. Gardner makes the case that student learning should not be focused on isolated bits of knowledge but rather understanding the causes and implications of our past and current decisions.

Currently the Social Studies Department uses 14 classrooms around the building, which are shared with other members of the department as well as members of the foreign language, math, science, and ELA departments. The

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lack of classrooms designed for integrated, project-based learning hinders the delivery of instruction and collaborative opportunities for students. Project based activities, Socratic dialogues and collaborative learning are impeded by some of the classrooms to which teachers are currently assigned. For example, social studies classes are taught in science labs with fixed workstations that do not lend themselves to many of the group activities and collaborative dialogues conducted in Social Studies classes. Also, the lack of space within these classrooms limits the resource materials (maps, books, etc....) available to teaching staff. Plans for a new building should have some flexible spaces that lend themselves to the investigation of primary source materials. This might include technology, physical artifacts and documents. Serious planning should be given to creating comfortable learning spaces where guest speakers in person, or virtually could be invited or theatrical re-enactments, civic role- plays or the viewing of film and documentaries might take place. This kind of consideration to space design would enhance and compliment the kinds of activities the Social Studies department seeks to deliver. Additionally, an appropriate flexible space design would aid in the department's efforts to implement the new state frameworks in the classroom.

Design Response:

One of the goals of the drama classroom that is located next to the auditorium is to offer a location for larger groups of students to give speeches, debate, and hold forums and view films. In addition, the STEAM classrooms on each floor act as larger project based classrooms that could be used for project based activities for both social studies and all areas of study.

World Languages:

Language learning and culture exploration is a very important part of the learning experience for SPS students starting as early as first grade. Therefore, our goal is to ensure that students have exceptional opportunities to continue to develop and execute their language skills in a way that enhances their learning experiences in the other curricular areas.

Currently, students typically remain in one course for the whole academic year (e.g. Spanish II). We would eventually like to see proficiency-based grouping where students could move between courses as they meet the curricular expectations.

Students are eligible to earn a Seal of Biliteracy if they can demonstrate a certain level of proficiency either in their home language or their language of study at SHS. It would be useful to have small conference areas where students could meet native speakers from the community to learn and/or maintain their home language or practice their language of study in an authentic context.

To support student's development of languages, we currently have a language lab where students can conduct their listening and speaking assessments without distractions and background noise. The current space impedes the ability to expand this lab to include virtual experiences with native speakers via SKYPE or some other video conferencing technology.

Given that food is an important component of any culture, it would be beneficial to have access or in proximity to a space that is flexible and has equipment to support simple food preparation to accompany the language instruction.

Exchange programs are an important part of the language instruction at Sharon High. We host at least two exchange groups from Spain and China each year. It would be ideal for there to be a space for the exchange students to collaborate on a virtual project prior to their arrival and culminate the project with their English-speaking peer during their exchange visit.

Currently, students participate in exchanges such as the Chinese, French, Spanish Exchanges and the CIEE (Council on

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International Educational Exchange) during the summer.

English Learner Program:

The changing demographics of the Town of Sharon has also led to the growth of our English Language (EL) programs. The number of students identified as an English Learner has tripled in less than five years. The growth of the English Learner program at Sharon High mirrors the growth of the district. The program has grown from a half-time traveling teacher between Sharon Middle and Sharon High to two full-time teachers. The teachers provide individual and in-class services to students in grades 9-12. They work collaboratively with general education/content area teachers to ensure the success of each of our students. The work collaboratively with the K-8 EL teachers to develop and modify curriculum to meet the needs of each individual student based on the student's language level.

Due to limited space, the two EL teachers and their students move from room to room around the building, sharing space with teachers from other departments. The teachers do not have a dedicated instructional space which limits their ability to provide hands-on, authentic learning opportunities for their students. In addition, the teachers do not have a space to collaborate with one another or the content area teachers to review accommodations for students.

The EL program requires a dedicated space that includes an instructional space that is flexible to provide small group and individualized instruction. It would be optimal for the instructional space to include office space, storage space and meeting space for parent and teacher meetings/collaboration.

METCO:

Sharon has been a METCO district since 1967 and values the cultural and racial diversity that the program brings to our suburban district. Sixty-six of our students are enrolled in the METCO program in grades 1-12. The program is staffed with a Director and one support staff person. It is expected that students enrolled in the program fully participate in school and community life in Sharon.

Over the past year, the program has gone through a reorganization to emphasize the need to ensure that students are fully integrated and achieve at the same level as resident Sharon students. We envision that the program will continue to evolve by offering academic enrichment support, parent/community engagement activities, and revitalizing the host family portion of the program. The program supports students in academic competition as well as socially and emotionally.

The METCO Director's office is located at Sharon High. The current space consists of a moderate sized office within the library that also acts as a meeting space. Future building plans should include office space and a meeting space that is flexible in order to provide before/after school tutoring support, parent meetings and guest speakers.

Special Education Programs/Services:

The majority of special education services are delivered inclusively in the general education classroom. Whenever required, individual and small group services are delivered through "academic labs." These are opportunities for students to work individually or in small groups with a special education teacher and/or service provider on their IEP goals and objectives. Currently, the spaces designated for "academic labs" are dispersed throughout the academic areas of the school and the school library.

In order to maximize learning for students, we envision that students receiving special education services, or require supports through accommodations access those services and supports through large-room learning centers staffed by teams of special educators, specialist and related service providers. This space should be flexible and able to accommodate individual and small groups for intervention supports from general education support staff. It should

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be designed using universally designed concepts for the space as well as the teaching tools. These spaces would be located amongst the academic areas in the building.

Currently, substantially separate programs exist for students with autism spectrum disorder (ASD), those with social-emotional disabilities, those with cognitive and/or neurological impairments, and students in transition (18-22). They are served in the team-based learning, autism spectrum disorder, and a vocational/life skills program. These programs were developed in order to service students who would historically have been placed out of district due to the intensity of service needs. Currently, these programs are located in different areas throughout the building, separate from the core academic areas. In order to ensure a more inclusive learning community for all students regardless of need and ability, the sub-separate program classrooms should be located within the primary academic areas of the school.

The district is committed to ensuring that students with disabilities receive a quality education in the least restrictive environment. We will continue to meaningfully and purposefully include students in the general education classroom as well as the broader school community. There are currently six academic support labs for students with mild to moderate learning disabilities that we hope will be merged into two academic support centers located within the core instructional areas of the building, one on each floor, so that students can access the specialized supports and services that they need. In addition, six dedicated special education classrooms are proposed to be distributed in the six classroom wings of the proposed building. It is anticipated that half of these rooms would have associated toilets and half would not.

Due to the skills that students in the vocational/life skill program are working on, they require not only a space for academic instruction but also a space to develop daily living and work skills. There are various related service providers who support the programs, therefore, a moderate sized office space should be located within at least two of the sub-separate instructional spaces to ensure that the related service providers are able to provide counseling and conduct assessments with students.

The district developed a partial sub-separate program for students with language-based learning disabilities called LEAP almost three years ago. The first cohort of students in the program will enter the high school in two years. Due to the matriculation of the program, we are planning to develop a high school level LEAP program. Students receiving services through the LEAP program receive individualized, small group instruction in a sub-separate classroom from a special education teacher for reading and writing and receive math, science and social studies through a co-teaching model in the general education classroom.

Sharon High School does not have an adaptive physical education/wellness program. All students participate in a general physical education/wellness class. Accommodations and modifications are provided in the class to students who need the services. Also, if required, instructional assistants support the students in class.

Occupational/Physical Therapy services are currently served on a consult basis to the teacher and student. The consult service may occur in the classroom, or the therapists meet with the teacher outside the classroom. There are no anticipated changes to this consult model, and we expect to continue servicing approximately 6-10 students per school year.

The spaces designated for special education programs in the new building should maintain the current space allocations for the academic labs and the sub-separate programs. The spaces while located amongst the school and academic areas should also consider the needs for the program servicing students (18-22) and ensure easy access into the building and instructional areas.

Nursing services are a very important part of supporting the students attending SHS whether they receive special education services or not. There is a large number of students in the district who have varied medical needs including those with chronic illnesses. Currently, we have one full-time school nurse and a part-time floating nurse to support

4.2 EDUCATIONAL PROGRAM

the medical needs of the students at Sharon high. The clinic is currently located in the main office area. It includes a waiting area for students, a small office space, a sick and well child space, a restroom and an examination area. Due to the increased needs of students with allergies and diabetes, proper storage for medications and medical supplies are imperative in a new school where this is currently limited. The clinic should be located in an area of the building where it is easily accessible to students yet discretely located to ensure student confidentiality. It should be a welcoming space that offers a waiting area and a triage area for students. It should be properly equipped with the ability to refrigerate medications. Due to the growing needs of students, two restrooms would be optimal to support students who need assistance from the nurses or for those who are able to manage their medical needs independently. We should maintain a large examination area where curtains can be drawn for privacy. Two small office spaces are needed to accommodate the nursing staff. To support the nurse's workload, the space should be equipped with up-to-date technology to keep detailed medical records and information.

Design Response

The proposed plan locates six dedicated special education classrooms, one in each of the six classroom wings. In addition, each wing has a dedicated small group instruction space within the classroom environment. At the end of the circulation spine of the proposed plan on each floor there is an academic support lab. These labs are intended to offer multiple services for students looking for support with academics, and with social and emotional concerns. By creating these larger labs the intention is to attract a larger cross section of students to these locations making them seem less isolated. It also offers staff the opportunity to offer multiple levels of support and services from only two locations which should lead to a more robust level of student service.

SPECIAL EDUCATION



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Guidance and Support Services:

Social Emotional Supports:

Currently the high school provide social emotional supports and services through the School Adjustment Counselor and School Psychologists. They conduct individual and group counseling as well as social skills groups either during lunch block or during Eagle Block. They also provide seminars focused on various topics to build students' coping and social, emotional skills and to support families in the support of their children. In addition, they provide services to students enrolled in our sub-separate special education programs and work closely with the teachers and staff of those programs.

They are key members of the special education process, specifically, the school psychologists spend a significant time conducting confidential testing/assessments to determine eligibility for special education services and 504 accommodations. They currently are located in the library to access conference room spaces. However, their office locations are remote to the special education staff and administration for which they frequently collaborate.

Ideally, their office and conference room space would be located in a common area that is in close proximity to the special education programs that they serve, to classrooms and to the special education administration. They require spaces that ensure discretion and confidential engagement with students and families.

School Counseling:

Six school counselors and the Dean of Academic Affairs provide academic, social, and post-secondary planning services for students at Sharon High School.

Upon entering grade 9, students are assigned a counselor based on the alphabetical split of the class. Counselors currently carry an average caseload of 187 which can go up to 200 students and continue to work with the same group of students from grade 9 through graduation. This allows counselors and students to develop meaningful relationships over the years that aide in counseling students through annual course selection and eventually to post-secondary planning.

School Counselors also provide services for students through lunch period counseling seminars that meet 8 - 10 times per year. Because there are not adequate large group meeting spaces, counselors take time out of academic periods to meet with students, and present the same information twice to groups of 25 students, rather than the cohort group of approximately 50. These seminars are scheduled into available classrooms when possible, but are more frequently scheduled into classrooms from which those students are being taken (e.g. into an English I classroom when the seminar is for grade 9 students). To better support our students through the delivery of small group seminars, we require a moderate to large capacity meeting space that is flexible and allow for movement and discussion. It should be wired and equipped with presentation and amplification equipment.

The counseling office hosts over 120 college and university admission representatives each year. Representatives meet with as many as 70 students or as few as 1. Currently, these meetings take place most frequently in a small conference room in an area of the building that is far away from the school counseling offices. The library or the Dean's office is often used for moderate to larger meetings. The library is located upstairs at an opposite side of the building from the counseling offices. The Dean must find an alternate work space when his office is used for such meetings.

The department would benefit from a College/Career Center space that would provide accessible meeting area and minimize staff disruption. Such a space, if in or nearby to the counselors' offices would allow significantly improved efficiency for the counselors in working with students, families, other staff, and college representatives.

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Counselors work closely with school psychologists, adjustment counselor, METCO director, school resource officer, and special education liaisons on a regular basis, including weekly “Case Conference” meetings. Despite the close collaboration, the staff are housed at opposite ends of the building, making this work very challenging.

We envision a “student services suite” where students would be able to access all counseling and special education services, including the Special Education Administrator and the Dean of Academic Affairs. Considering the significant number of parent meetings these individuals conduct, such a space would ideally be located near the administrative offices, or near a building entrance to ensure the safety and security of students and staff.

Design Response

The student services suite is located on the second floor directly above administration and immediately next to the main entrance stair. This location allows a close proximity between counseling and administration but with some separation so that counseling does not have a direct association with administration. The location directly above the main school entrance is also convenient for parent visitors and for visiting college representatives who will frequent this part of the school.

Teacher Planning and Room Assignment Policies

Teachers are provided with a preparatory planning period once per day. In addition, most departments are scheduled to have the same planning period so that departmental professional development and common planning can occur during the school day. Currently no teachers in the building have their own classroom as every classroom is shared by 2-5 teachers. When planning room assignments, considerations are made so that teachers are not traveling far distances between periods unless the teacher has a prep period separating the two courses so that they have time to travel the further distance. Departments meet in classrooms for professional development since space is limited.

The current schedule is designed to allow for ongoing professional development during the school day. It is an integral part of the day that would be better enhanced with spaces that are conducive to teacher collaboration time and site-based professional development. In addition, the district utilizes half day release time for professional development. There is no plan to change the current practices for professional development but a new facility designed for this purpose would enhance the current practices and enhance cross disciplinary and vertical planning and collaboration opportunities.

Teachers currently have a few small and inadequately equipped workspaces in the building. As a result of the growth with students and teachers, previous spaces designated for teacher workspaces have been converted to staff office space or instructional spaces.

To support and promote cross curricular collaboration and to implement more interdisciplinary and project-based units of study, teachers require work spaces that centrally located near the instructional classrooms that can also act as a space for individual, content level and cross-curricular planning and professional development spaces. The space should be flexible so to allow for small group planning to occur simultaneously with a moderate group of educators receiving professional development.

There are five curriculum coordinators who serve grades 6-12. They serve as department chairpersons at the high school level. Therefore, the majority of their time is spent in the high school building. Currently, there are three small office spaces that are shared by them. The current spaces impede their ability to plan and review teacher evaluations in a safe, private area.

To ensure that the curriculum coordinators have space that supports their work. It requires spaces for both individual and collaborative work as well as shared meeting space where confidential conversations and phone calls can occur.

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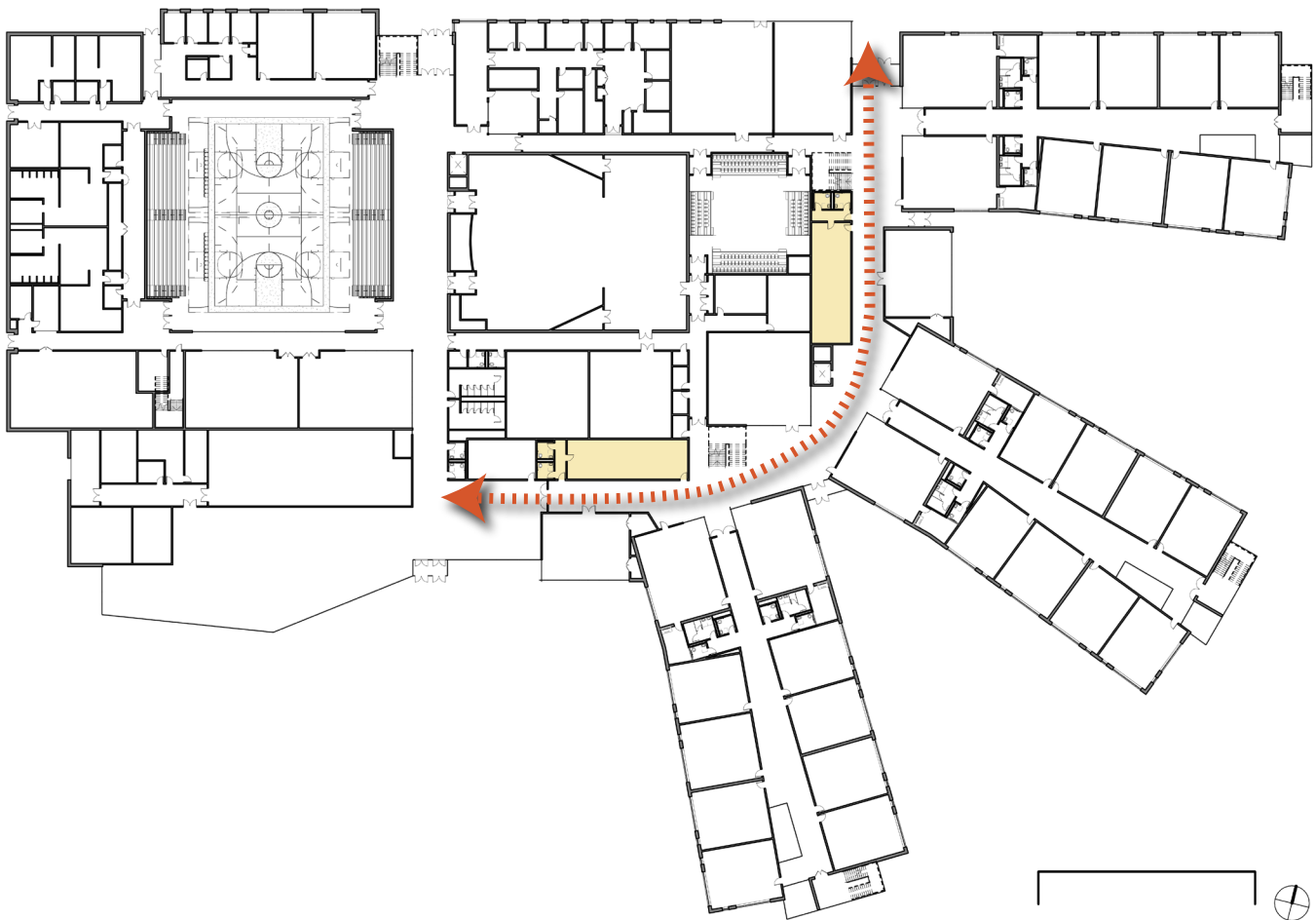
In addition, their space should be such that they can meet with both small and large groups of teachers for curriculum planning, development and professional development. This space would be equipped with the technology supports such as charging stations and large monitors.

Although we have implemented a 1:1 technology initiative, educators still rely on actual textbooks and other supplemental materials, therefore, a small storage space is needed to store those materials to be easily accessible to the teaching staff. Additional shelving would be an adequate space to support the professional growth of teachers by providing a professional library of books and resources.

Design Response

The proposed plan includes four teacher planning centers, two on each floor. These locations are centralized and highly visible as they are located directly off of the academic wings of the school. These spaces are planned to offer areas for storage, collaboration and will act as printing centers for faculty. Each will include a conference space for common planning meetings and professional development.

TEACHER PLANNING CENTERS



4.2 EDUCATIONAL PROGRAM

Pre-Kindergarten:

The Sharon Public Schools Children's Center provides full-day and half-day substantially separate and integrated preschool education for students with disabilities. It is located in the Sharon Middle School. It serves approximately sixty-six students with and without special needs in an integrated environment. No changes to our current preschool program is proposed as part of this project.

Kindergarten:

The Sharon Public Schools offers full day tuition-based kindergarten in each elementary school in addition to a free half day program housed at Heights Elementary School. No changes to our current kindergarten are proposed as part of this project.

Lunch Program:

There are currently four lunches, each lasting 28 minutes long. Students generally dine by grade, and there are no plans at this point to integrate the lunches. However, if in the future, we transition from a departmental model to an academy model, the lunch schedule will be reviewed and revised as needed.

Currently, there is limited seating in the cafeteria for all students to eat within the lunch area. Many students can be found sitting in the hallway or in the library during their lunch periods. The serving lines are narrow and challenges the time frame for which students need to be served. There is an outdoor inner courtyard that students use when the weather permits.

In the future, the ideal cafeteria space would be large enough to seat $\frac{1}{4}$ or $\frac{1}{2}$ of the student population to optimize time on learning. Well-spaced food service stations and line with a variety of student seating options (i.e. booths, round tables, high tops) would enhance the student experience and allow this time to be one of social interaction and relaxation during the school day. In light of our robust visual and performing arts program, students would welcome an opportunity to share and display their talents. Therefore, the dining hall should include an integrated sound system, visual media (i.e. televisions), modern payment options, cameras, and charging resources for electronics to ensure its use throughout the school day. The space should be designed to allow students to use it after-school to study and complete homework rather than needing to leave campus for the local coffee shop.

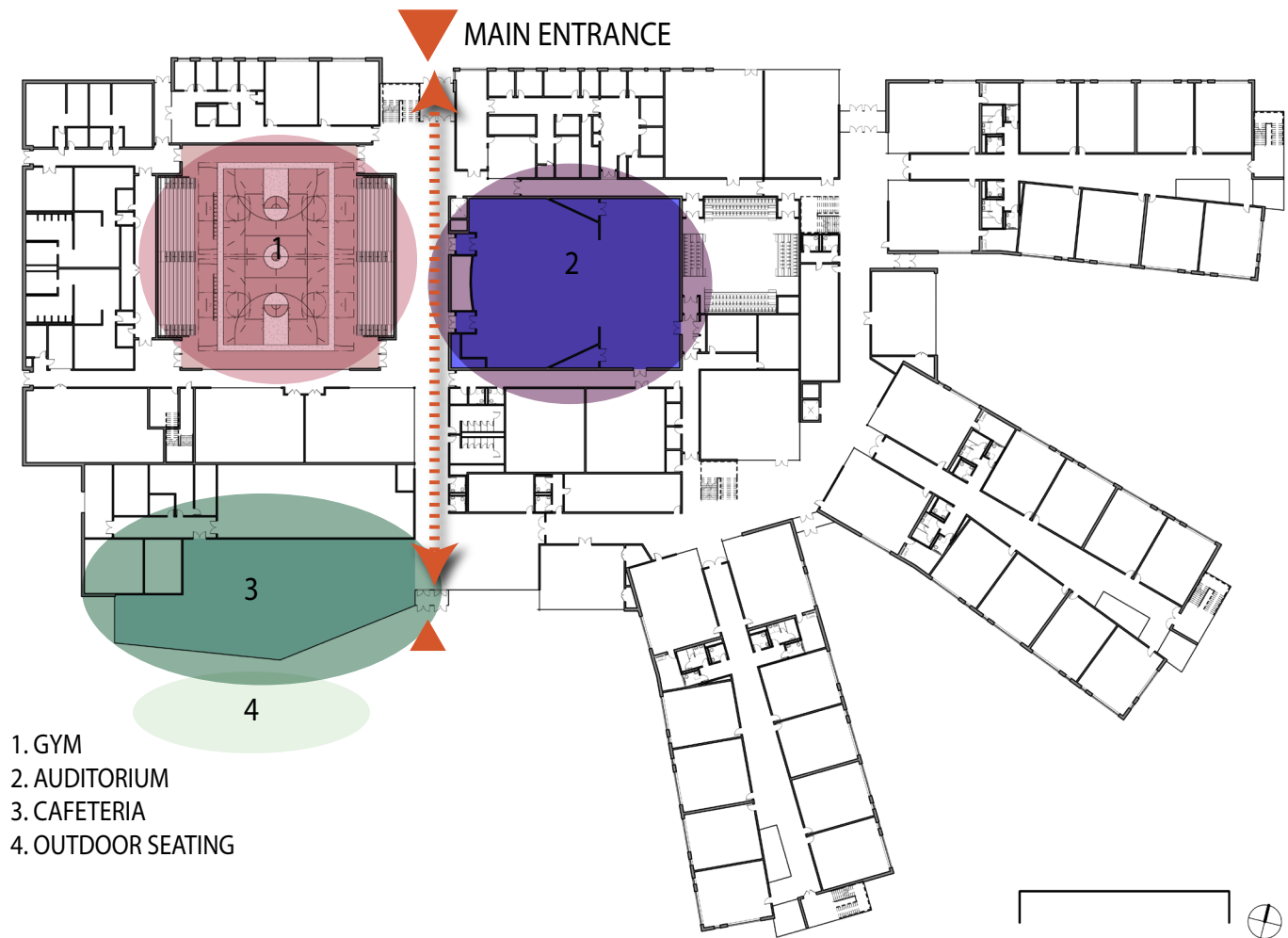
The dining area should also include a separate but visible space in the area or proximity for a teacher/staff dining hall. Currently, there are two adjoining rooms that serve as a very small dining hall for educators. A proper dining facility for staff would allow teachers an opportunity to decompress between classes and collaborate over lunch. This space would include at least two staff restrooms. If student lunches decrease from four sittings to three or two sittings, the staff area would need to be large enough to accommodate a moderate group of teachers comfortably.

Design Response

The proposed cafeteria is located at the end of the public entrance corridor and is open to a wide circulation zone that is intended to have flexible seating for students during the day. A snack bar is located at the entrance and on the corridor so students can purchase snacks and drinks. This could also potentially act as a concession area during performances and games as these functions are in close proximity. Students will enter school in the morning from both ends of the main corridor and it is envisioned that they may congregate in and just outside the cafeteria before going to classes. The cafeteria also has a unique location with a view to the nearby lake and will be developed with outdoor seating as well as a variety of seating options within the space itself. A staff dining area will be located across the corridor providing some separation but reasonable proximity.

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DINING



Technology Instruction Policies and Program Requirements:

Technology is a tool that is necessarily and intrinsically embedded into much of the daily work of our students and staff. Teaching and learning is not only enhanced by the use of contemporary tools, it is hard to believe that any powerful learning experience didn't start with, was developed on, made use of, or was assessed using some form of technology. Our goal in how technology is used at SHS is consistent with that philosophy stated above, that technology is a necessity that holds the potential to enhance teaching and learning in profound ways.

Currently, Sharon High School is in its third year of a gradual implementation of 1:1 access to mobile devices for all students and staff. All teachers and all grades 9 through 11 students have a MacBook Air laptop. Seniors and their classes still rely on either bringing their own devices or using laptops in the remaining carts stored around the building. There are 5 carts of 25 11" MacBook Airs.

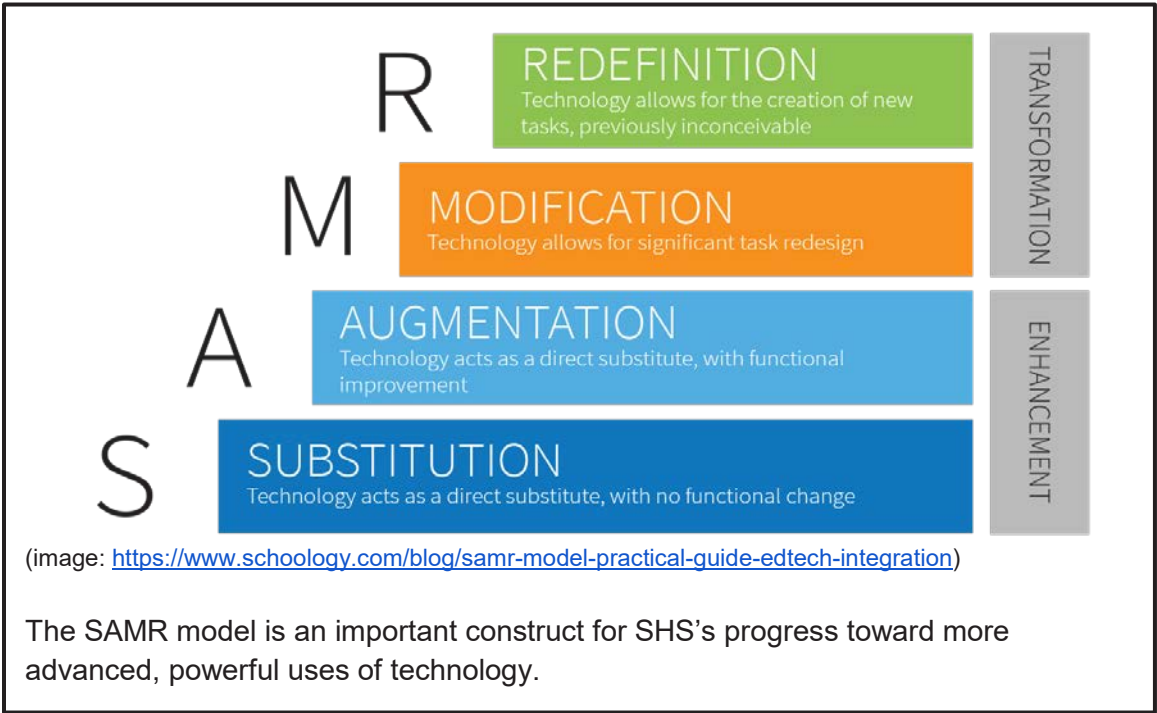
Along with the advancements in mobile technology access, we have continued to cobble together a more contemporary infrastructure in and around existing, aging, often inadequate learning, working, and storage areas of SHS. One head end room with virtually no emergency back-up, and three IDF's with no A/C, connected by 1 Gig fiber, are connected to the internet with a shared 1 Gig/s fiber connection through Comcast (which is the primary connection for all five schools in the district). Over the last few years, we have run about 75 ethernet "home-runs" and have connected most

4.2 EDUCATIONAL PROGRAM

of those to Aerohive wireless access points, getting close to an AP in each classroom. Each classroom is equipped with either a wall-mounted Epson interactive projector (2016-2018), a ceiling mounted projector (2012-2018) shooting to a Promethean Board (2008-2011), or a large format monitor (2016-2018). Projection and sound systems are all connected to a classroom Mac desktop. SHS has two Mac labs dedicated to graphic design and art, one general purpose lab used by computer science, journalism, and as a flex space, one foreign language lab, and one TV studio and classroom with 12 desktops. Those devices and all of the systems running on them are supported by two tech support staff.

Instructionally, the integration of technology and the promotion of best practices are supported by a .75 technology coach and the library teacher who are part of the district’s Digital Literacy Team. Teachers use technology in a variety of ways throughout the high school. The Digitally Enhanced Learning Initiative (DELI or 1:1 program) has brought with its professional development, incentives, and resources to promote a more hands-on, differentiated, innovative environment in the classroom. The use of a base Learning Management System, Schoology, allows teachers to organize, store, and present class materials and assignments electronically, making best use of student access. Additionally, the promotion of digital forms of presentation, assessment, research, communication, and writing have all been emphasized with this program. More time for teachers to collaborate, share, and explore technologically is always needed.

Unfortunately, keeping up with the demands of newer student learners who are used to being able to find, examine, and use information from anywhere at any time requires both infrastructure and pedagogical advancements. The current high school structure, with limitations on connectivity, power, storage, collaborative spaces, and open classrooms inhibits teacher creativity and student learning using technology. With each added hindrance, teachers grow increasingly reticent to experiment and develop more tech-based innovations in their instructional practice. For technology to be more fully and effectively integrated, teachers need to have more reliable access in spaces that promote collaboration, creativity, and communication. Increased support through more robust professional development is also key.



In a future-ready building, our hope is that technology is not only ubiquitous, but it is incredibly reliable, powerful, and easy to use. A new high school with a strong, scalable, and advanced infrastructure, would allow English teachers to

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bring in primary resources, make connections with authors and journalists, write and edit with peers around the world, and publish works in ways we haven't even invented yet. Science teachers would be able to embed 3D virtual labs and investigations into their regular routines, perform experiments with new levels of precision, and also collaborate with experts from around the world. Math students could be exploring advanced models and developing complex representations of algebraic, computational, or geometric theorems using more powerful tools. Musicians, artists, and designers could be creating visual and aural projects that are unimaginable today.

Key to these exciting possibilities will be research and exploration of new tools and new pedagogies, supported by curriculum coordinators, digital literacy team staff, and the sharing of colleagues within the high school. The support team is in place now, but will need to continue to do research and advance their own knowledge of newer, more powerful networks, devices, and curricular tools. The technology coaching staff will also be critical to the success of the integration and the ability to get more and more instruction in the Redefinition portion of the SAMR model shown above.

Media Center/Library:

Another critical component of the advancement of teaching and learning is the school library. As a hub of curated resources, a space for collaboration and presentation, a place to incubate and develop ideas, and an area devoted to research and literacy (in all its forms), the modern library can be one of the most important spaces in a school. If designed well, SHS's library could be a central spoke in the daily life of our school.

Today, the SHS library, which consists of one large 50' x 50' open space and several small offices, is one of the most up-to-date spaces in the building, and yet its distance from most classrooms, its closed-off entryway, and its slightly awkward second floor location provide challenges to its full use and effectiveness as a learning common. That being said, the current staff and administration have worked hard over the last few years reshaping the furniture and fixtures of the library to create more open and varied spaces, more flexible seating options, more mobile work spaces that promote collaboration, and more creation tools in a Makerspace complete with a green screen video area, robotics, electronics, art, and musical equipment. While there are some fixed desktops, the expansion of mobile devices and "collaboration stations" allow for more teams of students to work and learn together.

Students come to the library throughout the day, sometimes with a class, and sometimes on their own or in small groups. All 9th graders are introduced the current resources at the beginning of the year, and then receive brief tutorials on responsible research/citation practices and use of the online catalogue and databases. One full time Librarian and one part time assistant teach those classes, as well as co-teach with several classes throughout the year, offer before and after school open library time, sponsor book clubs and poetry projects, and help organize community events from STEM Talks to cultural performances.

While the library has grown in many positive ways over recent years, the actual architecture of the space has continued to present challenges. Our hope is to have a library with a variety of spaces that allow for multiple uses simultaneously. Where maker activities are more active and collaboration is louder, many come to the library to read, write, and research in a quiet place. Better acoustics, design elements like knee walls or glass dividers could allow for all kinds of work and learning while avoiding either the space getting too loud/distracting or the need for staff to hush students relaxing or exploring together. Also, with the advent of maker spaces or innovation centers in other parts of the proposed building, the need for an actual Makerspace in the library decreases greatly. While collaborative or project-based learning activities may still happen in the library, the need for space, storage, and "maker" tools would move to a larger, more open space, conducive to collaborative designing, building, and creating projects.

Furniture that is comfortable, flexible, and includes the requisite need for power and data are sorely lacking in our current space, but could enhance the library experience for everyone. Having those larger and changeable set ups in the library would also allow for whole classes to research or receive direct instruction, would allow for community

4.2 EDUCATIONAL PROGRAM

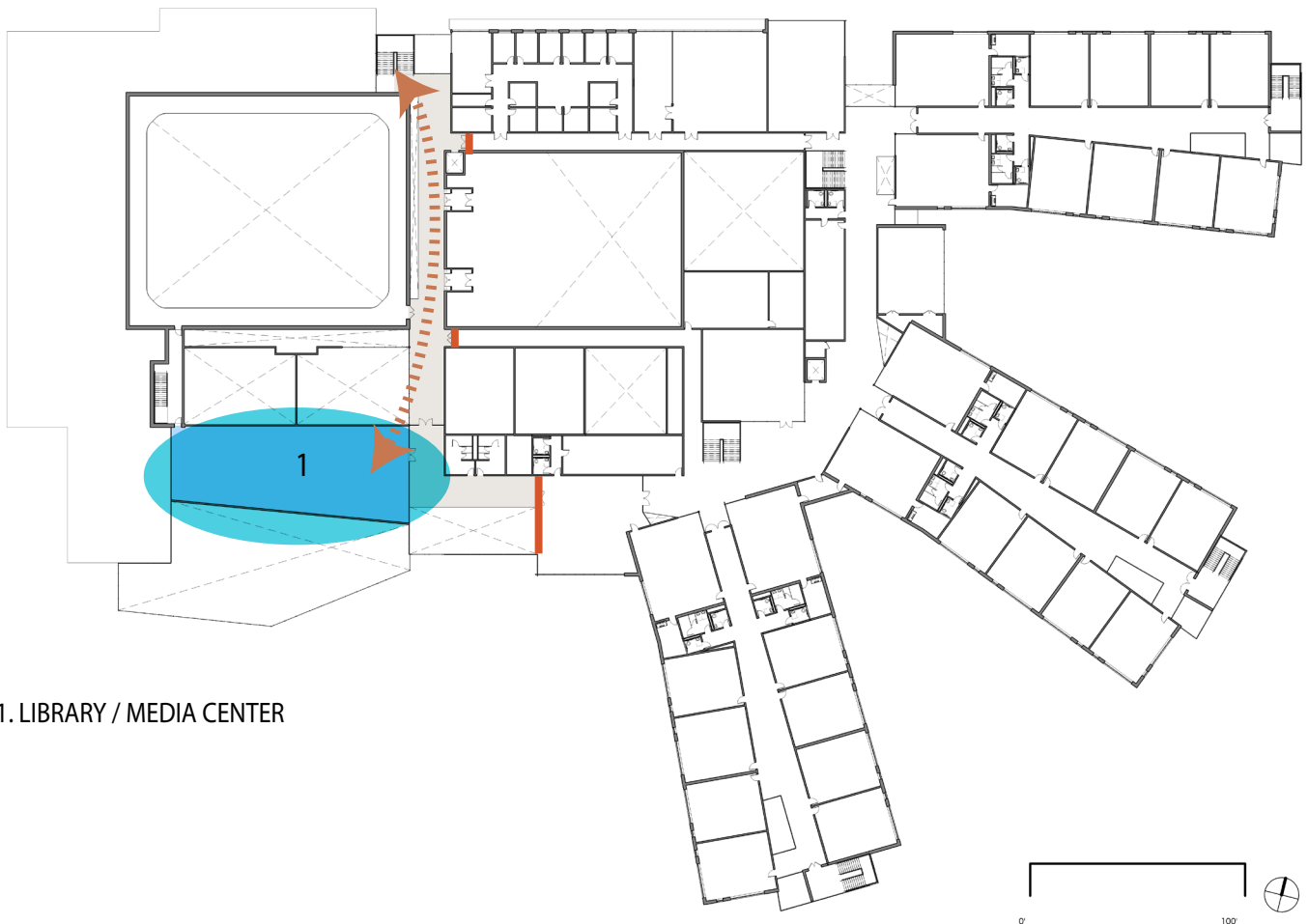
performance space, and could be the launching point for real-time connections with the global community.

The library, as a central hub, will be overseen by our excellent library staff, currently one library teacher and one assistant. As we do now, the library is open from before school starts until well after school closes. The library is often used for after-school and evening clubs, activities and events, and we hope to continue and perhaps expand this access, especially as we improve the physical offerings. During the day, teachers will work with library staff to arrange for class visits and work with the library teacher. Sign-outs will be arranged for peak demand of the small group collaboration areas.

Design Response

The library in the preferred option is located on the second floor in a central location at the end of the academic circulation spine. The space is located so that it can be closed and accessed from the main entrance and main entrance stair while the rest of the academic area of the school is closed off. This will allow for public access, evening and weekend use when the rest of the school is not occupied.

LIBRARY



1. LIBRARY / MEDIA CENTER

4.2 EDUCATIONAL PROGRAM

Visual and Performing Arts Programs:

The arts are highly valued in Sharon. Our community prizes the arts as an important piece to living a balanced life, and as a result, a significant proportion of students are involved in visual and performing art opportunities throughout their school career.

Students can take courses in Art, Music and Theatre. They have opportunities during the day and in a variety of extra-curricular clubs after school. Students from Sharon are award winning. Currently, the Sharon High School Theatre Company is the state champion in Drama. Students from our music program are nationally recognized on their instruments and in singing and consistently place in the top tier at Districts and SEMSBA. Each year our visual artists are Gold Key winners at the Scholastic Art Festival. Students from visual and performing arts go on to the top colleges and universities in the country to pursue their passion in the arts.

The Sharon High School Art Department offers 20+ Visual Arts classes spanning traditional and digital media, 2D & 3D animation, from Intro to AP level. All of the classes run at least 1 section per year, putting enrollment in the arts between 40-45% of the student population.

The Sharon High School Performing Arts Department consists of theater, vocal and instrumental music courses and performance ensembles. Ensembles include the Band, Jazz Band, String Orchestra, Chorus, a number of small instrumental and vocal ensembles, and Drama. Elective courses are Theater Production, Acting, Improvisation, Music Technology, Guitar, School of Rock, and Music Theory. Approximately 35% percent of the student body participates in the program.

All courses in any art require specific facility needs which are woefully inadequate at Sharon High School. There is one music room and one auditorium to accommodate the rehearsal and performance needs of the entire music and theatre program, resulting in a significant shortfall of space, time, and learning opportunities. As a result of the shortfall, music courses are taught in the following areas: the string program meets in the cafeteria; the music technology classes meet in a technology lab in another part of the building and in an art room; vocal music groups, music theory, and drama classes meet in the auditorium, sometimes at the same time; and guitar class meets in the music room. Teaching in rooms not intended for performing art use prevents the direct instruction and interaction students' need. They also create classroom management issues that distract from learning and work output.

One of our current hurdles is the use of the auditorium as classroom space. This space is large and is not set up for a classroom. Our drama classes do not have access to adequate technology, privacy, or space when the class is conducted in the auditorium. Much of drama is about taking risks as a performer, and the fact that the auditorium is often a pass through, or in use by other groups during a class time, prevents teacher and student from building a trusting relationship.

As in the performing arts, the visual art facilities are sorely lacking. The 2 studio rooms were originally built for the early childhood program. The former art rooms were taken over for science labs, as these rooms were much larger, but they were designed to meet the demands of an art room, unlike our current space. The newer rooms are much smaller and limit the ability to deliver the curriculum adequately and, in some cases, we are not meeting the state standards. The furniture, which lacks any flexibility, is inappropriate for the kind of artwork done in an art room, and severely limits mobility. In addition, the room was not designed with art in mind and therefore lack any functional display spaces, demonstration spaces, storage spaces, still life set-up spaces, life drawing spaces etc. In short, the curricular needs of art are not being met due to lack of appropriate space.

All of the arts share the same problem in that the spaces were not designed with flexibility in mind. All rooms lack storage for student book bags, which are placed next to chairs since, along the walls, there are all the materials associated with each discipline. The music room not only accommodates instruments, chairs and stands, but a large

4.2 EDUCATIONAL PROGRAM

collection of percussion instruments along the rear wall. Art rooms have pottery wheels, easels, still-life setups, and displays. In each of these rooms there is little room to maneuver thus preventing the instructor from circling the room to assist students.

In our music room, the three walls are cinder block and the fourth is glass. Only recently were sound absorption panels installed to lower the decibel range in the room.

Currently there are no practice rooms in the building, and since our after-school programs are so robust there is little space for students who wish to increase their abilities to work. Without practice rooms dedicated to individual and small group rehearsing, there is little opportunity for one-on-one teacher-to-student coaching before, during, or after school. Such instruction can greatly improve the student's musical development and achievement. With so many classes and so little space, the music room and auditorium experience rapid turnover when setting up for multiple classes every day. This results in the loss of a large amount of instruction time because of setting up at the beginning and resetting at the end of class.

The auditorium, which must function as a classroom, and a performance space, constantly has to be set up and broken down to meet the demand of the space and the wide variety of users. This significantly cuts into instructional time for our drama teacher, and requires students to work as a moving company to get the space set up, rather than attending to academics. In addition, the stage lighting and sound are completely out of date and each year require costly repairs and adjustments.

The computer labs, where our digital art and music take place are marginally better. While the rooms accommodate standard class sizes, the equipment is cobbled together, old and new. Printers are often not working in the photography classes, and the budget limits the number of cameras available for instruction and student use. The furniture, both tables and chairs, are large, old and worn, and are not conducive to collaboration or focused work. While one lab has more recent iMacs, the other, which was not designed for real graphics work, is made up of five-year-old Mac Minis, that cannot handle the rendering demands of contemporary programs.

The lack of additional labs in the building limits additional course offerings like Architecture, Urban Design, and Industrial Design, to name a few. More art rooms/facilities are needed in addition to larger, more adequately designed spaces. Though we teach photography, there is no dark room, nor is there room for a spray booth.

Additionally, there is currently insufficient access to outdoor spaces, further limiting instructional opportunities.

Overall, a future facility should address all of the above-mentioned issues by providing dedicated space for all visual and performing arts, space that has storage, and rooms that maximize instruction opportunities will infuse all our programs with excitement and enthusiasm, as well as show a respect for visual and performing arts instruction in the school.

We envision our visual arts department t would live in a place where it can be observed daily, where students and staff can see the art-making process and the results. Ideally, the arts and other curriculum areas work together regularly and the facilities support that. Therefore, the spaces should be integrated into the content curriculum areas.

A future performing arts center would have two dedicated performance spaces. One Mainstage Proscenium Theatre/Auditorium with seating for 750 to be used for assemblies, large-scale performances, and other high-attendance events. And one drama classroom /multi-purpose room, with potential seating for 100-150 to be used for classes, presentations, small scale productions, and other low-attendance events.

The addition of a non-furnished theatre/multi-purpose room with space to build, rehearse, and design would help ensure that the educational needs of our drama classes and after-school program can always be met. At times and with frequency, use of the stage and auditorium is compromised by school/community events. This hampers daily lessons, as well as progress on the development of theatre and music productions. A supplemental space such as

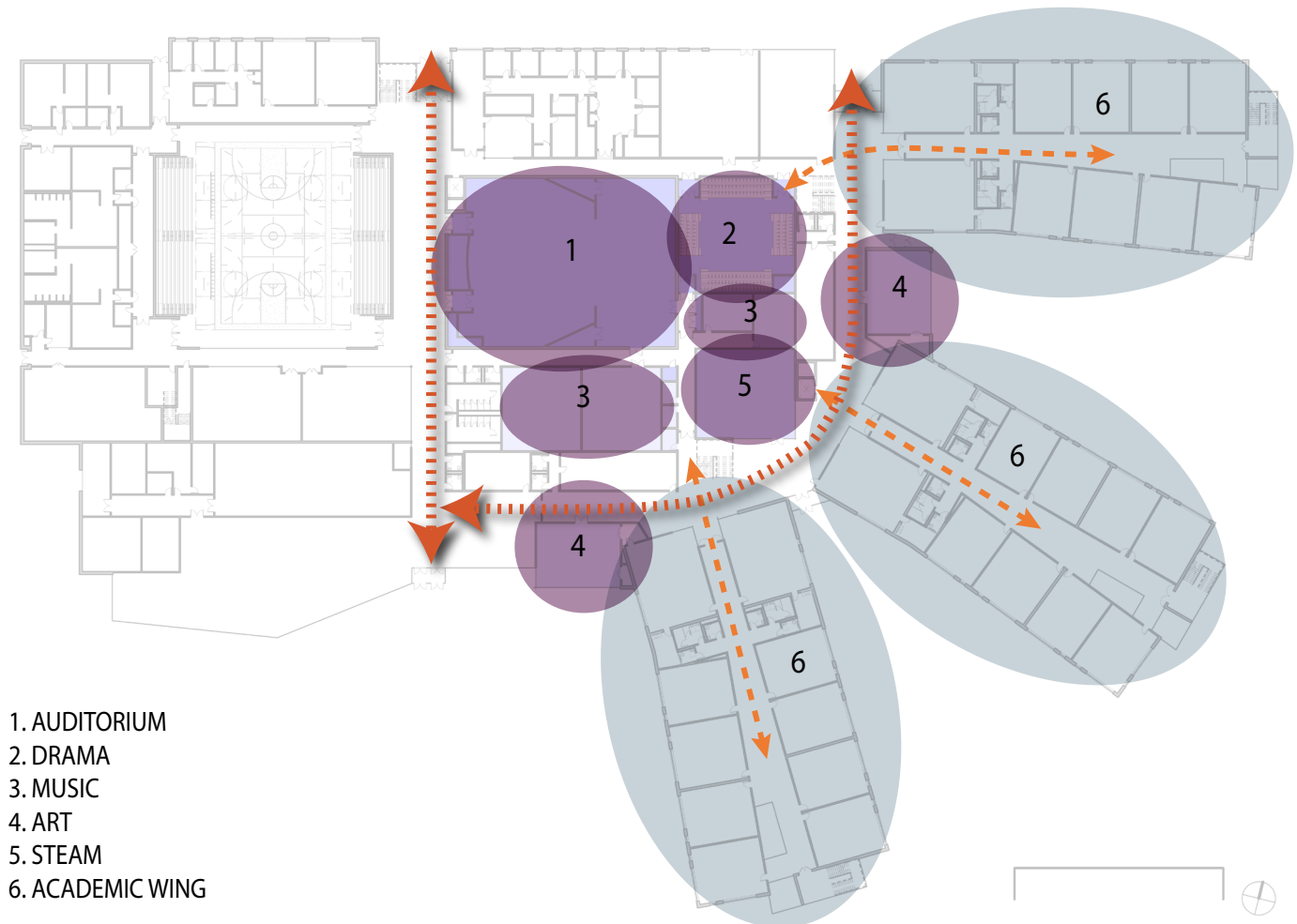
4.2 EDUCATIONAL PROGRAM

envisioned would eliminate this problem. Additionally, the existence of the space could foster opportunities for larger groups of students or community members (50-75) to come together for speeches, debates, min-forums, exhibitions, video presentations, smaller musical/acting performances, and interdisciplinary programming - both during and after the school day. Scheduling conflicts with other gathering spaces such as our library, cafeteria, and gymnasium could also be eased.

Design Response:

The preferred option places the arts in the center of the school. The auditorium is adjacent to a theater classroom which will double as a black box, back of house area and large multi-purpose classrooms for all disciplines. Music is directly adjacent to the auditorium allowing for the easy transport of instruments to and from the stage and allowing music rooms to be used as green rooms for performances. The adjacency of theater and music to the first floor STEAM classroom provides the opportunity to use this large multi-purpose classroom for set design and construction in support of the theater program. Visual arts classrooms are located on the first and second floor directly off of the major circulation spine, making these spaces visible to all students moving through the building and on the first floor, offering direct access to the exterior of the building for outdoor projects. The second floor has a series of technology classrooms that can be deployed as lab space for classes like digital arts and architecture.

THE ARTS



4.2 EDUCATIONAL PROGRAM

Wellness & Athletics Programs

Sharon High School strongly values the health and wellness of all of its members: students, faculty, staff, and community. Our current facility does not permit the offering of programs, services, or activities that the schools or town of Sharon deserves. All would benefit from a well-designed gymnasium, fitness center, multi-purpose rooms, and locker room facilities. Our existing facility and adjoining fields are currently utilized by the school for all of its wellness/PE classes, interscholastic athletics, and our town's community education and youth sports' programs. The indoor and outdoor facilities play host throughout the school year and through the summer for these various programs.

Our existing gymnasium, due to its 1950's construction and lack of renovation, is not air conditioned, not well-ventilated, and runs the extremes of being uncomfortably cold in the winter and intolerably hot in the summer. We have managed to put temporary upgrades into sound and technology, but all updates are patches and not permanent renovations. Our facility fails to meet most state laws and regulations for handicap accessibility, hosting playoff games, and lacks the capability to be divided into adequate spaces for simultaneous multiple-group use. Consequently, in our new facility we aim to solve most of these shortcomings of our current facility.

The new gymnasium should be air conditioned and large enough to accommodate three teaching stations with proper drop-down curtains. The new facility should also include a modern fitness center and adjacent multi-purpose rooms for wrestling, yoga, dance, cheer and other club activities. The fitness center must improve upon the existing "weight room" that services football players and wrestlers. An emphasis will be placed on outfitting the new center with modern cardiovascular training equipment that will be accessible and beneficial to all students and all sports teams. It should also be made readily available to our faculty and staff. Its current small size (900 sq. ft.) and emphasis on strength training is not ideal for the school and community. The current gymnasium and weight room negatively impacts the Wellness program we can offer to our high school students. Due to the lack of space, our curriculum only requires Wellness credits from our freshmen and sophomore students. Juniors and seniors are excluded from the lifelong benefits of wellness education concerning physical activity, nutrition, and sex education. We would like to expand our Wellness offerings to students in grades 11 and 12 as well as offer various elective classes such as Yoga and Dance, sports-skills development, and cardiovascular fitness training while continuing to enhance the students' knowledge of healthy living. Our Wellness curriculum is also hampered with the lack of a turf field in the stadium adjacent to the gymnasium. Most Wellness classes are restricted to indoor activity or to the parking lot due to the typically wet mornings in the fall and spring seasons.

Our new facility should include a gymnasium large enough for three teaching stations which can be divided off by drop-down curtains. Due to the programming we offer, two additional multi-purpose rooms including a Yoga/Dance/Cheer studio and Wrestling/Fitness classroom should accompany the new gymnasium. These spaces will be located near the gym and near a main corridor so that students can easily access them and so that health and wellness are made visible to the entire school community. Wellness locker rooms and teacher offices must be located within easy access of the gymnasium to allow our Wellness students to be properly supervised for changing before and after class without losing valuable instructional time due to traveling from the locker rooms to the facility.

4.2 EDUCATIONAL PROGRAM

Additionally, the existing facility, and the new proposed gymnasium and Wellness rooms, are, and would be, utilized by our extensive state-sanctioned athletics' programs:

- Baseball (boys): varsity, junior varsity, and freshmen
- Basketball (boys and girls): varsity, junior varsity, and freshmen
- Cheerleading: competition and game-day
- Cross Country (boys and girls): varsity and junior varsity
- Field Hockey (girls): varsity, junior varsity, and freshmen
- Football: varsity and sub-varsity
- Golf: varsity
- Gymnastics: varsity
- Ice Hockey (boys and girls): varsity and junior varsity
- Indoor Track (boys and girls): varsity and sub-varsity
- Lacrosse (boys and girls): varsity and junior varsity
- Sailing (boys and girls): varsity
- Soccer (boys and girls): varsity, junior varsity, freshmen
- Swimming and Diving (boys and girls): varsity
- Tennis (boys and girls): varsity
- Track and Field (boys and girls): varsity and sub-varsity
- Ultimate (boys and girls): varsity, junior varsity
- Volleyball (girls): varsity, junior varsity, freshmen
- Wrestling: varsity and junior varsity

These extensive programs serve over two-thirds of our student body annually. Consequently, state-of-the-art facilities both indoors and outdoors are a critical need of our program. Our numbers continue to rise with the addition of new sports programs such as Ultimate, and club sports such as Rugby, Disc Golf, and Badminton. The new facility should be able to accommodate this growth and development. Male and female locker rooms are essential for both home and visiting teams, ample storage for large equipment, Athletic trainer office and exam/treatment area, an office for the Athletic Director and the Administrative Assistant, wrestling practice mat storage adjacent, or as an integral part of the wrestling/fitness class room, locker room with shower facilities for our coaches and referees. Careful consideration should be given to the location of the Athletic Director's office. They are responsible for the supervision and scheduling of all teams and areas of play in regards to our athletic program. Therefore, this office should be located in an area that allows easy access to the fields and is in close proximity to the gymnasium, fitness center, multipurpose rooms and team locker rooms.

Our vision for the gymnasium is a multi-purpose facility that has a regulation court down the center and appropriate stands for varsity athletics and the expected crowds that attend. We need to meet current and future regulations and standards for handicapped seating and movement into and out of the gymnasium. Additionally, the gym floor should include three standard basketball/volleyball training courts laid side-by-side, and counter-posed to the regulation court, to maximize practice space and times for the three levels of high school sports programs we have, and for three simultaneously scheduled Wellness classes to utilize during the school day.

With our large running program (cross country, indoor and outdoor track and field, wellness classes) an elevated track above the gymnasium floor should be installed. This would give full-time use for faculty and staff, the community, as well as our daily high-school students, at any time throughout the school day, week, and year. The design of the ceiling should also be thoughtfully considered to include essential components of the wellness and athletics programs. These essentials include motorized curtains, basketball hoops, and an indoor batting cage that can be lowered upon demand and setup with ease. The ceiling equipment should have a centralized keypad control station for operator use and safety.

4.2 EDUCATIONAL PROGRAM

Our outdoor facilities are also in need of modernization. On the school campus itself, we are fortunate enough to have a stadium, however, it lacks adequate seating capacity to host tournament events, has no outdoor restrooms, utilizes a stand-alone basic shed with no internal power as a concession stand, a poor-quality grass field which takes hours of maintenance to keep in playable condition, and a 6-lane track that limits the size events that can be hosted. These facilities are far from ideal for the level and number of competitions hosted throughout the fall and spring seasons. The baseball diamond and field hockey field share the same patch of grass eliminating simultaneous use. Soccer, lacrosse and football teams, plus all sub-varsity teams, must practice and compete off site of the high school campus. This too creates safety issues and awkward practice schedules for athletes who are not fortunate enough to practice at the high school itself. It is essential to update the grass field within the stadium to turf. This would allow extensive practices and games for all of our sports programs to enjoy. The addition of lights in 2018 allows for sequential games and practices to be held. The community and youth groups could also utilize the facility on weekends and in the summer. Permanent playing surface and game-field lines would allow DPW to focus its efforts elsewhere.

While our indoor and outdoor facilities may have met the needs of our students from the 1950s to the 1990s, they have certainly lapsed since and fallen behind what is required of all state schools today. We look forward to enhancing our current Wellness curriculum and expanding its offerings to upper class students once again. Our athletic programs will truly benefit as well from a well-designed modernization plan and quality construction of both indoor and outdoor facilities.

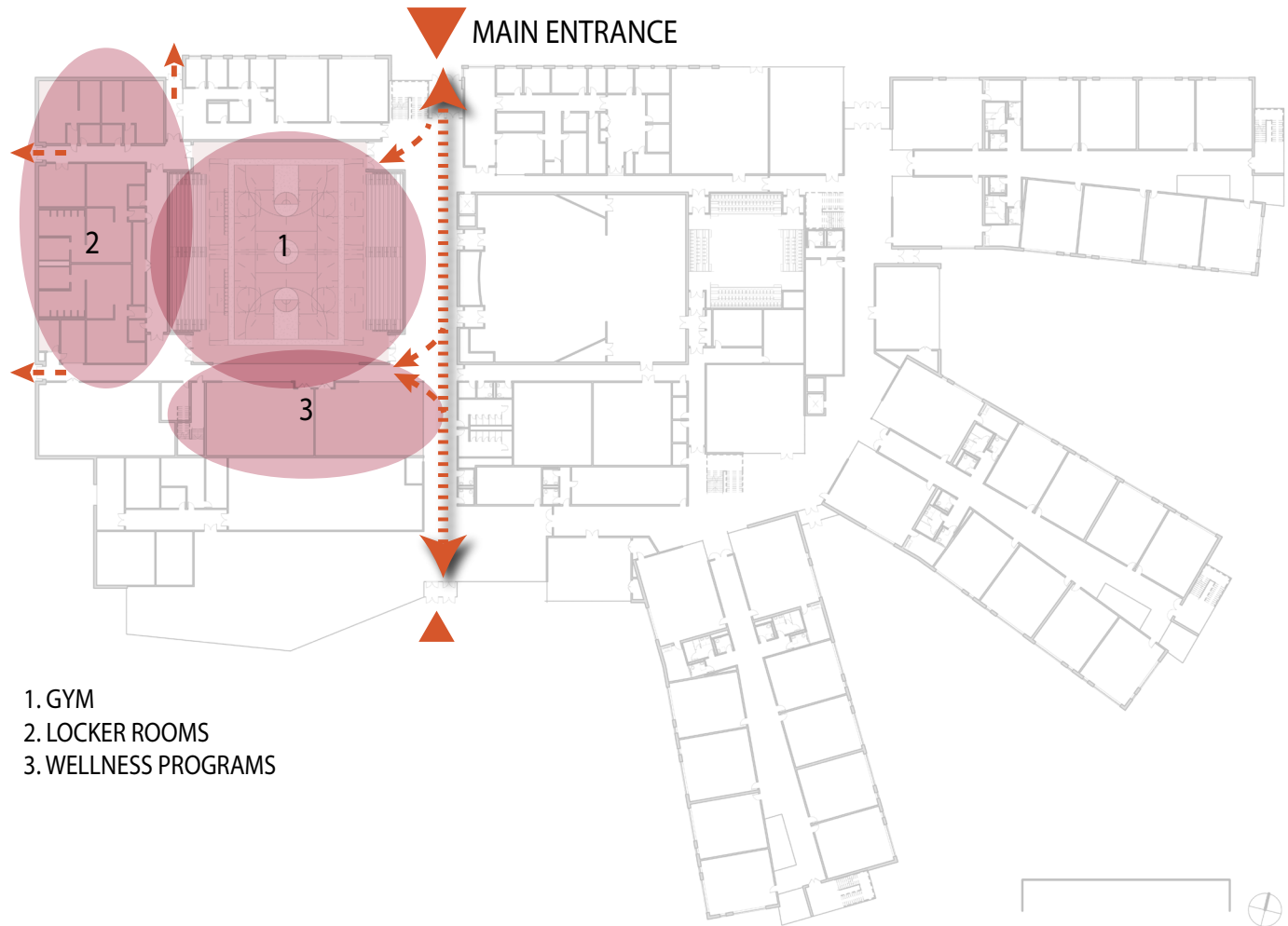
The last Coordinated Program Review was in 2013 and any identified issues have since been remedied. The next Coordinated Program Review will be in the spring of 2019.

Design Response

The preferred option locates the gym near the main entrance for game day visitors and for community use. Directly adjacent to the gym and located on the main entrance corridor are two multi-purpose spaces. This location will make the schools wellness programs present for staff and students and indicate the value the school puts in these activities. Locker rooms are located adjacent to both the gym and outside athletic facilities.

4.2 EDUCATIONAL PROGRAM

HEALTH AND WELLNESS



Vocational Education Programs (non-chapter 74 programming):

Sharon High School currently offers several different vocational, technical, and STEM options for students. More offerings will be added in the future with the space that a new facility would provide. Current offerings include two engineering design courses (semester), four computer science courses (2 full year and 2 semester), several STEAM courses in both the science and art departments for example 2D/3D animation, forensic science, and TV/media production to name a few. In addition, the library includes a Makerspace. For details about these offerings and information about proposed programs please see the following departmental sections of the Educational Program as follows:

- For computer science and business courses see the Mathematics section.
- For engineering, robotics, and other STEAM courses see the Science section.
- For TV/Media production, 2D/3D animation and other STEAM offerings see the Visual and Performing Arts section.
- For information about the Makerspace see the library/media section.

Chapter 74 Programming:

There is currently no Chapter 74 programming at Sharon High School, nor is there a desire to add Chapter 74

4.2 EDUCATIONAL PROGRAM

programming at this time.

Core Educational Activities Inside General Classrooms:

Within general classrooms teacher utilize a blend of traditional learning, inquiry-based learning, project-based learning, dialogs and discussions, audio/visual presentations, group work, and hands-on activities. As such each classroom needs to have the infrastructure to allow for each of these types of activities to take place. In addition, teachers frequently use technology in the form of PowerPoint presentations, short videos, and utilize the 1:1 student laptop to assist in delivery of instruction and in assessing student learning.

Core Educational Activities Outside General Classrooms:

Currently, Sharon High School has one outdoor classroom space within one of the school's three courtyards. There is a sign-up sheet for teachers to book this space. In addition, several teachers will use the grounds around the school to bring their classes outside. Science classes take students outside to complete laboratory activities such as estimating populations, making observations, and investigating natural phenomenon. Physics classes will use outdoor space for labs on projectile motion which cannot be done as easily indoors. Whenever outdoor space is utilized teachers remain with their classes to monitor them.

Students in the Pathways Program assist in maintaining gardens both in the courtyards and around the school facility. They also help manage the recycling program in the school. Environmental Science students have also completed project work in the courtyards and around the outside of the school. As such outdoor garden and lab space should be easily accessible to both the science classes and the Pathways Program.

It is our hope to continue to provide learning spaces that take advantage of an open-air environment. Currently, existing outdoor spaces have been the setting for direct instruction, class discussions and readings, writing and reflection, drawing/painting, scientific investigations, presentations and performances, and other learning-oriented sessions.

Two such open-concept spaces are proposed in the current conceptual plan. As the case is now, these spaces would likely have paved areas. In this way, necessary maintenance is minimal. Additionally, seating could be accommodated with light, movable, and weather-proof furniture (e.g. benches). The safety, security, and accountability of students would be attended to by faculty, as the case is now when such spaces are utilized. The outdoor spaces will be accessed directly from an interior classroom or hallway.

Transportation:

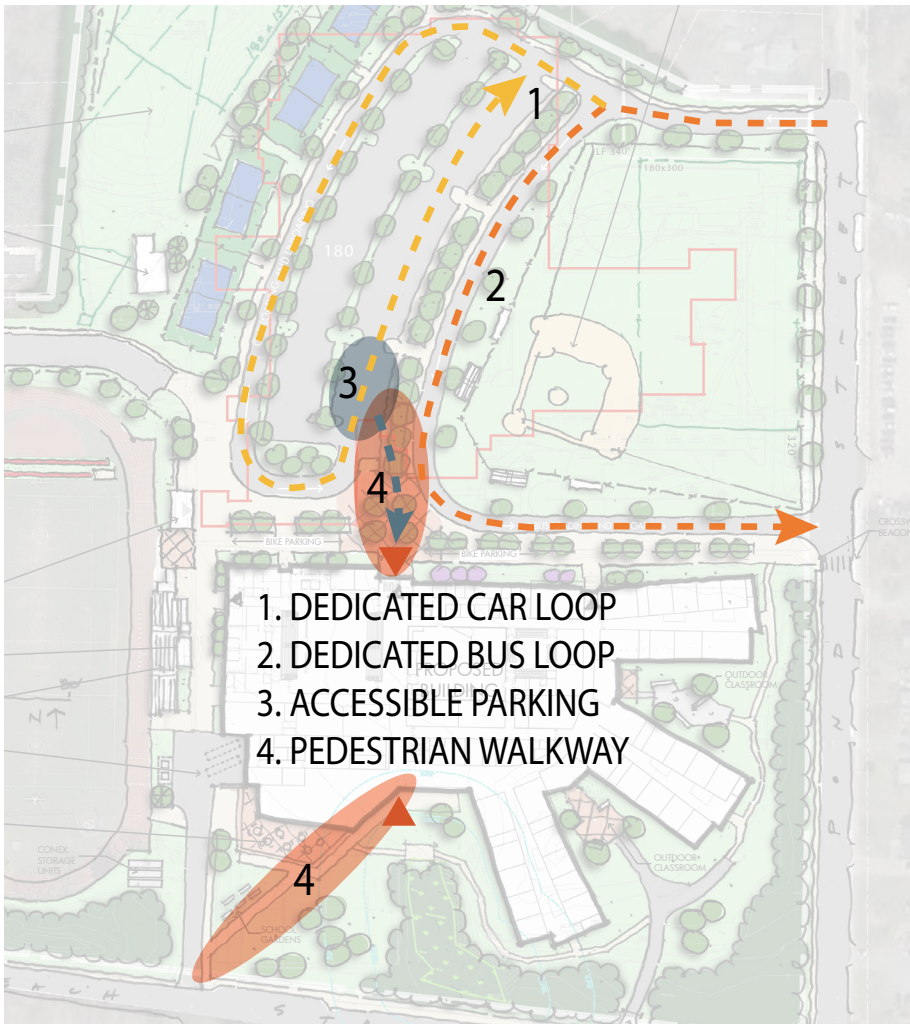
School buses, parent/guardian pick-ups/drop-offs, and arriving/departing staff all currently use the same entry and exit areas. The primary point for the vast majority of the population is in front of the high school off the only main road passing the high school. This creates significant congestion and puts drivers and walkers at risk. Three parking lots in the vicinity of the high school are used by students - one directly across the street from the high school, one adjacent to the lake near the high school, and one about a block away from the high school at a nearby religious center. Student busing and parking are fee-based. Staff currently park in four different areas around the school, which isn't ideal for the security of the facility before or after school.

The future complex should consider that there are limited public roadways leading to the school, so congestion is unlikely to be eliminated. Steps could be taken to mitigate the traffic and improve safety, however, by creating an access road around the school with additional entry/egress points, identifying helpful walkways with adequate lighting, ensuring separate vehicular paths for school buses and parent/guardian picks-ups/drop-offs, and developing a centralized parking area for staff that also preferably steers them to one main entrance.

4.2 EDUCATIONAL PROGRAM

Design Response – The site plan for the preferred option anticipates a separate car and bus loop along with multiple routes for pedestrians as student parking is distributed in multiple locations. A new central parking field offers the opportunity to have a direct path to the front door and will allow buses and cars to be close to the main entrance for dropping and picking up passengers. The new access road will be longer than the current one allowing for additional vehicle stacking on site and off of the public roadway.

TRANSPORTATION



Functional and Spatial Relationships and Key Programmatic Adjacencies:

Administration Offices and the Nurse's Office should be located at the main entrance of the building to provide easy access to administration and to assist in building security. A Guidance and Student Support Services suite should be located toward the main entrance but separate from the administrative offices.

The following spaces should be accessible to the community without compromising the security of academic portion of the building: Community Education, TV/Media Studio, Gymnasium, Auditorium, and Library Media Center.

The cafeteria and student gathering space should accommodate $\frac{1}{3}$ to $\frac{1}{2}$ the student population at any one time, be centrally located, and have secure access to the outside. A school store would be located near the cafeteria/student gathering space. Custodial area should be near the cafeteria and convenient to deliveries. This should include a loading

4.2 EDUCATIONAL PROGRAM

dock and mechanical area.

Site adjacencies should include an outdoor laboratory space for science classes, especially for environmental science and biology. Within the outdoor laboratory space, should be a greenhouse of sufficient size to support the science department. An observatory to house a 12" celestron telescope is necessary to support the astronomy classes and ideally would also be accessible to the community for evening events.

The proposed high school would maintain a departmental structure while creating the opportunity to move toward more interdisciplinary and project-based learning approaches. A large academic center or centers should be located within the academic areas of the school.

Design Response – The preferred option is organized around certain basic concepts. A public corridor allows access to the gym, auditorium and cafeteria on the ground level and library on the second level for public after hours use creating a community building. Community education and TV studio have direct access to the exterior. Both major building entrances are into the same corridor. The classroom wings rotate around a building core comprised of the arts and technology so every academic discipline is visible and accessible to all students. The classroom wings form outdoor spaces that can be used for programs ranging from science instruction to art activities. The building is organized to avoid an existing wetland and to take advantage of views into the landscape and to the nearby lake.

Security and Visual Access Requirements:

Emergency response plans are developed in collaboration with the police and fire departments. The in-house SRO is part of the team that evaluates what's in place, and the principal, nurse, and various members of the staff play important roles in drills and crisis moments pertinent to the safety of the school community. This group, in concert with local officials, would update existing emergency response plans. The most recent Medical Emergency Response Plan was submitted to the DESE in September of 2018.

Currently, there is an antiquated b/w camera system that helps monitor a number of exterior points around the perimeter of the school. This will need to be significantly improved. There are also no cameras on the inside of the building, which will be a necessity in a new or updated complex to emphasize the district's commitment to safety. Further, there is limited to no ability to secure and/or close off large sections of the building that do not require access from public or school populations that may use one section of the building (e.g. gym, auditorium). Restricting portions of the building from access when they are not being used will help maintain the integrity of those spaces.

Access to the building before and after the school day is difficult to control at this present point in time. There are several entryways, and students, staff, and guests arrive from different points. In the future, it would be ideal to design the facility so that stakeholders are guided (via signage/walkways/intercom stations/parking) to limited entry ways that can be monitored by school staff and a modern security camera system.

The school's current main entrance is awkward and not user-friendly or straightforward to guests who come into the school. Though security doors, a buzzer system, and camera are in place to help with safety, existing stairs, a lack of signage, and a series of required turns make it difficult for those visiting the school to figure out exactly where they should report to check in. Students also gather in this area before/after school making the space very congested. A future building would resolve these and other concerns with a larger foyer, with improved sight lines to check-in areas (i.e. main office or student services) and with student gathering spaces stationed away from the main entrance.

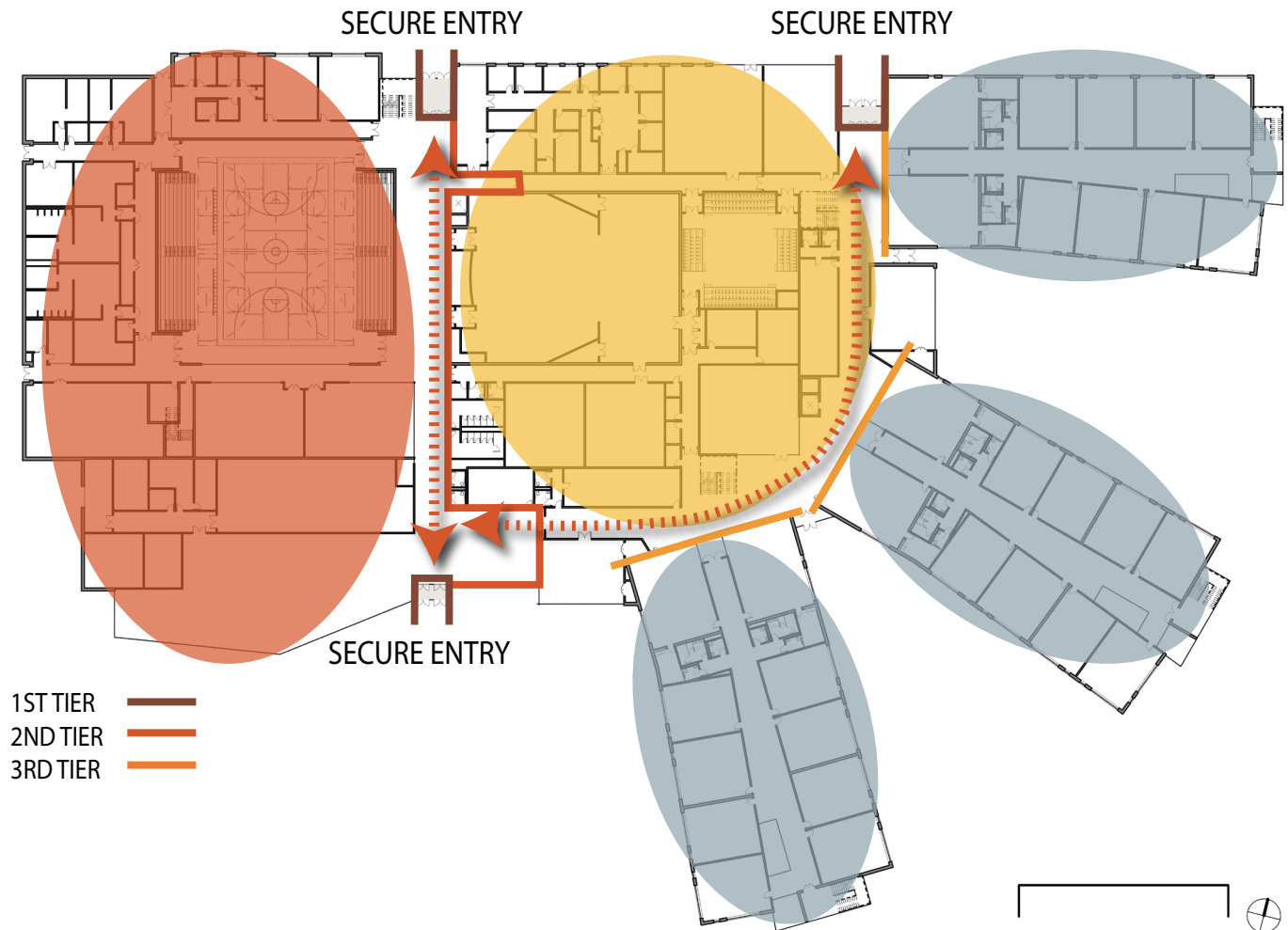
Design Response:

The proposed building will have a secure entry vestibule to control visitor access at the main entrance. Corridors within the proposed school have direct sight lines. The main entry corridor is intended to be wide enough to accommodate

4.2 EDUCATIONAL PROGRAM

larger groups of people. The classroom wings can be locked down in the event of an intruder and are separated from the main building entrance.

SECURITY AND VISUAL ACCESS



4.3

SPACE SUMMARY



4.4

SPACE SUMMARY NARRATIVE



4.4 SPACE SUMMARY NARRATIVE

Space Summary Narrative

The updated PSR space template dated 3-21-19 includes revisions that are in response to the MSBA review comments of the PDP submission. The proposed design population and agreed upon student enrollment is 1,250 students.

OVERALL SQUARE FOOTAGE

The updated template indicates a net area of 164,982 and a total gross area of 240,874. The grossing factor is 1.46. The current PSR template reflects a reduction of 510 SF in net area and 744 SF in gross area from the PDP submission.

CORE ACADEMIC

The updated template has been reduced by 800 NSF. This reflects a reduction in small group rooms from eight to six and a reduction in central chemical storage rooms from three to one.

SPECIAL EDUCATION

The updated template has been reduced by 660 NSF. This reflects an increase from five self-contained classrooms to six combined with a reduction in associated toilets from five to three. Also modified in the category was the size of the resource rooms which were increased to 2,300 but the total number is reduced from four to two, one on each floor. The number of small group classrooms was also reduced from eight to six.

ART & MUSIC

The updated PSR template has been reduced by 3,000 NSF. This is due to the relocation of the drama classroom from the Art and Music category of the template to the Auditorium / Drama category of the template. No other changes were made in Art and Music.

VOCATIONS & TECHNOLOGY

The PSR template is consistent with the PDP template.

HEALTH & PHYSICAL EDUCATION

The updated template has been increased by 3,455 NSF. The quantification of the space for a walking track above

the gym that was identified in the educational program increases the gym category by 3,100. The PE alternative space is increased from 3,000 NSF to 3,600 NSF. Locker rooms have been reduced by 1,300 NSF. Areas for coaches office, equipment room and referee changing have been added to the template.

MEDIA CENTER

The PSR and PDP templates are consistent with one another and no changes have been made.

AUDITORIUM / DRAMA

The updated template for this category has increased 1,480 NSF. The auditorium and storage have been reduced from the PSR phase and the dressing room eliminated. It is anticipated that students can use adjoining classrooms for back of house activities during a performance. The drama classroom has been added to this category, it was previously shown in the Arts category.

DINING & FOOD SERVICE

This category remains unchanged from the previous PSR space template.

MEDICAL

This category remains unchanged from the previous PSR space template.

ADMINISTRATION & GUIDANCE

This category remains unchanged from the previous PSR space template.

CUSTODIAL & MAINTENANCE

This category remains unchanged from the previous PSR space template.

OTHER

The updated PSR template modifies the school store and community education. The school store has been reduced from 500 NSF to 100 NSF and the community education has been decreased from 3,000 NSF to 2,415 NSF.

4.5

LEED SCORECARD





LEED v4 for BD+C: Schools Project Checklist

Project Name: Sharon High School
Date: 3/13/2019

Y	?	N	Credit	Integrative Process	1
1					
2	6	#	Location and Transportation	15	15
			LEED for Neighborhood Development Location		
			Sensitive Land Protection	1	
			High Priority Site	2	
			Surrounding Density and Diverse Uses (RP 4 pts)	5	
			Access to Quality Transit (RP 1 pts)	4	
			Bicycle Facilities	1	
			Reduced Parking Footprint	1	
			Green Vehicles	1	
4	8	0	Sustainable Sites	12	12
			Construction Activity Pollution Prevention	Required	
			Environmental Site Assessment	Required	
			Site Assessment	1	
			Site Development - Protect or Restore Habitat (RP 2 pts)	2	
			Open Space	1	
			Rainwater Management	3	
			Heat Island Reduction	2	
			Light Pollution Reduction	1	
			Site Master Plan	1	
			Joint Use of Facilities	1	
7	4	0	Water Efficiency	12	12
			Outdoor Water Use Reduction	Required	
			Indoor Water Use Reduction	Required	
			Building-Level Water Metering	Required	
			Outdoor Water Use Reduction	2	
			Indoor Water Use Reduction	7	
			Cooling Tower Water Use	2	
			Water Metering	1	
21	10	0	Energy and Atmosphere	31	31
			Fundamental Commissioning and Verification	Required	
			Minimum Energy Performance	Required	
			Building-Level Energy Metering	Required	
			Fundamental Refrigerant Management	Required	
			Enhanced Commissioning	6	
			Optimize Energy Performance (RP 8 pts)	16	
			Advanced Energy Metering	1	
			Demand Response	2	
			Renewable Energy Production (RP 2 pts)	3	
			Enhanced Refrigerant Management	1	
			Green Power and Carbon Offsets	2	

4	7	2	Materials and Resources	13	13
			Storage and Collection of Recyclables	Required	
			Construction and Demolition Waste Management Planning	Required	
			Building Life-Cycle Impact Reduction (RP 2 pts)	5	
			Building Product Disclosure and Optimization - Environmental Product Declarations	2	
			Building Product Disclosure and Optimization - Sourcing of Raw Materials	2	
			Building Product Disclosure and Optimization - Material Ingredients	2	
			Construction and Demolition Waste Management	2	
11	5	0	Indoor Environmental Quality	16	16
			Minimum Indoor Air Quality Performance	Required	
			Environmental Tobacco Smoke Control	Required	
			Minimum Acoustic Performance	Required	
			Enhanced Indoor Air Quality Strategies	2	
			Low-Emitting Materials	3	
			Construction Indoor Air Quality Management Plan	1	
			Indoor Air Quality Assessment	2	
			Thermal Comfort	1	
			Interior Lighting	2	
			Daylight	3	
			Quality Views	1	
			Acoustic Performance	1	
1	0	0	Innovation	6	6
			Innovation	5	
			LEED Accredited Professional	1	
0	0	0	Regional Priority	4	4
			Regional Priority: Specific Credit	1	
			Regional Priority: Specific Credit	1	
			Regional Priority: Specific Credit	1	
			Regional Priority: Specific Credit	1	
51	40	24	TOTALS	Possible Points: 110	110
			Certified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 to 110		

RP Regional Priority threshold

4.6

LEED CERTIFICATION



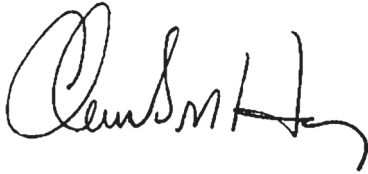
4.6 LEED CERTIFICATION

To Whom it May Concern,

This is an acknowledgment that the Sharon School District has identified a goal of 2% additional reimbursement from the MSBA High Efficiency Green School Program. As their designer, I have submitted a completed LEED scorecard showing all prerequisites and 51 attempted points, which will meet that goal.

The scope of work for this project will include the construction elements and performance tasks to achieve that goal, and all subsequent documents, including but not limited to, specifications, drawings, and cost estimates will match the scope of work indicated in the submitted score card.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles M Hay", with a stylized, flowing script.

Charles M Hay, AIA Principal
Tappe Architects Inc.

4.7

BUILDING PLAN AND SITE PLAN





SITE PLAN CONCEPT - NEW CONSTRUCTION OPTION
SHARON HIGH SCHOOL, SHARON, MA

PREFERRED SCHEMATIC REPORT

N4 - FIRST FLOOR PLAN

SPACE REQUIREMENTS SUMMARY

CORE ACADEMICS SPACES

DINING & FOOD SERVICE

EXISTING: 42,735 SQ FT
MSBA GUIDELINE: 59,640 SQ FT
PROPOSED: 62,280 SQ FT

EXISTING: 8,408 SQ FT
MSBA GUIDELINE: 10,426 SQ FT
PROPOSED: 10,426 SQ FT

SPECIAL EDUCATION

MEDICAL

EXISTING: 8,788 SQ FT
MSBA GUIDELINE: 13,090 SQ FT
PROPOSED: 12,430 SQ FT

EXISTING: 614 SQ FT
MSBA GUIDELINE: 1,110 SQ FT
PROPOSED: 1,110 SQ FT

ARTS & MUSIC

ADMINISTRATION & GUIDANCE

EXISTING: 3,555 SQ FT
MSBA GUIDELINE: 8,200 SQ FT
PROPOSED: 8,200 SQ FT

EXISTING: 4,066 SQ FT
MSBA GUIDELINE: 5,014 SQ FT
PROPOSED: 5,014 SQ FT

VOCATIONS & TECHNOLOGY

CUSTODIAL & MAINTENANCE

EXISTING: 3,116 SQ FT
MSBA GUIDELINE: 12,800 SQ FT
PROPOSED: 12,800 SQ FT

EXISTING: 942 SQ FT
MSBA GUIDELINE: 2,563 SQ FT
PROPOSED: 2,563 SQ FT

HEALTH & PHYSICAL EDUCATION

OTHER

EXISTING: 16,467 SQ FT
MSBA GUIDELINE: 23,200 SQ FT
PROPOSED: 26,655 SQ FT

EXISTING: 777 SQ FT
MSBA GUIDELINE: 0 SQ FT
PROPOSED: 2,515 SQ FT

MEDIA CENTER

TOTAL NET

EXISTING: 9,299 SQ FT
MSBA GUIDELINE: 7,713 SQ FT
PROPOSED: 7,713 SQ FT

EXISTING: 109,944 SQ FT
MSBA GUIDELINE: 154,154 SQ FT
PROPOSED: 154,154 SQ FT

AUDITORIUM / DRAMA

TOTAL BUILDING GROSS

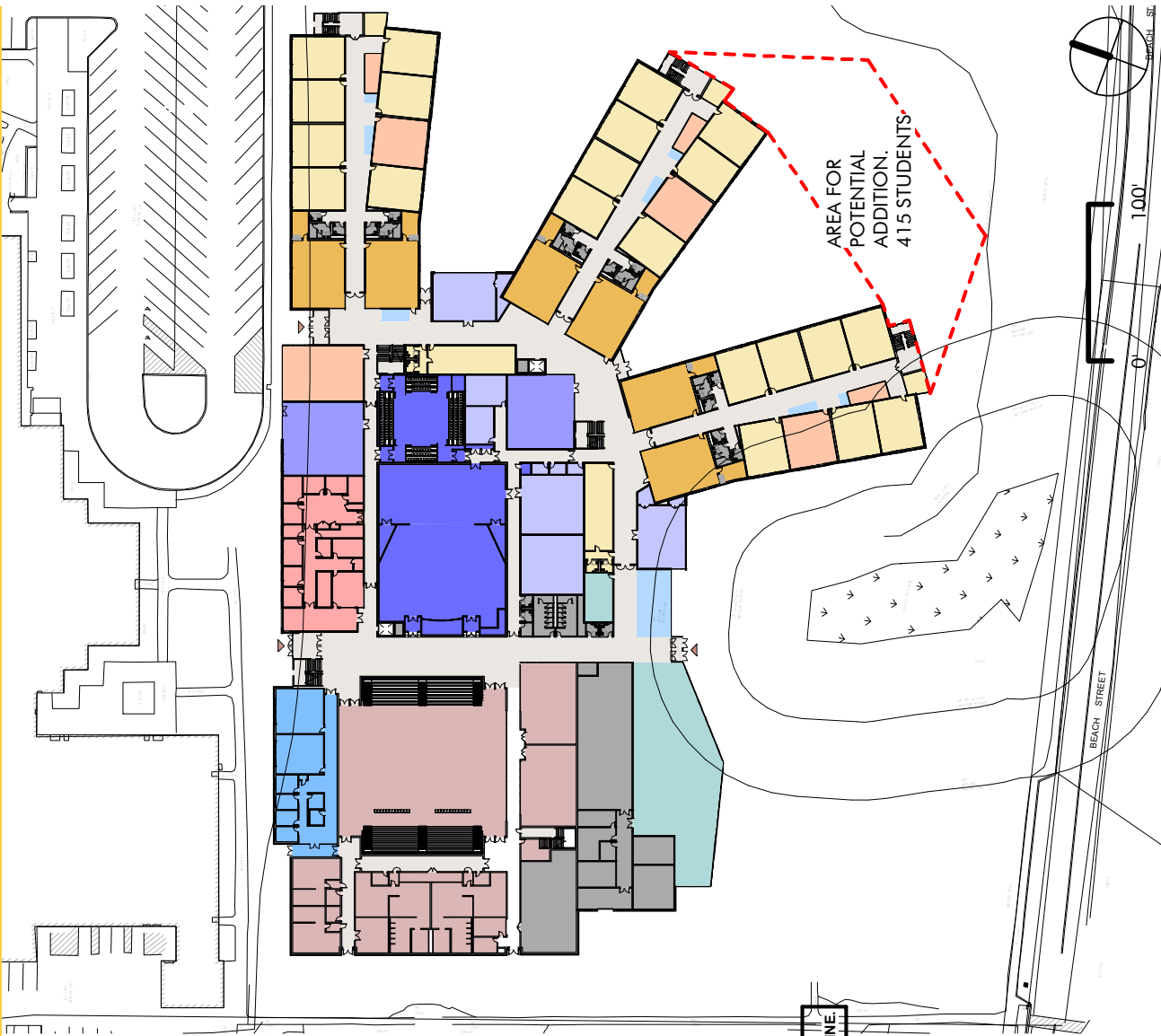
EXISTING: 11,177 SQ FT
MSBA GUIDELINE: 10,400 SQ FT
PROPOSED: 13,280 SQ FT

EXISTING: 168,422 SQ FT
MSBA GUIDELINE: 225,000 SQ FT
PROPOSED: 240,874 SQ FT

* ALL SPACES MEET OR EXCEED THE MSBA GUIDELINE. THE PROPOSED TOTAL BUILDING GROSS IS 15,874 SQ FT LARGER THAN THE MSBA GUIDELINE.

DEPARTMENT LEGEND

- CORE ACADEMIC
- SCIENCE
- SPED
- ART / MUSIC
- AUDITORIUM
- VOC / TECH
- HEALTH / GYM
- MEDIA / LIBRARY
- ADMIN., & MED.
- DINING / FOOD
- COMMUNITY
- BOH



SHARON HIGH SCHOOL PSR

03/21/2019

PREFERRED SCHEMATIC REPORT

N4 - SECOND FLOOR PLAN

SPACE REQUIREMENTS SUMMARY

CORE ACADEMICS SPACES

EXISTING: 42,735 SQ FT
MSBA GUIDELINE: 59,640 SQ FT
PROPOSED: 62,260 SQ FT

DINING & FOOD SERVICE

EXISTING: 8,408 SQ FT
MSBA GUIDELINE: 10,426 SQ FT
PROPOSED: 10,426 SQ FT

SPECIAL EDUCATION

EXISTING: 8,788 SQ FT
MSBA GUIDELINE: 13,090 SQ FT
PROPOSED: 12,430 SQ FT

MEDICAL

EXISTING: 614 SQ FT
MSBA GUIDELINE: 1,110 SQ FT
PROPOSED: 1,110 SQ FT

ARTS & MUSIC

EXISTING: 3,555 SQ FT
MSBA GUIDELINE: 8,200 SQ FT
PROPOSED: 8,200 SQ FT

ADMINISTRATION & GUIDANCE

EXISTING: 4,068 SQ FT
MSBA GUIDELINE: 5,014 SQ FT
PROPOSED: 5,014 SQ FT

VOCATIONS & TECHNOLOGY

EXISTING: 3,116 SQ FT
MSBA GUIDELINE: 12,800 SQ FT
PROPOSED: 12,800 SQ FT

CUSTODIAL & MAINTENANCE

EXISTING: 942 SQ FT
MSBA GUIDELINE: 2,563 SQ FT
PROPOSED: 2,563 SQ FT

HEALTH & PHYSICAL EDUCATION

EXISTING: 16,467 SQ FT
MSBA GUIDELINE: 23,200 SQ FT
PROPOSED: 26,655 SQ FT

OTHER

EXISTING: 777 SQ FT
MSBA GUIDELINE: 0 SQ FT
PROPOSED: 2,515 SQ FT

MEDIA CENTER

EXISTING: 9,299 SQ FT
MSBA GUIDELINE: 7,713 SQ FT
PROPOSED: 7,713 SQ FT

TOTAL NET

EXISTING: 109,944 SQ FT
MSBA GUIDELINE: 154,154 SQ FT
PROPOSED: 154,154 SQ FT

AUDITORIUM / DRAMA

EXISTING: 11,177 SQ FT
MSBA GUIDELINE: 10,400 SQ FT
PROPOSED: 13,280 SQ FT

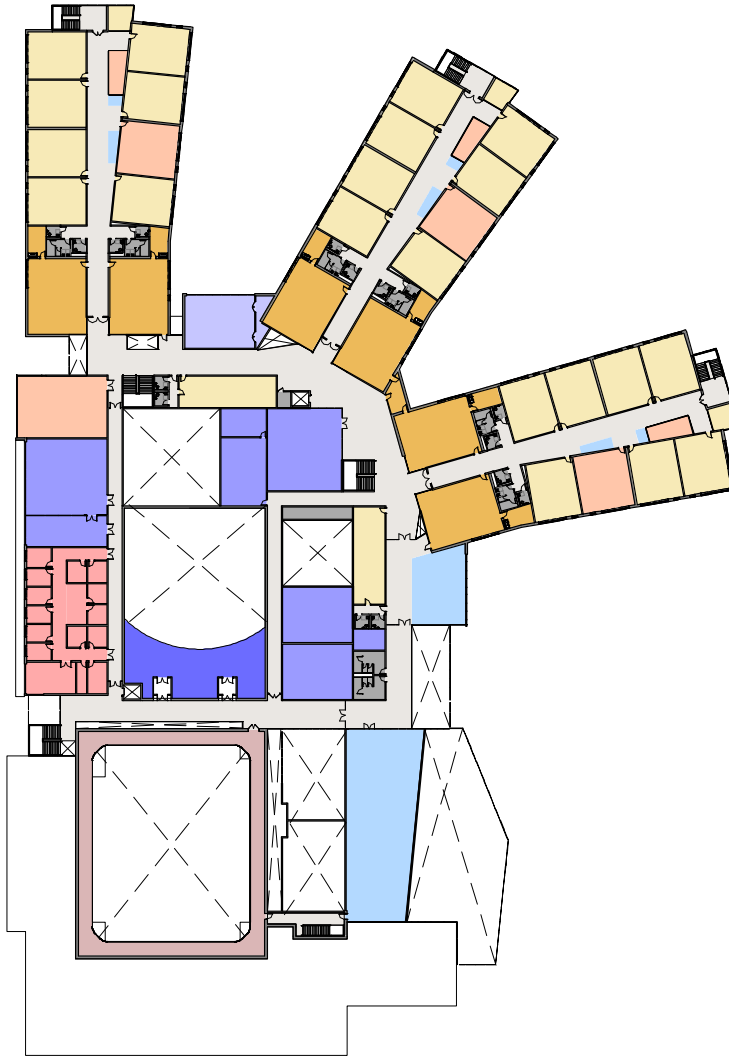
TOTAL BUILDING GROSS

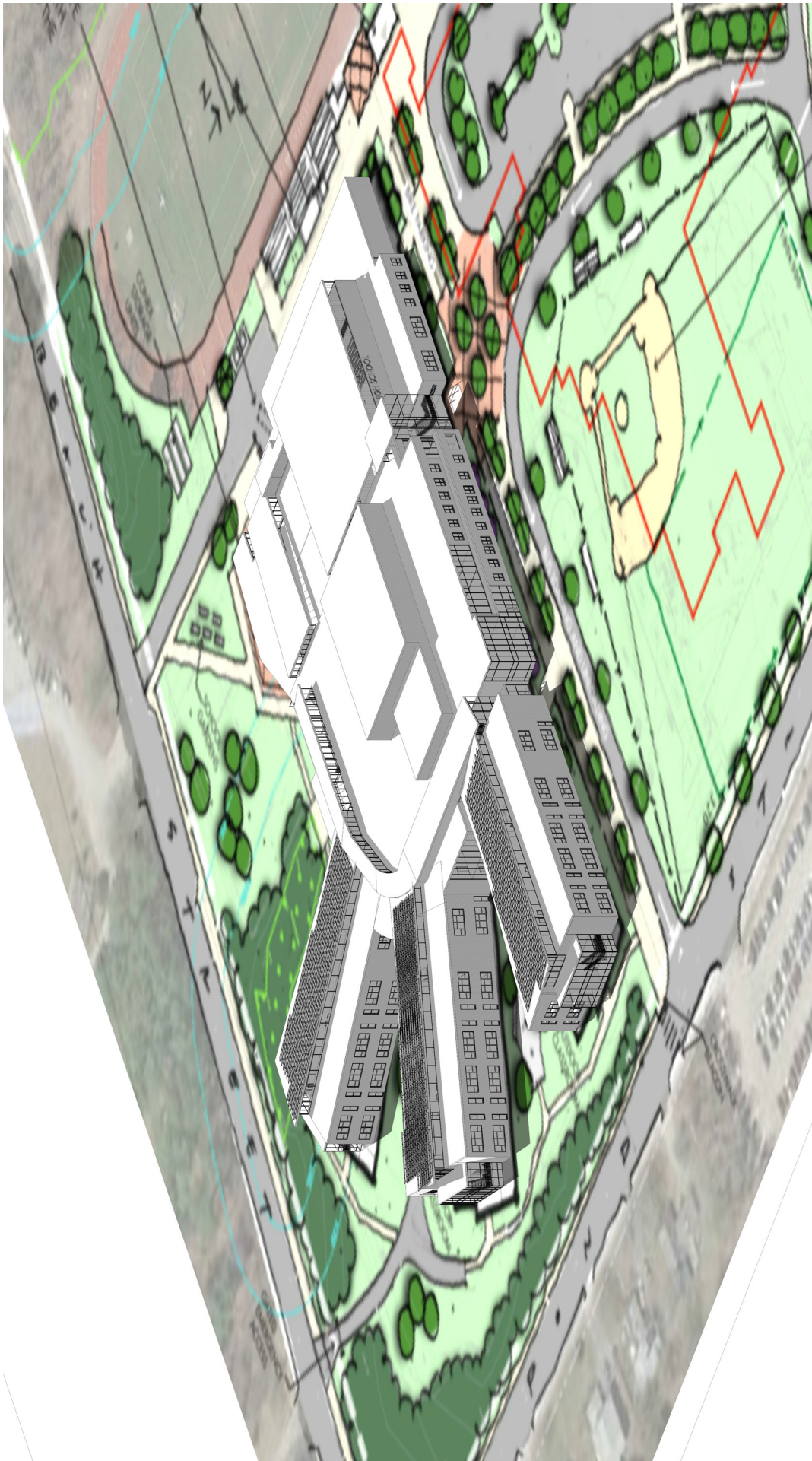
EXISTING: 168,422 SQ FT
MSBA GUIDELINE: 225,000 SQ FT
PROPOSED: 240,874 SQ FT

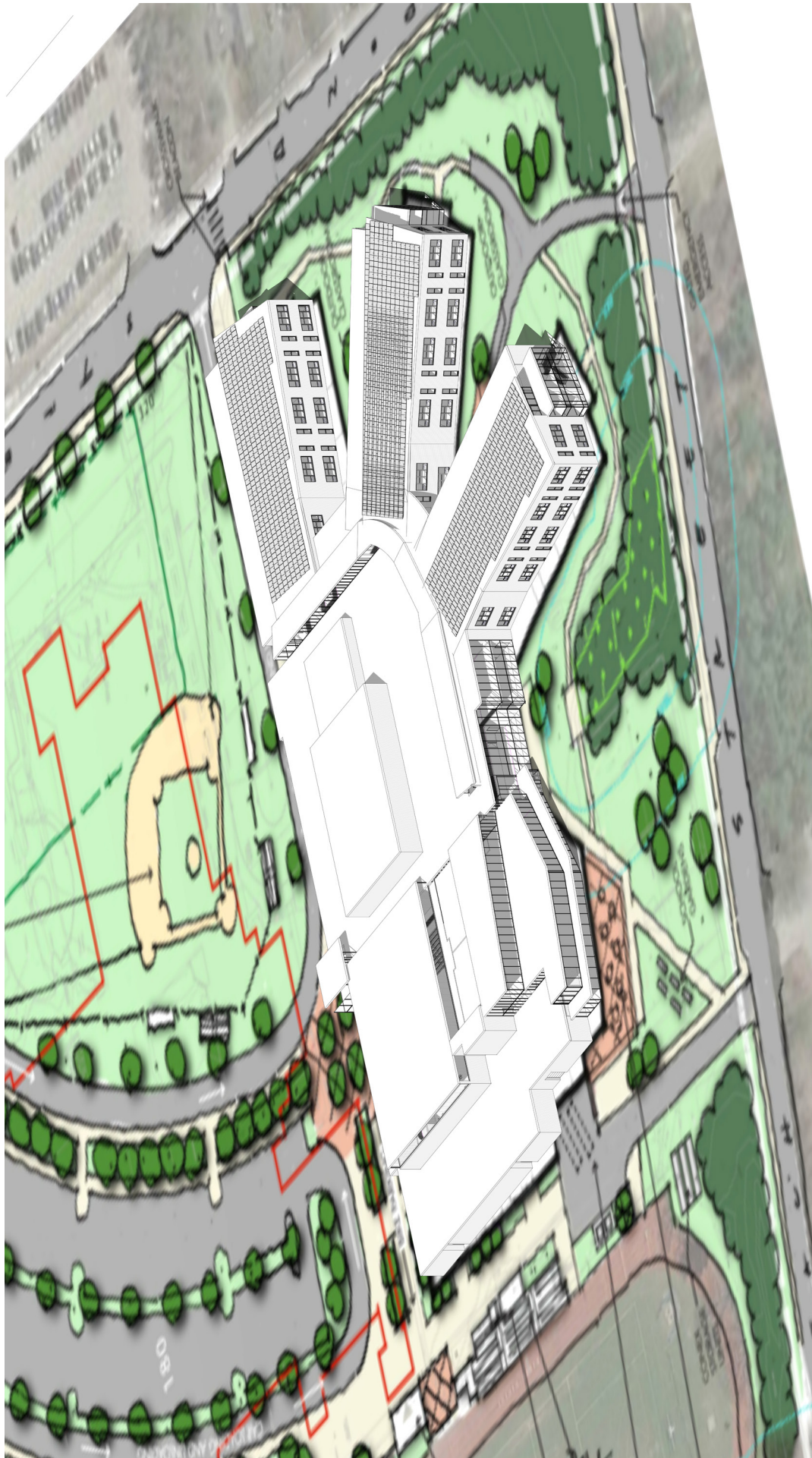
* ALL SPACES MEET OR EXCEED THE MSBA GUIDELINE. THE PROPOSED TOTAL BUILDING GROSS IS 15,874 SQ FT LARGER THAN THE MSBA GUIDELINE.

DEPARTMENT LEGEND

- | | |
|---------------|-----------------|
| CORE ACADEMIC | HEALTH / GYM |
| SCIENCE | MEDIA / LIBRARY |
| SPED | ADMIN., & MED. |
| ART / MUSIC | DINING / FOOD |
| AUDITORIUM | COMMUNITY |
| VOC / TECH | BOH |







4.8

PROJECT BUDGET OVERVIEW



Estimated Funding Capacity

The District of Sharon and the design team will continue to refine the project scope, design and project costs during the schematic design phase that will establish the final total project cost, the Town's not-to-exceed total project budget, and work with the MSBA to establish the eligible costs under the MSBA's grant requirements and procedures leading into the Project Scope and Budget Agreement. Based on the Preferred Schematic Report estimates, the various alternatives currently range in cost between \$94.5 million for a base repair project and \$158 million for an addition and renovation project. The current projected preliminary total project budget for the preferred Option N4 is in the range of \$152M. As previously noted in the PDP and now the PSR submission, the District has acknowledged the Sharon High School potential Total Project Costs and restates here to confirm that the town will review the funding requirements of the Sharon High School project in the context of its overall capital plan. It is anticipated that an override vote will be required to fund this project.

List of other Municipal Projects Currently Planned or in Progress

The District of Sharon has two significant building projects ongoing or planned at this time. These projects are listed below with the estimated cost for each.

- Sharon Library \$18,800,000
- Sharon Town Hall \$13,500,000

District's Not-to-Exceed Total Project Budget

A total project cost was independently calculated by a cost estimator used by the project architect, Tappe Architects, and a cost estimator used by the Town's OPM, PMA Consultants. The estimated total project cost is an "order of magnitude" amount and is not intended to represent the approved total project budget, as several of the assumptions used in the estimate will need to be reviewed and finalized.

After reconciling their respective outcomes, a collaborative effort produced an estimated total project cost of \$152 million, which includes a construction cost of \$122 million and a contingency for construction and other costs of \$30 million.

The Town's base reimbursement rate is presently 45.32%. Other possible incentive points were added for "energy efficiency" of 2%, and "maintenance" of 2% resulting in a potential total reimbursement percentage of \$49.32

Description of the Local Process for Authorization and Funding

The approved total project budget will be funded through the issuance of a general obligation bond. The District will authorize the full amount of the total project budget as a loan order.

The approval process for the authorization of the loan order is as follows:

1. Recommendation of the School Building Committee to fund the total project budget.
2. Approval of the Schematic Design Submission by the MSBA at the October 30th, 2019 MSBA Board of Directors Meeting
3. Approval (majority vote) of the Board of Selectman for a First Reading of the Loan Order.
4. Publication of the Loan Order.
5. Special Town Meeting to authorize the entire cost of the Sharon High School Building Project.
6. District wide election seeking to exclude the funding of this entire project from the provisions of Proposition 2 ½.

4.9

BUDGET STATEMENT



SHARON HIGH SCHOOL PROJECT

Sharon Public Schools

Town of Sharon

MODULE 3 – FEASIBILITY STUDY

PREFERRED SCHEMATIC REPORT SUBMITTAL

MODULE 3.3.4 CAPITAL BUDGET STATEMENT



The preliminary estimate for the Sharon High School preferred option is approximately \$152.1 million for a new construction project located at the current Sharon High School site. This new construction would support the District's high school enrollment of 1250 students. The local share of debt service is planned to be allocated via debt exclusion if supported by the Town of Sharon during a 2019 ballot question.

The 2018 base reimbursement share for this project from MSBA is 45.32%, with a preliminary estimate of between two and four additional incentive points. The following are the incentive points being considered: High Efficiency Green School Program, Best Practices for Routine and Capital Maintenance. The remaining +/-54% of reimbursable costs, and the full value of any ineligible costs would be locally funded via debt exclusion as explained above.

The District of Sharon has two (2) other municipal projects ongoing at this time. These projects include the Sharon Town Hall project estimated at \$13,500,000, and the Sharon Library project estimated at \$18,800,000.

Although a target budget has not been formally approved, the School Building Committee notes that a total project budget in the range of \$152m-\$156m appears to satisfy those goals. The School Building Committee understands that the values contained within this preferred schematic submission are subject to adjustment as the preferred option design progresses through Schematic Design.

SHARON HIGH SCHOOL

Budget Statement for Preferred Schematic - Expenditures

Category	2015-2016 FY2016		2016-2017 FY2017		2017-2018 FY2018		Change from Previous Year		Post-Construction Budget		New Facility vs. Current	
	Staff (FTE)	Budget	Staff (FTE)	Budget	Staff	Budget	Staff (FTE)	Budget	Staff	Budget	Staff (FTE)	Budget
General Office Supplies		185,161		189,612		170,634		(18,978)		-		(170,634)
Information technology		20,914		26,845		36,691		9,846		-		(36,691)
Hardware		6,541		4,428		9,793		5,365		-		(9,793)
Software		13,322		10,252		5,053		(5,199)		-		(5,053)
Library Materials (other instructional supplies)		566,868		504,146		456,920		(47,226)		-		(456,920)
Non info-tech equipment		375,966		341,282		396,193		54,911		-		(396,193)
Testing Materials & Supplies		-		-		-		-		-		-
Textbooks		-		-		1,265		1,158		-		(1,265)
Vocational Program Materials		-		-		-		-		-		-
Total Materials		1,148,772		1,078,672		1,078,549		(123)		-		(1,078,549)
Services												
Athletics		780,578		753,230		797,227		43,997		-		(797,227)
Attendance		-		-		-		-		-		-
Food Service		848,776		876,775		986,768		109,993		-		(986,768)
Health Services		394,682		467,127		482,766		15,639		-		(482,766)
Other Student Activities		2,485,067		2,655,747		2,849,567		193,820		-		(2,849,567)
Psychological Services		759,897		740,422		736,920		(3,502)		-		(736,920)
School Security		60,000		60,000		60,000		-		-		(60,000)
Student Transportation		1,550,282		1,553,955		1,759,218		205,263		-		(1,759,218)
Total Services		6,879,282		7,107,256		7,672,466		315,950		-		(7,672,466)
Total Material & Services		8,028,054		8,183,928		8,749,015		315,827		-		(8,749,015)
Facility Costs & Capital Improvements												
Facility Costs												
Custodial Supplies		245,803		150,897		206,836		55,939		-		(206,836)
Electricity		639,502		556,223		546,387		(9,836)		-		(546,387)
Heating Oil		-		-		-		-		-		-
Maintenance		-		-		-		-		-		-
Building Security Maintenance		-		-		-		-		-		-
Elevator		-		-		-		-		-		-
Equipment Maintenance		111,857		255,684		224,787		(30,897)		-		(224,787)
Exterminating		-		-		-		-		-		-
Facility Maintenance		-		-		626,772		626,772		-		(626,772)
Fire Alarm		-		-		-		-		-		-
Fire Extinguisher Inspection		15,262		9,858		12,962		3,104		-		(12,962)
Generator		-		-		-		-		-		-
HVAC Maintenance		-		-		9,109		9,109		-		(9,109)
Other		-		-		-		-		-		-
Site Maintenance (Grounds)		216,000		200,683		230,185		29,502		-		(230,185)
Technology		-		-		-		-		-		-
Trash Removal		44,329		31,412		37,860		6,448		-		(37,860)
Natural Gas		179,158		210,017		272,784		62,767		-		(272,784)
Snow Removal		36,111		35,340		62,560		27,220		-		(62,560)
Telephone		57,438		45,279		41,483		(3,796)		-		(41,483)
Water/Sewer		187,856		98,850		123,256		24,406		-		(123,256)
Total Facility Costs		1,703,356		1,594,242		2,394,981		800,739		-		(2,394,981)
Capital Improvements												
Capital Improvements		737,334		1,001,679		2,024,316		1,022,637		-		(2,024,316)
Total Facility Costs & Capital Improvements		2,440,690		2,595,921		4,419,297		1,823,376		-		(4,419,297)
Debt Service												
Short-term		-		-		-		-		-		-
Long-term		5,002,939		4,434,908		4,385,711		(49,197)		-		(4,385,711)
Total Debt Service		5,002,939		4,434,908		4,385,711		(49,197)		-		(4,385,711)
Total Budget & Staff	406.00	54,071,507	428.50	56,233,025	447.75	60,445,365	19	3,953,080	0	-	-448	(60,445,365)

4.10

PROPOSED PROJECT SCHEDULE



Sharon High School March Update			PMA Consultants				Calendar												2018												2019												2020												2021												2022												2023												2024												2025												21-Mar-19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												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Sharon High School March Update				PMA Consultants				21-Mar-19											
Activity ID	Activity Name	Original Start Duration	Finish	Actual Start	Actual Finish	Total Float	Calendar	2018	2019	2020	2021	2022	2023	2024	2025				
S-1010	Prepare DESE Submittal - Submit to MSBA	90 05-Jun-19	10-Oct-19			0	Standard 5 Day												
S-1090	MSBA Review of DESE Submittal	5 11-Oct-19	18-Oct-19			919	Standard 5 Day												
S-1170	DESE Review and Approval	40 21-Oct-19	17-Dec-19			919	Standard 5 Day												
Schematic Design Submittal																			
S-1020	Updated System Narratives & Preliminary SD Drawings - for Estimator Pricing	30 05-Jun-19	17-Jul-19			0	Standard 5 Day												
S-1100	Cost Estimate - 3rd Party Estimators	10 18-Jul-19	31-Jul-19			0	Standard 5 Day												
S-1180	Reconciliation of 3rd Party Estimates	14 01-Aug-19	20-Aug-19			0	Standard 5 Day												
S-1260	SBC Review Schematic Design Submittal	5 21-Aug-19	27-Aug-19			0	Standard 5 Day												
S-1320	SBC Meeting - Vote approval of SD submittal and budget	10 28-Aug-19	27-Aug-19			0	Standard 5 Day												
S-1380	Complete and Submit SD to MSBA	10 28-Aug-19	11-Sep-19			0	Standard 5 Day												
S-1420	SD submitted to MSBA	0	11-Sep-19*			0	Standard 5 Day												
S-1440	MSBA and Town Review Period	16 12-Sep-19	03-Oct-19			13	Standard 5 Day												
S-1490	MSBA FAS Meeting	5 04-Oct-19	02-Oct-19*			0	Standard 5 Day												
S-1520	Design Team Respond to MSBA	0	10-Oct-19			13	Standard 5 Day												
S-1620	MSBA Board of Director's Meeting - Approve SD	0	30-Oct-19*			0	Standard 5 Day												
S-1680	Special Town Meeting : Vote on Project Scope & Budget Agreement (PS & BA	11 04-Nov-19*	19-Nov-19			0	Standard 5 Day												
S-1690	Town Wide Vote on Project Scope & Budget Agreement	10 05-Nov-19*	19-Nov-19			0	Standard 5 Day												
Local Approval / Funding the Project																			
S-1700	MSBA Board Approval of SD and PS & BA	0	30-Oct-19*			0	Standard 5 Day												
S-1710	Town Meeting vote on project scope and budget	0	04-Nov-19*			0	Standard 5 Day												
S-1720	PSB Agreement Executed	0	25-Nov-19*			0	Standard 5 Day												
S-1730	Certification of Vote Sent to MSBA	0	02-Dec-19*			0	Standard 5 Day												
S-1740	PFA Sent	0	16-Dec-19*			0	Standard 5 Day												
S-1750	PFA Executed	0	23-Dec-19*			0	Standard 5 Day												
Design Development																			
S-1060	Design Development	62 20-Nov-19	20-Feb-20			0	Standard 5 Day												
S-1140	MSBA Design Development Review Period	16 21-Feb-20	13-Mar-20			0	Standard 5 Day												
Construction Documents & Award																			
S-1050	60% Construction Documents	60 16-Mar-20	08-Jun-20			0	Standard 5 Day												
S-1130	MSBA 60% CD Review Period	16 09-Jun-20	30-Jun-20			0	Standard 5 Day												
S-1210	60% CD Review Response & Drawing Revisions	6 01-Jul-20	08-Jul-20			0	Standard 5 Day												
S-1290	90% CDs and 100% Early Package	45 09-Jul-20	10-Sep-20			0	Standard 5 Day												
S-1350	MSBA 90% CD Review Period	15 11-Sep-20	01-Oct-20			0	Standard 5 Day												
S-1410	90% CD Review Response & Drawing Revisions	6 02-Oct-20	09-Oct-20			0	Standard 5 Day												
S-1470	100% Construction Documents (Bd Package)	20 13-Oct-20	09-Nov-20			0	Standard 5 Day												
S-1510	Construction Bid & Award	39 27-Oct-20	22-Dec-20			0	Standard 5 Day												
Construction of Sharon High School																			
S-1070	Phase 1 Construction, Testing and Start-Up	384 23-Dec-20	29-Jun-22			0	Standard 5 Day												
S-1150	Phase 1 Substantial Completion - New Building	0	29-Jun-22*			0	Standard 5 Day												
S-1220	FF&E, IT, Move, Punchlist	60 09-Jun-22	01-Sep-22			0	Standard 5 Day												
S-1285	Phase 2 Abate, Demo Site Paving Fields	187 02-Sep-22	31-May-23			0	Standard 5 Day												
S-1295	Phase 2 Substantial Completion - Demo Site Paving Fields	0	31-May-23*			0	Standard 5 Day												
S-1300	Closeout documentation	60 15-May-23	07-Aug-23			0	Standard 5 Day												
S-1360	Project Completion	0	07-Aug-23*			0	Standard 5 Day												

5

LOCAL ACTIONS & APPROVALS

5.1

MEETING MINUTES



Sharon Standing Building Committee Meeting Minutes 2/20/18

SSBC Members

Gordon Gladstone, Chair	Robert Atwood absent	Richard Slater
Colleen Tuck	open	Steve Smith absent
Deb Benjamin	Rick Rice	Roger Thibault
Sara Winthrop		

Special Members

Tilden Kaufman, Police Chief absent	Matthew Baldassari	Jim Wright, Fire Chief
Ken Wertz		

Additional Attendees

Joe Sullivan DPI absent	Chandler Rudert Consigli
Kevin Paton BKA Architects	Todd Costa KBA absent
Pete Gaudreau KBA	Mary Bulso DPI

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Future scheduled meetings: 3/6, 3/13, 3/20 (HS Short list), 3/27 (interviews), 4/3, 4/10, 4/17, 5/1
- The Consigli requisition # 28 was approved unanimously by the committee but at a reduced amount of \$175,000. Ms. Benjamin moved to approve and Ms. Winthrop seconded the motion. All voted in favor of approval.

Town Hall Renovation Project

- Ms. Bulso requested that the Committee authorize Daedalus to engage Andrew T. Johnson to do printing of drawings and bid documents at Town Hall at a price of \$4,920.00. Ms. Benjamin moved and Ms. Winthrop seconded the motion to authorize. All voted in favor of approval.
- DPI worked with Mr. Gladstone to finalize the RFQ and score sheets for CM@R at TH. Qualifications are due 2/28/18.
- Ms. Bulso stated that Daedalus is working with BKA to create a bid package for hazardous material abatement and demolition of the existing station. This is contractually independent of the CM. The Committee agreed the process should move ahead. Chief Wright said that the civil defensive equipment that is in the station needs to be moved. Mr. Paton suggested 7/5/18 as a target date for removal.
- Mr. Paton said that Mr. Turkington liked the idea of the electronic message board and said his department will manage it.
- Mr. Paton said that regarding the security system the new Town Hall should be adapted to the Public Safety Building system which can be expanded to other buildings in the future for card readers and security systems. He suggested the security cameras on the outside could be the same as that of

the Public Safety building but a different camera on the inside would be needed.

- Mr. Paton said that after discussion with the DPW they determined that storm water in a catch basin system was a more user friendly methodology. The proposed design reduces impervious properties by 20% and will be a big help to storm water management. This is a less expensive method. They will forgo the roof run off systems to irrigate landscaping which was a maintenance concern expressed by the DPE. Plantings will be drought tolerant.
- Mr. Paton said he wants to meet with the Planning Board to review the signage package.
- Mr. Paton said that two test pit locations have been identified to be tested at on 3/2.

Public Safety Building

- Mr. Rudert provided the change order# 21 for \$32,256.00 to credit back excess budget for the Consigli payment and performance bond for the Sharon Public Safety Project. Ms. Benjamin moved and Ms. Tuck seconded the motion to accept change order #21.
- Mr. Rudert discussed the ongoing heating issues in the dormitory and apparatus bay of the fire station resolution. He stated that the insulation deficiencies have been sealed. They opened up the dry wall at the apparatus bay and resealed flutes and then drywall. He stated that the warranty kicked off at the end of August at substantial completion. He said you need to wait for colder weather to ensure fixes are sufficient.
- Commissioning agent agrees that equipment is installed as specified
- ACTION to be taken is for Mr. Rudert, since Mr. Costa and Sullivan are not here, will reach out to BER and keep the others informed as to the estimated cost to install the supplemental heating that they have proposed. Ms. Benjamin asked for pricing to correct the heating situation in its entirety in order to gather the order of magnitude.
- Chair Gladstone referenced an email from Mr. Costa which contained the summary of the heating issues. It stated that KBA and BER would suggest the reason for the heating issues at the fire station is because of open apparatus doors. Mr. Gladstone stated he wants more discussion and wants Joe Sullivan to be present so that design issues can be discussed. Chief Wright said that there have been small changes in the heat and it is functioning well in current weather conditions. The Adtech proposal for microphone installation in the amount of \$9,935.68 was discussed and voted upon. Ms. Benjamin moved and Ms. Winthrop seconded the motion to approve this project. All voted in favor of approval.
- Ms. Benjamin moved and Mr. Rice seconded a motion for \$2,361 for Araujo Bros. This is the price that Mr. Baldassari received to extend concentric vents on the police and fire side from the back of the mechanical room due to snow drifts. All voted in favor of approval.
-

Sharon High School RFS

- The RFS was issued.

Sharon Standing Building Committee Meeting Minutes 3/6/18

SSBC Members

Gordon Gladstone, Chair	Robert Atwood	Richard Slater
Colleen Tuck	open	Steve Smith
Deb Benjamin	Rick Rice	Roger Thibault absent
Sara Winthrop		

Special Members

Tilden Kaufman, Police Chief	Matthew Baldassari	Jim Wright, Fire Chief
Ken Wertz		

Additional Attendees

Joe Sullivan DPI	Chandler Rudert Consigli
Kevin Paton BKA Architects	Todd Costa KBA
Pete Gaudreau KBA	Mary Bulso DPI absent

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Future scheduled meetings:, 3/13, 3/20 (HS Short list), 3/27 (interviews), 4/3, 4/10, 4/17, 5/1

Town Hall Renovation Project

- There are three qualified CM candidates to provide proposals for the Town Hall Renovation Project. Chair Gladstone stated that when we do interviews we will have stock questions. Some will go out with the RFP. Mr. Rice volunteered to help develop questions we want to issue with the RFP and those to hold for the meeting.
- A brief conversation ensued regarding the underground raceway placement of pipes for the irrigation system. Additionally the color plan provided for the lawn areas was reviewed. Chair Gladstone will reach out to JJ McGrath regarding the memorial trees.
- The project is at 50% design development.
- 3 test pits were done. They are doing redesign/shift of the septic system based on test pits which suggest that the landscaping and septic locations should be reconsidered. Ground water was not an issue but soil density is..
- All 3 CM responses were prequalified. Daedalus will complete the RFP.
- The 3/13 meeting will be a discussion of the questions. The RFP will be sent out on 3/14. Responses are due back on 3/29.
- It was asked if we can go back out to ask for Design Bid Build. The response was no as the minimum requirement is 2 so, we will move ahead with the process. Per DPI we have the ability to not select any of these bidders.
- Preconstruction meetings should start as soon as the CM is onboard.
- The design in the infrastructure is to have a sprinkler system, if decided to add later, a fully functioning system costs \$40K-50K.

Public Safety Building

- Mr. Costa discussed the KBA heating memo and Chief Wright's response to their findings. The crux of the issue is that they need to look at an alternative to add heat. They are in the process of obtaining a cost for a radiant heat unit to heat the air space. This process would tap into the boiler and the Chief is concerned how the boilers will be affected. Can the existing boilers support the new heaters too? Or tap into the existing heating lines? The initial price from Consigli is \$75,000.
- Chair Gladstone stated that we have a design deficiency and have paid the consultants' lots of money to preclude these design deficiencies. He stated he is outraged at this situation.
- Mr. Costa stated that part of the issue was a number of areas were not completed by design but have now been rectified. KBA is unable to explain why the system is not recovering. Other stations do not experience the same issues.
- Chair Gladstone said that in March you probably cannot replicate the situation. You cannot properly test and evaluate until November, December or January.
- Chief Wright was in agreement and stated that the issues are a combination of several factors.
- Mr. Sullivan stated the living space had envelope issues which are rectified. The apparatus bay had more issues. Deficiencies in the exterior envelope have been identified which can attribute to heat loss. The issue is when it's below certain temperatures how to accommodate the heating system and volume of radiant heat and the way it heats over a long period of time. Supplemental heat needs to be solicited. The point is why they didn't know the heat loss when doors are open in very cold weather.
- Ambulances require the temperature to be maintained at 65 degrees.
- The Chief said the building operates very well up to 15 or 20 degrees. In zero degree weather, the apparatus bay never reached over 55 degrees.
- Mr. Sullivan stated that his responsibility is to figure out why there is a deficiency and get the architects and engineers on board. It was not properly anticipated in the design calculation the number of times ambulances would be coming and going.
- Mr. Rice stated that we have a ballpark estimate for what a solution could be perceived based on a few parameters but do not know the ramifications. The ballpark calculation is 75K. The fix needs to be engineered thoroughly when its zero degrees and the ambulance leaves the apparatus bay is not at the intended temperature. A solution needs to be identified and why it's necessary.
- Mr. Costa said that BER is to provide drawings of the solution. KBA to forward the engineering calculations and user needs for the heat requirements and eventual load on the FD building to DPI.
- Mr. Sullivan said a solution needs to be reached which mitigates and resolves the situation for the town. If there is added scope of work there's a cost. There is also held responsibility as to why it was not included by the designer.
- Mr. Rice said who are the players responsible for preconstruction? It's important to understand how it was calculated and why it's not working. He would like a peer review performed of the original design.
- Mr. Sullivan will come to next meeting with names of peer reviewers to see if design meets the needs of the space.

- Mr. Baldassari suggested the need to have a formal understanding regarding conditions in the next winter.

Sharon High School RFS

- 9 responses to the HS OPM were received. Mr. Gladstone created a rubric that he will share with the committee.
- Some firms have presented financials in confidence to Mr. Gladstone. He will create a spreadsheet to share during executive session.
- Ms. Tuck will work on preparing the questions for the OPM position.

Minutes

Mr. Slater moved to approve the minutes of 2/20/18 and Ms. Tuck seconded the motion. The Committee voted unanimously in favor of approval.

Invoices

Ms. Benjamin moved and Mr. Smith seconded the motion to approve all invoices. The Committee voted unanimously in favor of approval.

Gilmore - \$1150.80- PS

Adjournment

Through unanimous consent, the meeting adjourned at 8:30 PM.

Attachments

Existing Tree Diagram

BKA Architects New Town Hall request for qualifications and CM@Risk comparison sheet

CM at Risk Interviews Sample Questions

Submitted:

Rachelle Levitts

Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

NOTE: All Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

Will the newly announced “tariffs” affect the bidding on the Town Hall? DPI- no!

ACTION-

. Coming up in April is a page by page with the CM to go over the design.

We are collecting questions for review and selection on 3/13. (Rick Rice to consolidate questions)

HS

Sharon Standing Building Committee Meeting Minutes 3/14/18

SSBC Members

Gordon Gladstone, Chair	Robert Atwood	Richard Slater
Colleen Tuck absent	open	Steve Smith
Deb Benjamin	Rick Rice	Roger Thibault
Sara Winthrop		

Special Members

Tilden Kaufman, Police Chief Absent	Matthew Baldassari	Jim Wright, Fire Chief
Ken Wertz Absent		

Additional Attendees

Joe Sullivan DPI Absent	Chandler Rudert Consigli Absent
Kevin Paton BKA Architects Absent	Todd Costa KBA Absent
Pete Gaudreau KBA Absent	Mary Bulso DPI

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Future scheduled meetings:, 3/20 (HS Short list), 3/27 (interviews), 4/3, 4/10, 4/17, 5/1
- The SSBC voted unanimously to enter into Executive Session to discuss the heating issues on the PSB. The SSBC left Executive Session via unanimous vote.

Town Hall Renovation Project

- Reviewed questions for Town Hall.
- 4-6 questions will be asked during interviews, all others will be given to the respondents in advance.
- ACTION- Steve Smith to send edited questions to Chair Gladstone.
- ACTION- DPI to add details to the RFP to include % involvement, time with firm, and previous project involvement for proposed staffing.
- Continued ACTION - Gordon to reach out to JJ McGrath regarding the memorial trees.
- RFP going out to 3 respondents today. Questions will be sent out as an addendum in order for respondents to be prepared for the interviews.

Public Safety Building

- Proposals for peer review (GGD G & B) - the scope includes what we need to review for the HVAC documents and conditions to resolve the heating issues for the fire station side of the PSB.
- ACTION- DPI to request written proposals with details from both Engineering firms.

Sharon High School RFS

- Rubric to review and score the OPMs for the High School.
- RFS states 1-5 as grade points. 0 will not be considered.

Minutes

Ms. Benjamin moved to approve the minutes of 3/6/18 Mr. Smith seconded the motion. The Committee voted unanimously in favor of approval.

Invoices

None

Adjournment

Through unanimous consent, the meeting adjourned at 8:30 PM.

Attachments

None

Submitted:
Rachelle Levitts
Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

NOTE: All Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

Sharon Standing Building Committee

Meeting Minutes

3/20/18

SSBC Members

Gordon Gladstone, Chair	Robert Atwood	Richard Slater
Colleen Tuck	open	Steve Smith
Deb Benjamin	Rick Rice	Roger Thibault
Sara Winthrop		

Special Members

Tilden Kaufman, Police Chief Absent	Matthew Baldassari	Jim Wright, Fire Chief
Ken Wertz		

Additional Attendees

Joe Sullivan DPI	Chandler Rudert Consigli Absent
Kevin Paton BKA Architects	Todd Costa KBA Absent
Pete Gaudreau KBA Absent	Mary Bulso DPI

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Future scheduled meetings: 3/27(interviews), 4/3, 4/10, 4/17, 5/1

Public Safety Building

- Detailed proposals for peer review of the HVAC were received. DPI reports that the proposals are identical in scope and that either will confirm/deny that the systems were designed appropriately for the FD use and size. Ms. Benjamin moved and Mr. Smith seconded the motion to award the contract to GGD for \$2,500.00 to perform the peer review and for Chair Gladstone to sign the contract. All voted unanimously in favor of approval.
- The SSBC requests that the third party also be available to come to present their findings. The written report will include a summary as well as recommendations.

Town Hall Project

- Revised estimates include features that were not included in the original budget. New estimates are still coming in within or below the original budget. Mr. Paton stated they are at 50% design development budget and reconciliation at 9.75 million dollars. This includes 50K for the copula, \$50K for the media budget and a covered entry and walkway at the rear door. These items were not in the original budget.
- The architect will meet with the Planning Board on April 12th for a site plan review to include the electronic sign. DPI will take responsibility to monitor the integration of TH that fits into existing systems.
- DPI to make sure that the energy management system is integrated with other buildings and to work with DPW.

- Early package to demo the old FD is being sent out for low bid. Mr. Sullivan will put together a revised budget.
- The energy commission check report stated the envelope performed 23.2% more than expected.
- Mr. Smith asked if we can report efforts towards LEED and Mr. Paton said yes we could.
- ACTION- confirm the demo date with Chief and Civil Defense.
- Continued-ACTION- Gordon to reach out to JJ McGrath regarding the memorial trees.

Sharon High School RFS

- Scoring of respondents by committee members was totaled and averaged. The top 4 firms to be interviewed are Daedalus, Colliers, NV5 and PMA. A discussion ensued.
- 4 SSBC members to call 3 references for the selected firms. Mr. Rice will provide questions for references.
- Questions to ask the references included :
 - If you did not have to abide by statutory and regulatory process and could just choose an OPM, would you hire this firm? If, yes or no, please state the primary two or three reasons for your response. Are you basing your response on the team with whom you worked or the firm?
 - Did you have a satisfactory relationship?
 - Were you happy with the Key personnel?
 - How was the Management approach?
- Gordon is calling references for NV5
- Rick is calling references for DPI
- Ken is calling references for Colliers
- Sara is calling references for PMA
- ACTION- Interview Rubric- Roger to edit and send along to Deb to clean and send to Gordon to distribute
- Questions- OPM sends to respondents immediately. Keep the second set for the time of the interview.
- NOTE – the MSBA will be at the table to select the architect – there will be three members of the Town at the selection process
- Questions to be shared with firms in advance of the interview. Please incorporate the question into the presentation or discussion. Please point out to the committee when a question is being addressed.
 - 1. This project involves the ultimate selection of an option from several significantly different capital project approaches: renovations only, renovations and additions, and full new construction. What skills, methodologies and experience does your firm bring to assist with this decision? Please describe your specific approach to developing and communicating to the School Committee and SSBC the 3 different schemes/levels of re-development to support the town's decision-making process.
 - a. School Committee and the SSBC will be looking to the team for a recommendation from the alternatives. Please list the three most significant criteria which will guide your decision.
 - 2. Please describe your specific approach to communicating to the stakeholders, the abutters, and the town at large the design schemes and supporting information.

- 3. Explain your process and success for getting projects approved by the school stakeholders and town residents, and funded by Town Meeting & ballots?
- 4. Who are the key personnel and what is the expected time commitment for each on this project during each phase?
- 5. Based on this team, what % of jobs in the past 5 years have been CM@R and what is number of projects and their \$ value?
- Questions to be asked AT the interview
 - 6. Provide an example of a project where they encountered a serious problem. Describe the problem and how it was resolved.
 - 7. If hired, one of your first tasks will be to assist us in hiring a designer and their team. Explain your process in identifying the school district's and town's needs so the issues pertinent to the designer selection can be properly included in the RFS for the work?
 - 8. Explain how you help settle differences between the designer and contractors. How do you make recommendations to the SBC on how to resolve them? What is your overall philosophy/approach to resolving conflicts or anticipated disputes (whether between Owner and CM, Owner and Architect, etc.)?
 - 9. Please describe a plan that you have successfully implemented and can manage for workers on or near school grounds.
 - 10. What do you consider the three most important contributions your firm makes to a successful project.

Minutes

Ms. Benjamin moved to approve the minutes of 3/14/18 Mr. Smith seconded the motion. The Committee voted unanimously in favor of approval.

Invoices

Mr. Rice moved and Mr. Smith seconded approval for all invoices. The Committee voted unanimously in favor of approval.

Daedalus \$14,000
 Clean Cut Solutions \$629.23
 Andrew T. Johnson \$52.70

Adjournment

Through unanimous consent, the meeting adjourned at 9:30 PM.

Attachments

None

Submitted:
 Rachelle Levitts
 Sharon Standing Building Committee

 (Gordon Gladstone) Signature of Chair

 Date of Acceptance

NOTE: All Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

Sharon Standing Building Committee Meeting Minutes 3/27/18

SSBC Members

Gordon Gladstone, Chair	Robert Atwood	Richard Slater
Colleen Tuck absent	open	Steve Smith
Deb Benjamin	Rick Rice	Roger Thibault
Sara Winthrop		

Special Members

Tilden Kaufman, Police Chief absent	Matthew Baldassari absent	Jim Wright, Fire Chief absent
Ken Wertz		

Additional Attendees

PMA	Colliers
DPI	NV5

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:00 PM at the Public Safety Building.
- Future scheduled meetings: 4/3, 4/10, 4/17, 5/1

Sharon High School OPM Interviews

- This evening's meetings purpose was to interview the 4 shortlisted candidates for the Owner's Project Management Services (OPM) position for the Sharon High School Project.
- Colliers, Daedalus, NV5 and PMA presented to the Committee. Each addressed the questions provided by the SSBC in advance as well as questions at the meeting. Each team presented their staffing model for the project as well as sample approaches to take, reporting of data, their experience working with MSBA and an overview of projects completed that may be similar in nature. They also discussed their communicating options for the community and proponent.
- Each SSBC member scored the candidates and the Sharon Standing Building Committee - OPM Scoping Totals for the Selection Committee Short List of OPM Scoring Summary is summarized as follows:
Colliers - 18.55, Daedalus -19.55, NV5 -15.77 and PMA - 12.77.
- PMA was selected by the SSBC as the OPM candidate. Chair Gladstone will email PMA to advise and begin contract negotiations.

Adjournment

Through unanimous consent, the meeting adjourned at 11:30 PM.

Attachments

Packets from each of the four OPM candidates

Submitted:
Rachelle Levitts

Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

NOTE: All Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

Sharon Standing Building Committee Meeting Minutes 4/3/18

SSBC Members

Gordon Gladstone, Chair	Robert Atwood	Richard Slater absent
Colleen Tuck	open	Steve Smith
Deb Benjamin absent	Rick Rice	Roger Thibault
Sara Winthrop		

Special Members

Matthew Baldassari, DPW	Tilden Kaufman, Police Chief absent	Jim Wright, Fire Chief
Ken Wertz, Sharon Public Schools		

Additional Attendees

PMA Chris Carroll	DPI Joe Sullivan

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Future scheduled meetings: 4/17, 5/1

Sharon High School OPM Interviews

- PMA was selected by the SSBC as the OPM candidate at the last meeting. The Committee reviewed the contract presented by PMA. Chair Gladstone commented that through telephone negotiations, the contract was reduced from \$457,000 to \$414,000 rounded to a not to exceed \$410,000. A discussion ensued between the Committee and PMA to review the proposed contract fee further. Based on a November Town Meeting date to support the project, the process could be shortened but this cannot be confirmed until an architect is selected. The Committee needs to target attending an October 2019 meeting of MSBA.
- The building will be a five year process once the project gets rolling. They project a September 2023 opening.
- Mr. Carroll stated that he provided a fee reflective of the level of effort proposed. It is for 19 months, at a cost not to exceed \$410,000. If we can get an architect on board with an aggressive schedule he said he will come back to the Committee with a credit memo for one month or two months of difference. A one month reduction would bring the fees to \$391,380 and a two month reduction would bring it to \$373,300.
- Mr. Rice moved to accept the fee proposal for PMA as described. Mr. Smith seconded the motion and the Committee voted unanimously in favor of approval. New documents will be prepared.

Town Hall Project

- On 4/17 the Committee will interview the short list of perspective CM's for Town Hall.
- Chief Wright had several comments regarding the old fire station demolition.
 - The demo project was put out requiring a general contractor with DCAM certification. This is therefore the same costs the CM for the project would receive no savings.
 - The demo project requires installing a fence around the building during the demo process. This will now be paying for the fence install and removal twice. It would only have to be done once if it was under the CM as they would demo the building and move into the new building process.
 - The demo project will require excavating the old station footprint and filling it back in to make it safe. The CM will then have to excavate it a second time to prep the site for the new building footprint. Having the CM do it also allows them to see the below grade soil conditions so they can better prepare for the new building.
- Mr. Sullivan commented that taking the building down makes it easier for the CM. It is better to determine what is on the site now as part of the early package he stated. It also saves costs for markup. For the CM, it is good to have a clean flat site.
- The real issue with respect to the demo was determined to be timing. The start date was pushed out to mid-May – early June. Chief Wright was happy with this change.

Public Safety Building

- Mr. Sullivan stated that he anticipates having the peer review of the heat loss in the fire station in about a week.
- Mr. Sullivan said that KBA is doing an infrared review of the walls to determine potential inconsistencies.

Meeting Minutes

Mr. Rice moved and Ms. Tuck seconded the motion to approve the minutes of 3/20/17. The Committee voted unanimously in favor of approval.

Ms. Winthrop moved and Mr. Smith seconded the motion to approve the minutes of 3/27/17. The Committee voted unanimously in favor of approval.

Invoices

Dorchester Awning - \$11,690

Adjournment

Through unanimous consent, the meeting adjourned at 9:55 PM.

Attachments

Contract for Project Management Services.

Submitted:

Rachelle Levitts
Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

NOTE: All Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

**Sharon Standing Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SSBC Meeting Minutes
5/15/18**

SSBC Members

Gordon Gladstone, Chair	Robert Atwood	Richard Slater absent
Colleen Tuck	open	Steve Smith
Deb Benjamin	Rick Rice absent	Roger Thibault absent
Sara Winthrop		

Special Members

Ken Wertz	Matthew Baldassari	Jim Wright, Fire Chief

Additional Attendees

Joe Sullivan	Paul Queeney PMA
Kevin Paton	Chris Powers Colantonio
Mary Bulso absent	Nick Bean Colantonio
George Willwerth Colantonio	Bob Zalatan Colantonio

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:40 PM at the Public Safety Building.
- Future scheduled meetings: 5/29, 6/12, 6/26, 7/10, 7/24, 8/7, 8/21
- The SSBC voted unanimously to authorize the Chair to sign the contract for project management services with PMA for the High School not to exceed \$410,000.
- The SSBC voted unanimously to authorize the Chair to sign the contract for Vinagro for demolition services of the old fire station.
- The SSBC voted unanimously to award the Commissioning proposal for hazardous materials abatement monitoring and air sampling to Fitzmeyer and Tocci in an amount not to exceed \$44,200 as per the recommendation of Daedalus.

Public Safety Building

- With reference to the heating issue, recommendations were received from Garcia, Galuska and Desousa regarding the dormitory and apparatus bay heating issues. An extended warranty is needed from BKA, as architects for the project as the time is not adequate to evaluate the deficiencies of the dormitory heat given the warmer weather. Mr. Sullivan will get all parties to review the GGD report and get a solution in writing for a path to a clear solution. They suggested slight changes in the uses and recommend the

building envelope be inspected. If we wait for the next season, will we be covered under warranty? KBA and BER will request that they extend the warranty into the next season in writing.

- Apparatus Bay- GGD had a number of concerns- design docs vary from submittals, some components in radiant heating and pumps need to be changed, pumps are a low expense to be increased, manifold to monitor heat coming and going, piping size differs from submittal and pump size may need to be increased to accommodate the difference, retest and balance again. Need to define if we will still need the supplemental heat. Added costs- bigger pumps, mixing valves.

Sharon High School

- Paul Queeney stated that PMA was approved by MSBA as the OPM for the High School.
- Mr. Queeney stated that he received comments back from MSBA for the solicitation of the architect. Revisions have to be accepted by 5/23 and the RFS will be advertised in the Central Register by 5/23/18.
- Mr. Queeney stated that a briefing session will be scheduled at the High School to allow interested design firms to visit the school. 6/13/18 is the deadline for submission of proposals.
- Chair Gladstone moved that the Committee authorize him to approve the changes that the MSBA wants to be made to the RFS. Ms. Benjamin seconded the motion and the Committee voted unanimously in favor of approval.
- Chair Gladstone commented that we are on track to get this done as quickly as possible.
- The ad will be placed in the Sharon Advocate and Patriot Ledger.

Town Hall

- Mr. Paton provided a thorough review of the plans for Town Hall.
- Some of the interiors and exterior finishes were reviewed as well.
- There is a granite surface selected for the porch walk surface and it will also go wherever there is an exposed foundation. Need to determine what is the cost of this, broken down foundation and walk surface. There are only 3 materials on the exterior of the building, not including the roof and cupola. We talked about the cost for the various materials as well.
- One of the windows near the porch top will be operable. There is an option for the roof surface to hide the white surface from those that look out from the meeting room. Should the windows in the meeting room be that tall? Can the sill come up a bit... 8"? Mr. Paton will take review.
- There is a snow melt system on the roof deck to allow critical areas to drain to the roof drain.
- Dumpster- we do not need removable ballards. They can be permanent between the dumpster and the generator.
- Need to determine Town Medallion locations.
- As we reviewed the interior finishes generically a question arose regarding the cost of glass doors vs wood doors with glass inserts. Mr. Paton will review for costs.
- Need to determine if we need a display area for certificates and awards.
- Reviewed budget management log from Colantonio. They provided a schedule for potential changes to reduce the estimated 10million dollar cost.

Some items can be made as add alternates but, we would have to prioritize them and accept them in order. If we choose to accept #3 then we would have to accept #1 and #2. They stated the estimate is 10 million to build the building.

- Granite pavers vs concrete and how does that work for DPW and disabilities dept. Kevin Paton would like to see continuation of granite until project pricing is tighter. In the meantime, will check for alternates. Granite cladding to cover foundation. Reduce quantity or eliminate= reduce.
- Discussed how to handle what we value out of the budget. Can we break out some of the costs that were recently added (front porch, back roof overhang).
- Generator discussion regarding how to provide back up once the existing Town Hall generator is moved to the new Town Hall.
- The new budget number (without the add alternates) after value managing is within and acceptable range of the proposed budget and owner's contingency to continue to move forward and keep a close eye on the costs.
- Demolition vendor- Vinagro is the low bidder for the contract.
- Mr. Sullivan of DPI stated the HVAC design meets the previous discussions. DPI says that this system has worked well in the past. It is an efficient unit and the energy use is exceptional. Zoning is critical. It should work exceptionally well in this use for this building. Colantonio agrees that it should work well. Let's make sure that the correct office occupants have the control over their respective spaces.

Minutes

Ms. Winthrop moved to approve the minutes of 5/1/18. Ms. Tuck seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

Mr. Smith moved to approve all invoices and Ms. Winthrop seconded the motion. The Committee voted unanimously in favor of approval.

Gordon Gladstone \$8.25

WB Mason \$131.99

Gelerman \$273.00

Adjournment

Through unanimous consent, the meeting adjourned at 9:45 PM.

Attachments

PMA Designer RFS Timeline for High School

PMA Contract for Project Management Services

Daedalus Report Town Hall Hazardous materials Abatement Monitoring and Air Sampling

Daedalus progress summary

Architectural Engineers Inc. review of heating, ventilation and air conditioning narrative

BKA Proposed interior finishes package

BKA Design development drawings

Colantonio Budget management log

Colantonio design development estimate

Garcia, Galuska and Desousa apparatus bay and dormitory heating system review summary

Submitted:
Rachelle Levitts
Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

NOTE: Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

**Sharon Standing Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SSBC Meeting Minutes
6/12/18**

SSBC Members

Gordon Gladstone, Chair	Robert Atwood	Richard Slater
Colleen Tuck	open	Steve Smith absent
Deb Benjamin	Rick Rice	Roger Thibault
Sara Winthrop		

Special Members

Ken Wertz	Matthew Baldassari	Jim Wright, Fire Chief absent

Additional Attendees

Chris Powers Colantonio	Victoria Greer
Kevin Paton	John Marcus
Mary Bulso	Emily Burke
Jose Libano	Amy Garcia
Judy Crosby	Ken Wertz
Kevin Nigro PMA	Matt Galerno PMA

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Future scheduled meetings: 6/26, 7/10, 7/24, 8/7, 8/21

Public Safety Building

- No discussion.

Town Hall

- Mr. Atwood commented on a hazmat issue at the old fire station, He stated that when the hazmat inspection was performed last year, caulking in the building was tested. There is an issue as there might be PCB's in the caulking used to make it more pliable. Screening samples are now being looked at. They do not want the soil contaminated with possible PCB's so the soil will be taken off site. Mr. Atwood states that digging and doing confirmation is logical given there is private property that abuts the area. He said they should dig out the property line, protect the soil and ship it off site. He said that LSP makes a recommendation and provides an opinion statement submitted to DEP when it is all done.
- Mr. Atwood suggests the action now is to authorize Lord and Associates to proceed to dig and then do confirmation afterwards. LSP provided a

proposal through UEC for PCB monitoring/removal for a budget of \$5,000. Ms. Benjamin moved and Ms. Tuck seconded the motion to authorize entering into contract with UEC for an estimated \$5,000 to deal with the PCB issues and additionally, retain the services of LSP to provide services regarding PCBs. All voted in favor of approval.

- Ms. Benjamin moved and Ms. Winthrop seconded the motion to authorize the Chair or Vice Chair to approve a change order up to \$10,000 for Vinagro. All voted in favor of approval.
- Chris Powers of Colantonio stated the early bid packages for site, concrete and steel will hit the street on 7/5.
- The Committee discussed the Town Hall budget and additional costs suggested after approval of the budget at Town Meeting. These included the cupola for \$50,000, \$15,000 for additional bathrooms and \$75,000 for a rear covered entry and porch. The budget is affecting the contingency so a discussion of these items ensued. We now have 60% CDs so all parties are reviewing and updating the budget figures. DPI will request the proposal be updated in the language and then they will move it ahead for approval under DPI. There are a large number of subcontractors requesting to be prequalified. That will start happening tomorrow at DPI.
- Ms. Bulso stated that Chair Gladstone needs to sign the Colantonio contract.
- DPI will handle the UEC contract for \$7,500.
- Mr. Paton will provide the furniture budget for next meeting.

Sharon High School

- Chair Gladstone began the discussion by stating that the MSBA requires that Communities create an SBC - School Building Committee. MSBA dictates that the members will include: the superintendent, principal and school committee members. The responsibility falls to the SSBC so only the SSBC are voting members. The SBC are not voting members.
- Chair Gladstone also stated that the OPM, PMA Consultants help us go through the MSBA process to engage an architect. It is extremely important that non-voting members participate in the process of choosing an architect.
- Mr. Nigro of PMA stated that the MSBA Architect Selection Committee is unique. The MSBA Designer Selection Panel consists of 16 members; 13 standing members plus 3 from Sharon. The MSBA approves the RFS which was released to the architect community on 5/23/18. He said there was an answer period and the proposals are due tomorrow 6/13. 13 firms have requested the proposal. Once received PMA will prepare packets and drop them off to the Committee on 6/14. On 6/26 the proposals will be discussed and score sheets tabulated. On 7/10 there will be a meeting with the MSBA to rank and the top three choices who will be interviewed. There will be 3 representatives from Sharon in attendance at the meeting: Dr. Greer or her

designee; Amy Garcia and Bill Heitin or his designee. It is an open meeting for all to attend.

Minutes

Approval of 5/29/18 minutes deferred to next meeting.

Invoices

The Committee voted unanimously in favor of approval of all invoices.

Daedalus \$15,000

BKA \$105,133.20

Adjournment

Through unanimous consent, the meeting adjourned at 8:35 PM.

Attachments

PMA handout for review of designer selection process for Sharon High School

Daedalus progress summary

Submitted:

Rachelle Levitts

Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

NOTE: Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

**Sharon Standing Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SSBC Meeting Minutes
6/26/18**

SSBC Members

Gordon Gladstone, Chair	Robert Atwood absent	Richard Slater
Colleen Tuck absent	open	Steve Smith
Deb Benjamin	Rick Rice	Roger Thibault
Sara Winthrop absent		

Special Members

Ken Wertz absent	Matthew Baldassari	Jim Wright, Fire Chief

Additional Attendees

Chris Powers Colantonio	Victoria Greer
Kevin Paton	John Marcus
Mary Bulso	Emily Burke
Jose Libano	Joe Sexton
Judy Crosby	Paul Queeney PMA
Kevin Nigro PMA	Matt Galerno PMA

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Chair Gladstone noted that the SSBC has an opening and is looking for a member with construction experience. Interested parties should contact the BOS.
- Mr. Smith moved and Ms. Benjamin seconded a motion to have the Chair sign the Colantonio contract. All voted in favor of approval. Chair Gladstone commented that Town Counsel had reviewed the contract and fee structure and it is in accordance with the Town Meeting vote.
- Future scheduled meetings: 7/10, 7/24, 8/7, 8/21

Public Safety Building

- Chair Gladstone reported that the cost report for this project shows that the project is approximately 1.4 million dollars under budget.
- With respect to the heating problem Joe Sullivan via email stated that KBA has some information but is waiting for the final design from BER. This will be discussed at the next meeting.

Town Hall

- Chair Gladstone reported that there is over a 1-million-dollar contingency within the current budget. The contingency is adequate for projected work for a “NEW” building.
- Ms. Bulso stated that the Colantonio contract needs to be signed this evening. She also commented that we have the 60% construction documents estimate 6/21/ reconciliation.
- With reference to the abatement, Ms. Bulso stated that the abatement is complete except for any possible surface items. 60 bulbs and batteries were located and must be disposed of properly. Vinagro is moving ahead on T&M with a \$10K NTE approval on the extra work. Vinagro has a time deadline to do the work and is on schedule to complete by deadline.
- John Feely of Daedalus will be on site. Chief Wright requested that Daedalus inform the neighbors of what is going on at the site. Ms. Bulso said they are in process of getting the site characterizations of the soil. Vinagro will do the scraping.
- Chris Powers commented that the early site packages will be going out in July. Construction is to begin approximately August 29, 2018 with substantial completion by November 12, 2019. The July 5th early package will consist of concrete, steel, and abatement which is 25% of the contract.
- Mr. Paton commented that the next major task is the furniture. The next milestone is the 90% drawings on 7/25. He is also preparing the building permit application.

Sharon High School

- Chair Gladstone stated that July 10th is the MSBA meeting to review all proposals. July 24th is the meeting with the respondents for interviews.
- The SSBC held a discussion and reviewed their scoring of each of the three candidates. The representatives of the schools scores were tallied and reviewed as well. A discussion ensued as to pros and cons for each candidate. The OPM stated its important to go to the SSBA meeting with one united Sharon voice.
- PMA stated they will list pros and cons about the three proposals and circulate a guide for talking points at the DSP meeting. They will suggest proposed questions to submit for the 7/24 interviews. PMA will prep the three town representatives: Dr. Greer, Amy Garcia or Judy Crosby and Gordon Gladstone.

Minutes

Mr. Rice moved to approve the minutes of 5/29/18. Mr. Slater seconded the motion and the Committee voted unanimously in favor of approval.

Mr. Rice moved to approve the minutes of 6/12/18. Ms. Benjamin seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

Ms. Benjamin moved and Mr. Smith seconded a motion to approve all invoices.
The Committee voted unanimously in favor of approval of all invoices.

Colantonio - \$15,317 and \$15,317
Gelerman - \$643.50 and \$136.50
Adtech \$9,935.68
PMA Consultants - \$20,263.00

Adjournment

Through unanimous consent, the meeting adjourned at 8:30 PM.

Attachments

Daedalus progress summary

Submitted:
Rachelle Levitts
Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

NOTE: Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

**Sharon Standing Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SSBC Meeting Minutes
7/10/18**

SSBC Members

Gordon Gladstone, Chair	Robert Atwood absent	Richard Slater
Colleen Tuck	open	Steve Smith
Deb Benjamin	Rick Rice absent	Roger Thibault absent
Sara Winthrop		

Special Members

Ken Wertz absent	Matthew Baldassari	Jim Wright, Fire Chief

Additional Attendees

Chris Powers Colantonio absent	Victoria Greer
Kevin Paton	John Marcus
Mary Bulso	Emily Burke absent
Jose Libano	Joe Sexton absent
Judy Crosby	Paul Queeney PMA absent
Kevin Nigro PMA	Matt Galerno PMA
Amy Garcia	Todd Costa
Joe Sullivan	Marty Richards

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Future scheduled meetings: 7/24, 8/7, 8/21

Public Safety Building

Heating issues were updated by Todd Costa and Joe Sullivan. Todd reviewed the past discussions and shared that the design engineer at BER has retired. BER is struggling to provide specifications for the supplemental heat system so, as a result we will move forward with completing the outstanding balancing reports and the few directed adjustments that require a proposal from Consigli. Increasing the heat output to 145 degrees was investigated and determined will not harm the flooring. We will not really know whether any of this will resolve the situation until the next cold season. The design is to 7 degrees. The supplemental heat is being designed so that the cost is ready and we are prepared in case it is needed. DPI is requesting pricing direct from known vendors for comparison prices against Consigli's proposal.

Town Hall

- With reference to the Colantonio contract- one signature is required from the accountant to confirm the funds. Mary will check with Rachelle for the contract and take it to get is signed.
- The sub contract proposals are in and being reviewed for qualifications. Only a few were questionable. Those qualified will be notified to be able to bid as of the drawings on the 25th. Two subs were re-advertised due to low response.
- Discussions related to the soil removals and an email with details from Roger. The results will determine where the soil can be sent. The levels look to be low enough to go to landfill without added costs.
- Eversource letter- pricing their work ~\$2,700 cost to the Town. There will likely be more costs from Comcast and other wiring going/coming from the pole. Transformer location will be at South Main St. It must be serviceable and cannot be concealed. Sara suggested that there may be a decorative shrink wrap.
- Audio enhancements- Ken W made some suggestions related to what is already being used in the schools. The building structure may impact the audio enhancements. There are systems (FM Systems) that are being used that will work well as per the consultant. FM system is standalone and can be tied into the speakers. It is not tied into the building systems so troubleshooting will be easier. This will only be installed into the meeting room but can be extended to the lobby to listen in to the meeting audio.
- Chief- Generator transfer switch. Are we using both? Yes. Taking down the switches should be in the bid spec so that everyone is prepared for the changeover. The unit is heavy so, plan on specialty equip to remove it from the basement.

Sharon High School

- MSBA meeting with the designer selection panel. We were well represented. Process- Two meetings for architects. 1) review proposals and short list to ~ 3. 2) two weeks later the short listed architects have 30 mins to present. Town of Millbury was first on the agenda today to have their architect presentations. We were able to observe the process. The three town representatives do not have the opportunity to discuss anything before the votes. A formal vote was taken immediately at the end of the presentations.
- Although there were three proposals we would not have to interview three. Voted 7 to 5 to interview all three. Therefore, the committee did not have to rank the three. There was discussion as to why any of them did not want to interview or rank all three.
- PMA met with the group on Friday 7/6. Drafted questions which have been passed around. Ask MSBA to send to firms prior to the interviews. During the meeting designer selection members heard that there are 8 criteria for Sharon and noted that only one of the firms addressed them specifically.

- Discussion regarding what should be in the content of the presentations. MSBA gave Kevin a few example questions. We revisited this to determine that we should try to incorporate these questions. 5 of the 6 of our questions can be found in the MSBA 6 bullets. #3 for Sharon and the last bullet for MSBA are very different. Firms will be given all questions in advance but there could be a few extra questions from the committee. There was discussion related to the question about square foot costs and how that relates to the reimbursement back to the Town and if this will make the list of final questions. It is suggested that we prioritize the questions to be able to meet the needs of Sharon. Overall we want to know- How is the architect going to help us to make the right decision for the Town to present back to the MSBA?
- How many times has MSBA not chosen a new school? PMA said that they have not been denied the preferred option for Town School projects. The Towns usually are approved for the type of building they want/need. Renovate or new or add/reno.
- Note* we do not want to be on the cutting edge. Some technology is too complicated. Computers and computer run equipment is complicated. We have to expect that there will be challenges along the way and that systems will have issues. However, we do not need to be the first to deal and troubleshoot with the newest technology. Simple is ok too.
- Gordon- give us an example of a true innovation. This might be a good bull pen question.
- Plan to keep our questions in the order as listed. What about community involvement? Expect that this will be incorporated due to the discussions at the first meeting. Can incorporate it into question #1.
- Question about if any of the firms had been granted a project in the recent past. SMMA had been granted an elementary school last month.

Minutes

Mr. Smith moved to approve the minutes of 6/26/18. Ms. Benjamin seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

None

Adjournment

Through unanimous consent, the meeting adjourned at 8:10 PM.

Attachments

Submitted:
Rachelle Levitts
Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

NOTE: Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

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**Sharon Standing Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SSBC Meeting Minutes
7/24/18**

SSBC Members

Gordon Gladstone, Chair	Robert Atwood absent	Richard Slater absent
Colleen Tuck	open	Steve Smith absent
Deb Benjamin	Rick Rice	Roger Thibault
Sara Winthrop		

Special Members

Ken Wertz absent	Matthew Baldassari	Jim Wright, Fire Chief

Additional Attendees

Chris Powers Colantonio	Victoria Greer absent
Kevin Paton	John Marcus absent
Mary Bulso	Emily Burke absent
Jose Libano absent	Joe Sexton absent
Judy Crosby absent	Paul Queeney PMA
Kevin Nigro PMA absent	Matt Galerno PMA absent
Amy Garcia absent	Todd Costa
Joe Sullivan	Marty Richards

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Chair Gladstone commented that there will be a meeting of the Selection Committee to appoint/reappoint members to the SSBC on 7/25/18.
- Future scheduled meetings: 8/7, 8/21, 9/4

Public Safety Building

- Both Joe Sullivan and Todd Costa discussed the supplemental heating issue for the apparatus bay and living quarters at the new Public Safety Building.
- Mr. Sullivan said he put together a schedule after his conversation with Consigli regarding the needed work for the apparatus bay and living quarters. He is putting together a timeline for obtaining costs for the apparatus bay. He said Mr. Rudert is going to meet with Snowden, the vendor who installed the heat to work on the living quarters by September 1st. Mr. Sullivan is obtaining competitive pricing for supplemental heat. The new plan includes heat being diverted from the apron boiler system. The system will operate either apron or supplemental, not both. There was a

brief discussion of timing needed to recover the temperatures in the apparatus bay during the extreme winter low temperatures. The Commissioning Agent will come back as part of the contract.

- Chief Wright stated he likes this methodology that BER created. Will there be a warranty issue if a new vendor is brought in for the supplemental is a question that needs to be addressed.

Town Hall

- Ms. Bulso said that the old fire station has been demolished. PCB's had been found in the soil during the demo of the station and now the soil under the excavation is being tested. We are waiting for the testing results.
- There have not been any complaints from neighbors or reported to the Town.
- Sub-qualifications are wrapping up.
- Mr. Paton said part of the storm water drains need to be kept to add an easy connection to use the existing pipe.
- Mr. Paton stated that we are hitting the 90% permit set. Colantonio can then get their permits.
- Mr. Paton said he is relooking at the glass above the transaction stations on the first floor for both the Town Clerk and Treasurer/Collector after several concerns for safety were expressed. The new open environment is a "change" from what currently exists so, the change may be driving the discussion. There are panic buttons designed at all of the lobbies for security. It was suggested that names be provided of other Town Halls so that the occupants can check their lobby areas or call to ask to discuss how their environment works.
- Mr. Powers said that they are going out to bid for site, demo and concrete, abatement and steel. They are gathering numbers for each and will report on this at the next meeting. 18 filed Sub Bids under the contractor are coming in... these include self performing bids from Colantonio. The original deadline was 7/20 but, they will still be coming and accepted. There will be bid review and leveling. The low bids will be selected and asked to refine their bids based on 90% drawings.
- Early GMP- partial release of early trade packages of work that will be required to meet the schedule between now and the GMP date of 10/2/18. Mobilization, rebar, steel, early site activities. The filed sub bid date falls between so, the exposure (affecting the final GMP) will be minimized.
- Early GMP- partial release of the overall value of the full contract. First amendment to the contract for early bid package and work to be done to keep the project on a somewhat tight schedule. The commitment will be to buy the shop drawings to hold the price. There is volatility in the sub markets so, this will hold the prices. There will be an out clause if the project does not

move forward. Chris Powers states that we have good subs and that the market should relax and that numbers will be good.

- Mr. Sullivan said a few of his projects bidding now are coming in over budget. Supplies and manpower. This is a concern so, this shop drawing with opt out is a good option to get to the budget and release the packages with a good comfort.
- Mr. Powers reviewed the schedule and Mr. Gladstone asked that Mr. Powers create a "short schedule" of important milestones.

Sharon High School

- Chair Gladstone said that the second meeting with the MSBA regarding the designer selection panel was held. KBA and Tappe made a presentation. SSMA chose to withdraw due to other commitments. Tappe was chosen through unanimous decision to be the architect for the High School Project. It is now up to the OPM (PMA) to reach an agreement with Tappe regarding fees. Tappe will present to the SSBC at the next meeting.
- Paul Queeney from PMA stated it was a good day for the Town of Sharon. It is PMA's job now to negotiate Tappe's fees, support and review their proposals, help keep to the design schedule and keep the designer on track.

Minutes

Mr. Rice moved to approve the minutes of 7/10/18. Ms. Benjamin seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

PV Roofing \$1,175.00 (PS)
Araujo Brothers \$2,361.00 (PS)
Gordon Gladstone \$17.61 (HS)
Gelerman \$721.50 (HS)
PMA Consultants \$20,263.00 (HS)
Andrew T. Johnson \$439.45 (TH)
Daedalus \$17,000.00 (TH)

Adjournment

Through unanimous consent, the meeting adjourned at 8:00 PM.

Attachments

Colantonio Schedule

Submitted:
Rachelle Levitts
Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

NOTE: Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

**Sharon Standing Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SSBC Meeting Minutes
8/7/18**

SSBC Members

Gordon Gladstone, Chair	Robert Atwood absent	Richard Slater
Colleen Tuck	Marty Richards	Steve Smith absent
Deb Benjamin	Rick Rice absent	Roger Thibault absent
Sara Winthrop		

Special Members

Ken Wertz absent	Matthew Baldassari	Jim Wright, Fire Chief absent

Additional Attendees

Chris Powers Colantonio	Victoria Greer absent
Kevin Paton	John Marcus absent
Mary Bulso	Emily Burke absent
Jose Libano absent	Mike Gleason Sharon Advocate
Judy Crosby absent	Paul Queeney PMA
Kevin Nigro PMA absent	Matt Galerno PMA absent
Amy Garcia	Charlie Hay - Tappe
Joe Sullivan	Chris Blessen - Tappe
David Warne - Tappe	Frank Locker - Tappe
Heather Zelevinsky	

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Future scheduled meetings: 8/21, 9/4, 9/25, 10/9, 10/23

Public Safety Building

- Mr. Sullivan said he spoke with Chandler Rudert and Snowden will be providing a cost estimate to correct the living quarter heat issue to Mr. Rudert. Mr. Sullivan should receive this shortly. Work is to begin on 9/1. There will be no markup on the change order.
- Mr. Sullivan said he will receive pricing for supplemental heat in the apparatus bay after September 1st and decisions can be made at that point. They intend to use the rear apron boiler as a heat source for the supplemental heat. He assured all participants that they will be here for warranty through the winter.

- Mr. Sullivan stated he is researching the ability for cable TV to broadcast live from the Public Safety Building.

Town Hall

- Ms. Bulso said that the last PCB testing was done and there are no results yet.
- Unit pricing is favorable.
- There was one abutter concern regarding trees that will be removed but, Mary Bulso will talk to them to show that they will be replaced. Also there is an area that has not been mowed or taken care of. Matt Baldassari will let the DPW know.
- Briggs proposal for testing will be brought to the next meeting at an amount not to exceed \$18,000.
- Elevator and resilient flooring RFQ's were re-advertised. Responses were received from 4 floor contractors and 2 elevator subs which are all qualified and acceptable. Prequalification did not eliminate any bidders.
- Mr. Paton discussed the transaction windows on the first floor. He visited multiple other town halls to see what they had installed. He is trying to address a level of daytime security and off hour security. He finds the preference is to treat all departments on the first floor the same. He showed a drawing of a combination of frosted glass panel to provide privacy and security while counting cash. He is working on a solution.
- Mr. Paton stated 90% sets are out. They are gearing up to review estimates and anticipate 100% sets on 8/23.
- Chris Powers said that 90% docs are in. They have gone out to bid on non-trade contracts. They are developing the non-trade contractors scope of work and the trade contractors scope of work. They are nearing the end of completing early trade bidding.
- Chris Powers provided the Committee with two options for early release packages. After much discussion the Committee chose by consensus to early release structural steel shops, rebar shops, mobilization and initial site items that will incur cost prior to final GMP. It also identifies costs incurred prior to filed sub bid results at which time GMP costs will be known.

Sharon High School

- Tappe provided a walk-through of their presentation which had been provided to the MSBA previously. They reviewed such areas of Community engagement and educational planning. They want to create an environment of growth and help put together a vision. They plan for future flexibility and developments in education, programs, spaces and relationships. They want the school to be a kid magnet. Tappe reviewed their team members, experience, construction estimating, controlling costs, approach to security and future flexibility. They stated that security is first priority and embedded within the basis of design.

- Chris Blessen will be the face of Tappe. He said they must consider all alternatives for locating a new HS in the Town per MSBA guidelines.
- Tappe says that they will request meetings and PMA will organize them. Tappe and PMA need to work out a three-day visioning session with school administration. Frank Locker is the educational consultant.
- Paul Queeney stated he has reviewed Tappe's fees and feels they are competitive; in the lower range. He stated certain extra services are out of the base contract such as site survey, geotechnical, traffic, preliminary hazard material testing and reporting. The OPM and architect fees are well within the Town Meeting money that was appropriated for the study.
- Ms. Benjamin moved and Ms. Tuck seconded a motion to authorize the Chair to sign the contract with Tappe in the total of amount of \$1,229,940.00. All voted in favor of approval.

Minutes

Ms. Benjamin moved to approve the minutes of 7/24/18. Ms. Tuck seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

Vinagro \$30,569.29 and \$33,272.94 (TH)
Daedalus \$15,000.00 (TH)

Adjournment

Through unanimous consent, the meeting adjourned at 8:55 PM.

Attachments

Colantonio Memorandum/Schedule
Daedalus status report
Tappe estimate of hours feasibility/schematic design

Submitted:
Rachelle Levitts
Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

NOTE: Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

**Sharon Standing Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SSBC Meeting Minutes
8/21/18**

SSBC Members

Gordon Gladstone, Chair	Open	Richard Slater
Colleen Tuck	Marty Richards	Steve Smith absent
Deb Benjamin absent	Rick Rice	Roger Thibault
Sara Winthrop		

Special Members

Ken Wertz absent	Matthew Baldassari	Jim Wright, Fire Chief

Additional Attendees

Chris Powers Colantonio	Victoria Greer absent
Kevin Paton	John Marcus absent
Mary Bulso	Emily Burke absent
Jose Libano absent	Paul Queeney PMA
Judy Crosby absent	Heather Zelevinsky
Kevin Nigro PMA absent	
Amy Garcia absent	
Joe Sullivan absent	

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:40 PM at the Public Safety Building.
- Future scheduled meetings: 9/4, 9/25, 10/9, 10/23, 11/6, 11/20, 12/18

Public Safety Building

No discussion

Town Hall

- Chris Powers provided amendment #1 early bid package GMP to the committee. This includes early release of structural steel shop drawings, reinforcing steel shop drawings, mobilization and initial site work. This will reduce costs associated with general conditions and winter concrete work and allow for project completion in November, 2019 including all landscaping. The expenditure for this limited scope release will not exceed the previously estimated cost of \$180,500 without prior authorization from the SSBC.

- Slater/Tuck moved and seconded the motion to have the Chair sign the early release authorization in the amount of \$3,768,072 with a limit of expenditure of \$180,500 without approval of the committee so Colantonio can give the order to proceed. All voted in favor of approval.
- Proposed. Construction starts 9/4/18. A discussion ensued about moving certain allowances to holds. The estimate is \$9,944,028 for construction without the cupola and without cost for demolition of the old fire station.
- A determination needs to be made as where soils will be taken to. The debris pile at the site needs to be removed as well. The PCB testing came back below limit.
- File subcontractors will be in the Central Register for bidding tomorrow.
- Briggs contract needs signature. To be done at next meeting.
- Mr. Paton stated that the entire set of drawings will be posted by Thursday. 2 glazing design firms can accomplish the window design for the first floor transaction windows approved by Mr. Turkington so they are moving forward.
- Mr. Gladstone asked if granite floors are still being proposed for the lobby at a cost of \$60,000 and asked that a comparison be performed to determine cost for concrete instead.

Sharon High School

- Mr. Queeney said three visioning sessions will be set with the architect and educational planners and school personnel. As we proceed updates to the committee will be received from the architect. The architect will schedule community forums. The architect is gathering existing plans for the building.
- Chair Gladstone asked Mr. Queeney to work out visiting schools designed by Tappe with Frank Lockers input. He wants to see the result of educational visioning sessions and how they get formulated into a building.
- Mr. Queeney said a kickoff meeting with MSBA is this Thursday.
- Mr. Queeney reviewed the supplemental narrative about hazmat and geotech/geo-environmental sub-consultants proposals from Tappe architects.
- Mr. Queeney said the MSBA mandates that the architect looks at renovation, addition/renovation, new building and no building options to exhibit due diligence. The architect needs to submit to MSBA to review the PDP submittal on 11/21.

Minutes

Mr. Slater moved to approve the minutes of 8/7/18. Ms. Tuck seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

An omnibus motion was made by Mr. Rice and seconded by Mr. Thibault
Eversource - \$2,756 (TH)
Universal Environmental - \$7,580 (TH)
BKA Architects - \$98,479.20 and \$103,802.40 and \$737(TH)
PMA Consultants \$20,263 (HS)
Murphy Specialties \$7829 (PS)

Adjournment

Through unanimous consent, the meeting adjourned at 8:55 PM.

Attachments

Colantonio Amendment #1 Early Bid Package GMP
Tappe HS supplemental narrative about hazmat and geotech/geo-environmental
subconsultants proposals

Submitted:
Rachelle Levitts
Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

NOTE: Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

**Sharon Standing Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SSBC Meeting Minutes
9/4/18**

SSBC Members

Gordon Gladstone, Chair	Open	Richard Slater absent
Colleen Tuck absent	Marty Richards	Steve Smith
Deb Benjamin	Rick Rice	Roger Thibault absent
Sara Winthrop		

Special Members

Ken Wertz	Matthew Baldassari	Jim Wright, Fire Chief absent

Additional Attendees

Chris Powers Colantonio absent	Victoria Greer absent
Kevin Paton	John Marcus absent
Mary Bulso	Emily Burke absent
Jose Libano absent	Paul Queeney PMA absent
Judy Crosby absent	Kim Joyce Colantonio
Kevin Nigro PMA absent	Matt Gulino PMA
Amy Garcia	
Joe Sullivan absent	

Administration

- The meeting of the Sharon Standing Building Committee was called to order by Chair Gladstone at 6:56 PM at the Public Safety Building at the conclusion of the SBC meeting.
- Future scheduled meetings: 9/25, 10/9, 10/23, 11/6, 11/20, 12/18

Public Safety Building

No discussion

Town Hall

- Chair Gladstone signed the Briggs contract.
- Ms. Bulso said that bids are due at 2 pm on September 12th for file sub trade bids.
- Abatement is complete. It needs to be determined where soils will be shipped to. Vinagro may hire a licensed hauler to take the soils to Alabama.

- Ms. Bulso stated DEP standards are being met and the site is secured.
- Kim Joyce of Colantonio stated that two-way signage will be installed at the site. The mailbox is being relocated. The CVS lot is being marked for TH use only. Ms. Bulso will discuss with CVS tomorrow. On Friday, the fence will be installed. Ms. Bulso will also notify the abutters.
- With reference to the armed services trees Mr. Paton said they are being handled. Mr. Turkington and Mr. McGrath are reaching out to particular residents regarding a particular tree.
- Town Hall is setting up a webcam of the site with a time lapse camera. Chair Gladstone said he will look into the issue of putting the webcam on the town website.
- Ms. Joyce will provide a weekly update to be put on the Towns website.
- Mr. Smith asked that milestones be added to the project update sheet.
- Ms. Joyce will issue instructions to all building committee members with instructions for Procore.
- Chair Gladstone asked Mr. Paton the cost for concrete versus granite flooring at the new Town Hall. Mr. Paton stated \$60,000.
- Mr. Paton said he would be meeting with Ms. Chused and an archiving company for evaluating the vault documents. He said they already worked on long term storage and it has been incorporated into the program.
- Mr. Paton said the FFE package for furniture is being put together to go out to bid and he said he feels it will be close to budget.
- Mr. Paton stated that IT/Don Hiligass said additional computer equipment is not needed.
- The majority of the current Town Hall furniture will not be used. A few pieces will be saved for the Historic Commission. It is up to Mr. Turkington to surplus the excess furniture.

Minutes

Ms. Benjamin moved to approve the minutes of 8/21/18. Ms. Winthrop seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

No invoices

Adjournment

Through unanimous consent, the meeting adjourned at 7:25 PM.

Attachments

Daedalus 9/4 progress summary

Colantonio Site Mobilization 9/5 – 9/12

Colantonio TH Phase 1 Enabling

Colantonio Phase 2 Town Hall and Septic System and traffic signage

Submitted:

Rachelle Levitts

Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

NOTE: Standing Building Committee minutes and attachments will be available for the public to read at the Standing Building Committee office located at the Community Center upon request.

**Sharon Standing Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
9/25/18**

SSBC Members

Gordon Gladstone, Chair	Richard Slater	Sara Winthrop absent
Deb Benjamin absent	Steve Smith	
Rick Rice	Roger Thibault	
Marty Richards	Colleen Tuck	Matthew Baldassari (TH)

Special Members

Ken Wertz absent		Jim Wright, Fire Chief absent
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SBC Attendees and Others

Chris Powers Colantonio	Emily Burke SBC absent
Kim Joyce Colantonio	Judy Crosby SBC
Kevin Paton BKA	Amy Garcia SBC absent
Mary Bulso DPI	Victoria Greer SBC
Larry McDonough DPI	Jose Libano SBC absent
Joe Sullivan DPI absent	John Marcus SBC absent
Matt Gulino PMA	
Paul Queeney PMA absent	

Administration

- The meeting of the SBC was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Future scheduled meetings: 10/9, 10/23, 11/6, 11/20, 12/18

High School

- Chair Gladstone stated that going forward, procedurally, we will alternate the start of the SBC and SSBC meetings. One week the Town Hall Project will be discussed first and the next week the High School Project will be discussed first.
- Matt Gulino and Paul Queeney stated that Tappe's meetings with the educational leaders is ongoing.
- Visioning meetings will be held on 9/27 and 9/28 as well as 10/4. There will be approximately 50 attendees at these workshops. Information from these workshops will help further the education plan and assist with Tappe's design. The MSBA requires that they are presented with various options. The big tasks now are the visioning session and starting the PDP.

- On 10/3/18 Tappe arranged for a visit to Lunenburg Middle/High School to tour the facility created by Tappe. This will help show how Frank Lockers visioning sessions got implemented into the building.
- There will be a site survey by drone on 10/8. PMA will notify both the police and fire departments.
- On 11/14 Tappe will attend the Sharon Sustainability meeting regarding green design. PMA will attend as well.
- Traffic studies will be occurring.
- Chair Gladstone asked Mr. Queeney to prepare a hypothetical form 30-11, which is the form the MSBA uses to calculate the actual reimbursement. Chair Gladstone said he wants to understand the calculations and theory behind it. 48.82% is the ostensible reimbursement rate. Chair Gladstone commented that it will undoubtedly be in the low to middle 30's.
- Mr. Queeney said they are on track to submit the Preliminary Design Program (PDP) by 11/21. They will be ready for design/bid in Fall 2020 and open a new high school in fall of 2022.
- The geotech contractor is on site. The boring tests have been completed and no major issues have been identified. A report will be created.
- Chair Gladstone commented that Heights Elementary Roof Project was finished in August, 2017 and the paperwork was just completed in September, 2018 with MSBA. The Town exposure was \$1,331,000 and the actual cost to the Town after the MSBA reimbursement was \$871,000.

Minutes

Mr. Rice moved and Mr. Smith seconded the motion to approve the 9/4/18 minutes. The Committee voted unanimously in favor of approval.

Invoices

Mr. Smith moved and Mr. Rice seconded the motion to approve all invoices. The Committee voted unanimously in favor of approval.

Tappe - \$26,000.00

PMA Consultants - \$20,969.58

Adjournment

Through unanimous consent, the meeting adjourned at 6:59 PM.

Submitted:
 Rachelle Levitts
 Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

**Sharon Standing Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
10/9/18**

SSBC Members

Gordon Gladstone, Chair	Richard Slater	Sara Winthrop
Deb Benjamin	Steve Smith	
Rick Rice	Roger Thibault	
Marty Richards	Colleen Tuck	Matthew Baldassari (TH)

Special Members

Ken Wertz		Jim Wright, Fire Chief absent
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SBC Attendees and Others

Chris Powers Colantonio absent	Emily Burke SBC
Kim Joyce Colantonio	Judy Crosby SBC absent
Kevin Paton BKA	Amy Garcia SBC absent
Mary Bulso DPI	Victoria Greer SBC
Larry McDonough DPI absent	Jose Libano SBC absent
Joe Sullivan DPI	John Marcus SBC absent
Matt Gulino PMA	Chris Blessen Tappe
Paul Queeney PMA absent	Charlie Hay Tappe

Administration

- The meeting of the SBC was called to order by Chair Gladstone at 7:15 PM at the Public Safety Building.
- Future scheduled meetings: 10/23, 11/6, 11/20, 12/18

High School

- Chair Gladstone stated that on 10/3/18 he visited Lunenburg Middle/High School along with Tappe to see what a Tappe project looks like. It was finished in 2016. He stated it was an interesting experience. They are also going to analyze another school not designed by Tappe to note variations. A slideshow of the interior and exterior of the Lunenburg tour was shown to the Committee. Guidance offices were divorced from administration as per opinions of the students. Size of hallways appeared small. There is a cafeteria alternative where students can bring lunch to work with others. Science tables have wheels. Teacher area with private lockers and cubbies for those that do not have a permanent space at all times. Finishes were shown with color contrasts but, not too bright. Tiles on the walls are to protect the walls but at the height and level of the "damage area".
- Matt Gulino said that the visioning workshops were held on 9/27, 9/28 and 10/4. Key concepts included flexibility to accommodate current and future curriculum needs/changes, universal design, welcoming supportive physical

environment, 21st century learning, make a kid magnet, reach all students with a high degree of engagement and collaborative and cross disciplinary opportunities.

- Existing conditions analysis is ongoing as well as the environmental site assessment and traffic study. The evaluation of alternative sites is being provided by the Town Engineer. They are looking for 25 – 30 acres for a site. Charlie Hay commented that under MSBA there is no obligation to move from the existing site. Costs are usually prohibitive. At the next meeting pros/cons of alternative sites will be discussed.
- Charlie Hay said there are no critical submission points in this submission. MSBA wants to see the district educational program vision. They want to see that due diligence was performed for site alternatives. They want reassurance that preliminary work is completed.
- Mr. Hay mentioned that MSBA provides for a 750 seat auditorium. A brief discussion ensued as the current auditorium seats over 1100 persons.
- District Planning Meeting #4 to be held on 10/16/18.
- On 11/14/18 Tappe will attend the Sharon Sustainable Coalition Meeting to discuss the conceptual approach for green design for this project.
- On 11/21/18 the Preliminary Design Program (PDP) submittal is due to MSBA. Included in this submission is the educational plan and space summary which needs to be completed, reviewed and approved by the School Committee. The SBC needs to approve the PDP options. This is the first phase.
- The MSBA Preferred Schematic Report is due on March 21, 2019. This is when options are evaluated, a budget developed and an updated educational plan and space template are done.
- The MSBA Schematic Design Submission is due 9/11/19.

Minutes

Mr. Smith moved to approve the minutes of 9/25/18. Mr. Richards seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

Ms. Winthrop moved and Mr. Smith seconded the motion to approve all invoices. The Committee voted unanimously in favor of approval.

High School

Gordon Gladstone - \$74.01 for travel

Adjournment

Through unanimous consent, the meeting adjourned at 8:15 PM.

Attachments

PMA Sharon High School Project Next Steps as of 10/9/18

Submitted:
Rachelle Levitts
Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

**Sharon School Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
10/23/18**

SSBC Members

Gordon Gladstone, Chair	Richard Slater absent	Sara Winthrop
Deb Benjamin	Steve Smith	
Rick Rice	Roger Thibault	
Marty Richards	Colleen Tuck	Matthew Baldassari (TH)

Special Members

Ken Wertz		Jim Wright, Fire Chief absent
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SBC Attendees and Others

Chris Powers Colantonio absent	Emily Burke SBC
Kim Joyce Colantonio	Judy Crosby SBC absent
Kevin Paton BKA	Amy Garcia SBC
Mary Bulso DPI	Victoria Greer SBC
Larry McDonough DPI absent	Jose Libano SBC
Joe Sullivan DPI absent	John Marcus SBC absent
Matt Gulino PMA absent	Chris Blessen Tappe
Paul Queeney PMA	Charlie Hay
Don Hillegass	Jack Girvan resident

Administration

- The meeting of the SBC was called to order by Chair Gladstone at 6:50 PM at the Public Safety Building.
- Future scheduled meetings: 11/6, 11/20, 12/18

High School

- Chris Blessen from Tappe provided the Committee with an analysis of alternative site options to build the High School. These include the current site at 181 Pond Street, 144 Old Post Road, 250 E. Foxboro Street, 149 East Street and 400 Mountain Street. This presentation will also be made to the School Committee. All sites except E. Foxboro and the current High School site are not owned by the Town. This land acquisition would require a purchase by the Town. Given the time constraints Chair Gladstone stated that the only rationale conclusion is to build on the current site.
- The pros and cons for each site must be reviewed as part of the due diligence process. 25 – 30 acres are needed to build upon. The Sharon Gallery site is currently under construction for 290 apartments and is slated for a great deal of commercial space. Traffic would be congested. Sharon Country Club is undeveloped at the moment and there is language in the

deed that if the Club goes under that the property would revert back to the Town as open space. 250 E. Foxboro Street may be the only potential other option. The Town only owns part of the property so, would need to take back property leased to Camp Everwoods. The shape of the property is less than ideal for incorporating the fields and the academics. Rattlesnake Hill at 400 Mountain Street has agreements for housing on this property and there is quite a bit of earth work required to make it suitable. It is at an edge of Town and would be difficult for traffic control.

- Steve Smith questioned what happens to the current High School if another site is selected.
- Mr. Blessen said he provides the challenges of the job, the analysis of the sites and is obligated to guide the process. Chair Gladstone stated that he hopes the consultant will lead us to the right decision. The School Committee will make the final decision regarding the site.
- Mr. Blessen stated that the survey work at the high school is not yet completed. They are working on testing the wetlands and setbacks.
- At the next meeting there will be options to walk through. Mr. Hay will be in attendance.
- Mr. Blessen said he is starting to get reports back from the site engineers. He will place in the drop box for the Committee to review.
- A brief discussion was held regarding the number of seats required for the auditorium. MSBA provides for 750 seats within the program. Mr. Blessen will provide options for setup.
- Mr. Smith questioned if there are other flexible alternatives that would allow the auditorium to remain small but increase for the few times that it is needed. Mr. Blessen stated this would likely be a challenge for a space like this. Dr. Libano stated that in the 13 years he has been Principal, they have not brought in more than 600 students at one time.
- With drama events or rentals of the space, events are either under attended or oversold but, rarely a general full house. The families in Town would like to see a larger auditorium and stage. It was asked if we can have a large stage with the same number of seats. Going forward the program will include more and can be cut back after seeing the costs that the Town will have to accept.
- Mr. Blessen explained that while MSBA establishes the enrollment for the school, it is desirable for a site and/or building design to accommodate future expansion should enrollment increase beyond MSBA projections; MSBA does not want to see a strict plan with no flexibility for the future. Current enrollment is 1125 and future calculations can program to 1250. Mr. Blessen said that MSBA wants designs for the agreed upon enrollment.

- Mr. Queeney from PMA said he attended all planning presentations. He stated Mr. Blessen is describing standard processes for MSBA. This will all be developed into a favorable submittal for MSBA.

Minutes

Mr. Smith moved to approve the minutes of 10/9/18. Ms. Benjamin seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

Ms. Benjamin moved and Mr. Smith seconded the motion to approve all invoices. The Committee voted unanimously in favor of approval.

High School

PMA - \$20,263.00

Adjournment

Through unanimous consent, the meeting adjourned at 7:52 PM.

Attachments

Tappe Alternative Site Options

PMA Sharon High School Project Next Steps as of 10/23/18

Submitted:

Rachelle Levitts

Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

**Sharon School Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
11/6/18**

SSBC Members

Gordon Gladstone, Chair	Richard Slater absent	Sara Winthrop absent
Deb Benjamin	Steve Smith	
Rick Rice	Roger Thibault	
Marty Richards	Colleen Tuck	Matthew Baldassari (TH)

Special Members

Ken Wertz		Jim Wright, Fire Chief
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SBC Attendees and Others

Joe Sullivan DPI	Emily Burke SBC
Kim Joyce Colantonio	Amy Garcia SBC
Kevin Paton BKA	Victoria Greer SBC
Chris Blessen Tappe absent	Jose Libano SBC
Charlie Hay Tappe	John Marcus SBC
Paul Queeney PMA	
Matt Gulino PMA	
Don Hillegass	

Administration

- The meeting of the SBC was called to order by Chair Gladstone at 6:40 PM at the Public Safety Building.
- Future scheduled meetings: 11/20, 12/18

High School

- The main point of discussion for the evening was Tappe's submission to MSBA on 11/21/18 with respect to the High School.
- Charlie Hay provided the Committee with a progress report relative to the PDP – Preliminary Design program.
- The update included a list of documents available for review.
- Alternate sites – School Committee decided to stay with the adequate existing site of the High School. Challenges of the alternate site included land acquisition, time, cost and there are no better alternatives.

- Space template – this is an ongoing living document, drama classroom added, auditorium was reduced to 750 seats which the MSBA will support and added Community Education space: offices, classrooms.
- New gross square footage is 241,618. MSBA guidelines is 225,000 so we are over 16,618 square feet.
- Mr. Hay said MSBA will provide a written response back regarding the overage on the square feet. He said MSBA may prorate these spaces as they are integral to the school programming.
- Preliminary options include renovation which does not accommodate the space. It is a difficult phased construction, could take 4 years and does not satisfy the educational program. Mr. Hay said you could add a classroom wing, taking over the football field and build next to the old building but that is a 3 year project. It is not a perfect solution. This is Option AR1.
- Option AR2 takes away exiting wings in sections and constructs a new wing on the north side. This could take 4 years to build and modular classrooms would be needed.
- Mr. Hay said each scheme will have project costs assigned based on square footage. He said costs are surprisingly high when looking at a building from the 1950's that needs new systems and finishes etc. You do not save a lot on renovations and logistically it is very difficult.
- With new construction you can have a separate construction entrance, can close off the site from traffic for safety and it is more of a clean and simple process. Several sports will however be displaced including baseball, softball, field sports and tennis.
- Mr. Hay said the construction timeline would include Fall 2020 – Fall 2022 for demo and site work.
- In conclusion Mr. Hay stated: do not pursue alternative sites, study all on site PDP options in the Preferred Schematic Phase. The current site can support either addition or replacement options.
- At the School Building Committee meeting of 11/20 the Committee can vote to approve submitting the PDP to the MSBA. A formal vote is required. On 11/21 the submission of the PDP binder to MSBA will be made.
- The next step will be to proceed into the PSR Phase and create the Preferred Schematic Report. Here the district reviews options for the preferred approach. Recommendations to SBC on final options for selection. Complete PSR to MSBA on 3/21/19.
- Paul Queeney of PMA stated that they keep adding to the website for frequently asked questions and next steps.

Minutes

Mr. Smith moved to approve the minutes of 10/23/18. Ms. Benjamin seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

Ms. Benjamin moved and Mr. Rice seconded the motion to approve all invoices. The Committee voted unanimously in favor of approval.

High School

Tappe - \$158,440.91

Adjournment

Through unanimous consent, the meeting adjourned at 7:45 PM.

Attachments

None

Submitted:

Rachelle Levitts

Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

OPEN FORUM

**Sharon Public Schools
School Committee Meeting
Wednesday, November 7, 2018
Sharon Middle School
75 Mountain Street
Sharon, MA 02067**

Present: Jon Hitter, Katie Curral-Dykeman, Amy Garcia, Marcy Kaplan, Judy Crosby, Mena Mesiha, Heather Zelevinsky

Also Present: Victoria Greer, Elizabeth Murphy, John Marcus, Melissa Bryant, Jessica Carr, High School Representative, Max Goodman, High School Representative, Michael Simon, Boy Scout and Members of the Community.

Open Forum was called to order at 8:15pm.

PUBLIC FEEDBACK:

Correspondence

The following correspondence were received:

1. A parent shared her child's essay from the high school that stated several issues of racial profiling. This parent wanted to share this as a concern with the committee and Dr. Greer. Dr. Greer and Dr. Libano both responded to the parent to discuss her concerns.
2. Parents have emailed regarding the food choices in the cafeteria and expressed their concerns regarding giving more options for healthier snack options, etc.
3. There was also concerns regarding adding time to give the students more time at lunch.
4. SSPEAC sent an email regarding the nurses at the schools. They feel as though the nurses need more support due to the level of the need of our students.
5. MSBA final grant package for Heights Elementary School.

SHS Student Representative

Announcements

1. Halloween HS dress up and hold a pep rally for best costumes
2. 1st quarter just ended on Monday
3. Election at HS very busy and had to relocate parking
4. The HS also held a Mock Election for the students
5. Welcome to Mr. Jeffrey the new Safety Monitor at the HS
6. Early release days at the HS are Thursday, 11/8 and Wednesday, 11/14
7. The High School Band will be playing at the Town Ceremony for Veterans Day
8. Thursday 11/8 STEM talk
9. HS Theater Company is putting on the musical Beauty & The Beast weekend of 11/16-11/18

10. Friday 11/9 Student Council High School holding a blood drive
11. Fall sports ended and registration for winter sports opened.

Dr. Greer introduced Michael Simon an 8th grade student who is also a boy scout. Michael wanted to see the governance process in action and how decisions are made by the committee.

DECISION ITEMS

Consent Agenda

J. Hitter asked for a motion to approve the consent agenda items 3-5 as presented. **MOTION:** (Curral-Dykeman/Garcia) moved to approve consent agenda items 3-5 as presented. Yes vote: Amy Garcia, Marcy Kaplan, Katie Currul-Dykeman, Judy Crosby, Mena Mesiha, Heather Zelevinsky, Jon Hitter.

J. Hitter asked for a motion to approve the School Committee Meeting minutes from October 10, 2018. **MOTION:** (Crosby/Garcia) moved to approve the School Committee minutes of October 10, 2018. Yes vote: Katie Currul-Dykeman, Mena Mesiha, Heather Zelevinsky, Judy Crosby, Amy Garcia, Jon Hitter

J. Hitter asked for a motion to approve the School Committee Meeting minutes from October 24, 2018. **MOTION:** (Curral-Dykeman, Kaplan) to approve School Committee minutes from October 24, 2018. Yes vote: Katie Currul-Dykeman, Amy Garcia, Marcy Kaplan, Mena Mesiah, Heather Zelevinsky, Jon Hitter.

SUPERINTENDENT ITEMS

Dr. Greer discussed the Sharon High School Theatre Company will be putting on the musical Beauty and the Beast. The play will be held from Friday, November 16th -18th. Dr. Greer presented the flyer with the information for the production. Dr. Greer extended an invitation to the School Committee to come and see the musical.

HS Project

Dr. Greer gave an update on the high school project. Dr. Greer discussed the Education Program and that the School Committee should receive a draft copy by this Friday, 11/9. The Education Program will need to be voted on at School Committee Meeting/Workshop on Wednesday, November 14th. The Education Plan is due to the MSBA on November 21st.

Dr. Greer discussed the SHS Building Project website and that the Operations Project Manager (OPM) is helping us to come up with various documents to update the site. on the website.

DISCUSSION ITEMS

FY20 CAPITAL REQUEST

Dr. Greer discussed the FY20 Capital Requests that were reviewed with the committee last week. Dr. Greer discussed that the Heights Elementary parking lot project will be put forth as a

request per the advisement of the School Committee. Dr. Greer asked for further questions or input and explained that a vote was required by the committee.

J. Hitter asked for a motion to approve the FY20 Capital Request as presented. **MOTION:** (Currul-Dykeman/Kaplan) to approve the FY20 Capital Requests as presented. Yes vote: Garcia, Mesiha, Zelevinsky, Crosby, Hitter

POLICY IA INSTRUCTIONAL GOALS

Judy Crosby discussed that the Policy Subcommittee had a meeting on October 24th. The subcommittee discussed and reviewed many policies. The IA Instructional Goals policy was reviewed and revised. Ms. Crosby asked the committee for a vote on the Policy IA (Instructional Goals).

Heather Zelevinsky felt like the IA Instruction Goals Policy needed additional revising.

J.Hitter asked for a motion to approve the Policy IA (Instructional Goals) as presented.

MOTION: (Currual-Dykeman/Garcia) moved to approve the Policy IA (Instructional Goals) as presented. Yes vote: Kaplan, Crosby, Hitter, Currul-Dykeman, Garcia

Opposed: Mesiha, Zelevinsky

SCHOOL COMMITTEE GOALS

J. Hitter discussed the School Committee Goals for FY18/19 school year. The committee came up with a list of goals:

- * Enrollment/Redistricting
- * High School Project
- * Budget Process
- * School Committee NORMS
- * Strategic Plan – Monitor Implementation
- * Community Outreach

The committee will review the goals at the November 28th School Committee meeting and have them finalized for a vote on December 5, 2018.

DISTRICT PLAN/ACTION PLAN

Dr. Greer presented district plan and reviewed the highlights of the district plan with the committee, some of the highlights that were discussed outcome measures, the term “measures” was deleted, generalized the outcomes per the committee’s requests.

Dr. Greer gave a general overview of the action plans to support the focused initiatives and explained that there will be a dash board created and shared so that the progress of each initiative can be tracked.

SUPERINTENDENT GOALS

Dr. Greer discussed her proposed Superintendent draft goals for FY18/19. Dr. Greer presented the committee with five goals. After discussion, she shared that she would add an additional professional practice goal and revise the district improvement goal to specifically detail the phases of the feasibility study.

ANNOUNCEMENTS/UPDATES

Workplace Wellness Committee

M. Kaplan wanted to recognize Elizabeth Murphy for her hard work on putting a lot of time and work into putting together the Workplace Wellness Committee.

OTHER BUSINESS

None

J. Hitter asked for a motion to adjourn the meeting. MOTION (Garcia/Mesiha) moved to adjourn the school committee meeting. Yes vote: Hitter, Currual-Dykman, Kaplan, Garcia, Crosby, Mesiha, Zelevinsky.

Meeting was adjourned at 9:50pm.

Respectfully submitted by
Melissa Bryant
School Committee Secretary

OPEN SESSION

Sharon Public Schools
School Committee Meeting
Monday, November 19, 2018
Sharon Middle School
75 Mountain Street
Sharon, MA 02067

Present: Jon Hitter, Katie Currul-Dkyman, Amy Garcia, Marcy Kaplan, Judy Crosby, Heather Zelevinsky

Also Present: Victoria Greer, Elizabeth Murphy, John Marcus, Melissa Bryant, Jose Libano

Absent: Mena Mesiha

Open Session was called to order at 5:50pm

J. Hitter discussed the Education Plan for the high school project and the revised document was sent to the school committee on Friday, November 16th for review. J. Hitter discussed with the committee that this meeting was held to be able to discuss the final version of the Education Plan. J. Hitter also informed the committee that they did not need to vote on the Education Plan, MSBA requires only that the Standing Building Committee vote to approve the plan.

Education Program

Dr. Greer discussed the Sharon High School Education Program. At the last meeting there were several revisions that were needed and requested by various members of the School Committee. Dr. Greer made the revisions based on her own review of the document, feedback from Tappe Architects and the School Committee.

J. Crosby thanked Dr. Greer for her work on the revisions and expressed support for the revised Education Program.

H. Zelevinsky thanked Dr. Greer for her work on the revisions but expressed continued concerns with various components of the Education Program.

M. Kaplan thanked Dr. Greer for putting together the education program and expressed there is a lot of energy and excitement from the community to where we want to go with a new project for the high school.

A. Garcia discussed she is the liaison for the School Committee to the Standing Building Committee and that she attends those meetings. She discussed that she will give updates to the School Committee on the progress of the high school project.

Dr. Greer will also give updates to the School Committee as she continues to her bi-weekly meetings with the Architects

J Hitter asked for a motion to adjourn the meeting. MOTION: (Currul-Dykman/Garcia) moved to adjourn the school committee meeting. Yes vote: Hitter, Currul-Dykman, Garcia, Kaplan, Crosby, Zelevinsky

Meeting was adjourned at 6:20pm.

Respectfully submitted by
Melissa Bryant
School Committee Secretary

**Sharon School Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
11/20/18**

SSBC Members

Gordon Gladstone, Chair	Richard Slater	Sara Winthrop
Deb Benjamin, Vice Chair	Steve Smith	
Rick Rice	Roger Thibault absent	
Marty Richards	Colleen Tuck absent	Matthew Baldassari (TH)

Special Members

Ken Wertz		Jim Wright, Fire Chief absent
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SBC Attendees and Others

Joe Sullivan - DPI absent	Emily Burke SBC
Kim Joyce - Colantonio	Amy Garcia SBC
Kevin Paton - BKA	Victoria Greer SBC
Anne Castelnovo - BKA	Jose Libano SBC
Chris Blessen - Tappe	John Marcus SBC absent
Paul Queeney - PMA	Judy Crosby (alternate)
Matt Gulino - PMA	

Administration

- The meeting of the SBC was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Future scheduled meetings: 12/4, 12/18

High School

- Mr. Blessen reviewed highlights from the finalized PDP Report to be submitted to MSBA on 11/21/18.
- Mr. Blessen reviewed the renovation option, the add/reno options and the new options. Preliminary costs were indicated for each option along with the associated square footage. Reno is approximately 86 million dollars, add/reno averages 160 million dollars for 268,175 GSF and a new option averages 157 million at approximately 241,618 GSF. Each project concept will have a different effect on the budget and what is reimbursed verses what is paid by the Town.
- Next week will begin the process to drill down into the various options within each category to then develop 3 schemes in full by the end of March. At the Preferred Schematic Report phase it will be narrowed to three options.

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- Mr. Slater moved and Mr. Smith seconded the motion to approve the signing of the document for the PDP Report to be submitted to MSBA tomorrow by Tappe and PMA. The Committee voted unanimously in favor of approval. The Chair of the Sharon Standing Building Committee, Superintendent of Sharon Public Schools and the Chair of the School Committee each signed the local actions and approval certification document.
- Dr. Greer stated that the School Committee agrees by consensus that it is acceptable to sign the document.
- Next steps include the 12/4 SBC meeting and proceeding into the Preferred Schematic Report (PSR) phase. The District then reviews the options to develop the preferred approach based on the District Educational Program and recommends 3 choices to the SBC to come up with a final option for selection: Reno, Add/Reno and Replacement.
- The next part of the project will involve more outreach to the public.

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Minutes

Mr. Smith moved to approve the minutes of 11/6/18. Ms. Winthrop seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

Ms. Winthrop moved and Mr. Rice seconded the motion to approve all invoices. The Committee voted unanimously in favor of approval.

High School

PMA - \$20,263.00

Adjournment

Through unanimous consent, the meeting adjourned at 6:53 PM.

Attachments

None

Submitted:

Rachelle Levitts

Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

**Sharon School Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
12/4/18**

SSBC Members

Gordon Gladstone, Chair	Richard Slater	Sara Winthrop
Deb Benjamin, Vice Chair	Steve Smith	
Rick Rice	Roger Thibault absent	
Marty Richards	Colleen Tuck	Matthew Baldassari (TH) absent

Special Members

Ken Wertz absent		Jim Wright, Fire Chief absent
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SBC Attendees and Others

Joe Sullivan - DPI absent	Emily Burke SBC
Kim Joyce - Colantonio	Amy Garcia SBC
Kevin Paton - BKA	Victoria Greer SBC
Anne Castelnovo - BKA	Jose Libano SBC
Chris Blessen - Tappe	John Marcus SBC absent
Paul Queeney - PMA	Judy Crosby (alternate) absent
Matt Gulino - PMA	Joe Sexton

Administration

- The meeting of the SBC was called to order by Chair Gladstone at 7:05 PM at the Public Safety Building.
- Future scheduled meetings: 12/18, 1/8, 1/22

High School

- Mr. Hay reviewed the projects progress to date. He stated that the PDP was submitted on 11/21/18 and acknowledged by MSBA.
- There was a District meeting on 11/27 to review options and a presentation to the High School PTSO on 12/3 to discuss the process going forward. A meeting with the Elementary School PTSO's is being planned.
- The PSR Overview Phase is between 11/21 – 3/21. In this timeframe, options will be narrowed to be studied in greater detail. MSBA requires 3 alternatives: code upgrade, add/reno and replacement. PSR will document and substantiate the districts selections and recommendations for the preferred solutions.

K. Currul-Dykman motion to approve the consent agenda #5 Overnight Field Trip Quebec, Canada as discussed. **MOTION** (Garcia/Kaplan) moved to approve consent agenda item #5 as presented. Yes vote: Garcia, Kaplan, Zelevinsky, Mesiha, Currul-Dkyman.

SUPERINTENDENT ITEMS

School Calendar

Dr. Greer discussed the FY19/20 school calendar and that Administration met last year and discovered that there has not been a survey in a couple of years. The survey that was sent out on Wednesday, November 21st had questions from the previous survey along with some revisions. There were a couple of questions regarding the survey and its content. The questions seem to be around a couple of questions and not the entire survey. 900 people have taken the survey to date. The survey is not the only document data that is reviewed when drafting the school calendar.

Dr. Greer shared that School Committee policy requires the administration to render draft calendar options to the School Committee by February 1st.

Inclement Weather

Dr. Greer wanted thank the custodian and maintenance staff for all their help with the snow removal last year.

Dr. Greer discussed the process of snow days and the complexity in determining if school will have to be called.

Capital outlay

Dr. Greer discussed the Capital Outlay requests that were presented on Thursday, November 18th to the committee, the Capital Outlay committee requested that a list is prioritized and sent back for their consideration.

John Marcus, Nerlande Mintor and Ken Wertz are currently working on prioritizing the requests and once they have the documentation updated we will resend the list to the School Committee and Capital Outlay committee.

HS Project

Dr. Greer discussed that the MSBA has sent a notice that they have received the submission for the first phase for the high school project. The MSBA does not have a timeframe on when they will review the submission. All questions and any other documentation that is needed will be remitted through our Architect.

Dr. Greer shared that we are officially in the schematic phase which is Phase 2 of a three phase process.

DISCUSSION ITEMS

Kindergarten/Transportation Fees

Dr. Greer discussed the kindergarten and transportation fees with the committee and if we would need to increase the fees for these areas for FY20. Dr. Greer shared that tonight is the first discussion and overview of current costs and some historical cost data. The administration does not have a recommendation regarding kindergarten and transportation fees tonight. Ms. Mintor will give a formal presentation next week along with recommendations.

Ms. Mintor reviewed with the committee the cost of kindergarten. The cost for full day kindergarten is \$3100 per year.

Ms. Nerlande reviewed with the committee that there is a free and reduced lunch and bus cost application for families who may be in need of assistance. The cost of the bus transportation one way is \$388.50 a round trip cost is \$567.00. We have collected \$49,079 and the outstanding cost is \$13,000 which can include the families that are on payment plans.

Ms. Mintor will be working with Fran Derry to re-evaluate our transportation and the cost of transportation.

POLICY UPDATE

Policy Update

Ms. Zelevinsky gave an update on the policy subcommittee meetings and the policies that they have been reviewing. The Wellness Policy has been completed and will be discussed and voted at the next school committee meeting. The Administration team will work on a draft Attendance Policy and will be discussed at the next policy subcommittee meeting in January.

The Camera policy was discussed but due to the need to clarify how integrating the systems with other town departments would work. Dr. Greer recommended that there is a meeting scheduled with the Police Department and other departments to develop more understanding and discuss safe guards for student privacy. The camera policy will be revisited after more discussion has occurred.

Superintendent Evaluations Goals

Dr. Greer discussed her Superintendent goals for a second reading. Dr. Greer presented to the committee a timeline of her evaluation and goals. Dr. Greer made revisions including the detail of the feasibility study for the high school and that this year will only cover the PDP and the PSR phases of the project. Dr. Greer discussed that she will organize the documentation and share at various points so that the SC can have ample time to review it.

K Currul-Dkyman asked for a motion to approve the Superintendent Goals as presented.

MOTION(Garcia/Kaplan) moved to approve the Superintendent Goals as presented. Yes vote: Currul-Dkyman, Garica, Kaplan, Zelevinsky, Mesiha

ANNOUNCEMENTS & UPDATES

None

OTHER BUSINESS

None

K. Currul-Dkyman asked for a motion to adjourn the meeting. **MOTION**(Garcia/Kaplan) moved to adjourn the school committee meeting. Yes vote: Currual-Dykman, Garcia, Kaplan, Zelevinsky, Mesiha.

Meeting was adjourned at 8:05pm.

Respectfully submitted by
Melissa Bryant
School Committee Secretary

OPEN FORUM

Sharon Public Schools
School Committee Meeting
Wednesday, December 5, 2018
Sharon Middle School
75 Mountain Street
Sharon, MA 02067

Present: Jon Hitter, Katie Currul-Dkyman, Amy Garcia, Marcy Kaplan, Judy Crosby, Mesiha Mena, Heather Zelevinsky

Also Present: Victoria Greer, Elizabeth Murphy, Nerlande Mintor, Melissa Bryant

Absent: John Marcus

Open Forum came to order at 7:00pm

No one was present for public comment.

PUBLIC FEEDBACK

Correspondence

1. ~~We receive an email~~Email form Zach Snow ~~a teacher at the high school. He has requested that we~~ follow up on school committee ~~website updates~~policy IA and communication by the administration. ~~Mr. Snow also asked about the communication regarding the updates to the website.~~ ~~Elizabeth~~Mrs. Murphy will follow up with Mr. Snow.

Student Advisory Committee

None

DECISION ITEMS

Consent Agenda

J. Hitter asked for a motion to the approve the school committee minutes from 11-18-18 as presented. **MOTION:** (Currul-Dkyeman/Garcia) moved to approve the school committee minutes from 11-18-18 as presented. Yes vote: Kaplan, Mesiha, Zelevinsky, Currul-Dykeman, Garcia.

J. Hitter abstained.

J. Hitter asked that the consent agenda item 2 be moved to the next School Committee meeting.

The committee discussed the Wellness Policy. The Wellness policy will replace the ADF Policy Physical Activity and Nutrition on the School Committee website.

J. Hitter asked for a motion to approve the Wellness Policy and it will replace the ADF policy on the School Committee website. **MOTION** (Currul-Dkyman/Garcia) moved to approve the Wellness Policy and it will replace the ADF policy on the School Committee website. Yes vote: Kaplan, Crosby, Garcia, Currul-Dkyman, Mesiha, Zelevinsky, Hitter

SUPERINTENDENT ITEMS

Caught Looking Good

Dr. Greer wanted to recognize Mr. James Brodeur, High School Choral Teacher. He coordinated a Tri-~~Em-M Music~~ Induction Ceremony for the Music Honor Society Society. ~~Mr. Brodeur~~ inducted 30 students were inducted into ~~the Honor Society~~ Tri-M. He made the evening very special for these students. He invited all the music teachers that the students had over the years to be part of the ceremony. Dr. Greer wanted to congratulate the students on their induction and thank those students for sharing their creativity and talents with us.

HS Update

Dr. Greer presented an update on the high school project and the building process and dates of sessions that will be helpful to us community. Dr. Greer discussed the Sharon High School Project Team meetings and that they are held every two weeks. These meetings are made up of Administrators and various faculty as appropriate. The team is a requirement of the MSBA process, the team ~~keeps uensures that we perform actions as~~ on-outlined on the MSBAa timeline. Dr. Greer explained that depending on the focus and topic of the bi-weekly meetings, determines who is invited Currently the team is discussing marketing, outreach and community meetings. In the next couple of weeks there will be meetings scheduled ~~to talk with~~ engage staff, faculty, staff, students and the community.

Dr. Greer ~~discussed~~ explained that the MSBA process is time sensitive. Once we have entered into the program with the MSBA they determined our timeline as to when ~~certain benchmarks are due~~ we have to meet certain benchmarks. If we ~~should~~ miss any benchmark in the outlined process ~~timelines with the MSBA, they we will be~~ can released us from the program. As Administrators we need to make sure we keep on this timeline and meet their expectations. Below is a list of dates that the high school project will be discussed:

- Combined Elementary PTO Meeting Tuesday, December 11th
- High School Faculty meeting Wednesday, December 12th
- Tentative School Committee working meeting in January TBD
- State of the School Address in January TBD
- Community Kick Off meeting Thursday, January 24th

Dr. Greer ~~discussed~~ reinitiated that Amy Garcia is ~~our the School Committee~~ liaison with to the Standing School Building Committee. As the committee meets and has discussions regarding high school project, Ms. Garcia will ~~give us~~ share information and updates along with Dr. Greer to and will review with the committee.

DISCUSSION ITEMS

Kindergarten and Transportation Fees

Ms. Minton gave the annual overview/presentation for Kindergarten and transportation fees which is required to be reviewed each year by the School Committee.

Kindergarten

~~Ms. Minton gave an overall presentation on the c~~Current tuition of Kindergarten for -full day kindergarten is \$3100, ~~the~~ reduced rate \$970, ~~there is and~~ a \$100 application fee for cost for the free and reduced/ bus application for families who may be in need of assistance. This year ~~we have~~there are 221 students enrolled in full day Kindergarten. ~~Ms. Minton gave a history of the programs data on enrollment numbers, next year we could have 228 students enrolled and 230 in FY21/22~~A historical overview was given as well as projected enrollment of 228 full-day students for the upcoming school year. Ms. Minton ~~discussed a~~does not recommend a fee increase for FY'20 but does recommend a fee increase for FY'21. recommendation to increase Kindergarten fees due to the history of the program and the possible increase in enrollment for next year

Transportation

~~Ms. Minton presented the overall~~ Transportation fees ~~with the committee:~~

- Currently ~~we have~~there are 597 round trip riders, 337 one way riders
- Round Trip cost is \$567
- One-way ~~is ride is~~ \$338.50

~~Ms. Minton presented that we must provide. T~~ransportation is required for to students in grades K-6 living over 2 miles from their assigned school. The total number of buses we would need to transport these students would be 10. ~~buses. This would cost the district over~~The cost for this would be \$600k/year~~k~~. The pay to ride program helps subsidize the district bus program. ~~The Ms. Minton discussed the~~ recommendation for transportation is to explore the benefits and draw-drawback/impact of, that we look into the one-way ratetransport and the fee. An additional recommendation is to explore the elementary school start and end times and whether they could be adjusted to support student need and decrease the number of buses being used. These recommendations would be explored for the remainder of this school year with no proposed changes until FY'21. We could also look at the revising the start times at the Elementary level.

Mr. Hitter requested that after next week's presentation on athletic fees that all three fees be placed on an agenda in January for further discussion and a vote.

School Committee Goals

J. Hitter asked for a motion to approve the School Committee Goals as presented. **MOTION** (Garcia/Kaplan) to approve the School Committee Goals as presented. Yes vote: Currul-Dkyman, Garcia, Kaplan, Crosby, Mesiha, Zelevinsky, Hitter

School Committee NORMS

J. Hitter discussed with the committee the School Committee NORMs that were presented at the November 19th Workshop meeting. The committee discussed the NORMs and reviewed some examples or wording from other districts. The committee will review the wording as to what their role is as School Committee member and working together as a group.

Commented [v1]: When will this be back on another agenda, you need to put when they will review this.

ANNOUNCEMENTS & UPDATES

J. Crosby ~~gave an update on~~ made an announcement about the Team Rival which is a program at the high school made up of a group of students that work with Ms. D'Entremont and Ms. Glasheen. The group has four challenges this year and one of the challenges ~~werwase to go to attend~~ the program at Gillette Stadium on November 20th. The students have been brainstorming to get other students to participate. They gave out an award in honor of Sharon Kramer who was a Sharon student.

M. Kaplan gave an update from the Priorities Committee meeting last week. They reviewed some of the town expenses. They discussed that pension could possibly go up along with some of the other programs. They looked at the increases and long term debt, the ~~number~~ projected ing allocation to all sectors is 2.51%.

OTHER BUSINESS

None

J. Hitter asked for a motion to adjourn the meeting. **MOTION** (Currul-Dkyman/Garcia) moved to adjourn the school committee meeting. Yes vote: Kaplan, Crosby, Mesiha, Zelevinsky, Currul-Dkyman, Garcia, Hitter.

Meeting was adjourned at 9:45pm

Respectfully submitted by
Melissa Bryant
School Committee Secretary

**Sharon School Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
12/18/18**

SSBC Members

Gordon Gladstone, Chair	Richard Slater	Sara Winthrop
Deb Benjamin, Vice Chair absent	Steve Smith absent	
Rick Rice absent	Roger Thibault	
Marty Richards	Colleen Tuck	Matthew Baldassari (TH)

Special Members

Ken Wertz		Jim Wright, Fire Chief absent
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SBC Attendees and Others

Joe Sullivan - DPI	Emily Burke SBC
Kim Joyce - Colantonio absent	Amy Garcia SBC
Kevin Paton - BKA	Victoria Greer SBC
Anne Castelnovo - BKA absent	Jose Libano SBC
Chris Blessen - Tappe absent	John Marcus SBC
Paul Queeney - PMA	Judy Crosby (alternate) absent
Matt Gulino - PMA	

Administration

The meeting of the SBC was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
Future scheduled meetings: 1/8, 1/22

High School

Tappe was not in attendance at this meeting. PMA provided a presentation of the project to date. Chair Gladstone requested that the presenters include dates on their presentations in the future.

Slides from PMA ppt. 12/18/18

PSR Overview

- 11/21/18 – 3/21/19 (Target date for submission to MSBA)
- PSR will document and substantiate the districts selection and recommendation of the preferred solution
- Narrowing options to get to three alternatives, one of them being the preferred solution.
 - MSBA Requires three alternatives:
 - Code Upgrade
 - Add/ Reno
 - Replacement
- The Code Upgrade and Add/ Reno Options have already been selected.



Project Progress

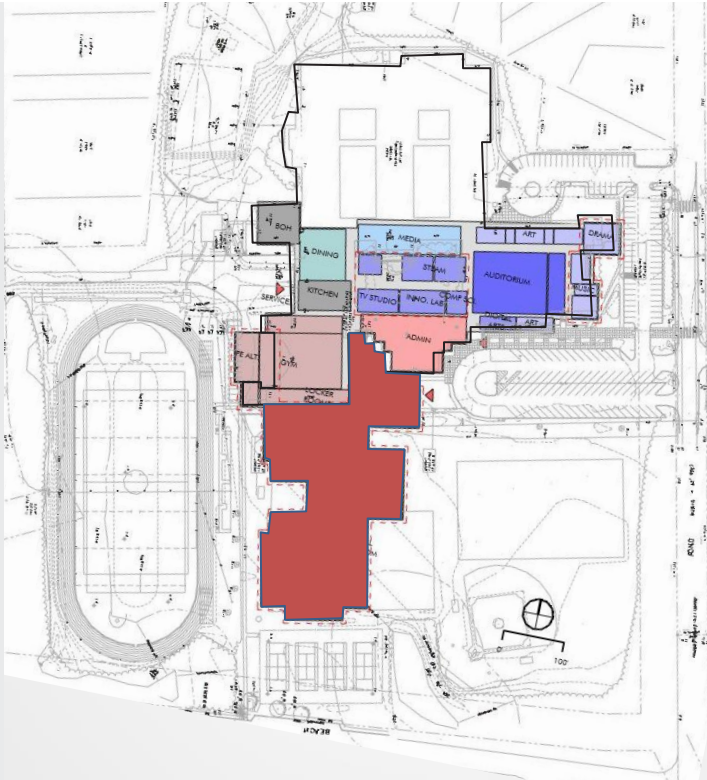
- Reduced Building Options (Reduced from 8 to 4)
Memorandum sent to MSBA, which has been accepted
- Meetings Held to Discuss Project
 - HS PTO Presentation 12/ 3/ 18
 - District Meeting 12/ 11/ 18
 - ES PTO Presentation 12/ 11/ 18
 - HS Faculty Meeting 12/ 12/ 18
 - School Committee Meeting 12/ 12/ 18

Preliminary Option R1



Renovation Option

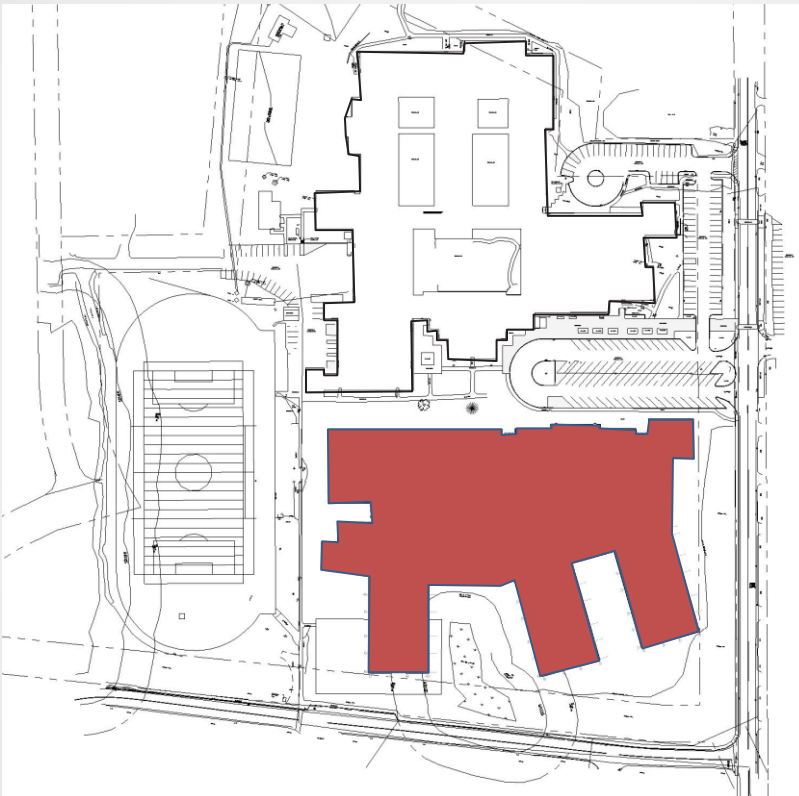
- Satisfies MSBA required option at PSR



Options AR-1 Progress

Renovation/Addition Option

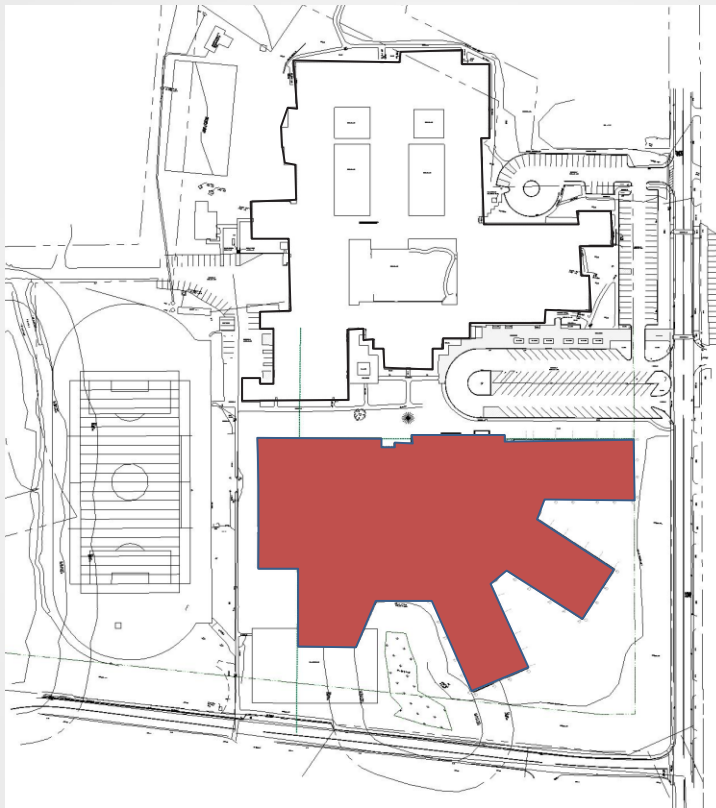
- More efficient classroom layout; 2 floors
- Large addition to demo exist. classroom wing
- Accommodates space template
- Less disruption to school during construction than other Add/Reno options.
- Better utilization of site than AR-2 Option



Option N-3 Progress

Replacement Option

- Two floors
- Three wings per floor
- Smaller learning communities of 200 students per wing is desirable
- Public functions in front
- Better accommodates future changes in education
- Less disruption than add/reno



Option N-4 Progress Replacement Option

- Two floors
- Three wings per floor
- Smaller learning communities of 200 students per wing is desirable
- Public functions in front
- Better accommodates future changes in education
- Less disruption than add/reno

Conceptual Cost Opinions 12/18/18

CONCEPT	ED. PROGRAM	PHASING ISSUES	COST ISSUES	SF	CONST. OPINION	PROJECT OPINION
Renovation R-1	No build code upgrade. Does not satisfy District Ed Program goals or MSBA template for 1,250 students	Renovation would require temporary modular classrooms in order to allow for two construction phases of the existing classroom wings.	Includes comprehensive renovation, systems upgrades plus reconstruction of exterior envelope to meet code.	168,422 GSF	\$68.8m ***	\$86 m *** Add \$2.4m = \$89m
Add - Reno AR-1	Meets MSBA space template requirements. Educational program goals are significantly compromised. Long travel.	Students are relocated from existing to new addition during renovation. Significant disruption to core programs in second phase is anticipated.	Extended construction duration w/ three phases. Occupied construction. Inefficient plan increases GSF.	268,175 GSF	\$128m	\$160m
Add - Reno AR-2	Meets MSBA space template requirements. Educational program goals are significantly compromised. Long travel.	Students relocated to temporary modular classrooms during classroom wing reconstruction. Significant disruption to core programs in each phase is anticipated.	Extended construction duration w/ four phases. Temp. classrooms to allow demolition. Occupied construction. Inefficient plan increases GSF.	264,987 GSF	\$126m ***	\$157.5m *** Add \$2.4m = \$159.9m
New N-1	Satisfies space template, meets many educational program goals but larger classroom wings.	Location on baseball / softball displaces those programs. Limited disruption to ongoing school. Separate const. entry.	Two story option two wing option. Slightly more perimeter.	241,618 GSF	\$125.6m	\$157m
New N-2	Satisfies space template, meets many educational program goals but larger classroom wings.	Location on baseball / softball displaces those programs. Limited disruption to ongoing school. Separate const. entry.	Two story two wing option. Slightly more perimeter.	241,618 GSF	\$125.3m	\$156.6m
New N-3	Satisfies space template, meets educational program goal of small learning communities.	Location on baseball / softball displaces those programs. Limited disruption to ongoing school. Separate const. entry.	Two story three wing option. Slightly less perimeter.	241,618 GSF	\$124m	\$155m
New N-4	Satisfies space template, meets educational Program goal of small learning communities.	Location on baseball / softball displaces those programs. Limited disruption to ongoing school. Separate const. entry.	Two story three wing option, slightly more perimeter envelope than N-3.	241,618 GSF	\$125.4m	\$156.8m
New N-5	Satisfies space template. Three story option may add internal travel and limit integration of programs.	Location on baseball / softball displaces those programs. Limited disruption to ongoing school. Separate const. entry.	Three story option reduces footprint but increases vertical circulation.	241,618 GSF	\$123.2m	\$153.7m

*** Budget does not include cost of temporary modular classrooms to be used as swing space - Assume \$150,000 per classroom x 16 classrooms = add \$2.4m

Community Outreach



- **PTO Meetings Held 12/3/18 and 12/11/18**
 - Discussed project progress and next steps
 - Answered questions from the PTO groups
- **Project Website Update**
- **[Sharon High School Building Project Website](#)**

Next Steps:



- **Continue to Develop PSR Options**
- **SBC Meetings 1/8/19, 1/22/19**
SBC review and selection of three alternatives prior to January 24th Public Forum
- **District Meetings 1/8/19, 1/15/19, 1/29/19**

District review of replacement options to develop preferred approach based on District Ed. Program
- **Teacher/Student Programming 1/14/19 to 1/18/19**
- **Public Forum 1/24/19** Present options, public feedback
- **Complete PSR submitted to MSBA (3-21-19)**

Minutes

Mr. Slater moved to approve the minutes of 12/4/18. Ms. Winthrop seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

Ms. Winthrop moved and Mr. Thibault seconded the motion to approve all invoices. The Committee voted unanimously in favor of approval.

High School

Tappe - \$107,069.72

PMA \$20,263.00

Adjournment

Through unanimous consent, the meeting adjourned at 6:55 PM.

Attachments

PMA PowerPoint is included within document.

Submitted:

Rachelle Levitts

Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

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**Sharon School Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
1/8/19**

SSBC Members

Gordon Gladstone, Chair	Richard Slater	Sara Winthrop absent
Deb Benjamin, Vice Chair absent	Steve Smith	
Rick Rice	Roger Thibault	
Marty Richards	Colleen Tuck	Matthew Baldassari (TH)

Special Members

Ken Wertz		Jim Wright, Fire Chief absent
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SBC Attendees and Others

Joe Sullivan - DPI	Emily Burke SBC absent
Kim Joyce - Colantonio	Amy Garcia SBC
Kevin Paton - BKA	Victoria Greer SBC absent
Anne Castelnovo - BKA absent	Jose Libano SBC
Chris Blessen - Tappe	John Marcus SBC absent
Paul Queeney - PMA absent	Heather Zelevinsky
Matt Gulino - PMA	

Administration

The meeting of the SBC was called to order by Chair Gladstone at 6:40 PM at the Public Safety Building.

Future scheduled meetings: 1/22, 2/5, 2/19, 3/5, 3/19

Minutes

Mr. Wertz moved to approve the minutes of 12/18/18. Ms. Tuck seconded the motion and the Committee voted unanimously in favor of approval.

Invoices

Mr. Rice moved and Mr. Slater seconded the motion to approve all invoices. The Committee voted unanimously in favor of approval.

High School

Tappe - \$129,067.50

PMA \$20,263.00

High School

Slides from TAPPE and PMA PowerPoint presentation of 1/8/19 follows:



SHARON HIGH SCHOOL SCHOOL BUILDING COMMITTEE MEETING

January 8, 2019

AGENDA



MSBA PDP Comments and Responses

Project Progress

Building Options

Special Town Meeting Date

Next Steps

Getting to the Preferred Option

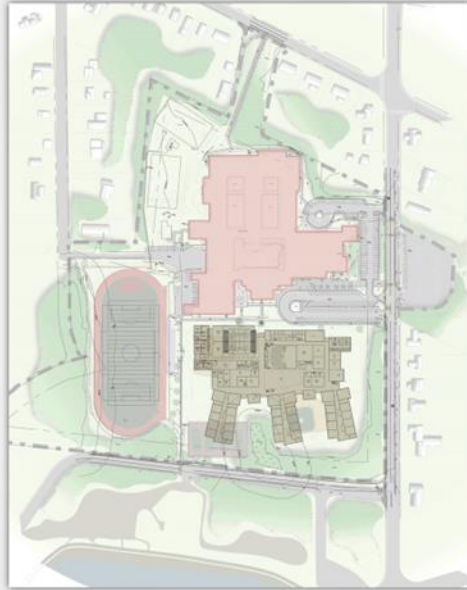
Upcoming Meetings

MSBA PDP Comments and Responses

- MSBA provided comments asking for additional support in a few categories.
- MSBA did NOT object to additional square footage over the MSBA's template but reiterated the formula for determining what the MSBA would not reimburse for.
- The District Administrative Team has developed responses with Tappé and PMA.
- Official Response to be submitted 1/9/19

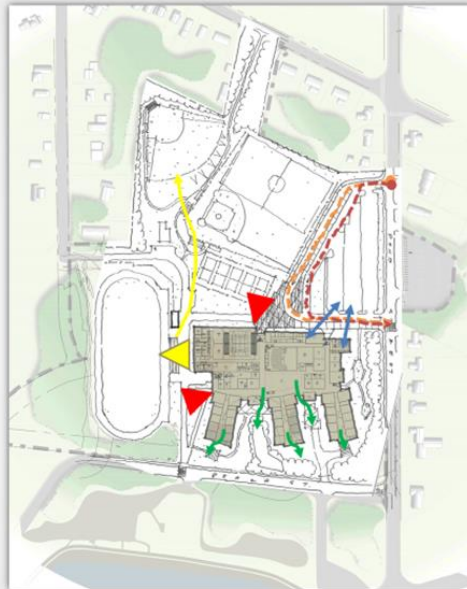
Project Progress

- Received PDP review comments from the MSBA. Responses will be submitted tomorrow, 1/9/19
- Continued Refinement of options
- Upcoming Meetings (January)
 - District Working Group Meetings – 1/15/19 & 1/29/19
 - Preliminary Programming Listening Sessions
 - School Building Committee Meeting – 1/22/19
 - Community Forum – 1/24/19



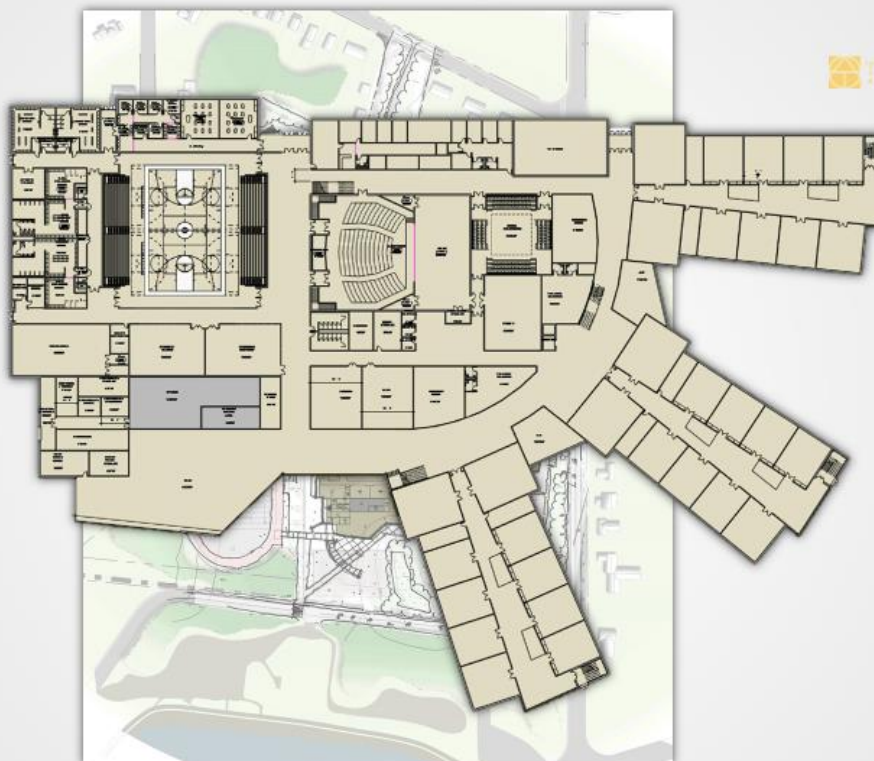


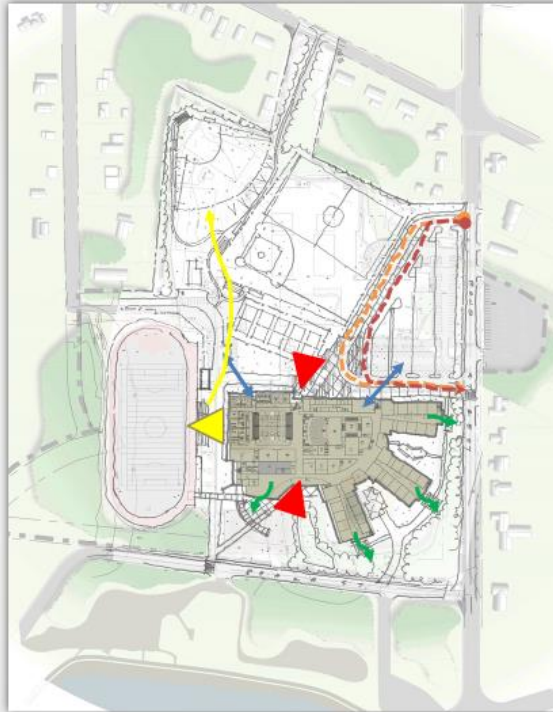
 Option N3 Progress



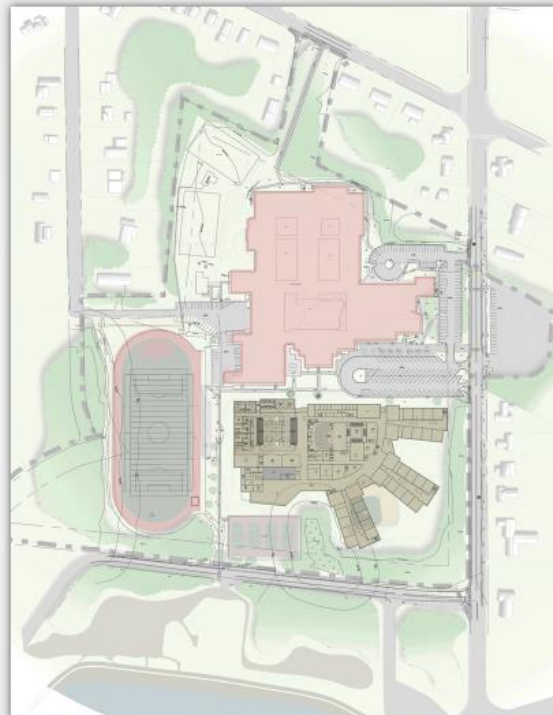


 Option N3 Progress

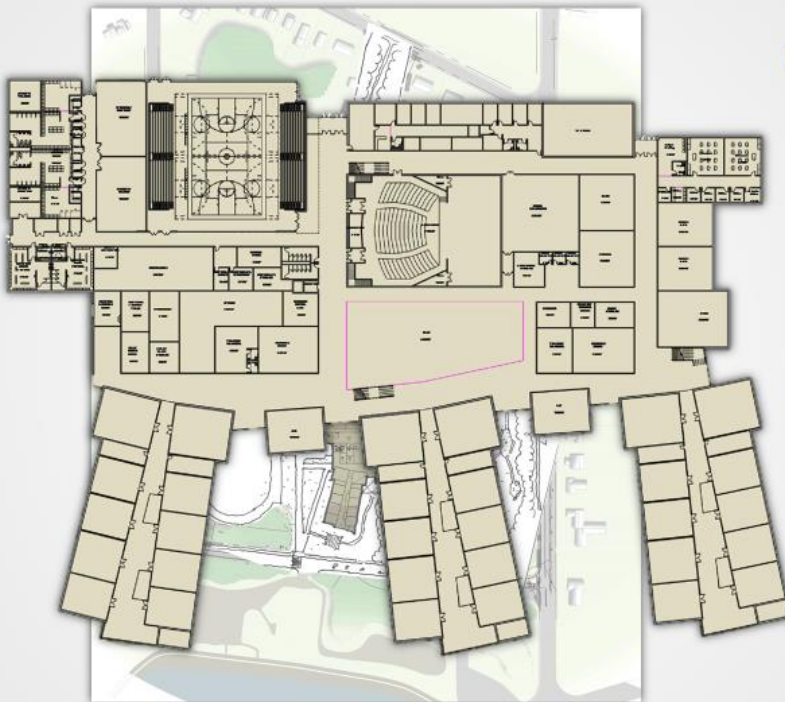




Option N4 Progress



Option N4 Progress



Community Outreach



- **Preliminary Programming Listening Sessions – Next Week**
 - Gather Teachers and students to sit with Tappé and discuss outcomes and goals
 - Answer questions, gain insight, solidify vision for new school.
- **Public Forum – 1/24/19**
 - Forum for Sharon Community to see options and provide feedback.
- **Project Website Updates**
- **Special Town Meeting Date – 11/04/19**
- **Town Election (debt exclusion) – 11/12/19 OR 11/19/19**
- **[Sharon High School Building Project Website](#)**

Next Steps:



- **Continue to Develop PSR Options**
- **SBC Meetings - 1/8/19; 1/22/19**

SBC review and selection of three alternatives prior to January 24th
Public Forum (Renovation, Addition/Renovation, New)
- **District Meetings - 1/8/19; 1/15/19; 1/29/19**

District review of replacement options to develop preferred approach *based on District Ed. Program*
- **Teacher/Student Programming – Next Week**
- **Public Forum – 1/24/19** - Present 3 options, public feedback
- **Complete PSR submitted to MSBA (3-21-19)**

- The Committee liked option N3 above which is mislabeled and should be N4.
- Community Education and the SCTV studios will be incorporated within the building design.

- The MSBA goal is to make the building cost effective for the community. The classroom sizes are approximately 900 square feet each which falls within the 825-950 square foot MSBA guidelines.

Adjournment

Through unanimous consent, the meeting adjourned at 7:47 PM.

Attachments

PMA PowerPoint is included within document.

Submitted:

Rachelle Levitts

Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

OPEN FORUM
Sharon Public Schools
Sharon School Committee
Wednesday, January 9, 2019
75 Mountain Street
Sharon, MA 02067

Present: Jon Hitter, Katie Currul-Dykman, Amy Garcia, Marcy Kaplan, Judy Crosby, Mena Mesiha, Heather Zelevinsky

Also Present: Victoria Greer, Elizabeth Murphy, John Marcus, Melissa Bryant, Nerlande Mintor, Harikrashna Bhatt, MD, Ashish Pathak and members of the community.

Open Forum was called to order at 7:03pm.

Parent presented an issue at the high school where his daughter was hit in the head and sustained a concussion by a Promethean Board that fell off the wall. Dr. Greer took the parents information to follow up with the parents regarding their concerns.

PUBLIC FEEDBACK:

Correspondence

Ms. Garcia reviewed the correspondence with the school committee. Correspondence was as follows:

1. Several emails regarding the availability of food for third lunch at the middle school. Dr. Greer and Ms. Mintor replied.
2. We received an email from a teacher regarding feeling disconnected from the District Office.
3. There was an email regarding a complaint about a coach.
4. An email from a Student from UMASS Amherst requesting the School Committee make a resolution to fund the future. The school committee will review this email and respond.
5. We received an email from a parent regarding the strategic plan and its location on the website.
6. We received a letter from Ms. Bernadette Murphy, President of STA regarding a faculty meeting.

Dr. Bhatt and Ashish Pathak from BAPS Charities donated a check to the Sharon Public School from Walk Green 2018 in the amount of \$1,045.

Student Advisory

J. Carr shared upcoming events

1. The school are back from winter break.
2. Mid-year exams in two weeks

3. Class assemblies were held to remind students of expectations and student supports.
4. Ensembles concert next week.
5. Student Directed play which will be held on January 17th and 18th. 17th at 7pm.
6. The sports teams are doing well at the high school.

DECISION ITEMS

J. Hitter asked for a motion to approve the consent agenda items 1-2 as presented.

MOTION: (Garcia/Kaplan) moved to approve the consent agenda items 1-2 as presented. Yes
Vote: Currul-Dykeman, Garcia, Hitter, Kaplan, Crosby, Mensiha, Zelevinsky.

SUPERINTENDENT ITEMS

Dr. Greer shared the superintendent items with committee:

- Dr. Greer responded to communication received regarding the middle school lunch availability. Dr. Greer shared that there are an average of 370 lunches prepared daily and an average of 32 lunches left over. Dr. Greer stressed that there is food in the cafeteria for students to eat, but there have been times when the popular items do run out, but there are other options that the students can have. The food service department will send a communication to all parents regarding this. Ms. Mintor is working with the food service to send out a response to parents. Ms. Mintor is working with the Director of Food Services to prepare more of the highly chosen selections.
- Dr. Greer shared an update on the professional development that Administrators and Principals have been attending on social emotional learning.
- Dr. Greer gave an update on the proposed external K-12 foreign language program review. Dr. Greer proposed to the committee not to conduct an external review but work collaboratively with Ms. Magnon and Dr. Dahlen to address the needs of the elementary, middle and high school foreign language programs internally including developing goals and aligning the program.
- Dr. Greer gave an update on the high school building project and reviewed the option designs with the committee.

DISCUSSION ITEMS

FY20 Projected Preliminary Budget Review Presentation

Dr. Greer and Nerland Mintor presented the projected preliminary overview of the FY20 budget, which included:

- Enrollment – projected overall enrollment to be 3700 students for SY 19/20
- Preliminary Budget estimates for FY20
- Current Year School Budget \$43,828,752
- Projected FY20 Expenditures
- Town Appropriation to school – FY20 \$44,921,952, 2.48%
-

Ms. Mintor discussed the areas that require budget support which included staffing to meet student needs and the strategic objectives for the Strategic plan. Some of these items to meet

student needs were English learners, LEAP program, team-based learning and enrollment committee recommendations. The strategic objectives for the strategic plan are social emotional, relationships/culture, learning environments and curriculum/professional development.

Ms. Mintor shared that there will be an Open Budget Forum on Wednesday, January 16th at 7pm. Information from the budget forum will be taken into consideration when completing the draft preliminary budget for FY20.

ANNOUNCEMENTS & UPDATES

Dr. Greer's First Annual State of the School Address will be held on Thursday, January 17th at 7pm at the middle school auditorium.

J. Crosby shared details from the Recreation Department monthly meeting.

J. Crosby shared an update from the town regarding the location of Square Jam moving from the center of town to Pond Street.

OTHER BUSINESS

None

J. Hitter motion to adjourn the meeting. **MOTION:** (Currul-Dykeman/Garcia) to adjourned the meeting. Yes vote: Kaplan, Crosby, Menisha, Zelevinsky, Hitter, Dykeman, Garcia.

The meeting was adjourned at 9:15pm.

Respectfully submitted by
Melissa Bryant
Secretary to School Committee

**Sharon School Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
1/22/19**

SSBC Members

Gordon Gladstone, Chair	Richard Slater absent	Sara Winthrop
Deb Benjamin, Vice Chair	Steve Smith	
Rick Rice	Roger Thibault	
Marty Richards	Colleen Tuck	Matthew Baldassari (TH)

Special Members

Ken Wertz	Jim Wright, Fire Chief absent
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SBC Attendees and Others

Joe Sullivan - DPI	Emily Burke SBC
Kim Joyce - Colantonio	Amy Garcia SBC
Kevin Paton - BKA	Victoria Greer SBC
Anne Castelnovo - BKA	Jose Libano SBC
Chris Blessen - Tappe	John Marcus SBC
Paul Queeney - PMA	Heather Zelevinsky
Matt Gulino - PMA	Charlie Hay - Tappe

Administration

- The meeting of the SBC was called to order by Chair Gladstone at 6:40 PM at the Public Safety Building.
- Future scheduled meetings: 1/22, 2/5, 2/19, 3/5, 3/19

Minutes

The 1/8/19 SBC minutes were not approved as one comment needs to be reworded.

Invoices

None

High School

Tappe reviewed activities from the prior period. They met with over 100 faculty and staff and students regarding the programming. Collaboration came out as the overwhelming main concern of all.

N4 is the preferred option of all- 3 wings on the street edge, cafeteria on the side facing the lake. Media center above on second floor receives the view too. Schematics grew to 3D views. Chris Blessen described the updated versions of N3 and N4 to determine the preferred option. He showed the Committee the difference between the two options. In previous meetings most prefer N4 as the cafeteria placement has it making a connection to the lake. There would be a media center on top of the cafeteria. They are looking at the idea of putting solar on the roof. He said they need to go ahead from the Committee to take to the community.

R1 is a reno, AR1 is an add/reno and N4 is the new construction choice. There is a Community forum this Thursday and they would like to focus the discussions on these preferred options.

Dr. Greer stated that she had input from the educators and architect's conversations. The OPM stated that MSBA process looks to Administration not the school committee for a vote.

The views being shown are all preliminary. They will change drastically during design development. The space template gets submitted at each phase. Sizes will be adjusted as it goes along. Community spaces will be isolated from being able to access the rest of the school.

The architect stated they needed a directive to study on the PSR option phase. Mr. Smith moved and Ms. Winthrop seconded the motion to proceed with studying R1, AR1 and N4 for new construction. The Committee voted unanimously in favor. In March, one option needs to be decided upon. The PSR submittal is due to the state on 3/18. They need to make progress on all 3 schemes. The decision point is at the end of the PSR. In schematic design phase the build out is more developed.

Slides from TAPPE and PMA PowerPoint presentation of 1/22/19 follows below.

Adjournment

Through unanimous consent, the meeting adjourned at 7:03 PM.

Attachments

PMA PowerPoint is included within document.

Submitted:

Rachelle Levitts

Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance



SHARON HIGH SCHOOL SCHOOL BUILDING COMMITTEE MEETING

January 22, 2019

AGENDA



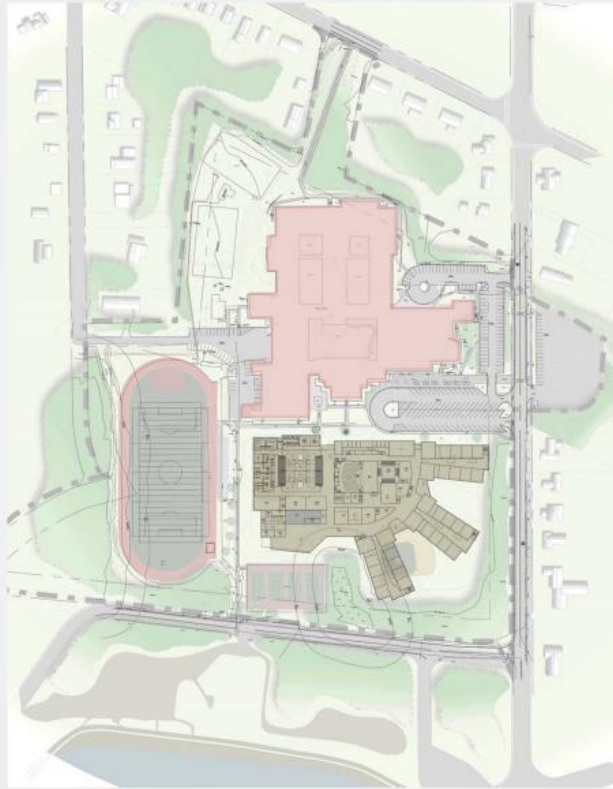
Listening Session Update

Building Options

Next Steps

Community Forum

PSR Phase Completion

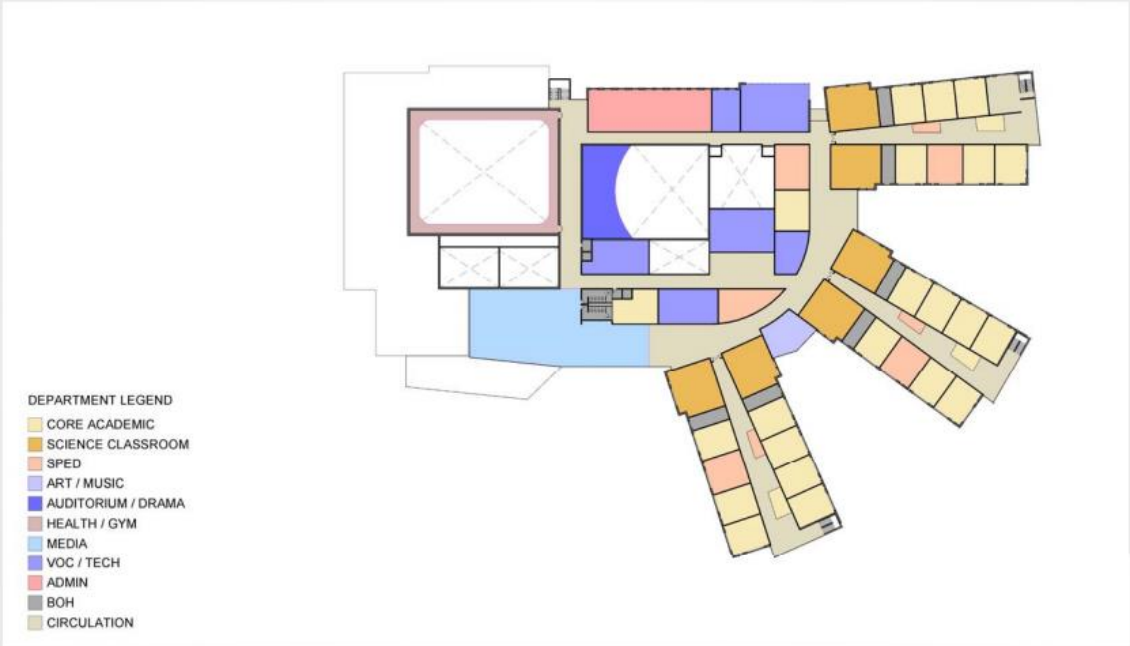


Option N4 Progress

Option N4 Progress



Option N4 Progress



Option N4 Progress



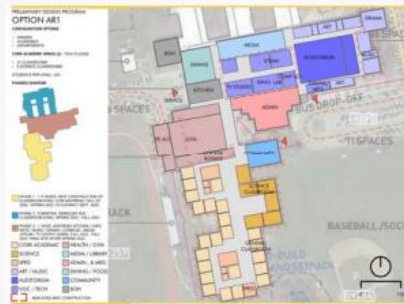
Option N4 Progress



PSR Options



R1
Renovation



AR1
Addition/Renovation



N4
New Construction

Community Outreach

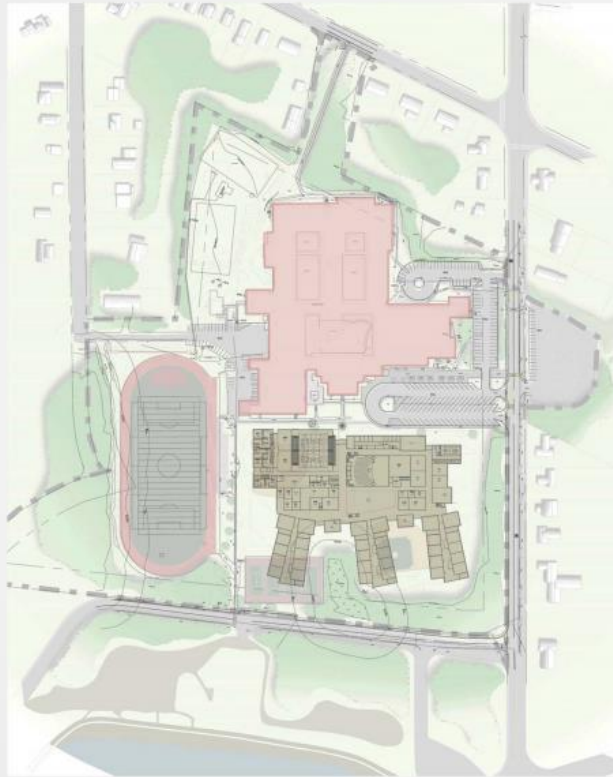


- **Public Forum – 1/24/19**
 - Forum for Sharon Community to see options and provide feedback.
 - 7pm – 8pm in the High School Library
- **Project Website Updates**
- **Special Town Meeting Date – 11/04/19**
- **Town Election (debt exclusion) – 11/12/19 OR 11/19/19**
- **[Sharon High School Building Project Website](#)**

Next Steps:



- **Continue to Develop PSR Options**
- **SBC Meetings – 2/5/19; 2/19/19**
- **District Meetings - 1/29/19; 2/12/19; 2/26/19**
- **Public Forum – 1/24/19 - Present 3 options, public feedback**
- **Complete PSR submitted to MSBA (3-21-19)**

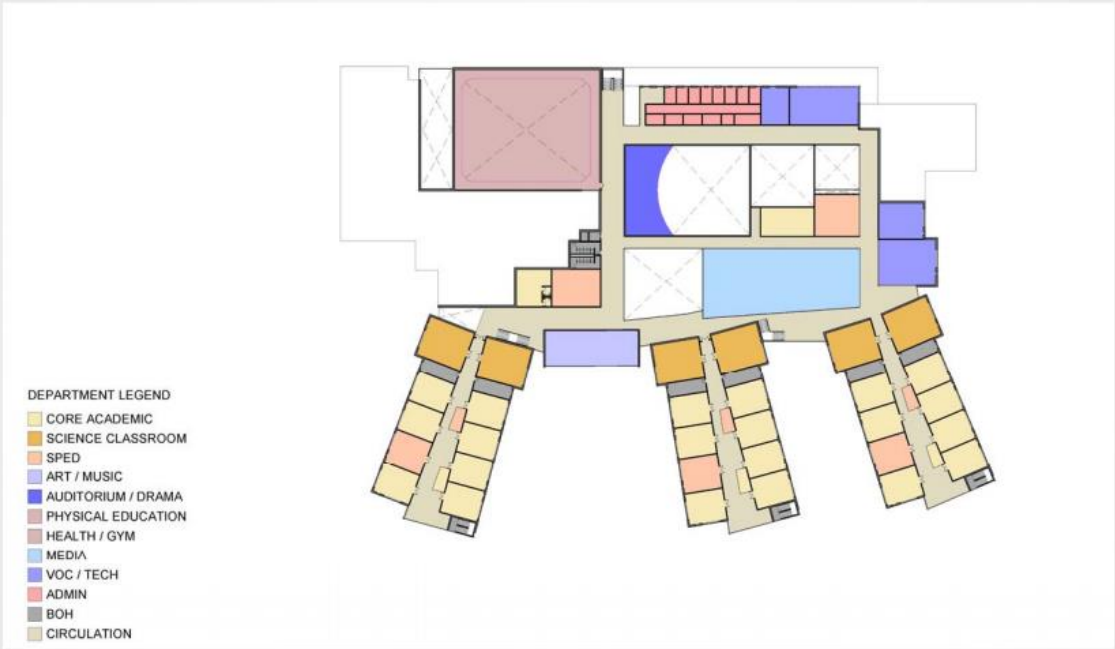


Option N3 Progress

Option N3 Progress



Option N3 Progress



Option N3 Progress



Option N3 Progress



**Sharon School Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
2/5/19**

SSBC Members

Gordon Gladstone, Chair	Richard Slater	Sara Winthrop
Deb Benjamin, Vice Chair	Steve Smith	
Rick Rice	Roger Thibault absent	
Marty Richards	Colleen Tuck	Matthew Baldassari (TH)

Special Members

Ken Wertz		
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SBC Attendees and Others

Emily Burke - SBC	Kevin Nigro - PMA
Amy Garcia - SBC	Chris Blessen - Tappe
Victoria Greer - SBC	Charlie Hay - Tappe
Jose Libano - SBC	D Warner - Landscape architect
John Marcus SBC	Jon Hitter - School Committee
Paul Queeney - PMA	Heather Zelevinsky
Matt Gulino - PMA	

Administration

- The meeting of the SBC was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Future scheduled meetings dates include: 2/19, 3/5, 3/19.
- Chair Gladstone commented that we currently have a Committee of 9. There is one open position. 4 residents have responded with interest. Chair Gladstone said the process to fill the slot could take 2-3 months.

Minutes

Ms. Benjamin moved to approve the minutes of 1/22/19. Mr. Smith seconded the motion. The Committee voted unanimously in favor of approval of the 1/22/19 minutes.

The minutes of 1/8/19 need updating and approval.

Invoices

None

Sharon High School Project

- Chris Blessen stated that the public forum was well attended. There was a question about the layout and if it could be changed by taking or buying nearby land. It was investigated and deemed not appropriate. Reminder from Debbie Benjamin that if a question is asked that the architect get direction on whether to proceed from the "proponent" before doing work to answer the question.
- Feasibility Highlights include PSR submittal to MSBA on 3/21, MSBA FAS meeting is 5/29/19 and the MSBA Board Meeting is 6/26/19.

- Schematic Design Highlights include beginning schematic design on 3/22/19, SD Submittal to MSBA on 9/11/19 and MSBA Board Meeting on 10/30/19. Town Meeting is November 2019.
- Chris Blessen stated that the next steps are to continue to develop the PSR Option. SBC meetings are 2/19, 3/5 and 3/19. District Meetings are 2/12, 2/26 and 3/12. Public Forum date is TBD and the complete PSR submittal to MSBA is 3/21/19.
- Steve Smith asked how future expansion of the building will be shown. Chris Blessen said he will likely put that on the drawing with dotted lines to show future areas of possible expansion. Kevin Nigro said there will need to be some thought and dialogue to make sure that it can be done.
- Dr. Dalia Yablon, a Sharon resident voiced her concern regarding the high school project. She thinks the development is not being handled by experts, she expressed that SHS teachers and those that work in labs can better plan for science education. She is concerned with lab safety and how to minimize exposure. She stated that having labs far from a centralized chemical stock room increases exposure of those people who have to handle them and suggests they are all stored in one place. She suggests transport of these materials should be minimized. She feels that having multiple trained personnel co-located and immediately available to help in case of an accident can save lives. She also discussed the financial aspects of having all the facilities (gas, water, hood venting, etc.) piped to one branch in the school vs. the current design. She suggests that there should be a science branch in one part of the building.
- Emily Burke, Science Curriculum Coordinator at SHS stated that the biggest driver of student success is teacher collaboration. The new building design will foster multiple collaboration opportunities. She stated she is discussing a chemical stock room setup with the Architect. The building is a physical representation of community consensus, Arts and Steam in the core. From a financial perspective, they are looking at stacking cost and finding that the difference is minimal. The vision is that science is the backbone.
- Dr. Greer stated that she and Dr. Libano reached out to 16 different districts which have built high schools over the past 8 years, some completed, some still in construction. 15 out of the 16 are designed the way we are designing, with multiple floors/wings and with the science classrooms/labs on multiple floors/wings. We take chemical storage and safety very seriously. We are building for all content and all departments to be heard and meet the best needs of everyone.
- Chair Gladstone said the Standing Building Committee has responsibility for all construction aspects including design. From his perspective, the School Administration and School Committee have worked at length with the architects. From his perception he is not aware of anything that definitely says one design is superior to the other. We are dealing with opinion. The Administration is in favor of this design and the majority of the School Committee is in favor of this design. 15/16 high schools built in the past 8 years are following this path. When you weigh the conclusions of leaders of the educational process he has to believe all are working toward the same goal; best education and safety for all students. This design and program had been submitted to the MSBA. The MSBA has vetted and criticized the program. They are concerned with safety. Our role as the proponent is to build what they need.
- Ms. Tuck stated that our job is to ensure the integrity of the process.
- Mr. Smith stated that all science room are blocks on paper right now and it's good to know there are concerns that we will watch for now as plans develop.
- Mr. Rice stated that the MSBA prescribes certain things and this process and design has a lot of State scrutiny. The design today is much more prescriptive.
- Kevin Nigro of PMA stated that the MSBA science initiative task force developed the requirements and best practices to be reflective of the initiatives.
- Heather Zelevinsky said the School Committee has no authority on the project.
- Chris Blessen stated he is taking all comments under advisement.
- David Warner a landscape architect reviewed the slides for the site plan program and function.

- Mr. Rice suggested that a nice fence be included on Pond Street to control balls from the baseball field.

Slides from TAPPE and PMA PowerPoint presentation of 2/5/19 follow below.

Adjournment

Through unanimous consent, the meeting adjourned at 8:10 PM.

Attachments

PMA PowerPoint is included within document.

Submitted:

Rachelle Levitts

Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance



SHARON HIGH SCHOOL SCHOOL BUILDING COMMITTEE MEETING

February 5, 2019

AGENDA



Public Forum Report

Site Design

Next Steps

Community Forum

PSR Phase Completion



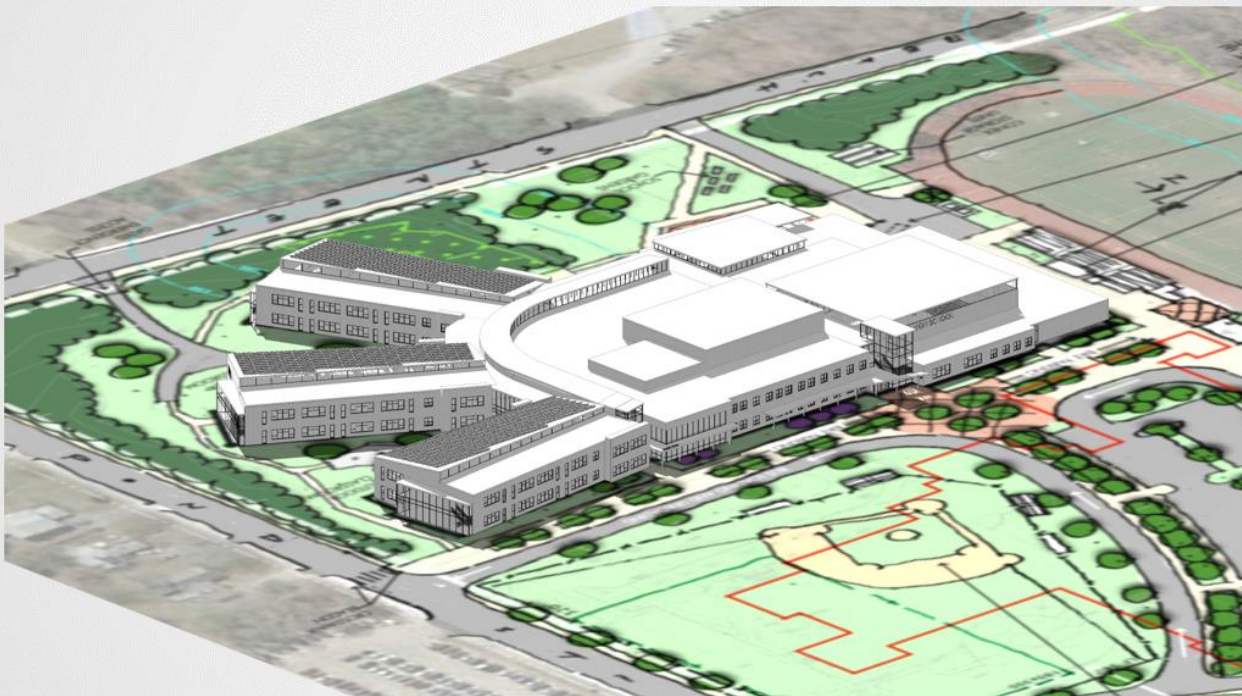
Public Forum Report

Site Design

Site Program & Function

- Access
 - Walkers
 - Bicycles
 - Vehicular – buses, cars, service, emergency
- Outdoor Education & Dining
 - Instruction, workspace, discovery, school gardens, artwork
- Athletic Facilities
 - Baseball, softball, field hockey, football, soccer, track & tennis
 - Sports lighting
 - Irrigation
 - Bleachers, press box, restrooms & concessions
 - Storage
- Utilities & Maintenance
 - WWT/septic system, water, gas, electric, drainage
 - Landscape maintenance & snow plowing
 - Storage





Community Outreach



- **Public Forum – TBD**
- **Project Website Updates**
- **Special Town Meeting Date – 11/04/19**
- **Town Election (debt exclusion) – 11/12/19 OR 11/19/19**
- **Sharon High School Building Project Website**
 - **<https://www.sharon.k12.ma.us/Page/5496>**

PSR Deliverables



Sharon Action Items

- SBC Selection of three alternate options (Reno, Add/Reno, New Build) – **Complete**
- SBC vote of Preferred Option selected from three alternates – **3/19/19**
- Local Actions and Approvals Certificate signed by: **Gordon Gladstone, Dr. Greer, Jon Hitter**
- Budget Statement Spreadsheet completed by Business Administrator – **Ongoing**
- SBC Approval of the PSR and vote confirming authorization of PSR submission to the MSBA – **3/19/19**

Tappé/PMA Action Items

- Complete evaluation of existing conditions - **Complete**
- Final evaluation of alternate options - **Tappé**
- PSR Estimates – **PMA and Tappé**
- Preliminary Design Pricing Table – **PMA**
- Preferred Option Schedule – **PMA**
- Compile SBC/School Committee and Public Meeting Minutes for Local Action and Approvals Certificate sign-off – **PMA**

Next Steps:



- **Continue to Develop PSR Options**
- **SBC Meetings – 2/19/19; 3/5/19; 3/19/19**
- **District Meetings - 2/12/19; 2/26/19; 3/12/19**
- **Public Forum – TBD**
- **Complete PSR submitted to MSBA (3-21-19)**

Thank You!



OPEN FORUM

Sharon Public Schools
School Committee Meeting
Wednesday, February 6, 2019
75 Mountain Street
Sharon, MA 02067

Present: Jon Hitter, Katie Currul-Dykeman, Amy Garcia, Marcy Kaplan, Judy Crosby, Mena Mesiha, Heather Zelevinsky

Also Present: Victoria Greer, Elizabeth Murphy, John Marcus, Nerlande Mintor, Melissa Bryant and members of the community

Open Forum was called to order at 7:00pm.

J. Hitter stated that tonight's meeting is a Open Forum meeting. Mr. Hitter stated that we will begin with Superintendent Items.

SUPERINTENDENT ITEMS

Dr. Greer announced that Dr. John Marcus has accepted a Superintendent's position with the Stoughton Public Schools and wanted to congratulate him and wish him the best of luck.

PUBLIC FEEDBACK:

Correspondence:

Ms. Garcia reviewed the correspondence that was received.

1. We received several emails regarding enrollment, there were more favoring redistricting rather than restructuring, concerns raised with restructuring in regards to busing, walking and kindergarten being relocated and children will be separated.
2. We received an email from the MSBA indicating they have received our PDP revisions and they accept the updated PDP.
3. There was an email from a parent regarding the layout of the high school project particularly the science room location.
5. There was an email from Senator Walter F. Timilty regarding H1 Local Aid and Chapter 70 funding.

Student Advisory Committee

None

DECISION ITEMS

J.Hitter asked for a motion to approve the School Committee minutes revision in the dropbox from 1.9.19. **MOTION** (Kaplan/Dykeman) moved to approve the School Committee minutes

revisions in the dropbox from the 1.9.19 meeting. Yes vote: Garcia, Kaplan, Crosby, Mensiha, Zelevinsky, Hitter, Dykeman

J. Hitter asked for a motion to approve the School Committee minutes for the 1.16.19 meeting. **MOTION** (Kaplan/Garcia) moved to approve the School Committee minutes from the 1.16.19 meeting. Yes vote: Hitter, Dykeman, Garcia, Kaplan, Crosby,, Zelevinsky

Mena Mesiha abstained due to being absent from the 1.16.19 School Committee meeting

J. Hitter asked for a motion to approve the donation to Sharon High School of \$1,000 from the Pappas Family. **MOTION** (Kaplan/Garcia) moved to approve the donation to Sharon High School of \$1,000 from the Pappas Family. Yes vote: Hitter, Dykeman, Garcia, Kaplan, Crosby, Menisha, Zelevinsky.

J. Hitter requested to move consent agenda item #4, ADDA Policy and the exhibits E1, E2 to the next school committee meeting on Wednesday, February 13th.

J. Hitter asked for a motion to approve policy AC, ACA, to change Title 9 Compliance Officer to Ms. Elizabeth Murphy and to place the policy reference letters on the top of ACA policy. **MOTION** (Currul-Dykeman/Garcia) to approve policy AC, ACA, to change the Title 9 Compliance Office to Ms. Elizabeth Murphy and to put the letters on top of ACA policy. Yes vote: Crosby, Kaplan, Menisha, Zelevinsky, Garcia, Currul-Dykeman, Hitter

J. Hitter asked for a motion to approve to change ABF Policy to the Wellness Policy.. **MOTION** (Kaplan/Garcia) to approve to change ABF Policy to the Wellness Policy. Yes vote: Currul-Dykeman, Garcia, Kaplan, Crosby, Menisha, Zelevinsky, Hitter

DISCUSSION ITEMS:

2019-2020 School Calendar

Dr. Greer stated that we had discussions at the last meeting regarding the calendars A-E for the 2019/2020 school year. Dr. Greer discussed that Administration submitted five calendars for consideration.

Ms. Murphy gave a brief review of all the calendars from A-E. Calendar A is the same as past years with the same holiday and vacation schedule and the last day of school being June 17th with no snow days and the 24th if there were five snow days. Calendar B had a start date before labor day but a different end date and the STA was not amenable to calendar B. Calendar E had one day for Rosh Hashanah and the last day being June 15th with no snow days and the 22nd for five snow days. The STA were amenable to calendar A or E.

Ms. Murphy indicated the calendar came from discussions with the students and educators along with Administration. There were discussions regarding the low attendance days for

recognizing other holidays and putting this into effect at some point. Ms. Murphy indicated that we need to have a calendar in place that supports the diversity of our community.

Dr. Greer and Administrators will work on the school calendar for SY20/21. Dr. Greer discussed presenting the SY20/21 calendar sometime in the spring before the end of the SY19/20 school year.

J.Hitter asked for a motion to approve calendar A for the school year FY19/20. **MOTION** (Kaplan/Currul-Dykeman) motion to approve calendar A for the school year FY19/20. Yes vote: Garcia, Kaplan, Dkyman, Crosby, Menisha, Hitter

Ms. Zelevinsky was disappointed not to be presented a calendar option that would have complied with the understanding of guidance supplied by DESE.

H. Zelevinsky voted no.

SHS Program of Studies

J. Hitter discussed with the committee that we had discussed at last meeting there were some question and revisions that needed to be made.

Dr. Greer discussed that Dr. Libano and Mr. Pomer made the revisions to the program of studies per the committees request.

Dr. Libano reviewed the recommended revisions to the program of studies with some language changes and course descriptions and put a clear emphasis on the skill sets that students would require in various courses. The sign language class was listed per request from the committee. Dr. Libano discussed the pass/fail was not indicated in the program of studies. Administration and Educators felt as though it warrants further discussion.

Dr. Greer discussed the pass/fail request with the committee and emphasized the need to discuss this with educators before making this change.

Dr. Greer commended Dr. Libano and his team or their hard work on the program of studies.

J. Hitter asked for a motion to approve the Sharon High School Program of Studies for SY19/20. **MOTION** (Menisha/Crosby) motion to approve the Sharon High School Program of studies for the school year FY19/20. Yes vote: Dykeman-Currul, Garcia, Kaplan, Crosby, Menisha, Zelevinsky

Enrollment Presentation

Dr. Greer commended the committee and their hard work on this enrollment and it has been three years in the making. Dr. Greer stated that the Enrollment Committee was established prior to Dr. Greer coming to the district. The Enrollment Committee came up with six

redistricting options that were presented to the school committee last spring. The committee requested more information especially on the special education and various program locations. Dr. Greer discussed with the committee that the enrollment committee considered long term solutions including the special education programs and put together multiple redistricting options and narrowed it down to the options that will be presented tonight. We explored a long term restructuring and how it would look and would we need to require another facility.

Dr. Marcus presented the redistricting options to the committee and discussed that the enrollment committee looked at what would be best for the students and maximize the benefits as best we can. Dr. Marcus discussed that the committee looked at what the plan would have for longevity and last the longest. Dr. Marcus reviewed the areas from 1-5 and these areas lie and where they are located in consideration of the schools. Dr. Marcus reviewed all three redistricting options with the committee, indicating what areas are listed and what school these areas fall under geographically. Dr. Marcus gave approximately how many students would need to be redistricted to another school or sent back to their home school due to location geographically.

Dr. Greer answered questions that the committee had regarding if there would be a need to redistrict again within three years? Dr. Greer discussed the number of students moving into the school district. Dr. Greer discussed the current and projected enrollment and the growth across all three elementary schools. Dr. Greer stated that based on the upward trend with enrollment, that we could not guarantee that we would not have to redistrict again within the next couple of years.

Ms. Murphy presented the restructuring plan and that this would be done in phases, phase one would begin in fall of 2019. Ms. Murphy discussed phase one, that the three kindergarten classes at Cottage would move to East and Heights. was in place several years ago. We brought this idea back again and it would make Cottage a grade 1-5 elementary school. Ms. Murphy reviewed the number of students affected with committee.

Ms. Murphy discussed phase two which would take place 4-6 years from now. We would like to create a pre-kindergarten/kindergarten learning center. We would move early childhood from the middle school and combine all full- day kindergarten classes across the district along with our ½ day kindergarten, which is currently at Heights. This would free-up classrooms district wide. The elementary schools would be grades 1-5 and will allow space for continued growth and for those students to attend the school assigned to their district area.

Ms. Murphy discussed the options for the special programs and what would be the best for the students and their needs. If we redistricted we would not gain any empty classroom spaces to accommodate special education classrooms/programs.

Parents concerns on Enrollment:

- Concerns on Kindergarten being moved out of Cottage
- The students would be on the buses longer

- Chance of having to redistrict/restructure in a couple of years from now
- Will the redistricting/restructuring effect the same families
- The effect on families that have children at all different schools
- Families moved into certain district for that particular school
- Effect on the students that are moved, social emotional development of young learners
- Concerns on communication among the kindergarten first grade teachers
- No information has been given if restructuring has a facility

FY20 Superintendent Proposed Preliminary Budget

Dr. Greer presented the FY20 Proposed Preliminary Budget to the committee. Dr. Greer reviewed the detailed report and discussed the budget savings. She also shared that we received an additional \$111, 005 for the in circuit breaker refund. We will be able to save an additional \$43,000 by restructuring the 240 grant. The new athletic fee structure \$93,296 in the operating budget to be allocated back to schools. . Dr. Greer discussed the reductions of the budget with the committee which would be totaling -\$433, 643.00. Dr. Greer discussed with the committee the hiring freeze on any non-classroom teaching personnel. The total FY20 budget is \$45, 002,464.00.

ANNOUNCEMENTS & UPDATES

None

OTHER BUSINESS

None

J. Hitter asked for motion to adjourn the meeting. **MOTION** (Dykeman/Garcia) moved to adjourn the meeting. Yes vote: Kaplan, Crosby, Mensiah, Zelevinsky, Garcia, Currul-Dykeman, Garcia, Hitter

Meeting was adjourned at 10:35pm.

Respectfully submitted by
Melissa Bryant
School Committee Secretary

**Sharon School Building Committee
Sharon Town Hall
90 South Main Street
Sharon, Massachusetts 02067**

**SBC Meeting Minutes
2/19/19**

SSBC Members

Gordon Gladstone, Chair	Richard Slater	Sara Winthrop
Deb Benjamin, Vice Chair	Steve Smith	
Rick Rice absent	Roger Thibault	
Marty Richards	Colleen Tuck	Matthew Baldassari (TH)

Special Members

Ken Wertz		
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SBC Attendees and Others

Emily Burke - SBC	Kevin Nigro - PMA
Amy Garcia - SBC absent	Chris Blessen - Tappe absent
Victoria Greer - SBC absent	Charlie Hay - Tappe absent
Jose Libano - SBC	
John Marcus SBC absent	Jon Hitter - School Committee
Paul Queeney - PMA absent	Heather Zelevinsky
Matt Gulino - PMA absent	

Administration

- The meeting of the SBC was called to order by Chair Gladstone at 6:30 PM at the Public Safety Building.
- Future scheduled meetings dates include: 3/5, 3/19.
- Chair Gladstone commented that the architect was not present at this meeting.

Minutes

No vote was taken on the 2/5/19 minutes in order to give time for changes to be reviewed.

The minutes of 1/8/19 need updating and approval.

Invoices

Mr. Slater moved to approve the invoices for this project and Mr. Smith seconded the motion. The committee voted unanimously in favor of approval.

PMA - \$20,263.00

Tappe - \$121,975.80

Sharon High School Project

- The architects from Tappe were not present at the meeting. Kevin Nigro of PMA presented the PSR and Schematic Design Timeline.
- The Feasibility Study Highlights (PSR) included:
 - SC presentation - 2/27/19
 - Public Forum #2 - 3/6/19

- SC Approval of PSR - 3/13/19 Vote
- SBC Approval of PSR - 3/19/19
- PSR Submittal to MSBA - 3/21/19
- MSBA FAS meeting - 5/29/19
- MSBA Board Meeting - 6/26/19
- The Schematic Design Highlights included:
 - Begin Schematic Design - 5/30/19
 - SBC Approval of SD - 9/3/19
 - SD and DESE Submittal to MSBA - 9/11/19
 - MSBA FAS Meeting - 10/2/19
 - MSBA Board Meeting - 10/30/19
- Mr. Nigro then stated that the Town Meeting is November 4, 2019 and the Town vote is either November 12th or 19th.
- Mr. Nigro commented that the current design is really similar to feasibility with diagrams in order to get estimates. After the board meeting will there be an enhanced schematic.
- Chair Gladstone commented that MSBA read the contract between the Building Committee and PMA and there is inconsistency regarding payment for the hours incurred versus amortized over the contract. MSBA wants the contract amended so that the Building Committee agrees to make monthly payments through the life of the contract. Mr. Smith moved to approve this amendment to the contract for PMA and Ms. Winthrop seconded the motion. The Committee voted unanimously in favor of approval.
- Mr. Nigro commented that Paul Queeney no longer works for PMA and that he will be more present at the meetings.
- Chair Gladstone commented that he has received numerous emails expressing concerns regarding the project. All emails have been circulated to the SBC and SSBC members. He stated that we hear what you have to say, the comments are being addressed. There may be some changes, there may be some non-changes. There will be no open discussion at tonight's meeting.

Adjournment

Through unanimous consent, the meeting adjourned at 6:57 PM.

Attachments

None

Submitted:

Rachelle Levitts

Sharon Standing Building Committee

(Gordon Gladstone) Signature of Chair

Date of Acceptance

5.2

APPROVAL CERTIFICATION TEMPLATE



March 2019

Appendix 3D

Module 3 Local Actions and Approval Certification

Sharon High School Project



03/21/19

Ms. Mary Pichetti
Director of Capital Planning
40 Broad Street
Boston, Massachusetts 02109

Dear Ms. Pichetti:

The Town of Sharon School Building Committee ("SBC") has completed its review of the Feasibility Study Preferred Schematic Report for the Sharon High school project, and on March 19th, 2019, the SBC voted to approve and authorize the Owner's Project Manager to submit the Feasibility Study related materials to the MSBA for its consideration. A certified copy of the SBC meeting minutes, which includes the specific language of the vote and the number of votes in favor, opposed, and abstained, will be provided once they have been reviewed, approved and certified by the Sharon SBC.

Since the MSBA's Board of Directors invited the District to conduct a Feasibility Study on February 15th, 2018 the SBC has held twenty seven (27) meetings regarding the proposed project, in compliance with the state Open Meeting Law.

In addition to the SBC meetings listed above, the District seventeen (17) public meetings, which were posted in compliance with the state Open Meeting Law, at which the Project was discussed. These include School Committee Meetings, Community Forums, Public Visioning Sessions, Parent Teacher Organization Meetings, and Board of Selectmen Meetings.

Sharon High School Building Committee Meetings

Massachusetts School Building Authority

Module 3 – Feasibility Study

- 3D-1-

March 2019

February 20, 2018 – 06:30 PM – Sharon Public Safety Building

The RFS for OPM services was issued.

Chair Gladstone discussed the HS OPM Short list and asked that a series of uniform questions be compiled. All will work on the template. 3/20 shortlist, 3/27 interviews.

Sharon High School Building Committee Meetings March 06, 2018 – 06:30 PM – Sharon Public Safety Building

- 1) Sharon High School RFS
- 2) 9 responses to the HS OPM were received. Mr. Gladstone created a rubric that he will share with the committee.
- 3) Some firms have presented financials in confidence to Mr. Gladstone. He will create a spreadsheet to share during executive session.
- 4) Ms. Tuck will work on preparing the questions for the OPM position.

Sharon High School Building Committee Meetings March 14, 2018 – 06:30 PM – Sharon Public Safety Building

- 1) Sharon High School RFS
- 2) Rubric to review and score the OPMs for the High School.
- 3) RFS states 1-5 as grade points. 0 will not be considered.

Sharon High School Building Committee Meetings March 20, 2018 – 06:30 PM – Sharon Public Safety Building

- 1) Sharon High School RFS
- 2) Scoring of respondents by committee members was totaled and averaged. The top 4 firms to be interviewed are Daedalus, Colliers, NV5 and PMA. A discussion ensued.
- 3) 4 SSBC members to call 3 references for the selected firms. Mr. Rice will provide questions for reference. 10 questions were generated.

Sharon High School Building Committee Meetings

March 2019

March 27, 2018 – 06:30 PM – Sharon Public Safety Building

- 1) This evening's meetings purpose was to interview the 4 shortlisted candidates for the Owner's Project Management Services (OPM) position for the Sharon High School Project.
- 2) Colliers, Daedalus, NV5 and PMA presented to the Committee. Each addressed the questions provided by the SSBC in advance as well as questions at the meeting. Each team presented their staffing model for the project as well as sample approaches to take, reporting of data, their experience working with MSBA and an overview of projects completed that may be similar in nature. They also discussed their communicating options for the community and proponent.
- 3) Each SSBC member scored the candidates and the Sharon Standing Building Committee - OPM Scoping Totals for the Selection Committee Short List of OPM Scoring Summary is summarized as follows: Colliers - 18.55, Daedalus -19.55, NV5 -15.77 and PMA - 12.77.
- 4) PMA was selected by the SSBC as the OPM candidate. Chair Gladstone will email PMA to advise and begin contract negotiations.

Sharon High School Building Committee Meetings April 03, 2018 – 06:30 PM – Sharon Public Safety Building

- 1) PMA was selected by the SSBC as the OPM candidate at the last meeting. The Committee reviewed the contract presented by PMA. Chair Gladstone commented that through telephone negotiations, the contract was reduced from \$457,000 to \$414,000 rounded to a not to exceed \$410,000. A discussion ensued between the Committee and PMA to review the proposed contract fee further. Based on a November Town Meeting date to support the project, the process could be shortened but this cannot be confirmed until an architect is selected. The Committee needs to target attending an October 2019 meeting of MSBA.
- 2) The building will be a five year process once the project gets rolling. They project a September 2023 opening.
- 3) Mr. Carroll stated that he provided a fee reflective of the level of effort proposed. It is for 19 months, at a cost not to exceed \$410,000. If we can get an architect on board with an aggressive schedule he said he will come back to the Committee with a credit memo for one month or two months of difference. A one-month reduction would bring the fees to \$391,380 and a two-month reduction would bring it to \$373,300.

Sharon High School Building Committee Meetings

March 2019

May 15, 2018 – 06:30 PM – Sharon Public Safety Building

- 1) Paul Queeney stated that PMA was approved by MSBA as the OPM for the High School.
- 2) Mr. Queeney stated that he received comments back from MSBA for the solicitation of the architect. Revisions have to be accepted by 5/23 and the RFS will be advertised in the Central Register by 5/23/18.
- 3) Mr. Queeney stated that a briefing session will be scheduled at the High School to allow interested design firms to visit the school. 6/13/18 is the deadline for submission of proposals.
- 4) Chair Gladstone moved that the Committee authorize him to approve the changes that the MSBA wants to be made to the RFS. Ms. Benjamin seconded the motion and the Committee voted unanimously in favor of approval.
- 5) Chair Gladstone commented that we are on track to get this done as quickly as possible.
- 6) The ad will be placed in the Sharon Advocate and Patriot Ledger

**Sharon High School Building Committee Meetings
June 12, 2018 – 06:30 PM – Sharon Public Safety Building**

- 1) Chair Gladstone began the discussion by stating that the MSBA requires that Communities create an SBC - School Building Committee. MSBA dictates that the members will include: the superintendent, principal and school committee members.
- 2) Chair Gladstone also stated that the OPM, PMA Consultants help us go through the MSBA process to engage an architect. It is extremely important that non-voting members participate in the process of choosing an architect.
- 3) Mr. Nigro of PMA discussed the MSBA Architect Selection Committee. The MSBA Designer Selection Panel consists of 16 members; 13 standing members plus 3 from Sharon. The MSBA approves the RFS which was released to the architect community on 5/23/18. On 7/10 there will be a meeting with the MSBA to rank and the top three choices who will be interviewed. There will be 3 representatives from Sharon in attendance at the meeting: Dr. Greer or her designee; Amy Garcia and Bill Heitin or his designee. It is an open meeting for all to attend.

**Sharon High School Building Committee Meetings
June 26, 2018 – 06:30 PM – Sharon Public Safety Building**

- 1) Chair Gladstone stated that July 10th is the MSBA meeting to review all proposals. July 24th is the meeting with the respondents for interviews.

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- 2) The SSBC held a discussion and reviewed their scoring of each of the three candidates. A discussion ensued as to pros and cons for each candidate.
- 3) PMA stated they will list pros and cons about the three proposals and circulate a guide for talking points at the DSP meeting. They will suggest proposed questions to submit for the 7/24 interviews.

Sharon High School Building Committee Meetings July 10, 2018 – 06:30 PM – Sharon Public Safety Building

- 1) MSBA meeting with the designer selection panel. Process- Two meetings for architects. Review proposals and short list to and two weeks later the short listed architects have 30 mins to present.
- 2) Although there were three proposals we would not have to interview three. Voted 7 to 5 to interview all three. Therefore, the committee did not have to rank the three.
- 3) Discussion regarding what should be in the content of the presentations. MSBA gave Kevin a few example questions. We revisited this to determine that we should try to incorporate these questions. The committee discussed these questions further.

Sharon High School Building Committee Meetings July 24, 2018 – 06:30 PM – Sharon Public Safety Building

- 1) Chair Gladstone said that the second meeting with the MSBA regarding the designer selection panel was held. KBA and Tappe made a presentation. SMMA chose to withdraw due to other commitments. Tappe was chosen through unanimous decision to be the architect for the High School Project.
- 2) It is PMA's job now to negotiate Tappe's fees, support and review their proposals, help keep to the design schedule and keep the designer on track.

Sharon High School Building Committee Meetings August 07, 2018 – 06:30 PM – Sharon Public Safety Building

- 1) Tappe provided a walk-through of their presentation which had been provided to the MSBA previously. Tappe reviewed their team members, experience, construction estimating, controlling costs, approach to security and future flexibility. They stated that security is first priority and embedded within the basis of design.
- 2) Chris Blessen will be the face of Tappe. He said they must consider all alternatives for locating a new HS in the Town per MSBA guidelines.
- 3) Tappe and PMA need to work out a three-day visioning session with school administration. Frank Locker is the educational consultant.

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4) Paul Queeney stated he has reviewed Tappe's fees and feels they are competitive; in the lower range. He stated certain extra services are out of the base contract such as site survey, geotechnical, traffic, preliminary hazard material testing and reporting.

5) Ms. Benjamin moved and Ms. Tuck seconded a motion to authorize the Chair to sign the contract with Tappe in the total of amount of \$1,229,940.00. All voted in favor of approval.

Sharon High School Building Committee Meetings August 21, 2018 – 06:30 PM – Sharon Public Safety Building

1) Mr. Queeney said three visioning sessions will be set with the architect and educational planners and school personnel.

2) Chair Gladstone asked Mr. Queeney to work out visiting schools designed by Tappe with Frank Lockers input. He wants to see the result of educational visioning sessions and how they get formulated into a building.

3) Mr. Queeney said a kickoff meeting with MSBA is this Thursday 8/23/18.

4) Mr. Queeney reviewed the supplemental narrative about hazmat and geotech/geo-environmental sub-consultants proposals from Tappe architects.

5) Mr. Queeney said the MSBA mandates that the architect looks at renovation, addition/renovation, new building and no building options to exhibit due diligence. The architect needs to submit to MSBA to review the PDP submittal on 11/21.

Sharon High School Building Committee Meetings September 04, 2018 – 06:30 PM – Sharon Public Safety Building

1) Matt Gulino provided a brief update on upcoming visioning workshops. Tappe is working towards PDP submission in Nov 21st. Tappe will be at the next SBC meeting to provide a more detailed update on progress.

Sharon High School Building Committee Meetings September 25, 2018 – 06:30 PM – Sharon Public Safety Building

1) Chair Gladstone stated that going forward, procedurally, we will alternate the start of the SBC and SSBC meetings. One week the Town Hall Project will be discussed first and the next week the High School Project will be discussed first.

2) Matt Gulino and Paul Queeney stated that Tappe's meetings with the educational leaders is ongoing.

3) Visioning meetings will be held on 9/27 and 9/28 as well as 10/4. There will be approximately 50 attendees at these workshops. Information from these workshops will help further the education plan and assist with Tappe's design. The MSBA requires that

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they are presented with various options. The big tasks now are the visioning session and starting the PDP.

4) On 10/3/18 Tappe arranged for a visit to Lunenburg Middle/High School to tour the facility created by Tappe. This will help show how Frank Lockers visioning sessions got implemented into the building.

5) There will be a site survey by drone on 10/8. PMA will notify both the police and fire departments.

6) On 11/14 Tappe will attend the Sharon Sustainability meeting regarding green design. PMA will attend as well.

7) Traffic studies will be occurring.

8) Chair Gladstone asked Mr. Queeney to prepare a hypothetical form 30-11, which is the form the MSBA uses to calculate the actual reimbursement. Chair Gladstone said he wants to understand the calculations and theory behind it. 48.82% is the ostensible reimbursement rate. Chair Gladstone commented that it will undoubtedly be in the low to middle 30's.

9) Mr. Queeney said they are on track to submit the Preliminary Design Program (PDP) by 11/21. They will be ready for design/bid in Fall 2020 and open a new high school in fall of 2022.

10) The geo-tech contractor is on site. The boring tests have been completed and no major issues have been identified. A report will be created.

11) Chair Gladstone commented that Heights Elementary Roof Project was finished in August, 2017 and the paperwork was just completed in September, 2018 with MSBA. The Town exposure was \$1,331,000 and the actual cost to the Town after the MSBA reimbursement was \$871,000.

Sharon High School Building Committee Meetings October 09, 2018 – 06:30 PM – Sharon Public Safety Building

1) Chair Gladstone stated that on 10/3/18 he visited Lunenburg Middle/High School along with Tappe to see what a Tappe project looks like. It was finished in 2016. He stated it was an interesting experience. They are also going to analyze another school not designed by Tappe to note variations. A slideshow of the interior and exterior of the Lunenburg tour was shown to the Committee. Guidance offices were divorced from administration as per opinions of the students. Size of hallways appeared small. There is a cafeteria alternative where students can bring lunch to work with others. Science tables have wheels. Teacher area with private lockers and cubbies for those that do not have a permanent space at all times. Finishes were shown with color contrasts but, not too bright. Tiles on the walls are to protect the walls but at the height and level of the "damage area".

2) Matt Gulino said that the visioning workshops were held on 9/27, 9/28 and 10/4. Key concepts included flexibility to accommodate current and future curriculum needs/changes, universal design, welcoming supportive physical environment, 21st century learning, make a kid magnet, reach all students with a high degree of engagement and collaborative and cross disciplinary opportunities.

3) Existing conditions analysis is ongoing as well as the environmental site assessment and traffic study. The evaluation of alternative sites is being provided by the Town Engineer. They are looking for 25 – 30 acres for a site. Charlie Hay commented that under MSBA there is no obligation to move from the existing site. Costs are usually prohibitive. At the next meeting pros/cons of alternative sites will be discussed.

4) Charlie Hay said there are no critical submission points in this submission. MSBA wants to see the district educational program vision. They want to see that due diligence was performed for site alternatives. They want reassurance that preliminary work is completed.

5) Mr. Hay mentioned that MSBA provides for a 750 seat auditorium. A brief discussion ensued as the current auditorium seats over 1100 persons.

6) District Planning Meeting #4 to be held on 10/16/18.

7) On 11/14/18 Tappe will attend the Sharon Sustainable Coalition Meeting to discuss the conceptual approach for green design for this project.

8) On 11/21/18 the Preliminary Design Program (PDP) submittal is due to MSBA. Included in this submission is the educational plan and space summary which needs to be completed, reviewed and approved by the School Committee. The SBC needs to approve the PDP options. This is the first phase.

9) The MSBA Preferred Schematic Report is due on March 21, 2019. This is when options are evaluated, a budget developed and an updated educational plan and space template are done.

10) The MSBA Schematic Design Submission is due 9/11/19.

Sharon High School Building Committee Meetings October 23, 2018 – 06:30 PM – Sharon Public Safety Building

1) Chris Blessen from Tappe provided the Committee with an analysis of alternative site options to build the High School. These include the current site at 181 Pond Street, 144 Old Post Road, 250 E. Foxboro Street, 149 East Street and 400 Mountain Street. This presentation will also be made to the School Committee. All sites except E. Foxboro and the current High School site are not owned by the Town. This land acquisition would require a purchase by the Town. Given the time constraints Chair Gladstone stated that the only rationale conclusion is to build on the current site.

2) The pros and cons for each site must be reviewed as part of the due diligence process. 25 – 30 acres are needed to build upon. The Sharon Gallery site is currently under construction for 290 apartments and is slated for a great deal of commercial space. Traffic would be congested. Sharon Country Club is undeveloped at the moment and there is language in the deed that if the Club goes under that the property would revert back to the Town as open space. 250 E. Foxboro Street may be the only potential other option. The Town only owns part of the property so, would need to take back property leased to Camp Everwoods. The shape of the property is less than ideal for incorporating the fields and the academics. Rattlesnake Hill at 400 Mountain Street has agreements for housing on this property and there is quite a bit of earth work required to make it suitable. It is at an edge of Town and would be difficult for traffic control.

3) Steve Smith questioned what happens to the current High School if another site is selected.

4) Mr. Blessen said he provides the challenges of the job, the analysis of the sites and is obligated to guide the process. Chair Gladstone stated that he hopes the consultant will lead us to the right decision. The School Committee will make the final decision regarding the site.

5) Mr. Blessen stated that the survey work at the high school is not yet completed. They are working on testing the wetlands and setbacks.

6) At the next meeting there will be options to walk through. Mr. Hay will be in attendance.

7) Mr. Blessen said he is starting to get reports back from the site engineers. He will place in the drop box for the Committee to review.

8) A brief discussion was held regarding the number of seats required for the auditorium. MSBA provides for 750 seats within the program. Mr. Blessen will provide options for setup.

9) Mr. Smith questioned if there are other flexible alternatives that would allow the auditorium to remain small but increase for the few times that it is needed. Mr. Blessen stated this would likely be a challenge for a space like this. Dr. Libano stated that in the 13 years he has been Principal, they have not brought in more than 600 students at one time.

10) With drama events or rentals of the space, events are either under attended or oversold but, rarely a general full house. The families in Town would like to see a larger auditorium and stage. It was asked if we can have a large stage with the same number of seats. Going forward the program will include more and can be cut back after seeing the costs that the Town will have to accept.

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11) Mr. Blessen explained that while MSBA establishes the enrollment for the school, it is desirable for a site and/or building design to accommodate future expansion should enrollment increase beyond MSBA projections; MSBA does not want to see a strict plan with no flexibility for the future. Current enrollment is 1125 and future calculations can program to 1250. Mr. Blessen said that MSBA wants designs for the agreed upon enrollment.

12) Mr. Queeney from PMA said he attended all planning presentations. He stated Mr. Blessen is describing standard processes for MSBA. This will all be developed into a favorable submittal for MSBA.

Sharon High School Building Committee Meetings November 06, 2018 – 06:30 PM – Sharon Public Safety Building

1) The main point of discussion for the evening was Tappe's submission to MSBA on 11/21/18 with respect to the High School.

2) Charlie Hay provided the Committee with a progress report relative to the PDP – Preliminary Design program.

3) The update included a list of documents available for review.

4) Alternate sites – School Committee decided to stay with the adequate existing site of the High School. Challenges of the alternate site included land acquisition, time, cost and there are no better alternatives.

5) Space template – this is an ongoing living document, drama classroom added, auditorium was reduced to 750 seats which the MSBA will support and added Community Education space: offices, classrooms.

6) New gross square footage is 241,618. MSBA guidelines is 225,000 so we are over 16,618 square feet.

7) Mr. Hay said MSBA will provide a written response back regarding the overage on the square feet. He said MSBA may prorate these spaces as they are integral to the school programming.

8) Preliminary options include renovation which does not accommodate the space. It is a difficult phased construction, could take 4 years and does not satisfy the educational program. Mr. Hay said you could add a classroom wing, taking over the football field and build next to the old building but that is a 3 year project. It is not a perfect solution. This is Option AR1.

9) Option AR2 takes away exiting wings in sections and constructs a new wing on the north side. This could take 4 years to build and modular classrooms would be needed.

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10) Mr. Hay said each scheme will have project costs assigned based on square footage. He said costs are surprisingly high when looking at a building from the 1950's that needs new systems and finishes etc. You do not save a lot on renovations and logistically it is very difficult.

11) With new construction you can have a separate construction entrance, can close off the site from traffic for safety and it is more of a clean and simple process. Several sports will however be displaced including baseball, softball, field sports and tennis.

12) Mr. Hay said the construction timeline would include Fall 2020 – Fall 2022 for demo and site work.

13) In conclusion Mr. Hay stated: do not pursue alternative sites, study all on site PDP options in the Preferred Schematic Phase. The current site can support either addition or replacement options.

14) At the School Building Committee meeting of 11/20 the Committee can vote to approve submitting the PDP to the MSBA. A formal vote is required. On 11/21 the submission of the PDP binder to MSBA will be made.

15) The next step will be to proceed into the PSR Phase and create the Preferred Schematic Report. Here the district reviews options for the preferred approach. Recommendations to SBC on final options for selection. Complete PSR to MSBA on 3/21/19.

16) Paul Queeney of PMA stated that they keep adding to the website for frequently asked questions and next steps.

Sharon High School Building Committee Meetings November 20, 2018 – 06:30 PM – Sharon Public Safety Building

1) Mr. Blessen reviewed highlights from the finalized PDP Report to be submitted to MSBA on 11/21/18.

2) Mr. Blessen reviewed the renovation option, the add/reno options and the new options. Preliminary costs were indicated for each option along with the associated square footage. Reno is approximately 86 million dollars, add/reno averages 160 million dollars for 268,175 GSF and a new option averages 157 million at approximately 241,618 GSF. Each project concept will have a different effect on the budget and what is reimbursed verses what is paid by the Town.

3) Next week will begin the process to drill down into the various options within each category to then develop 3 schemes in full by the end of March. At the Preferred Schematic Report phase it will be narrowed to three options.

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4) Mr. Slater moved and Mr. Smith seconded the motion to approve the signing of the document for the PDP Report to be submitted to MSBA tomorrow by Tappe and PMA. The Committee voted unanimously in favor of approval. The Chair of the Sharon Standing Building Committee, Superintendent of Sharon Public Schools and the Chair of the School Committee each signed the local actions and approval certification document.

5) Dr. Greer stated that the School Committee agrees by consensus that it is acceptable to sign the document.

6) Next steps include the 12/4 SBC meeting and proceeding into the Preferred Schematic Report (PSR) phase. The District then reviews the options to develop the preferred approach based on the District Educational Program and recommends 3 choices to the SBC to come up with a final option for selection: Reno, Add/Reno and Replacement.

7) The next part of the project will involve more outreach to the public.

Sharon High School Building Committee Meetings December 04, 2018 – 06:30 PM – Sharon Public Safety Building

1) Mr. Hay reviewed the projects progress to date. He stated that the PDP was submitted on 11/21/18 and acknowledged by MSBA.

2) There was a District meeting on 11/27 to review options and a presentation to the High School PTSO on 12/3 to discuss the process going forward. A meeting with the Elementary School PTSO's is being planned.

3) The PSR Overview Phase is between 11/21 – 3/21. In this timeframe, options will be narrowed to be studied in greater detail. MSBA requires 3 alternatives: code upgrade, add/reno and replacement. PSR will document and substantiate the districts selections and recommendations for the preferred solutions.

4) Preliminary Options were reviewed to include: Option R-1 which is the reno option. It satisfied MSBA requirement option at PSR. It can only bring the school up to code but has limitations and challenges.

5) AR-1 adds classrooms towards the site near the lake. It is a two story large addition, least evasive, accommodates space template. AR-2 is less efficient and constrained. It would be disruptive, temporary modular classrooms required, 4 major construction phases. The school wants to eliminate AR-2.

6) Option N-1 is two floors, two wings per floor, larger classrooms and 300 students per wing. It is an expansive layout. It is less accommodating of future educational needs. Less disruptive than add/reno. N-2 is similar and would place the auditorium on the south side away from the entrance. N-1 and N-2 are less desirable as they have 300 students per wing.

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7) N-3 is a smaller learning community. 3 wings per floor, 200 students per wing, public functions in the front of the building, better accommodates future changes in education. Toilets would be distributed throughout the buildings.

8) N-5 is 3 floors, 2 wings, 200 students per wing, less appropriate scale to neighborhood context. Mr. Hay commented that a two story building is more appropriate scale for the site.

9) N-4 is 2 floors, 3 wings, 200 students per wing, public functions in the front, better accommodates changes in education.

10) Mr. Hay recommended allowing study of N-3 and N-4.

11) The Conceptual Cost Option showed a new building costing between 153.7 - to 157 million dollars. An ad/reno to be 157 to 160 million dollars and a reno at 89 million dollars. The cost opinion on all options is very similar. It is based on the square footage and the footage meets the space program of the MSBA.

12) It was determined not to study AR2, N1, N2, N5.

13) It was recommended to study in greater detail: R1, AR1, N3 and N4.

14) Elevators- thinking two elevators.

15) School prefers the smaller number of students per wing and is not interested in three stories.

16) Brief discussions ensued related to what and how the building will work. View of the lake, access to the space by public and students. There will be a call with the wetlands scientist, to address an entrance from the beach side of the building. Need to determine what will the building look like from the lake.

17) On 1/8 Building Committee selection of preferred option.

18) On 1/22 there could be an inclination to move forward with N3 or N4.

19) Public forum is scheduled for 1/24. 3 options to be presented for public feedback.

20) Next steps update MSBA on PSR progress.

21) Complete PSR and submit to MSBA on 3-21-19.

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**Sharon High School Building Committee Meetings
December 18, 2018 – 06:30 PM – Sharon Public Safety Building**

1) Tappe was not in attendance at this meeting. PMA provided a presentation of the project to date. Chair Gladstone requested that the presenters include dates on their presentations in the future.

**Sharon High School Building Committee Meetings
January 08, 2019 – 06:30 PM – Sharon Public Safety Building**

1) The meeting of the SBC was called to order by Chair Gladstone at 6:40 PM at the Public Safety Building.

2) Future scheduled meetings: 1/22, 2/5, 2/19, 3/5, 3/19

3) Tappe and PMA presented a PowerPoint presentation, which included updates to; PDP comments received from the MSBA, progress made on the options being studied further during PSR, and upcoming meeting dates including a public forum on 1/24/19

**Sharon High School Building Committee Meetings
January 22, 2019 – 06:30 PM – Sharon Public Safety Building**

1) Tappe reviewed activities from the prior period. They met with over 100 faculty and staff and students regarding the programming. Collaboration came out as the overwhelming main concern of all.

2) N4 is the preferred option of all- 3 wings on the street edge, cafeteria on the side facing the lake. Media center above on second floor receives the view too. Schematics grew to 3D views. Chris Blessen described the updated versions of N3 and N4 to determine the preferred option. He showed the Committee the difference between the two options. In previous meetings most prefer N4 as the cafeteria placement has it making a connection to the lake. There would be a media center on top of the cafeteria. They are looking at the idea of putting solar on the roof. He said they need the go ahead from the Committee to talk to the community.

3) R1 is a reno, AR1 is an add/reno and N4 is the new construction choice. There is a Community forum this Thursday and they would like to focus the discussions on these preferred options.

4) Dr. Greer stated that she had input from the educators and architect's conversations. The OPM stated that MSBA process looks to Administration not the school committee for a vote.

5) The views being shown are all preliminary. They will change drastically during design development. The space template gets submitted at each phase. Sizes will be adjusted as it goes along. Community spaces will be isolated from being able to access the rest of the school.

6) The architect stated they needed a directive to study on the PSR option phase. Mr. Smith moved and Ms. Winthrop seconded the motion to proceed with studying R1, AR1 and N4 for new construction. The Committee voted unanimously in favor. In March, one option needs to be decided upon. The PSR submittal is due to the state on 3/18. They need to make progress on all 3 schemes. The decision point is at the end of the PSR. In schematic design phase the build out is more developed.

**Sharon High School Building Committee Meetings
February 05, 2019 – 06:30 PM – Sharon Public Safety Building**

1) Chris Blessen stated that the public forum was well attended. There was a question about the layout and if it could be changed by taking or buying nearby land. It was investigated and deemed not appropriate. Reminder from Debbie Benjamin that if a question is asked that the architect get direction on whether to proceed from the “proponent” before doing work to answer the question.

2) Feasibility Highlights include PSR submittal to MSBA on 3/21, MSBA FAS meeting is 5/29/19 and the MSBA Board Meeting is 6/26/19.

3) Schematic Design Highlights include beginning schematic design on 3/22/19, SD Submittal to MSBA on 9/11/19 and MSBA Board Meeting on 10/30/19. Town Meeting is November 2019.

4) Chris Blessen stated that the next steps are to continue to develop the PSR Option. SBC meetings are 2/19, 3/5 and 3/19. District Meetings are 2/12, 2/26 and 3/12. Public Forum date is TBD and the complete PSR submittal to MSBA is 3/21/19.

5) Steve Smith asked how future expansion of the building will be shown. Chris Blessen said he will likely put that on the drawing with dotted lines to show future areas of possible expansion. Kevin Nigro said there will need to be some thought and dialogue to make sure that it can be done.

6) Dr. Dalia Yablon, a Sharon resident voiced her concern regarding the high school project. She thinks the development is not being handled by experts, she expressed that SHS teachers and those that work in labs can better plan for science education. She is concerned with lab safety and how to minimize exposure. She stated that having labs far from a centralized chemical stock room increases exposure of those people who have to handle them and suggests they are all stored in one place. She suggests transport of these materials should be minimized. She feels that having multiple trained personnel co-located and immediately available to help in case of an accident can save lives. She also discussed the financial aspects of having all the facilities (gas, water, hood venting, etc.) piped to one branch in the school vs. the current design. She suggests that there should be a science branch in one part of the building.

7) Emily Burke, Science Curriculum Coordinator at SHS stated that the biggest driver of student success is teacher collaboration. The new building design will foster multiple

collaboration opportunities. She stated she is discussing a chemical stock room setup with the Architect. The building is a physical representation of community consensus, Arts and Steam in the core. From a financial perspective, they are looking at stacking cost and finding that the difference is minimal. The vision is that science is the backbone.

8) Dr. Greer stated that she and Dr. Libano reached out to 16 different districts which have built high schools over the past 8 years, some completed, some still in construction. 15 out of the 16 are designed the way we are designing, with multiple floors/wings and with the science classrooms/labs on multiple floors/wings. We take chemical storage and safety very seriously. We are building for all content and all departments to be heard and meet the best needs of everyone.

9) Chair Gladstone said the Standing Building Committee has responsibility for all construction aspects including design. From his perspective, the School Administration and School Committee have worked at length with the architects. From his perception he is not aware of anything that definitely says one design is superior to the other. We are dealing with opinion. The Administration is in favor of this design and the majority of the School Committee is in favor of this design. 15/16 high schools built in the past 8 years are following this path. When you weigh the conclusions of leaders of the educational process he has to believe all are working toward the same goal; best education and safety for all students. This design and program had been submitted to the MSBA. The MSBA has vetted and criticized the program. They are concerned with safety. Our role as the proponent is to build what they need.

10) Ms. Tuck stated that our job is to ensure the integrity of the process.

11) Mr. Smith stated that all science room are blocks on paper right now and it's good to know there are concerns that we will watch for now as plans develop.

12) Mr. Rice stated that the MSBA prescribes certain things and this process and design has a lot of State scrutiny. The design today is much more prescriptive.

13) Kevin Nigro of PMA stated that the MSBA science initiative task force developed the requirements and best practices to be reflective of the initiatives.

14) Heather Zelevinsky said the School Committee has no authority on the project.

15) Chris Blessen stated he is taking all comments under advisement.

16) David Warner a landscape architect reviewed the slides for the site plan program and function.

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17) Mr. Rice suggested that a nice fence be included on Pond Street to control balls from the baseball field.

Sharon High School Building Committee Meetings February 19, 2019 – 06:30 PM – Sharon Public Safety Building

The architects from Tappe were not present at the meeting. Kevin Nigro of PMA presented the PSR and Schematic Design Timeline.

1) The Feasibility Study Highlights (PSR) included:

- o SC presentation - 2/27/19
- o Public Forum #2 - 3/6/19
- o SC Approval of PSR - 3/13/19 Vote
- o SBC Approval of PSR - 3/19/19
- o PSR Submittal to MSBA - 3/21/19
- o MSBA FAS meeting - 5/29/19
- o MSBA Board Meeting - 6/26/19

2) The Schematic Design Highlights included:

- o Begin Schematic Design - 5/30/19
- o SBC Approval of SD - 9/3/19
- o SD and DESE Submittal to MSBA - 9/11/19
- o MSBA FAS Meeting - 10/2/19
- o MSBA Board Meeting - 10/30/19

3) Mr. Nigro then stated that the Town Meeting is November 4, 2019 and the Town vote is either November 12th or 19th.

4) Mr. Nigro commented that the current design is really similar to feasibility with diagrams in order to get estimates. After the board meeting will there be an enhanced schematic.

5) Chair Gladstone commented that MSBA read the contract between the Building Committee and PMA and there is inconsistency regarding payment for the hours incurred versus amortized over the contract. MSBA wants the contract amended so that the Building Committee agrees to make monthly payments through the life of the contract. Mr. Smith moved to approve this amendment to the contract for PMA and Ms. Winthrop seconded the motion. The Committee voted unanimously in favor of approval.

6) Mr. Nigro commented that Paul Queeney no longer works for PMA and that he will be more present at the meetings.

7) Chair Gladstone commented that he has received numerous emails expressing concerns regarding the project. All emails have been circulated to the SBC and SSBC members. He stated that we hear what you have to say, the comments are being

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addressed. There may be some changes, there may be some non-changes. There will be no open discussion at tonight's meeting.

Sharon High School Building Committee Meetings March 05, 2019 – 06:30 PM – Sharon Public Safety Building

(Meeting Minutes will be provided when they have been approved by the SBC and made available for public record)

Sharon High School Building Committee Meetings March 19, 2019 – 06:30 PM – Sharon Public Safety Building

(Meeting Minutes will be provided when they have been approved by the SBC and made available for public record)

Sharon School Committee Meeting October 10, 2018 – 7:00 PM – Sharon Middle School

- 1) Dr. Greer gave a background on the Sharon High School project and discussed the visioning sessions that were held over the past couple of weeks. These visioning meetings were with the community, parents/families, educators and students. Ms. Garcia is the liaison to the Sharon Standing Building Committee (SSBC). Ms. Garcia discussed the visioning process and attended some meetings and shared that it was good start to the educational programming.
- 2) Mr. Blessen from Tappe Architects presented the status of the high school project and the process of the three phases that the Massachusetts School Building Authority (MSBA) requires.
 - a. Preliminary design program (PDP) is the first phase and we are scheduled to submit the education program to the MSBA on November 21, 2018.
 - b. Second Phase is Preferred Schematic Report (PSR)
 - c. Third Phase is the Schematic Design
- 3) Dr. Greer gave an overview of what led the district to this process with a potential high school project and explained that this process began almost three years ago.
- 4) Mr. Blessen described the Preliminary design process (PDP). Mr. Blessen discussed the MSBA conceptual and preliminary space template that generates the amount of space you are allocated depending on the enrollment numbers.
- 5) Mr. Blessen discussed the District Education Program and that it is the work of Dr. Greer, Administration and Curriculum leaders. The education program should state what you are currently doing and what you want to change with the education plan going forward.

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6) Paul Queeney discussed the design module points, CHIPS certification points and incentive categories.

Sharon School Committee Meeting

October 23, 2018 – 7:00 PM – Sharon Middle School

1) Dr. Greer gave an update regarding the SHS building project. There was a Standing Building Committee meeting tonight and the Tappe Architects gave an update to Standing Building Committee. Right now we are looking at alternative site options for the building project. One of the MSBA requirements is that we look at alternative sites within the town of Sharon that could possibly be a new sight for the high school project. Tappe has done the preliminary work and are bringing those decisions to the Standing Building Committee tonight. Dr. Greer said that the School Committee will be able to review these sights and give input regarding the site options that will be shared with the Standing Building Committee so they can vote on a site location for SHS.

2) Dr. Greer had discussions regarding the high school project and a potential partnership with the Sharon Community Television staff and Board Members.

Sharon School Committee Meeting

November 07, 2018 – 7:00 PM – Sharon Middle School

1) Dr. Greer gave an update on the high school project. Dr. Greer discussed the Education Program and that the School Committee should receive a draft copy by this Friday, 11/9. The Education Program will need to be voted on at School Committee Meeting/Workshop on Wednesday, November 14th. The Education Plan is due to the MSBA on November 21st.

2) Dr. Greer discussed the SHS Building Project website and that the Owners Project Manager (OPM) is helping us to come up with various documents to update the website.

Sharon School Committee Meeting

November 19, 2018 – 7:00 PM – Sharon Middle School

1) Dr. Greer discussed the Sharon Highs School Education Program. At the last meeting there were several revisions that were needed and requested by various members of the School Committee. Dr. Greer made the revisions based on her own review of the document, feedback from Tappe Architects and the School Committee.

2) J. Crosby thanked Dr. Greer for her work on the revisions and expressed support for the revised Education Program.

3) H. Zelevinsky thanked Dr. Greer for her work on the revisions but expressed continued concerns with various components of the Education Program.

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4) M. Kaplan thanked Dr. Greer for putting together the education program and expressed there is a lot energy and excitement from the community to where we want to go with a new project for the high school.

5) Garcia discussed she is the liaison for the School Committee to the Standing Building Committee and that she attends those meetings. She discussed that she will give updates to the School Committee on the progress of the high school project.

6) Dr. Greer will also give updates to the School Committee as she continues to her bi-weekly meetings with the Architects

Sharon School Committee Meeting

November 28, 2018 – 7:00 PM – Sharon Middle School

1) Dr. Greer discussed that the MSBA has sent a notice that they have received the submission for the first phase for the high school project. The MSBA does not have a timeframe on when they will review the submission. All questions and any other documentation that is needed will be remitted through our Architect.

2) Dr. Greer shared that we are officially in the schematic phase which is Phase 2 of a three phase process.

Sharon School Committee Meeting

December 05, 2018 – 7:00 PM – Sharon Middle School

1) Dr. Greer presented an update on the high school project and the building process and dates of sessions that will be helpful to the community. Dr. Greer discussed the Sharon High School Project Team meetings and that they are held every two weeks. These meetings are made up of Administrators and various faculty as appropriate. The team is a requirement of the MSBA process, the team ensures that we perform actions as outlined on the MSBA timeline. Dr. Greer explained that depending on the focus and topic of the bi-weekly meetings, determines who is invited. Currently the team is discussing marketing, outreach and community meetings. In the next couple of weeks there will be meetings scheduled to engage faculty, staff, students and the community.

2) Dr. Greer explained that the MSBA process is time sensitive. Once we have entered into the program with the MSBA they determined our timeline as to when we have to meet certain benchmarks. If we miss any benchmark in the outlined process timeline we will be can released from the program. As Administrators we need to make sure we keep on this timeline and meet their expectations. Below is a list of dates that the high school project will be discussed:

- Combined Elementary PTO Meeting Tuesday, December 11th
- High School Faculty meeting Wednesday, December 12th
- Tentative School Committee working meeting in January TBD
- State of the School Address in January TBD

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- Community Kick Off meeting Thursday, January 24th

4) Dr. Greer reinitiated that Amy Garcia is the School Committee liaison to the Standing School Building Committee. As the committee meets and has discussions regarding high school project, Ms. Garcia will share information and updates along with Dr. Greer to the committee.

Sharon School Committee Meeting

January 09, 2019 – 7:00 PM – Sharon Middle School

1) Dr. Greer gave an update on the high school building project and reviewed the option designs with the committee.

Sharon School Committee Meeting

February 06, 2019 – 7:00 PM – Sharon Middle School

1) There was an email from a parent regarding the layout of the high school project particularly the science room location.

Sharon School Committee Meeting

February 13, 2019 – 7:00 PM – Sharon Middle School

(Meeting Minutes will be provided when they have been approved by the School Committee and made available for public record)

Sharon School Committee Meeting

February 27, 2019 – 7:00 PM – Sharon Middle School

(Meeting Minutes will be provided when they have been approved by the School Committee and made available for public record)

Sharon School Committee Meeting

March 13, 2019 – 7:00 PM – Sharon Middle School

(Meeting Minutes will be provided when they have been approved by the School Committee and made available for public record)

Sharon Community Forum #1

January 24, 2019 - 7:00 PM - Sharon High School

- 1) Members from the Sharon Public School Administration, Sharon SBC, Tappe Architects and PMA Consultants presented on the Sharon High School building project. This presentation provided information on the MSBA process, MSBA cost and reimbursement rules and regulations, building option updates and the next

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steps for the project. As of 1/24/19 the project has submitted the Preliminary Design Program (PDP), responded to the MSBA's PDP comments and is working towards the Preferred Schematic Report (PSR). After the presentation the forum was opened up to questions from the community.

Sharon Community Forum #2

March 06, 2019 - 7:00 PM - Sharon High School

1) Members from the Sharon School Administration, Sharon SBC, Sharon School Committee, Tappe Architects and PMA Consultants presented on the Sharon High School building project. This presentation provided information on the MSBA process, MSBA cost, reimbursement rules, regulations, building option updates, and the projects next steps. As of 3/6/19 the project is working on the submission of the Preferred Schematic Report (PSR), which is scheduled to be submitted to the MSBA on 3/21/19. After the presentation was finished, the forum was opened up to questions and statements from the community.

Sharon High School Visioning Session #1

September 27, 2018 - 8:30 AM - Public Safety Building

1) The first of three Public Visioning Sessions provided an outline of what the visioning sessions would cover and what the end goal of each session will be. Frank Locker lead the visioning session which covered topics ranging from examples of 21st Century Schools, 21st Century Learning, what has worked and what can be done better, defining student success and review of the current programs, services, deliveries and the school organizational structure.

Sharon High School Visioning Session #2

September 28, 2018 - 8:30 AM - Public Safety Building

1) Frank Locker lead the second visioning session which dug further into the current Sharon High School curriculum and how to integrate that into a potential building project. The second session largely focused on exploring innovations in education and the school organizational structure.

Sharon High School Visioning Session #3

October 04, 2018 - 8:30 AM - Public Safety Building

1) Visioning Session #3 provided a recap of the first two sessions followed by a more detailed conversation pertaining to overall school organization and the defining of learning spaces. A group discussion led to the creation of an organizational diagram highlighting the groups main objectives and critical needs for the High School. Small group discussions were also held which allowed each group to highlight what they thought was critical to them for a high school learning environment.

Board of Selectmen Meeting

March 2019

October 16, 2018 - 7:00 PM - Sharon Community Center

1) Vote to authorize SSBC Chairman Gordon Gladstone as designee to sign the Local Actions and Approval Certification Letter for the High School Feasibility Study Project.

The presentation materials for each meeting, meeting minutes, and summary materials related to the Project are available locally for public review at:

School Building Committee Meeting Minutes:

2018 - <https://www.townofsharon.net/node/2044/minutes/2018>

2019 - <https://www.townofsharon.net/node/2044/minutes/2019>

School Committee Meeting Minutes:

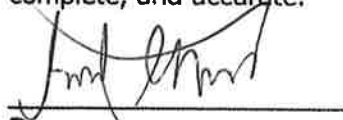
2018 – 2019 <https://www.sharon.k12.ma.us/Page/5931>

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To the best of my knowledge and belief, each of the meetings listed above complied with the requirements of the Open Meeting Law, M.G.L. c. 30A, §§ 18-25 and 940 CMR 29 *et seq.*

If you have any questions or require any additional information, please contact Matthew Gulino, PMA Consultants. Phone: 781-794-1404 , email: mgulino@pmaconsultants.com


By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.


By:

**Title: Gordon Gladstone,
School Building
Committee Chairman,
Chief Executive Officer
Designee**

Date: 3/19/19

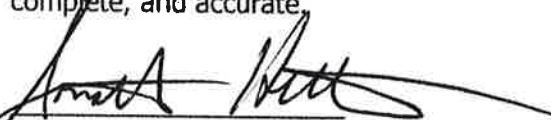
By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.


By:

**Title: Dr. Victoria Greer,
Superintendent of
Schools**

Date: 3/19/19

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.


By:

**Title: Jonathan Hitter,
Chair of the School
Committee**

Date: 3/18/19

6

APPENDIX

6.1

TRAFFIC REPORT - PROPOSED CONDITION





TO:	Charles Hay, Tappé Architects	DATE:	March 15, 2019
FROM:	Elizabeth Peart Michael White	HSH PROJECT NO.:	2018107.00
SUBJECT:	Sharon High School – Transportation Study		

Introduction

Howard Stein Hudson (HSH) has prepared this technical memorandum evaluating the existing and future transportation and parking impacts associated with the planned expansion and improvements to the Sharon High School located at 181 Pond Street, Sharon, Massachusetts. The Project is currently in the schematic design phase, led by the architectural firm Tappe Architects. HSH is the transportation consultant on the Project, working closely with Tappe Architects, other team members, the Massachusetts School Building Authority (MSBA), and the Town of Sharon.

Sharon High School (SHS) Overview

The 28.5-acre SHS campus is centrally located in the Town, north of Lake Massapoag, and includes the school building, several parking areas, and athletic fields. Primary vehicle access/egress is via two driveways on Pond Street, with secondary access/egress to the rear of the building via Ames Court. Staff members park in on-site spaces. Students are permitted to drive and park off-site. Loading docks are located at the rear of the building and loading/delivery vehicles use Ames Court to enter/exit the site. Note that vehicles cannot circulate entirely around the school building.

The SHS building is over 60 years old and not compliant with the Americans with Disabilities Act (ADA). With a current enrollment of 1,150 students in grades 9 through 12, the school is overcrowded based on state guidelines indicating that the existing building is appropriately sized for about 900 students. Based on enrollment projections from the MSBA, SHS enrollment by 2025 could increase to 1,350 students. [Note that to “right-size” a new MSBA school building, the Town adopts a design enrollment level which is developed and certified by the MSBA and used by the design team. For SHS, the design enrollment is 1,250 students. For the transportation impact analysis, a maximum enrollment level of 1,350 was used to ensure conservative (higher impact) results.]

SHS currently has about 140 staff members. If the future staffing level increases proportionally to the enrollment growth, staff will increase to about 160 members by 2025.



For SHS students, the school day begins at 8:05 a.m. and ends at 2:40 p.m. On occasional early-release days, dismissal is at 11:40 a.m. Some student clubs meet before school at 7:30 a.m. and many students participate in after school activities, such as clubs, organizations, and sports. After school activities typically begin between 2:45 p.m. and 3:30 p.m. and end at various times.

Study Area

For the transportation assessment of SHS, the study area encompasses the school site and five key intersections, listed below and shown in **Figure 1**.

- Ames Street/Ames Court;
- Pond Street/Ames Street;
- Pond Street/SHS North Driveway/Parking Lot (DPW) North Driveway;
- Pond Street/SHS South Driveway/Parking Lot (DPW) South Driveway; and
- Pond Street/Beach Street.



Figure 1. *Sharon High School Study Area and Data Collection Locations*





Transportation Impact Summary

The proposed and expanded high school project will have minimal impacts on transportation operations in the vicinity of the SHS site. Vehicle trips generated by the additional 200 students and 20 staff members will cause some deterioration in level of service at the intersections adjacent to the school. Intersection delays and queues are expected, though, at any school location during the time periods immediately preceding school start times and afternoon dismissal times. Deterioration of level of service at the SHS northern site driveway is due to the consolidation of driveways and separation of bus/van access and egress to improve bus flow and minimize conflicts with buses and vans within the high school site. Because the peak delays associated with school traffic will occur, as today, only for a short time, the study team concludes that the future operations are acceptable at the area intersections.

Key transportation characteristics of the project and intersection level of service (LOS) analysis results include:

- Bus/van drop-off/pick-up will be expanded to a designated bus lane immediately adjacent to the front entrances. The new bus/van lane will greatly minimize conflicts between buses, vehicles, and pedestrians and improve safety conditions.
- The four, existing staff/visitor parking lots will be consolidated into one main staff/visitor lot (180 spaces) with small number of staff spaces at the rear of the school (28 spaces).
- The northern high school driveway will be relocated approximately 80 feet north of the existing location. All trips entering the site will enter at the north driveway. The south driveway will stay in the existing location but in the future will only be used by buses and vans exiting the site. All other vehicles (drop-off/pick-up, staff, and visitors) will exit via the north driveway. During the a.m. peak hour, left turns from the northern driveway will be prohibited to minimize queuing along the exiting driveway. During the afternoon peak hour, left turns from the northern driveway will be permitted.
- Loading/service vehicle access will be relocated from the Ames Court driveway to a new service driveway on Beach Street.
- During the peak hours, the expanded high school will generate 142 new trips in the a.m. peak hour and 79 new trips during the school dismissal peak hour. Vehicle trips include new drop-off/pick-up trips, bus/van trips, staff trips, and student trips to the permitted student parking lots.



Existing Condition

This section presents information related to existing traffic volumes, school activity, parking, and pedestrian/bicycle environment.

Traffic Data Collection

TURNING MOVEMENT COUNTS

Turning Movement Counts (TMCs) were recorded during the morning peak period (7:00 – 9:00 a.m.) and the afternoon peak period (2:00 – 4:00 p.m.) on Thursday, October 18, 2018 at the study intersections and include counts of vehicles, pedestrians, and bicycles. The peak one hour (the hour with the highest traffic volumes) was identified during each period and the associated TMCs are shown in **Figure 2** and **Figure 3**, respectively, for the morning and afternoon.

AUTOMATIC TRAFFIC RECORDER COUNTS

An automatic traffic recorder (ATR) is a device that continuously records the number and class of vehicles on a roadway for a given period of time. ATR counts, as located in **Figure 1**, were conducted at two locations on Pond Street for a 48-hour period on October 18-19, 2018.

Figure 4 and **Figure 5** present graphs of the hourly traffic volumes at the two Pond Street ATR locations. Travel volumes and patterns on Pond Street are, as expected, similar on the two days. The morning peak hour generally occurs between 7:00 a.m. and 8:00 a.m. reflecting the typical peak of commuter travel and the SHS start time at 8:05 a.m. The evening peak hour of traffic along Pond Street occurs between 5:00 – 6:00 p.m., reflecting commuter travel activity. Between 3:00 – 4:00 p.m., the volumes reflect a lesser peak, coinciding with SHS dismissal at 2:40 p.m. when students and staff start leaving the campus.

Two-way volumes along Pond Street are approximately 6,000 to 6,100 vehicle trips per day. Hourly volumes are highest, between approximately 600 and 700 vehicles per hour, during the morning and evening commuter peak hours. The directionality of vehicle travel (northbound vs. southbound) show the activity generated at the school and the background commuter patterns, which is predominantly northbound in the morning and southbound in the evening. During the midday, between about 9:00 a.m. and 1:00 p.m., hourly volumes are less than 300 vehicles per hour. After the evening peak, volumes decline from about 250 vehicles per hour at 7:00 p.m. to less than 50 vehicles per hour at midnight.



Figure 2. Existing (2018) Condition Traffic Volumes, Morning Peak Hour

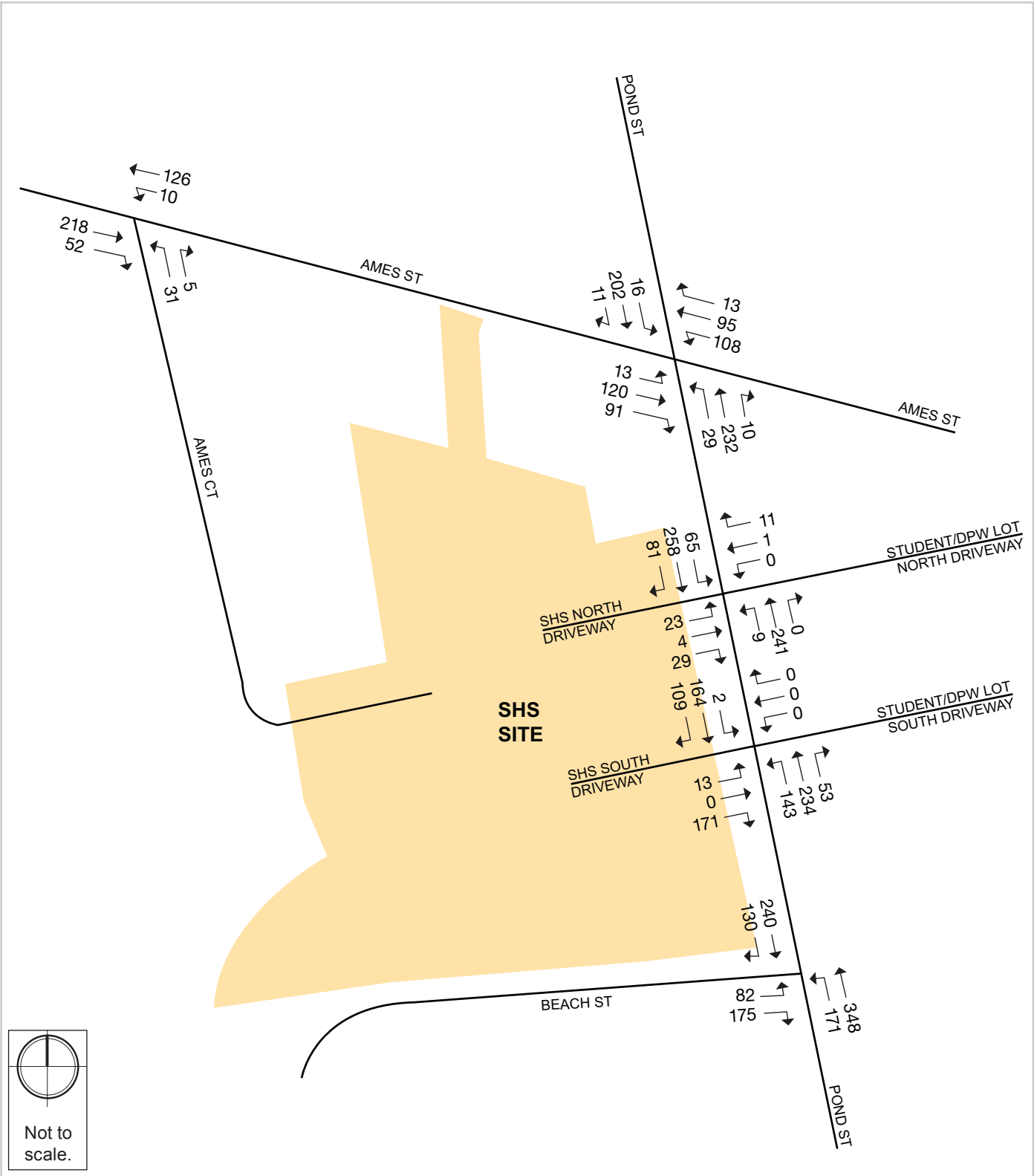




Figure 3. Existing (2018) Condition Traffic Volumes, Afternoon Peak Hour

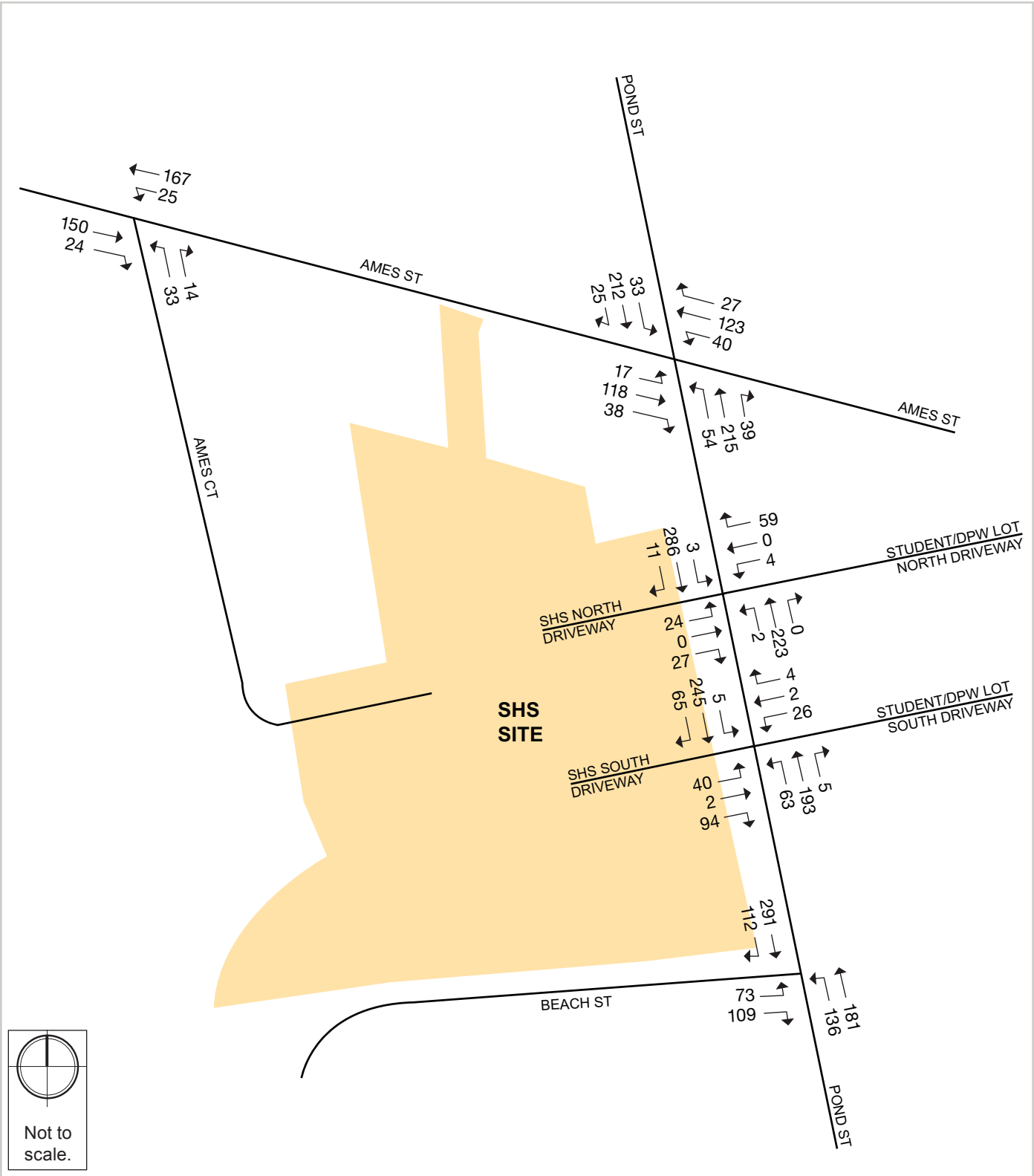
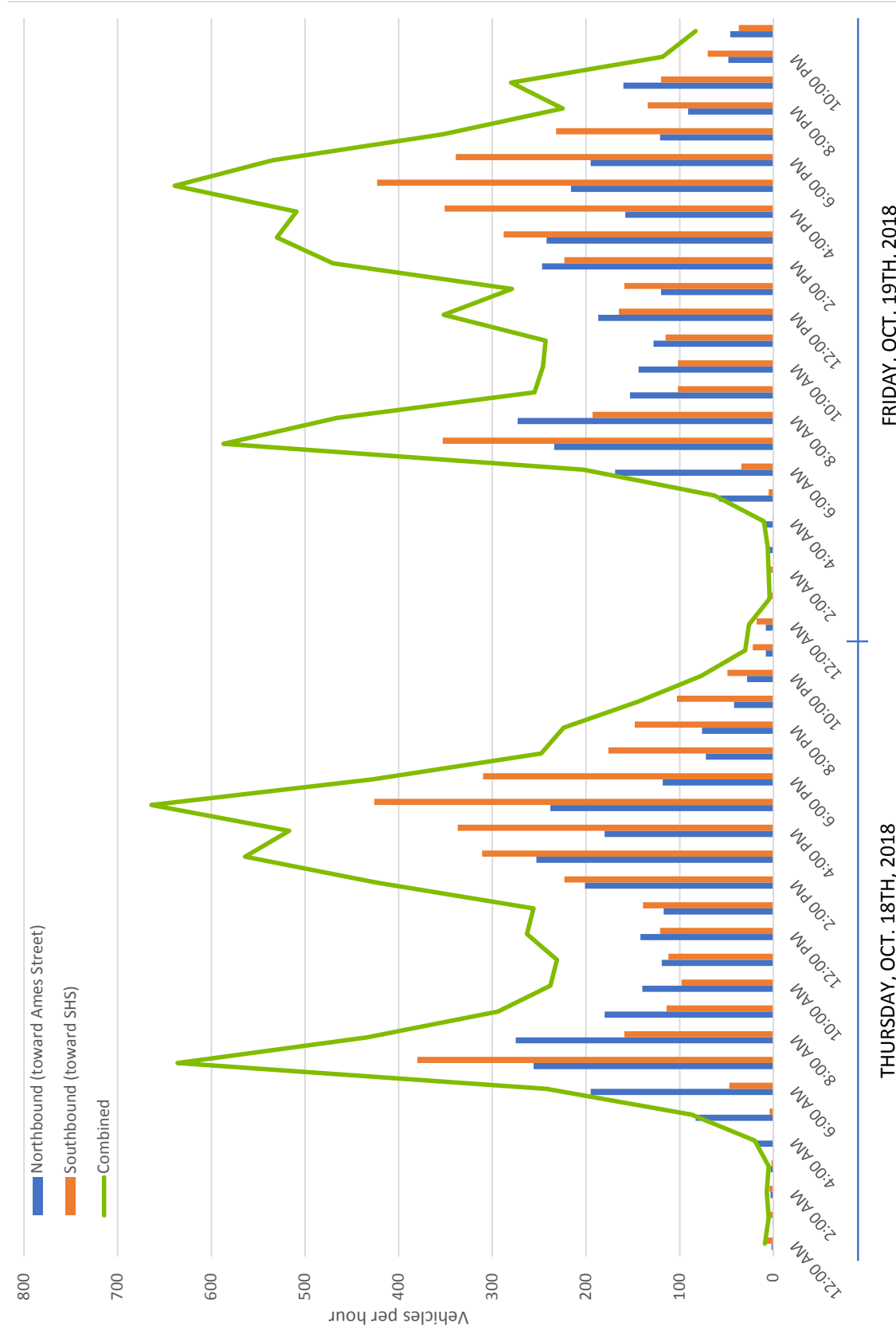




Figure 4. *Pond Street Volumes, North of Sharon High School Entrance*

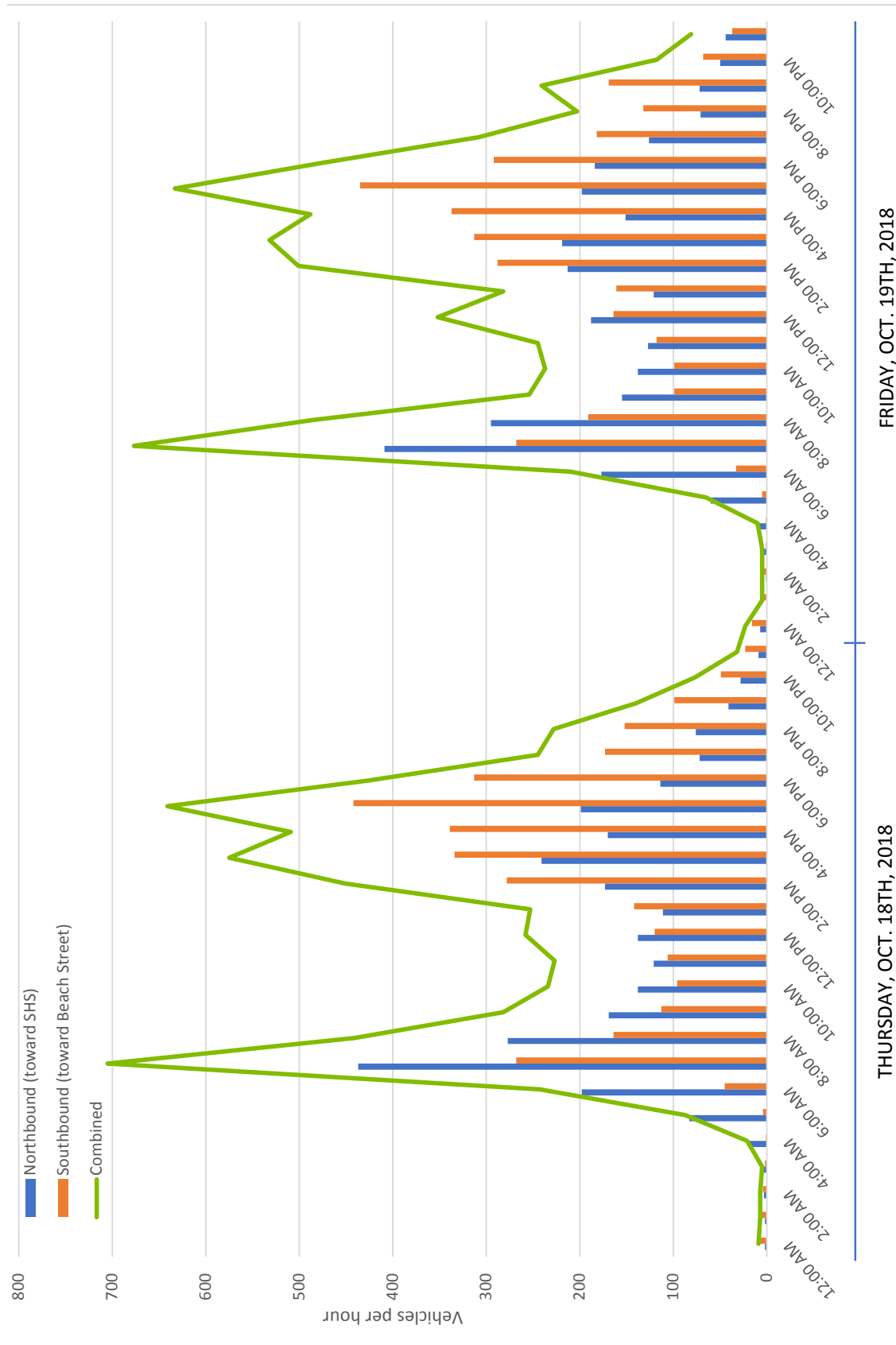


HOWARD STEIN HUDSON

Engineers + Planners



Figure 5. Pond Street Volumes, South of Sharon High School Entrance





Existing School Activity Observations

The study team conducted detailed field observations at the SHS campus during the morning drop-off and afternoon pick-up periods on Thursday, October 25, 2018. The weather was clear. (Informal observations of the morning drop-off period were also observed on Friday, October 12, 2018, with rain showers.)

Students and staff enter and exit the school building at three primary points. The main entrance on the Pond Street side of the building is located near the middle of the south side of the building. An auxiliary entrance, also on Pond Street, is located near the circle on the northern side of the school. The rear entrance is located on the west side of the building at the end of Ames Court. Parents are permitted to drop-off and pick-up their students at any of these entrances, while school buses use only the main entrance and school vans serving special needs students use the auxiliary entrance.

The SHS school day officially starts at 8:05 a.m., although the library opens at 7:15 a.m. and the cafeteria is available for breakfast at 7:30 a.m. SHS is dismissed at 2:40 p.m. As is typical at high schools, vehicle activity associated with the afternoon dismissal period is less than during the morning arrival period because some students stay after school for clubs and athletics and more student carpooling occurs.

Unless otherwise noted, the observations presented below for the morning and afternoon periods are from October 25, 2018.

MORNING ARRIVAL PERIOD

Many staff members arrive and park on-site prior to 7:30 a.m. Noticeable parent drop-off activity starts about 7:30 a.m. with a few vehicles at a time. The pace increases at about 7:45 a.m. and continues up until a few minutes after 8:00 a.m. The 13 school buses serving the school typically arrive between 7:45 a.m. and 7:58 a.m. During this peak time, parent vehicles and buses queue back from the main entrance. The queue can build back from the main entrance to the Pond Street/SHS South Driveway intersection. As this happens, some students will exit their parent's vehicle while waiting in the queue. In an attempt to discourage those parents from then passing on the left to exit the lot, school buses may unload students from the travel lane of the parking lot rather than the curb lane. The queue, which can extend from the main entrance back to Pond Street and then along Pond Street, begins to alleviate a bit past 8:00 a.m. and is somewhat clear by about 8:05 a.m. Some sporadic late drop-offs occur after 8:05 a.m. Overall, the circulation and mixing of parent drop-off vehicles with bus activity in the same area causes some driver confusion and creates an unsafe environment for students.

On October 12, 2018, with rainy weather, during the peak of the morning drop-off, buses and parent vehicles queued back from the main entrance, and out onto Pond Street in both directions. In the northbound direction, the Pond Street queue extended back to Beach Street. In the southbound direction, the Pond Street queue extended back close to Ames Street. During this period, a fire-truck responding to a



report of the pedestrian accident had to travel northbound on Pond Street, pass the school, and through the congestion. The queues observed on October 25, 2018, during clear weather, were much shorter.

At the auxiliary front entrance (with the circle), SHS faculty began to arrive and park at approximately 7:30 a.m. Approximately 50 parent vehicles dropped-off students off at the circle adjacent to the auxiliary front entrance. Seven school vans, carrying special needs students, began to arrive at approximately 7:45 a.m. Occasionally, parents would pass vans while students were unloading. At no time between 7:00 a.m. and 8:00 a.m. did the queue extend back more than three-quarters around the circle. The overlap of parent drop-off activity with school van activity in the same area creates an unsafe environment for students.

During the morning drop-off period, activity in the rear SHS area (accessed via Ames Court) was primarily related to SHS staff, who arrive and park, and 28 parent vehicles dropping-off students. The area was also used as staging for one full-sized school bus and two school vans. Most students who park at the Memorial Park Beach parking lot (Recreation Dept.) walk into the building at this rear entrance.

AFTERNOON DISMISSAL PERIOD

During the afternoon pick-off period, all 13 school buses began to queue in the travel lane of the parking lot near the main entrance at approximately 2:30 p.m. The first arriving bus pulled all the way around and parked within the travel lane approximately 50 feet from the exit and the last bus parked in the travel lane approximately 150 feet from the main entrance. Parents did not queue within the line of buses. The parked buses did not allow enough space for faculty members parked in the main lot to exit their parking space. All buses were out of the parking lot by 3:00 p.m. A few parent vehicles arrived and parked in available spaces. While parents began to arrive at the main entrance soon after the school buses departed, very little parent vehicle queueing occurred. Many students were already waiting outside the school for their parents and got into the vehicle quickly. Most parents did not wait longer than five minutes for their student to enter the vehicle. A total of 23 personal vehicles picked-up students at the main entrance.

During the afternoon pick-up period at the auxiliary front entrance, school vans began to arrive and park around the circle at 2:05 p.m. By 2:35 p.m., 5 vans were parked at the circle. All vans departed by 2:45 p.m. Some parent vehicles that arrived at this entrance parked in available spaces by the circle and waited for their students. Once the vans departed, some parents would idle in the circle while waiting for students. In total, approximately 13 parent vehicles picked-up students at the auxiliary entrance. There were ten faculty members that used the auxiliary front entrance to access their vehicles between 2:30 and 3:30 p.m.

During the afternoon pick-up period, activity at the rear entrance was minimal. Prior to dismissal, the lot was occupied by 40 vehicles, seemingly all belonging to SHS staff. A total of 29 SHS staff members used the rear entrance to access their vehicles in the rear lot. An empty school bus entered the lot at 2:28 p.m. and departed at 3:00 p.m. Approximately 29 parent vehicles picked students at the rear entrance. Some



parents parked and waited for their student, but most remained in the travel lane to wait. Many students exiting the rear entrance walked toward the Recreation Department lot on Beach Street or towards Ames Court. The SHS football team hosted a 3:45 p.m. game at the field near the rear entrance.

It was noted that although left turns onto Pond Street are restricted at all times from the northern SHS driveway and during school drop-off and pick-up times from the southern SHS driveway, many vehicles do make the left turn. (These volumes are shown in **Figure 2** and **Figure 3**.)

Existing Parking

SHS staff members park on-site near the school building, including the spaces near the main building entrance, spaces adjacent to the circle on the northern side of the building, and spaces in the rear of the school, accessed via Ames Court.

Many students also drive to school and may park at three off-site student parking lots. The primary student parking area is located on Pond Street, opposite from the school's main entrance. This lot is owned by the Town's Department of Public Works (DPW) and student purchase passes at the school to park here. Students can also park at the Memorial Beach parking lot on Beach Street, which is owned by the Town's Recreation Department. Students purchase parking passes from the Recreation Department. Also, the SHS and The Young Israel of Sharon Synagogue, at 100 Ames Street, have an arrangement that permits up to 25 students to park at the Synagogue as needed.

Table 1 shows a summary of parking supply and observed occupancies at these locations.

The on-site parking observations show that 80% of the overall spaces are occupied midday, indicating that sufficient staff and visitor parking is currently provided. Note that the 43 vehicles observed at the rear of the school included some visitors who were walking on the track. While the DPW lot for student parking is generally full, there are available spaces at the Recreation Dept. Lot. Note that a few student vehicles with tickets were observed in both the DPW lot and Recreation Department lot, indicating that the Town does enforce the parking regulations.



Table 1. SHS Parking Supply and Occupancy

Parking Location	Capacity (spaces)	Mid-morning ¹ Parking Occupancy	
		Spaces	Percent
Staff and Visitors			
On-site at SHS			
South (main entrance area)	73	45	62%
North (circle area)	28	21	75%
Front (adjacent to Pond St.)	46	43	93%
Rear	42	43	102%
Total	189	152	80%
Students			
Student/DPW lot Pond Street	135	124 4 cars without permit	92%
Student/Recreation Dept. Lot Beach Street	70	59 3 cars without permit	84%
Young Israel of Sharon Synagogue Ames Street	25 Available for SHS use	20 ¹	80%

1 – Combination of observations on Thursday October 25, 2018, and Wednesday, November 7, 2018.

2 – It was unclear whether these were student vehicles or vehicles associated with the Synagogue.

Existing Pedestrian and Bicycle Conditions

Pedestrian and bicycle counts were conducted concurrent with the TMCs. **Figure 6** shows pedestrian volumes during peak hours. The highest pedestrian crossing activity occurred on Pond Street between the Student/DPW parking lot and the SHS site.

Figure 6 also identifies the inventory of crosswalks. At the Ames Street/Ames Court intersection, no crosswalks are provided. At the Ames Street/Pond Street intersection, crosswalks are provided across the Ames Street eastbound approach and the Pond Street northbound approach. At the Pond Street/Beach Street intersection, only the eastbound Beach Street eastbound approach has a crosswalk. At each SHS driveway on Pond Street, one crosswalk is provided across the school driveways and one crosswalk across Pond Street. The Pond Street crosswalks are highly visible to drivers and signage to alert drivers is provided.

As shown in **Figure 7**, bicycle volumes at the study intersections are relatively low. No bicycle lanes are provided on roadways within the study area. About 20 parked bicycles were observed at the SHS bicycle racks during the midday.



Figure 6. *Existing (2018) Condition Pedestrian Volumes, Morning and Afternoon Peak Hours*

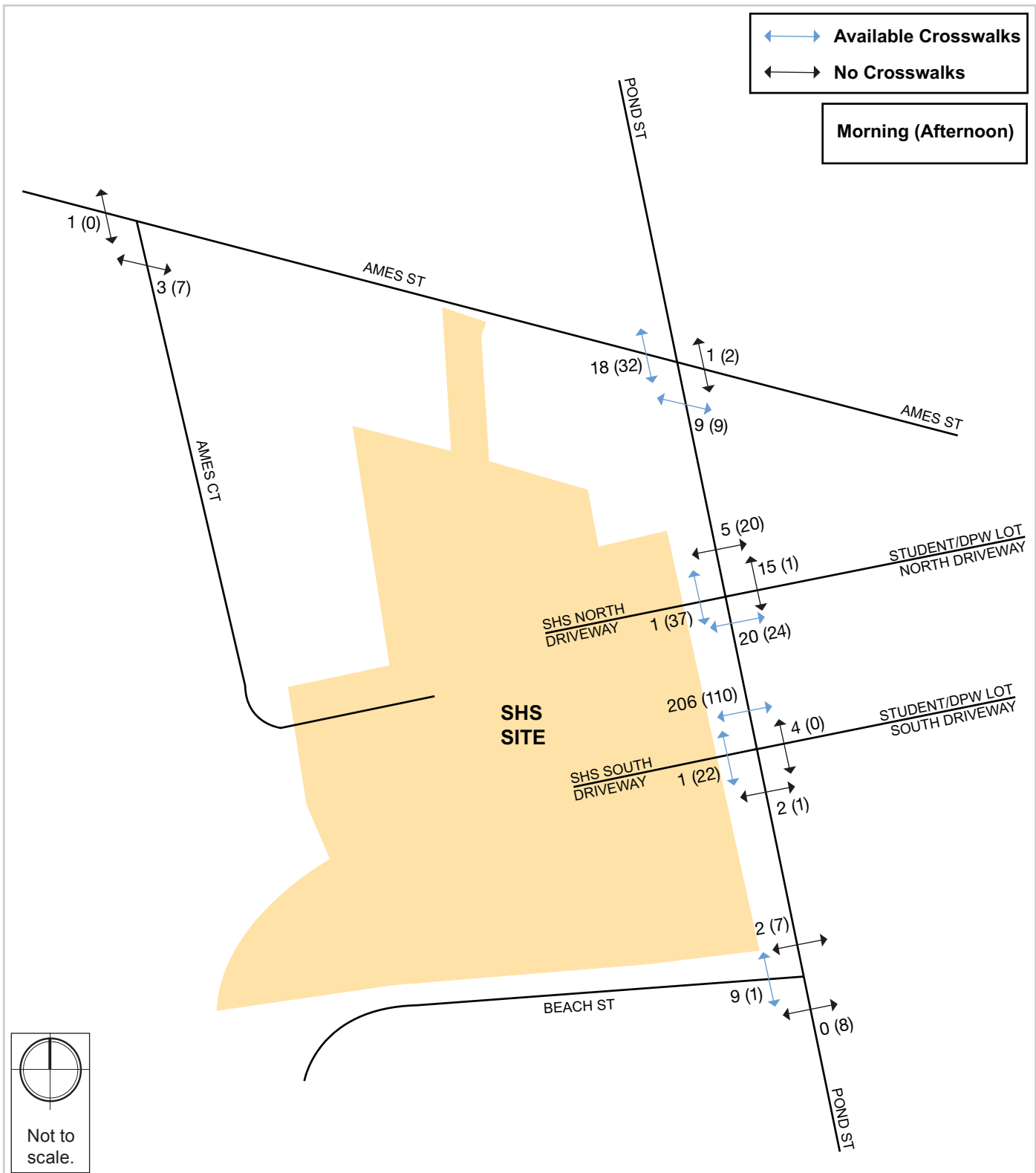
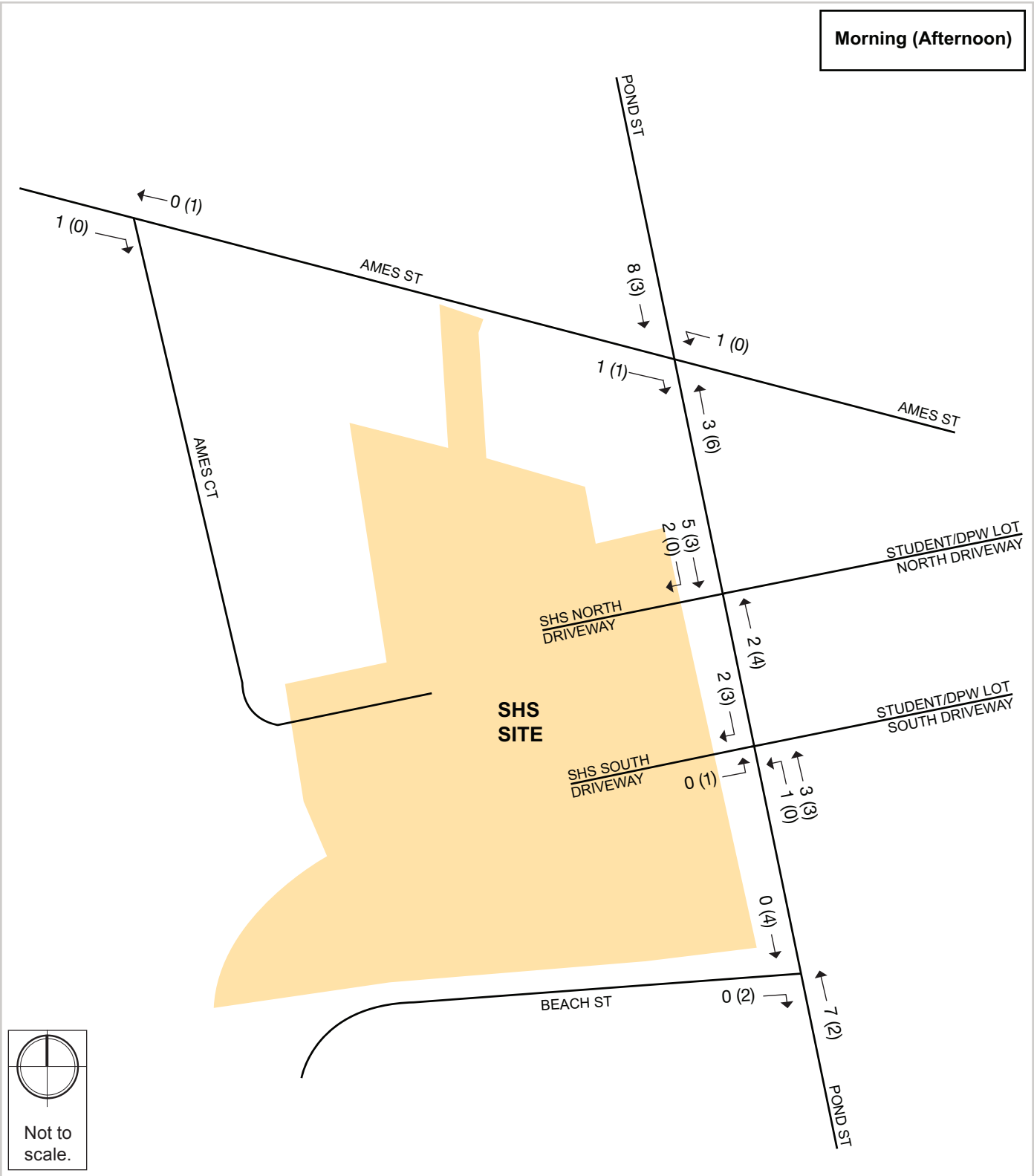




Figure 7. Existing (2018) Condition Bicycle Volumes, Morning and Afternoon Peak Hours





The study team conducted an inventory of sidewalk conditions along Ames Street, Pond Street, and Beach Street and on the SHS site. Sidewalk conditions were classified according to the following three categories:

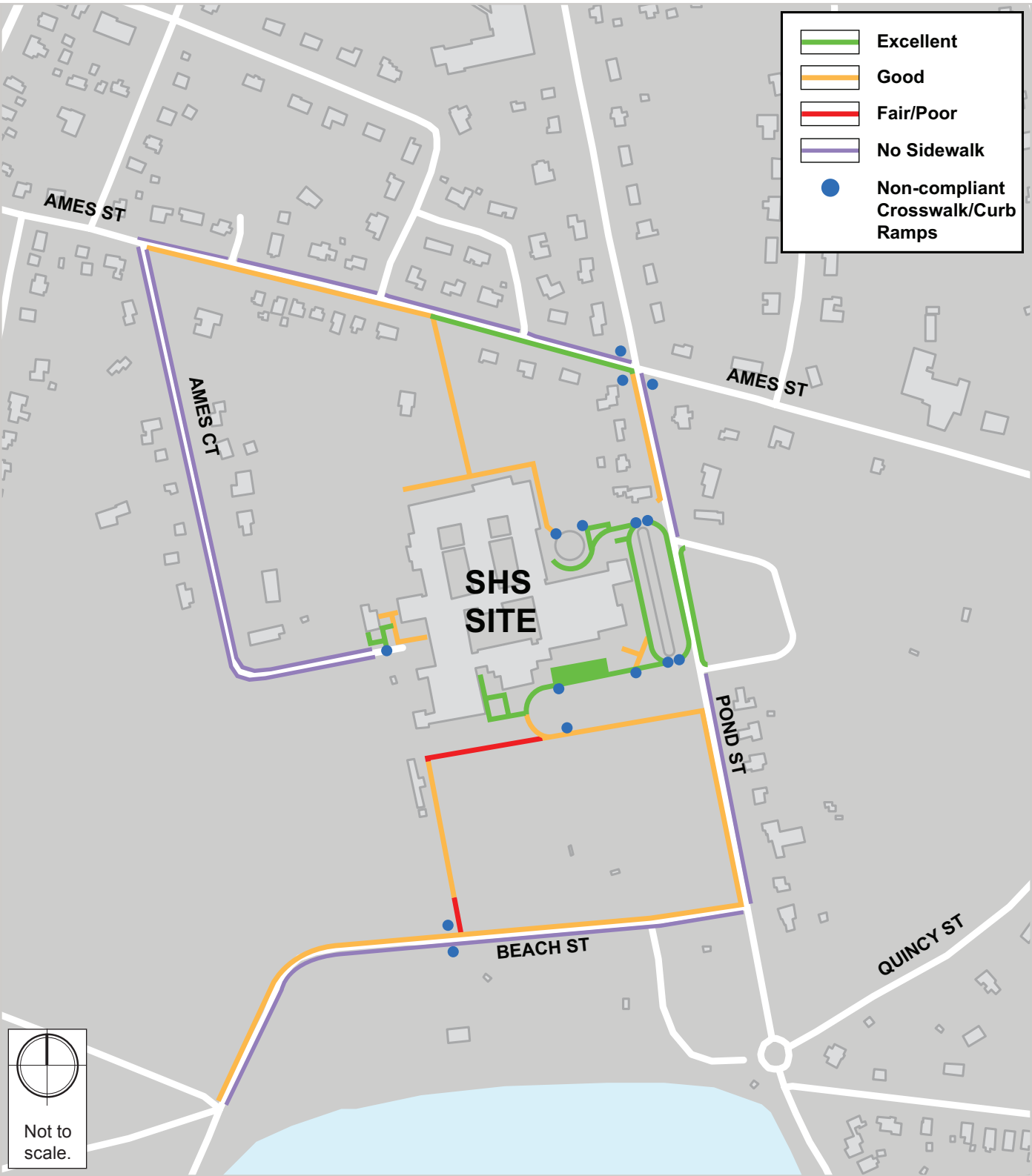
- **Excellent.** No deterioration observed.
- **Good.** Minimal deterioration, such as cracking, heaving, sinking, and intrusion or encroachment of vegetation observed.
- **Fair/Poor.** Some deterioration observed, including more severe cracking, heaving, sinking, and intrusion or encroachment of vegetation, as well as presence of patching.

The sidewalk conditions are shown in **Figure 8**. Most street segments serving the school have a sidewalk on only one side of the street. Where sidewalks exist, they are sufficiently wide and generally the condition is good to excellent. While walking paths within the SHS site are generally in good condition, a segment of sidewalk between the main entrance and the athletic fields/ rear of school has broken asphalt.

Crosswalk curb ramps that are not in compliance with the Americans with Disabilities Act (ADA) are also noted in **Figure 8**. Any non-compliant ramps on the school property will ultimately be brought into compliance as part of the SHS project. Upgrades to the off-site non-compliant ramps should be discussed with the Town. The crosswalk across Beach Street near the Recreation Department parking lot used by students has no ramps and does not connect to a sidewalk on the southern side of Beach Street.



Figure 8. *Pedestrian Conditions*





Build Condition

This section presents the proposed site plan, trip generation associated with growth at SHS, and intersection level of service evaluation.

The design year for the Project is designated as 2025, seven years into the future as is standard for traffic analysis. The baseline 2025 intersection volumes have been estimated by applying a 0.25 percent annual growth factor to existing volumes reflecting background growth unrelated to increases in enrollment and staff at SHS.

By 2025, the SHS enrollment is projected to increase to 1,350 students. SHS currently has about 140 staff members. If the future staffing level increases proportionally to the enrollment growth, staff will increase to about 160 members by 2025. New vehicle trips for buses, parent drop-off/pick-up, staff, and students were incorporated into the estimated future traffic volumes.

Site Access and Circulation

The proposed site plan is shown in **Figure 9**. The new school building will be constructed on the southern portion of the site, with relocation of parking and the baseball fields/tennis courts to the northern portion.

OVERVIEW

Primary access and egress driveways at the school will remain on Pond Street. The main parking lot will provide approximately 180 parking spaces for staff, visitor, and accessible/handicap use. Two site driveway curb-cuts will be located along Pond Street. The northern driveway will be two-way, providing access for all vehicles and egress for all vehicles except buses/vans, which will exit via the southern driveway.

A rear, secondary driveway to the school will continue to be located on Ames Court and will provide access to approximately 28 parking spaces along the north side of the running track. During school days, this parking will be designated for staff use and will be available as general parking during other times.



Figure 9. *Site Plan*





PARENT DROP-OFF/PICK-UP

The largest component of on-site vehicle activity is generated by parent drop-off during the morning arrival period and parent pick-up during the afternoon dismissal period. Parent vehicles will enter at the northern site driveway and proceed to the student loading/unloading area adjacent to the tennis courts. After drop-off/pick-up, vehicles will circulate through the parking area to exit the northern driveway onto Pond Street. Along the driveway, the curbside length will be approximately 1,100 feet between Pond Street and the main entry area, providing queuing capacity for approximately 55 vehicles. A student loading and unloading zone will be provided on the curb segment adjacent to the tennis courts.

During the morning drop-off period, left turns out of the northern driveway will be prohibited, as under the current condition, to prevent lengthy queues from developing along the school driveway. Staff and other visitors requiring parking will also enter at the northern driveway and proceed to the parking spaces in the lot.

BUS/VAN CIRCULATION

A key feature of the circulation plan is that buses/vans will have a designated one-way roadway separated from the parking lot and the parent vehicle loading/unloading zone, thus eliminating the vehicle conflicts and resulting congestion that occur today in the main parking lot. Buses/van will enter at the northern driveway and exit at the southern driveway with loading/unloading occurring adjacent to the main entrance of the building. The bus/van driveway will have a curbside length of approximately 800 feet, providing capacity for approximately 20 full-sized school buses.

Outside of the morning arrival and afternoon dismissal periods, the bus/van driveway could be used by other vehicles that are dropping-off or picking-up students. No parking will be allowed along the bus/van driveway.

SERVICE VEHICLES

Service, delivery, and trash vehicles will use the service driveway on Beach Street to access the loading area. Note that emergency vehicle access to the building will be available from Pond Street, Ames Court, and the service driveway.

STUDENT PARKING

For this assessment, the study team assumed that the two off-site parking areas managed by others (DPW lot on Pond Street and Recreation Department lot on Beach Street) will continue to be available for student parking. No student parking will be provided on-site.

BICYCLES

Bicycle racks will be provided for student, staff and visitor use near the main building entrance.



PEDESTRIANS

Most street segments serving the SHS site have a sidewalk on only one side of the street. Where sidewalks exist, they are sufficiently wide and generally the condition is good to excellent.

In the future, the crosswalk across Pond Street between the off-site DPW student lot and campus will be relocated to the south of the southern driveway. A crosswalk beacon will be installed to increase the visibility of pedestrian crossings. The crosswalk across Beach Street between the off-site Recreation Department lot and the campus will generally remain in place and be located on the west side of the new intersection of Beach Street and the service driveway.

Crosswalks will be delineated with pavement markings across all site driveways. All new crosswalks and on-site sidewalks will be constructed in compliance with the Americans with Disabilities Act (ADA).

Trip Generation

The increases in trip activity at SHS under the future condition are based on data provided by the school and field observations of travel characteristics. Peak traffic in the area coincides with the school start and dismissal times of 8:05 am and 2:40 pm. The morning peak hour occurs between 7:15 a.m. and 8:15 a.m. and the afternoon peak hour occurs between 2:45 p.m. and 3:45 p.m.

SHS enrollment is currently 1,150 students and by 2025 is expected to increase by approximately 200 new students for a total enrollment of 1,350 students. Based on the future student enrollment, it is estimated that there will be corresponding increase of approximately 20 staff members, from 140 to approximately 160 staff.

TRAVEL MODE SHARES

Travel mode shares reflect the distribution of person trips among travel modes, including drop-off/pick-up by parents, student drivers, school buses/vans, and walking/bicycling. A travel mode share profile, as summarized in **Table 2**, has been developed for the existing condition based on available data and observations for students and staff. Note that on an average day about 4% of SHS students are absent from school.



Table 2. Travel Mode Shares and Vehicle Occupancy

Characteristic	Students						Staff	
	Private Vehicle			School Bus/Van	Walk/Bicycle	Absent	Private Vehicle	Average Vehicle Occupancy (AVO)
	Drop-off/Pick-Up	Student Parking	Average Vehicle Occupancy (AVO)					
Mode Share/AVO	25.0%	20.0%	1.15	48.5%	2.5%	4.0%	100%	1.00

VEHICLE TRIP GENERATION

By applying the travel mode shares in **Table 2** to the new person trips associated with the growth in the SHS student enrollment and staff expected by 2025, the number of new vehicle trips was estimated and shown in **Table 3** for the various categories of vehicle trips.

Table 3. New Vehicle Trips Associated with SHS Enrollment and Staff Growth

Time Period/Direction		Drop-off/Pick-Up	Student Parking	School Bus/Van	Staff	Total Vehicles
Morning Peak Hour	In	52	10	4	20	86
	Out	<u>52</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>56</u>
	Total	104	10	8	20	142
Afternoon Peak Hour	In	27	0	4	0	31
	Out	<u>27</u>	<u>10</u>	<u>4</u>	<u>7</u>	<u>48</u>
	Total	54	10	8	7	79

During the morning peak hour, parent drop-off activity is estimated to increase by 104 vehicle trips (52 in and 52 out). During the afternoon peak hour, parent pick-up activity is estimated to increase by 54 vehicle trips (27 in and 27 out).

The additional 10 student parking trips (10 in and 0 out) during the morning peak hour were assigned to the Recreation Department lot on Beach Street, as the DPW lot is generally at capacity under the existing condition. During the afternoon peak hour, 10 new vehicle trips (0 in and 10 out) will occur at the same lot.



To accommodate the growth in students, four additional buses/vans are expected to provide service SHS in the future. These will result in 8 new bus/van trips during each of the peak hours (4 in and 4 out).

Additional staff members are expected to generate approximately 20 new vehicle trips (20 in and 0 out) during the morning peak hour and 7 new staff vehicle trips (0 in and 7 out) during the afternoon peak hour. Most staff will park in the main parking lot accessed from Pond Street, but some will use parking at the rear of the school accessed from Ames Court.

VEHICLE TRIP DISTRIBUTION

Vehicle trip distribution identifies the various travel paths for vehicles arriving at a destination and the corresponding departure travel paths. Vehicle distribution patterns were developed for each group of vehicles (parent drop-off/pick-up, student parking, buses/vans, and staff) based on field observations, traffic counts, travel patterns, parking location, and circulation routes.

TRAFFIC VOLUMES

Based on the forecasted increase in vehicle trips and the trip distribution patterns, the new SHS vehicle trips were assigned to the study area roadways and SHS site driveways. The new project-generated trips during the morning and afternoon peak hours are shown in **Figure 10** and **Figure 11**, respectively.

The Build Condition traffic volumes, which incorporate background growth and new SHS trips, are shown in **Figure 12** and **Figure 13**.





Figure 11. *Project Generated Vehicle Trips, Afternoon Peak Hour*

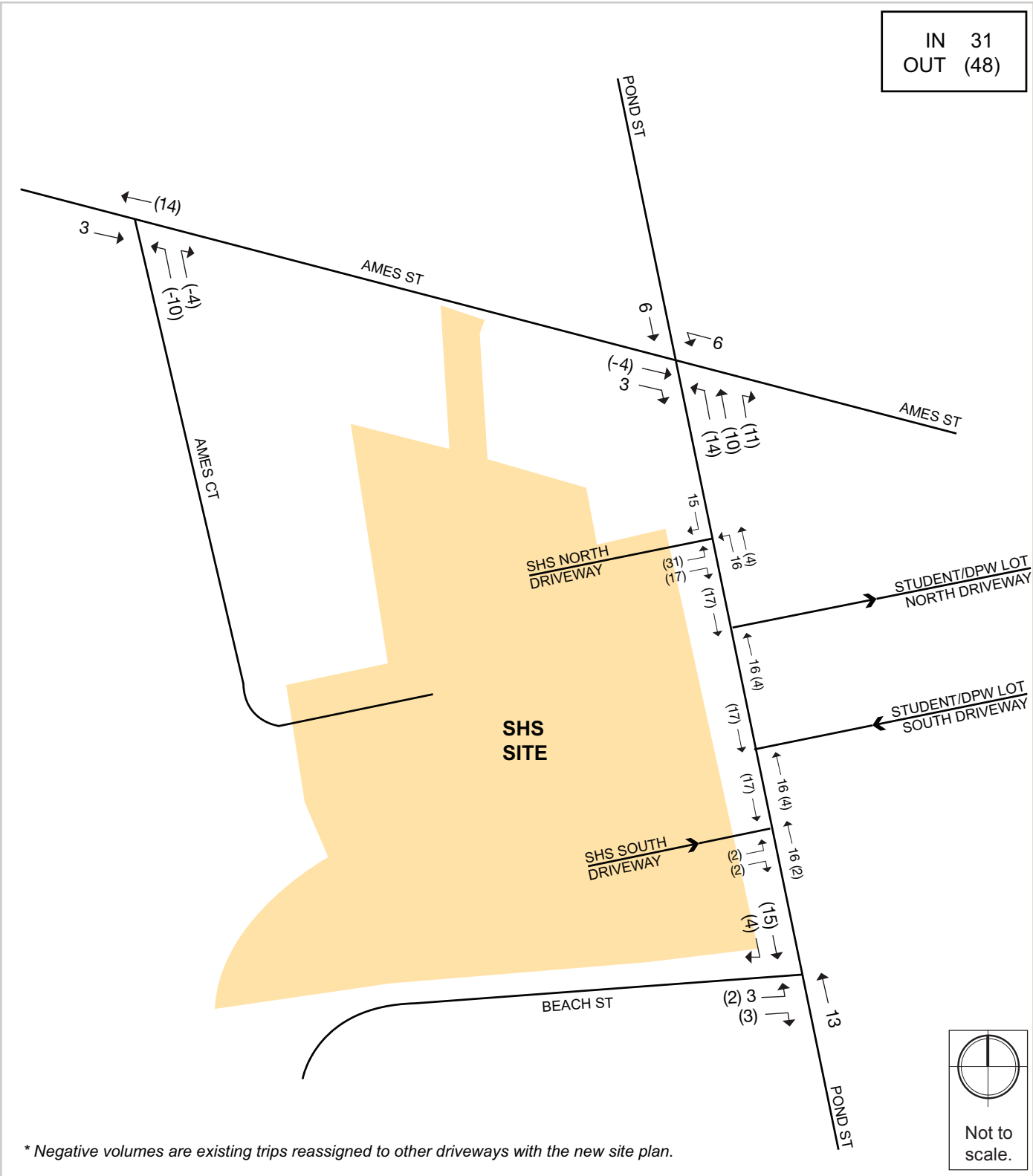




Figure 12. *Build (2025) Condition Traffic Volumes, Morning Peak Hour*

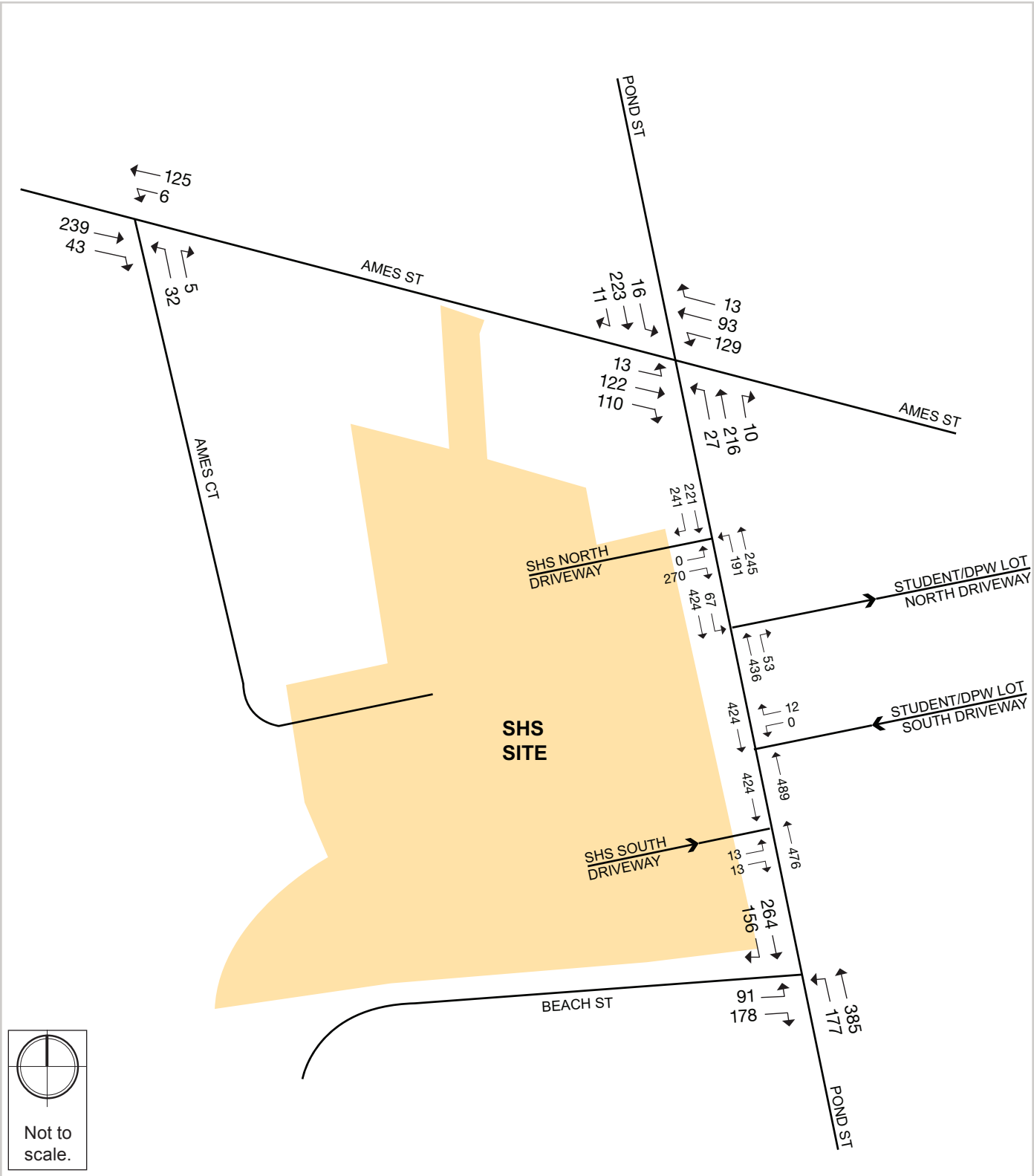
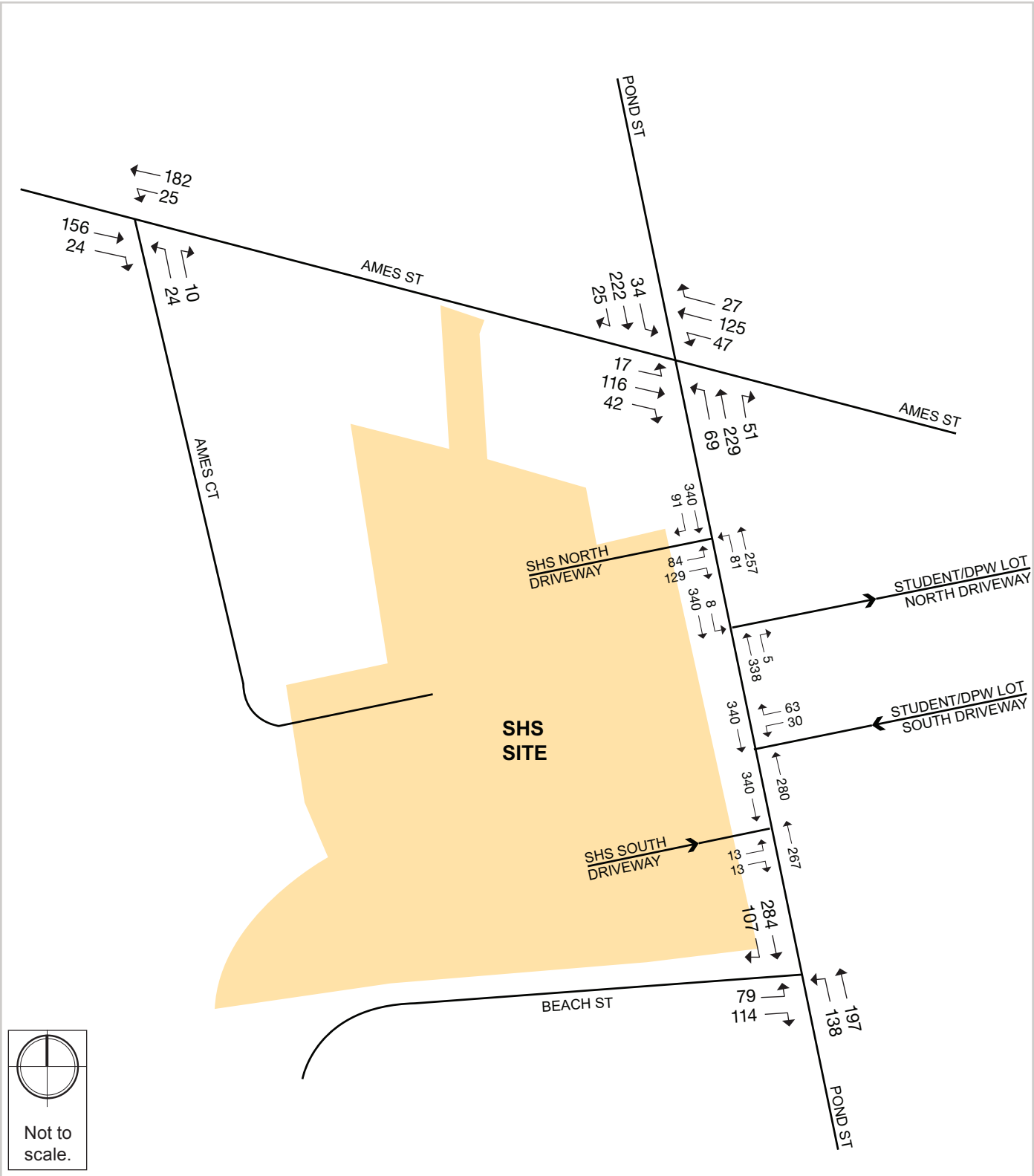




Figure 13. *Build (2025) Condition Traffic Volumes, Afternoon Peak Hour*





Traffic Operation Analysis

The key intersections in the SHS area were evaluated to quantify the associated delays experienced by drivers. The criterion for evaluating traffic operations is level of service (LOS), which is determined by assessing average delay incurred by vehicles at intersections and along intersection approaches.

Trafficware's Synchro (version 9) software package was used to calculate average delay and associated LOS at the study area intersections. This software is based on the traffic operational analysis methodology of the Transportation Research Board's 2000 Highway Capacity Manual (HCM).

LOS designations are based on average delay per vehicle for all vehicles entering an intersection. **Table 4** displays the intersection LOS criteria for unsignalized intersections (there are no signalized intersections in the designated study area).

Table 4. *Vehicle Level of Service Criteria, Unsignalized Intersections*

Level of Service	Average Stopped Delay (sec.)
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	>50

Source: 2000 Highway Capacity Manual, Transportation Research Board

LOS A indicates the most favorable condition, with minimum traffic delay, while LOS F represents the worst condition, with significant traffic delay. LOS D or better is typically considered acceptable. However, LOS E or F is often typical for a stop controlled minor street that intersects a major roadway.

In addition to delay and LOS, the operational capacity and vehicular queues are calculated and used to further quantify traffic operations at intersections. The following describes these other calculated measures.

- The volume-to-capacity (v/c) ratio is a measure of congestion at an intersection approach. A v/c ratio below one indicates that the intersection approach has adequate capacity to process the



arriving traffic volumes over the course of an hour. A v/c ratio of one or greater indicates that the traffic volume on the intersection approach exceeds capacity.

- The 95th percentile queue length, measured in feet, represents the farthest extent of the vehicle queue (to the last stopped vehicle) upstream from the stop line during five percent of all signal cycles. The 95th percentile queue will not be seen during each cycle. The queue would be this long only five percent of the time and would typically not occur during off-peak hours. Since volumes fluctuate throughout the hour, the 95th percentile queue represents what can be considered a “worst case” scenario. Queues at the intersection are generally below the 95th percentile queue throughout the course of the peak hour. It is also unlikely that the 95th percentile queues for each approach to the intersection will occur simultaneously.

Table 5 and **Table 6** summarize the Existing (2018) Condition and the Build (2025) Condition capacity analysis for the study area intersections during the weekday morning and afternoon peak hours, respectively. Complete Synchro reports are provided in the Appendix.

EXISTING (2018) CONDITION TRAFFIC CAPACITY ANALYSIS

As shown under the Existing (2018) Condition in **Table 5** and **Table 6**, all approaches at four of the five study area intersections operate at an acceptable level of service, LOS D or better during the morning peak hour. While the Beach Street approach at the Beach Street/Pond Street intersection operates at LOS F during the morning peak hour, this is not unusual for a stop controlled minor street that intersects a major street, such as Pond Street. During the afternoon peak hour, all approaches operate at LOS D or better.

BUILD (2025) CONDITION TRAFFIC CAPACITY ANALYSIS

Under the Build Condition, two additional intersections will be created with the relocated SHS driveways.

As shown under the Build (2025) Condition in **Table 5** and **Table 6**, most intersection approaches continue to operate a similar level of service to the Existing Condition and at LOS D or better, with the following exceptions:

- During the morning peak hour at the Pond Street/SHS north driveway, the eastbound driveway approach deteriorates from LOS B to LOS E and from LOS D to LOS F during the afternoon peak hour.
- The Beach Street approach at the Pond Street/Beach Street intersection will continue to operate at LOS F during the morning peak hour.
- During the afternoon peak hour, at the Pond Street/Ames Street intersection, the Pond Street northbound approach will deteriorate from LOS D to LOS F. The associated increase in

While the delays are expected to increase at the SHS north driveway under the Build Condition, the intersection delays and queues are expected, though, at any school location during the time periods



immediately preceding school start times and afternoon dismissal times. Deterioration of level of service is worst within the site driveway due to the consolidation of driveways and separation of bus/van access and egress to improve bus flow and minimize conflicts with buses and vans within the high school site. Because the peak delays will occur, as today, only for a short time, the study team concludes that the future operations will be acceptable at the area intersections.



Table 5. Capacity Analysis Summary, Morning Peak Hour

Intersection/Movement	Existing (2018) Conditions				Build (2025) Conditions			
	LOS	Delay (sec.)	V/C ratio	95 th Queue (ft.)	LOS	Delay (sec.)	V/C ratio	95 th Queue (ft.)
Ames Street/Ames Court								
EB Ames St. thru/right	A	0.0	0.26	0	A	0.0	0.27	0
WB Ames St. left/thru	A	0.7	0.01	1	A	0.5	0.01	1
NB Ames Ct. left/right	B	14.3	0.17	15	B	14.6	0.18	16
Pond Street/Ames Street								
EB Ames St. left/thru/right	C	20.7	0.61	4	D	26.8	0.70	5
WB Ames St. left/thru/right	C	21.8	0.62	4	D	28.7	0.72	6
NB Pond St. left/thru/right	C	22.9	0.66	5	D	25.3	0.67	5
SB Pond St. left/thru/right	C	24.2	0.68	5	D	34.0	0.78	7
Pond Street/SHS N. Driveway/ Parking Lot (DPW) Driveway								
WB DPW Dr. left/thru/right	C	22.8	0.34	37	-	-	-	-
EB SHS Dr. left/thru/right ¹	B	11.3	0.04	3	E	44.2	0.90	264
NB Pond St. left/thru/right	A	0.4	0.01	1	A	6.8	0.29	30
SB Pond St. left/thru/right	A	2.1	0.08	6	A	0.0	0.41	0
Pond Street/SHS S. Driveway/ Parking Lot (DPW) Driveway								
WB DPW Dr. left/thru/right	C	18.6	0.58	94	-	-	-	-
EB SHS Dr. left/thru/right ²	A	0.0	0.00	0	C	19.2	0.16	15
NB Pond St. left/thru/right	A	3.9	0.15	13	A	0.0	0.33	0
SB Pond St. left/thru/right	A	0.1	0.00	0	A	0.0	0.35	0
Pond Street/Beach Street								
EB Beach St. left/right	F	147.3	1.18	374	F	277.3	1.49	525
NB Pond St. left/thru	A	4.9	0.21	20	A	5.3	0.23	22
SB Pond St. thru/right	A	0.0	0.32	0	A	0.0	0.37	0
Pond Street/DPW N. Driveway								
NB Pond St. left/thru	-	-	-	-	A	0.0	0.39	0
SB Pond St. thru/right	-	-	-	-	A	2.7	0.11	9
Pond Street/DPW S. Driveway								
WB DPW Dr. left/right	-	-	-	-	B	12.6	0.09	8
NB Pond St. left/thru	-	-	-	-	A	0.0	0.34	0
SB Pond St. thru/right	-	-	-	-	A	0.0	0.00	0

Grey Shading indicates LOS E or F

¹ Note left turns are prohibited at all times, although many vehicles do turn left. See Figure 2 and Figure 3.

² Note left turns are prohibited during school drop-off and pick-up periods, although many vehicles do turn left. See Figure 2 and Figure 3.



Table 6. Capacity Analysis Summary, Afternoon Peak Hour

Intersection/Movement	Existing (2018) Conditions				Build (2025) Conditions			
	LOS	Delay (sec.)	V/C ratio	95 th Queue (ft.)	LOS	Delay (sec.)	V/C ratio	95 th Queue (ft.)
Ames Street/Ames Court								
EB Ames St. thru/right	A	0.0	0.12	0	A	0.0	0.13	0
WB Ames St. left/thru	A	1.3	0.03	3	A	1.2	0.03	3
NB Ames Ct. left/right	B	13.0	0.12	10	B	13.1	0.09	8
Pond Street/Ames Street								
EB Ames St. left/thru/right	C	15.6	0.42	2	C	17.7	0.47	18
WB Ames St. left/thru/right	C	20.6	0.61	4	D	26.0	0.67	5.2
NB Pond St. left/thru/right	D	34.2	0.82	9	F	60.5	0.98	13
SB Pond St. left/thru/right	C	18.8	0.57	4	C	23.1	0.64	5
Pond Street/SHS N. Driveway/ Parking Lot (DPW) Driveway								
WB DPW Dr. left/thru/right	C	23.0	0.29	30	-	-	-	-
EB SHS Dr. left/thru/right ¹	B	13.9	0.35	39	F	51.0	0.87	216
NB Pond St. left/thru/right	A	0.0	0.00	0	A	2.8	0.09	7
SB Pond St. left/thru/right	A	0.1	0.00	0	A	0.0	0.31	0
Pond Street/SHS S. Driveway/ Parking Lot (DPW) Driveway								
WB DPW Dr. left/thru/right	B	14.8	0.31	33	-	-	-	-
EB SHS Dr. left/thru/right ²	C	23.2	0.29	29	B	12.3	0.05	4
NB Pond St. left/thru/right	A	2.4	0.06	5	A	0.0	0.17	0
SB Pond St. left/thru/right	A	0.1	0.00	0	A	0.0	0.22	0
Pond Street/Beach Street								
EB Beach St. left/right	D	30.1	0.63	101	D	33.2	0.67	117
NB Pond St. left/thru	A	4.8	0.15	13	A	4.7	0.15	13
SB Pond St. thru/right	A	0.0	0.34	0	A	0.0	0.33	0
Pond Street/DPW N. Driveway								
NB Pond St. left/thru	-	-	-	-	A	0.0	0.23	0
SB Pond St. thru/right	-	-	-	-	A	0.3	0.01	1
Pond Street/DPW S. Driveway								
WB DPW Dr. left/right	-	-	-	-	C	15.1	0.40	47
NB Pond St. left/thru	-	-	-	-	A	0.0	0.19	0
SB Pond St. thru/right	-	-	-	-	A	0.0	0.22	0

Grey Shading indicates LOS E or F.

¹ Note left turns are prohibited at all times, although many vehicles do turn left. See Figure 2 and Figure 3.

² Note left turns are prohibited during school drop-off and pick-up periods, although many vehicles do turn left. See Figure 2 and Figure 3.

6.2

EDUCATIONAL PROGRAM WITH EDITS SHOWN



6.2 EDUCATIONAL PROGRAM WITH EDITS SHOWN

Introduction & District/School Configuration:

Sharon Public Schools (SPS) is a high performing school district that is “committed to providing an inclusive, safe and healthy learning environment for all.” Our core values of acceptance, equity, honesty/integrity, respect, kindness and teamwork guides our practices and decision-making and are key to the success of our students.

Sharon is a suburban community of approximately 18,000 residents located approximately 22 miles south of Boston, and almost midway between Boston and Providence, Rhode Island. Incorporated in 1765, the town’s location, beautiful scenery and historically high-performing schools attract culturally, linguistically and religiously diverse families that deeply value education.

The school district serves approximately 3,700 students in its five schools which includes a high school (9-12), middle school (6-8), three elementary schools (K-5), and an early learning center (Pre-K). As the reputation of the community and its schools continues to spread throughout the Commonwealth, the district has seen exceptional growth over the past several years. Over the past 15 years, the enrollment in Sharon Public schools (SPS) has consistently increased by approximately 600 students. Currently, the overall enrollment in SPS is 3,548 students. This school year, SPS enrolled the largest kindergarten class in seventeen years of 247 students. We reached the projected enrollment in kindergarten two years earlier than was projected. The ten-year projected enrollment for SPS is 3,988 students, which is an additional 400 students above the current enrollment. The make-up of the new students enrolling in SPS show a shift in the past five years in our demographics with non-English speaking families with a 30% increase (# of students here).

According to the Sharon 2017 Annual Town Report, “...80% of the total budget for the Town is allocated to the School Department.” Residential property taxes account for roughly fifty percent of the allocated budget to the school department. According to the Department of Elementary and Secondary Education (DESE); Sharon’s per expenditure is \$16,316.98 which is slightly higher than the state average of \$16,014.90.

SPS prides itself in being academically rigorous, socially conscious and ensuring the highest quality education for our students. Upon graduation, 92% of students matriculate to four-year public or private colleges/universities, 2% matriculate to two-year academic institutions, and the rest pursue work, military, or life exploration in the form of a gap year.

As of 2017, the four-year adjusted cohort graduation rate was 98.3%, and the drop-out rate stood at less than 1%. The attendance rate for students at Sharon High School is 95.9%. The faculty attendance rate is also high at 94.6%, which is indicative of our educators’ commitment.

Sharon High School offers a strong college preparatory program to its students. Current graduation requirements include four years of Math and English, three years of Social Studies and Science, two years of the same Foreign Language, one year/two semesters of Unified Arts, one year/two semesters of Wellness, and additional course credits that can fulfill the 102-credit standard. The Program of Studies is published annually and includes over twenty Advanced Placement course options. Students can also pursue educational interests as well as meet some graduation requirements by taking courses through The Virtual High School, Dual-Enrollment at Massasoit Community College, or by proposing and completing an independent study.

The Sharon community is very active and supportive of our schools. Through parent and community partnerships such as the Sharon Education Foundation (SEF), Parent-Teacher-Student-Organization (PTSO), Friends of Art & Music Education (FAME), and Sports Boosters; grants and funds are provided to enhance our work with additional programming and supplies. Additional learning opportunities for our students and staff are realized through additional community partnerships with the Council on Aging, Sharon Pluralism Network, Police, Fire & Emergency Departments, and the Norfolk County District Attorney’s office. Annual events such as the Financial Literacy Fair, Sharon Green Day, and Veterans and Memorial Day Activities are further examples of the kind of enrichment that exists in town.

6.2 EDUCATIONAL PROGRAM WITH EDITS SHOWN

SPS has a unique structure to ensure a strong connection with the community through the Community Education program which is a primary department within the school district. Over the past, five years, the programs and services offered through Community Education has seen exceptional growth. The Community Education program, currently serves 1050 students in all programs including the summer programs. They also offer programs for adults throughout the year that serves 738 of Sharon's adult residents. The Community Education Program is in high demand both by students and adults but has been limited in regards to the availability of adequate space for adult and summer programs.

Vision for Learning

The Sharon Public Schools is committed to providing an inclusive, safe, and healthy learning environment for all. Our District is dedicated to developing an educational foundation that fosters academics, model citizenship, and cultural diversity, in collaboration with all stakeholders. We maintain the vision that all students will apply their skills and knowledge to inspire our global society.

Our mission is to provide an educational community that nurtures each student on their unique journey to be lifelong learners and caring and engaged citizens of our world.

In order to achieve our vision and mission, we have four strategic objectives that guide the teaching and learning process in our district.

- Social-emotional learning- Promote student success by ensuring a healthy school environment that supports the social and emotional well-being and the mental health of each learner.
- Relationships and Culture- Foster an equitable and inclusive learning community that ensures respectful and culturally competent relationships.
- Learning Environments- Provide safe, secure, accessible environments conducive for learning and adaptive to changing teaching practices that meet the needs of each learner.
- Curriculum and Professional Development- Implement a consistent curriculum with responsive instructional practices that meet the needs of each learner.

We are committed to achieving vision through the implementation of our objectives by adopting and implementing the principles of universal design for learning, exploring 21st century learning concepts ~~and structures such as small learning communities/academies~~, Project-based and interdisciplinary instruction, and technology integration.

~~It should be noted that there are currently no plans to move away from a departmental organization and we do not propose any changes to our departmental approach at this time.~~

Class Size:

Class size is an important element of ensuring that students receive the best educational opportunities. The Sharon School Committee is committed to ensuring that class sizes remain at a manageable range by supporting and approving budgets to ensure a reasonable class size.

Class size is established through the collective bargaining agreement between the Sharon School Committee and the Sharon Teachers' Association. The current guidelines have been created over time and are guided by best practice, as well as space availability. As outlined in the collective bargaining agreement, the class sizes are as follows:

6.2 EDUCATIONAL PROGRAM WITH EDITS SHOWN

- Special Education programs and services follow the outlined regulations permitted by the Department of Elementary and Secondary Education.
- Elementary class sizes range from twenty-two to twenty-eight students with the potential to increase to thirty students if there is an unusual increase in enrollment after the opening of schools.
- Middle school class sizes for academic courses except for physical education range from twenty-two to twenty-six students; physical education range from twenty-five to thirty students.
- High school class sizes for the following classes range from fifteen to twenty-five students: English, Foreign Language, Science, Mathematics, Social Studies, Physical Education, and Health and Wellness.
 - NOTE: Due to space and safety concerns in science classrooms and laboratory spaces, a maximum of 24 students per classroom have been enrolled in Science classes
- Technology classes that depend on a computer lab, range from 15-20 students
- Music, maximum 50 students
- Art-Intro, maximum 22 students
- Art-Clay and AP Art, maximum of 16 students
- Other Art classes, maximum of 18 students

Currently, the average class sizes by grade and/or subject area are as follows:

Elementary

K	1st	2nd	3rd	4th	5th
22	20	21	23	20	24

Sharon Middle

6th	7th	8th
18	23	22

Sharon High

	9	10	11	12
ELA	22	20	19	22
Social Studies	21	23	21	22
Math/Comp Sci	21	20	19	22
Science	21	20	22	20
Foreign Lang	15	17	18	15

Note: We do not propose any further changes in the class size guidelines.

6.2 EDUCATIONAL PROGRAM WITH EDITS SHOWN

Sharon High School Schedule:

The school day begins at 8:05 a.m. and ends at 2:40 p.m. Prior to the 2010-2011 school year, the school day began at 7:25 a.m. and ended at 2:00 p.m. The schedule consists of 6-periods that rotate on a 6-day schedule with each period meeting 5 days per cycle.

Sample Schedule:

SHARON HIGH SCHOOL - BELL SCHEDULE						
Time/Day	A	B	C	D	E	F
Block One 8:05 am – 9:00 am (55 minutes)	Period 1	Period 6	Period 5	Period 4	Period 3	Period 2
Passing (4 minutes)						
Block Two 9:04 am – 9:59 am (55 minutes)	Period 2	Period 1	Period 6	Period 5	Period 4	Period 3
Eagle Block 9:59 am – 10:44 am (45 minutes)	Directed Study <i>Mon, Wed, Fri: Chorus, Band, & Orchestra</i> <i>Tue, Thurs: Designated Ensembles</i>	Directed Study <i>Mon, Wed, Fri: Chorus, Band, & Orchestra</i> <i>Tue, Thurs: Designated Ensembles</i>	Directed Study <i>Mon, Wed, Fri: Chorus, Band, & Orchestra</i> <i>Tue, Thurs: Designated Ensembles</i>	Directed Study <i>Mon, Wed, Fri: Chorus, Band, & Orchestra</i> <i>Tue, Thurs: Designated Ensembles</i>	Directed Study <i>Mon, Wed, Fri: Chorus, Band, & Orchestra</i> <i>Tue, Thurs: Designated Ensembles</i>	Directed Study <i>Mon, Wed, Fri: Chorus, Band, & Orchestra</i> <i>Tue, Thurs: Designated Ensembles</i>
Passing (4 minutes)						
Block Three 10:48 am – 11:43 am (55 minutes)	Period 3	Period 2	Period 1	Period 6	Period 5	Period 4
Passing (4 minutes)						
Block Four 11:47 am – 1:41 pm (86 minute class) (28 minute lunch)	Period 4 and Lunch 1 st Lunch: 11:43 – 12:11 2 nd Lunch: 12:14 – 12:42 3 rd Lunch: 12:46 – 1:14 4 th Lunch: 1:17 – 1:45	Period 3 and Lunch 1 st Lunch: 11:43 – 12:11 2 nd Lunch: 12:14 – 12:42 3 rd Lunch: 12:46 – 1:14 4 th Lunch: 1:17 – 1:45	Period 2 and Lunch 1 st Lunch: 11:43 – 12:11 2 nd Lunch: 12:14 – 12:42 3 rd Lunch: 12:46 – 1:14 4 th Lunch: 1:17 – 1:45	Period 1 and Lunch 1 st Lunch: 11:43 – 12:11 2 nd Lunch: 12:14 – 12:42 3 rd Lunch: 12:46 – 1:14 4 th Lunch: 1:17 – 1:45	Period 6 and Lunch 1 st Lunch: 11:43 – 12:11 2 nd Lunch: 12:14 – 12:42 3 rd Lunch: 12:46 – 1:14 4 th Lunch: 1:17 – 1:45	Period 5 and Lunch 1 st Lunch: 11:43 – 12:11 2 nd Lunch: 12:14 – 12:42 3 rd Lunch: 12:46 – 1:14 4 th Lunch: 1:17 – 1:45
Passing (4 minutes)						
Block Five 1:45 pm – 2:40 pm (55 minutes)	Period 5	Period 4	Period 3	Period 2	Period 1	Period 6
Dropped Period	Day A - Period 6	Day B - Period 5	Day C - Period 4	Day D - Period 3	Day E - Period 2	Day F - Period 1

For the 2009-2010 school year, a 45-minute directed study ("Eagle Block") was added to the schedule (9:59 a.m. - 10:44 a.m.) to address the needs of our students and faculty. We were faced with conflicts regarding our music programs and extra-curricular activities, equitable distribution of students amongst the Wellness Department and an impact on clinical counseling services.

Additionally, Eagle Block provides students with opportunities to access school-based services, academic and social-emotional interventions and supports.

The lunch period is 114 minutes long, during which students attend class for 86 minutes and lunch for 28 minutes. Lunches have historically been organized by grade.

The master schedule is developed collaboratively by administration and school counseling. Course offerings include full-year and semester classes. Students request courses for September beginning the preceding March. Course sections are based on the number of student requests in the course request phase.

A committee was created during the 2015-2016 school year to consider the possibility of transitioning to a trimester schedule. Among the considered benefits to this type of schedule were opportunities for students to take a broader array of electives, an expansion of the visual and performing arts programs, and elimination of mid-year examinations. Although the committee did not conclude that a transition to trimesters was appropriate at the time, the conversation is likely to reemerge in the near future. At present, there are no imminent plans to change the schedule.

6.2 EDUCATIONAL PROGRAM WITH EDITS SHOWN

Professional collaboration time is built into the schedule. Currently, all members of ELA, Foreign Language, Mathematics, Science, Social Studies, and Special Education have a common period off for the purpose of collaboration on four of the six days in the cycle. Departmental professional development is currently built into these common planning periods, including full-department, grade-level, and curriculum partner collaboration.

Our current facilities impede our ability to explore cross curricular collaboration and professional development offerings during the school day.

The vision for future collaboration includes opportunities for teachers in all disciplines (including unified arts, PE/wellness) to have common planning time and increased time and space for cross-disciplinary collaboration.

The advantage of our current scheduling methodology is the involvement and leadership of the process by the School Counselors. Our school counselors have a very good understanding of the individual students and their unique needs, goals and aspirations. A disadvantage to the current scheduling methodology is the way in which classes are determined by the number of students who select a class or have interest in the specific class selection. Students have been faced with not being able to take their top selected course because there may not be enough students who select the class in order for the class to run. In addition, the scheduling is managed solely by administration and the counseling department with limited opportunities for teacher input. In the future, it would be advantageous for us to develop class scheduling teams that are integrated and inclusive of a cross section of departments who share students.

Teaching Methodology and Structure:

Administrative and Academic Organization/Structure - Curriculum Delivery:

Sharon High School is a traditional college-preparatory school that is organized by departments. Due to the limits of available classroom space, many teachers share classrooms that are available, regardless of the department assignment. While the teachers are organized by departments, many classrooms are located outside of their department. There are no policies that determine how we are organized or room assignments.

The district implemented the Digitally Enhanced Learning Initiative five years ago which provides a 1:1 computer to enhance the teaching and learning process. Currently, students in grades 9-11 have their own laptop which is used in many of their classes. While the current 12th graders were a year ahead of the implementation of the initiative, they do have access to technology laptop carts or they bring their own device. We value responsible technology use and integration and believe that technology is an additional tool that enhances the learning experience.

In order to continue to enhance innovation by our students and teachers and meet 21st century college and career readiness expectations, we envision expanding our curricular offerings to allow students to explore various careers and build their 21st century skills.

Through the innovation and creativity of our staff, we have been able to create courses that peek the interests of our students and support their matriculation to post-secondary education and/or career. We have been able to continue our high performance although our current facility significantly inhibits our capacity to broaden our courses of study to include courses and programs that allow for project-based learning and career exploration.

Through community partnerships with Sharon Community Television, our students receive real-life opportunities to learn various aspects of communication, television and media. While our current facility has a functioning television studio, it is aging and there are limits to our students' experience during the school day. Students only have access to the television staff after school hours and have to leave the school campus to travel to the local television studio or satellite sites to work with the television staff.

Our students have a wide array of strengths and interest which correlates with the diversity of our student body. This

6.2 EDUCATIONAL PROGRAM WITH EDITS SHOWN

attributes to the emphasis on the Arts, Science, Technology, Engineering and Mathematics. We have an award-winning theatre company and have secured many awards in various areas of the Sciences. Currently, many science classes, all of which have laboratory components, are taught in traditional classrooms that have been repurposed. The rooms are cramped and are thus considered unsafe based on MSBA standards and the National Science Teachers Association (NSTA) Safety Advisory Board recommendations for minimum square footage per occupant.

The current facility and school structure do not foster the opportunity for interdisciplinary and collaborative teaching. The current facility lacks adequate space for large groups of students to work collaboratively across classes. Currently, when classes want to meet together they either open the access door between classrooms and go back and forth or look for available times when other locations in the school are not occupied. When students are collaborating and working on projects, they use the hallways. Large interdisciplinary project-based learning rooms would provide the flexible spaces needed for students to develop and present their projects.

Currently, there are no specific areas specified for teacher planning and collaboration. This is often done in a classroom during a teacher's planning period. Therefore, it limits the depth of opportunity to collaborate and plan across departments.

The goal of a new Sharon High school would be to plan a newly reorganized school that fosters innovation, collaboration and integration of academics and the arts.

We envision a new school would provide:

- Flexible classroom space,
- Student collaboration and study spaces,
- Project rooms to support project-based learning,
- Teacher planning rooms for the faculty and staff to collaborate within and across disciplines,
- Privacy rooms to support students in need of additional academic and/or emotional supports,
- Flexible conference rooms to support student team meetings and individual parents/guardians' meetings,
- and innovation labs.

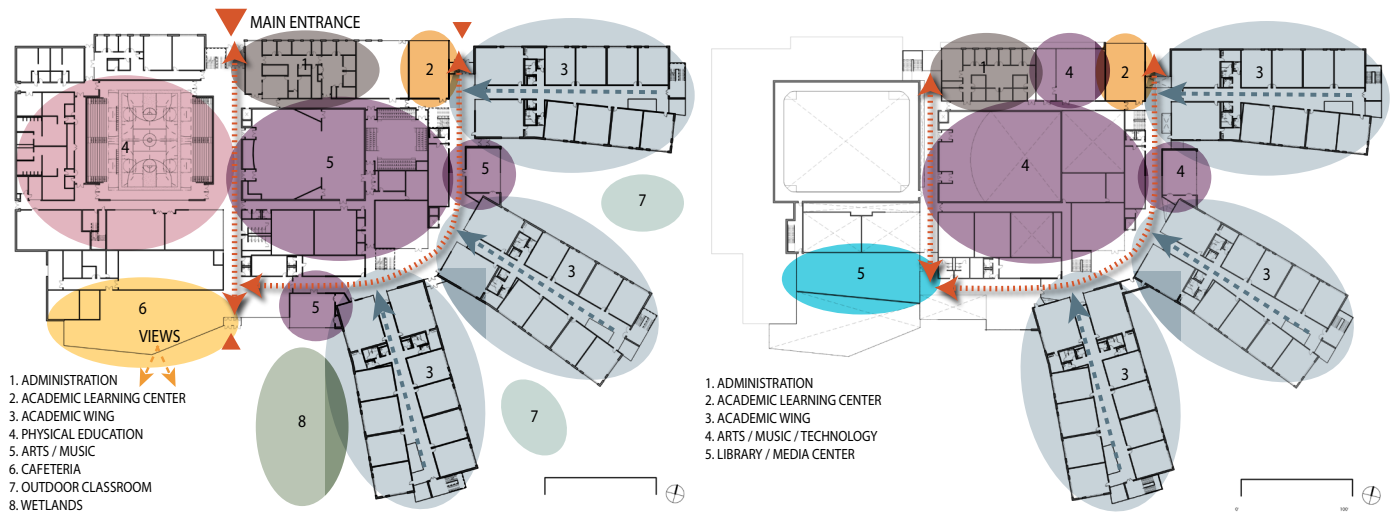
The new facility would need to be reflective and adaptable to the district's core values of acceptance, equity, honesty/integrity, respect/kindness, and teamwork.

Design Response:

The proposed preferred option is organized into six wings on two floors. These wings accommodate general classrooms and science classrooms organized together at the head of each corridor. These classroom wings lead to a large circulation corridor leading to performing arts and music on the first floor and technology classrooms on the second floor. Visual arts classrooms are also located along this circulation spine. In the center of the building on each floor is a large project space / STEAM classroom that can be used as a classroom or collaboration space used to support project-based learning. The organization is intended to make the performing, visual and musical arts visible to students on a daily basis and to foster cross pollination across disciplines. The goal of the plan is to support both collaborative and interdisciplinary learning as well as departmental expertise and instruction.

6.2 EDUCATIONAL PROGRAM WITH EDITS SHOWN

OVERALL BUILDING ORGANIZATION



Academics, Programs and Services

Currently, Sharon High is organized and structured in a department model. This has been the structure and design of the school for many years which has been driven by our facilities. As our educational programming continues to evolve and expand, we would like to be organized based on 21st century learning concepts. While there is some interdisciplinary learning occurring at varying degrees, we desire to ~~explore the academy model and~~ implement more project-based learning opportunities. While the concept of an academy model was discussed during the visioning sessions, the district does not believe this concept is appropriate to incorporate in the Sharon community. The goal however is to create a building that is flexible and structured in a way that allows for student and teacher collaboration in a socially and emotionally supportive environment.

Design Response:

The six wings (three per floor) shown in the preferred option allow the scale of classroom wings to be reduced to about 200 students per wing. This is intended to reduce the perceived size of these learning areas and address social, emotional and security challenges associated with large schools and the anxiety that these environments can produce for some students. The wings will house general curriculum classrooms and students will circulate through them during the course of the day.

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ACADEMIC WINGS



English Language Arts:

The Sharon High School English Language Arts Department focuses on strengthening reading, writing, and research skills. Instruction is delivered through a range of methods, which include lecture, Socratic discussion, and group and individual projects and investigations. Literature is used as a tool for learning about human nature, and to that effect, teachers also use their classrooms as interactive learning spaces, where students can role play and engage in activities that allow them to experience and explore some of the themes and questions proposed in their course texts. Teachers and students use technology for research, presentations, visual arts and texts, and writers' workshop. In grades 10 - 12, ELA and Social Studies interdisciplinary courses are offered, and these classes collaborate to make connections between history and literature.

In addition to full-year ELA classes, the department also offers semester-long electives in Film, Creative Writing, Journalism, and Comics and Culture. These courses are offered for elective credit, and they do not meet the graduation requirements for ELA course credits. These classes use technology for writers' workshop, research, film viewings, and Skype conversations with authors and interview subjects. Sharon High School has three computer labs, and one is used by the ELA department, though also shared with other departments. Other classes use laptop carts in lieu of the lab.

In the future, we would like to have more project-based and interdisciplinary learning opportunities so that students can further explore not only the connections between history and literature but also expand the connections between the

6.2 EDUCATIONAL PROGRAM WITH EDITS SHOWN

electives offered and literature. Due to our space limitations, technology integration and the use of smart technologies have been limited. In the future, we are committed to more thoughtful and meaningful technology integration in the delivery of curriculum and instruction.

The ELA department also offers a Writing Center during our 45-minute Eagle Block. Due to lack of space, the writing center rotates from room to room which is inconvenient for both students and staff. Because there is no social space for students in the current building, the only space available to students is the library. As a result, the library is not a quiet, academic workspace.

Ideally, there would be adequate space to deliver core academics, electives and interventions. The space would include the following components:

- Open areas (or the potential for open areas through movable walls) in order to create collaborative learning environments and conference spaces.
- Classrooms with adequate shelving and storage for classroom libraries and showcasing student work and materials/tools for learning.
- Age appropriate desks and workspaces that are easy to move around.
- Blackout shades for effective use of technology.
- More white board space, and projection systems in each room.

Additionally, there needs to be access and space to support the writing center with an expanded academic library that could serve as a quiet workspace, and flexible spaces that could serve as small lecture halls for presentations, public speaking, and outside/community speakers.

Design Response:

The preferred option includes a drama classroom to accommodate the needs of both the drama department and collaboration with the ELA department on lectures, Socratic discussions, and group and individual projects and investigations. It also allows creative expression that comes through the interdisciplinary course offerings.

Mathematics/Computer Science:

The Sharon High School Mathematics and Computer Science Department strives to provide appropriate courses for all students. Students are encouraged to take the courses at the level that best reflects their interests and strengths and allow for exploration so they are not locked into a particular level for their high school experience. Mathematics and science are a focused interest of a large number of our students who desire rigorous and challenging content and instruction, therefore, students are allowed to take more than one mathematics course when feasible. The mathematics and computer science courses are fully aligned with the Massachusetts Curriculum Frameworks and with National Council of Teachers of Mathematics (NCTM) and International Society for Technology in Education (ISTE) standards. All courses stress critical thinking, problem solving, written and oral communication, reasoning, and connections to other mathematics and computer science courses and real-life applications. All courses at Sharon High School incorporate the use of technology as a meaningful teaching and learning tool, and problem solving is a universal theme.

Currently, four years of Math are required for graduation. There is no current requirement for Computer Science and Computer Science courses do not satisfy the Math graduation requirement. Sharon High follows a traditional path of courses in Math leading to Calculus and Statistics in senior year. The department offers 3 AP classes in math, AP Calculus BC and AB and AP Statistics. It also offers 4 levels of calculus for seniors, 2 at the AP level and 2 at the standard level. There are four levels of Math taught at Sharon High: AP/Honors, Accelerated, Standard, and Foundations. The Computer Science Department offers four courses: AP Computers Science A, AP Computer Science Principles (both full year), Fundamentals of Python Programing (Semester), and Intro to Computer Science (semester).

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The math classes meet in any room in the school as no classrooms are designated for Math instruction. Math instructors use traditional methods of instruction as well as more contemporary methods of project-based learning, collaborative groups, large and small group discussion, and direct instruction. While current space is functional, it presents difficulties when trying to implement project or collaborative group instruction. With lack of white board space and aging technology, having students working together or presenting their work to the class is difficult. In addition, the current furniture in the classroom makes rearranging for collaborative or project work extremely difficult and uncomfortable thus preventing some meaningful and innovative instruction from taking place. Spaces that are flexible and have flexible furnishings would better support the delivery of instruction in this area. This would promote more effective collaborative groups and project-based learning opportunities.

In planning for new space for math instruction, the classrooms should be large and have write-on walls that would allow collaboration at any point in the room. Flexible, comfortable seating should be available to allow for easy rearrangement for project-based and collaborative instruction to take place. There should be break out space where small groups could work and larger spaces where interdisciplinary groups could work together. A teleconferencing space or capabilities should be made available in classrooms to further permit collaboration with experts/schools outside Sharon High School.

Currently, the Math/Computer Science Department also offers a Math Center during our 45-minute Eagle Block. Due to lack of space, the math center rotates from room to room which is inconvenient for both students and staff. Because there is no social space for students in the current building, the only space available to students is the library. As a result, the library is not a quiet, academic workspace.

The computer science classroom currently utilizes a computer lab which is shared with a class from another department. The room is small and the technology is aging. It is not currently conducive to simulating a software programmer's project-based work environment. It presents difficulties in collaboration as there is no room for multiple or large screen workstations.

In planning for space for computer science, there needs to be a large, flexible space that can function as a computer lab but can also accommodate collaborative work among students. This would require large/multi-screen work stations throughout the room. As the computer science program expands to include hardware and network courses, large dedicated laboratory and/or project spaces would be optimal to support this expansion.

Based on student interest and need, we desire to expand our offerings to include business courses, such as accounting, finance, marketing etc. which would require space that is flexible, able to adapt easily to new technology and software, and permit project based and collaborative instruction/learning to take place.

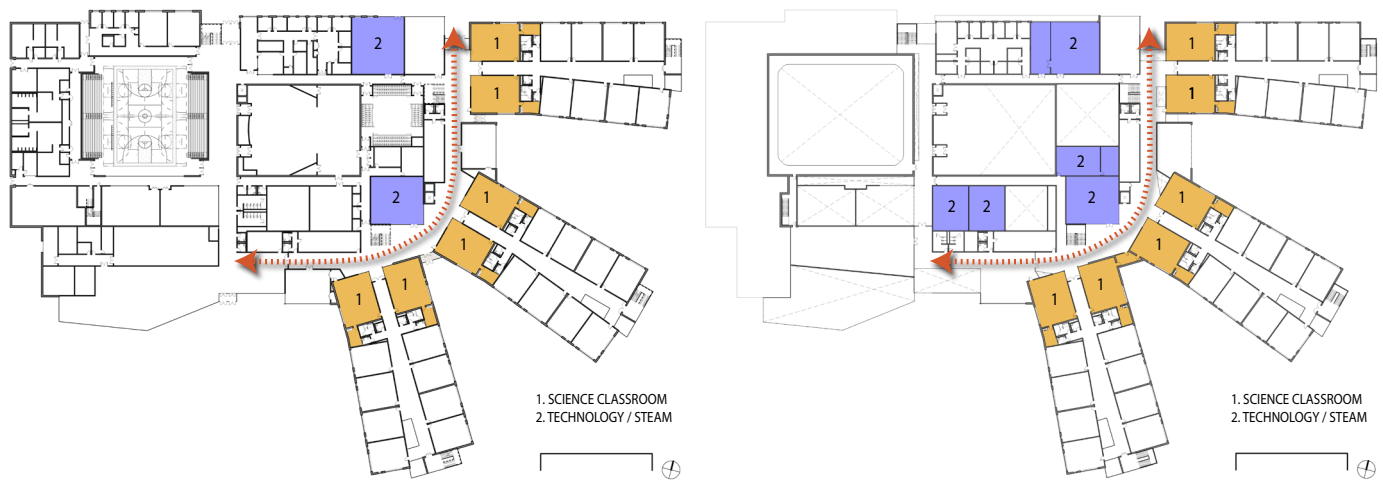
To accommodate these goals a proposed CAD lab would be wired for various technology including laptops with ethernet access points throughout the room and our current bank of 3D printers. The CAD lab would also have space with open counters and floor space so that students can assemble products and test design solutions. In addition to the three main science disciplines and engineering design, the science department currently offers several STEAM focused courses including forensic science, biotechnology, and environmental science. The current courses and/or any future STEAM focused courses could be accommodated within two STEAM labs. As a district we felt that designing flexible STEAM lab rooms would create opportunities for changing courses in the future and fall more in line with the MSBA's high school guidelines that consider not only current but future use of these spaces. The Innovation Lab would be an open space wired for technology around the room so that it could serve multiple uses and be accessed by all departments for groups and large projects. This lab could also house robotics courses in the future as the department does not currently offer robotics but would like to add it in the future.

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Design Response:

The preferred option is organized to distribute technology classrooms across the two floors of the building. The first floor has a STEAM classroom / Project Space and a TV studio. The second floor also houses a STEAM classroom along with graphics labs, cad lab and innovation lab. The technology classrooms are typically in close proximity to the twelve science classrooms that are proposed for the new school offering opportunities to expand science offerings and technology offerings such as robotics which could be offered on either floor in a STEAM lab.

TECHNOLOGY SPACES



Science:

The goal of the science department is to ensure that all students graduate from Sharon High School with the skills and knowledge necessary to become scientifically literate citizens who can make informed decisions. The curriculum emphasizes scientific process and inquiry skills, problem-solving, and non-fiction reading and writing. The department is continually working to move students from procedural-based laboratory activities to more inquiry-based laboratories.

Currently, three years of science is required for graduation although the majority of students take 4 or more science courses prior to graduation. Sharon High School follows a physics first course sequence where students take physics in grade 9, chemistry in grade 10, and biology in grade 11. Each of these core science courses are offered at the foundations, standard, and honors levels. Beginning in sophomore year, students may choose to take additional elective science courses beyond the 3 core sciences. By senior year, all science courses are elective-based. Currently the department offers 5 AP, 5 multileveled (standard/honors), 2 standard, and 2 honors elective options. Of these, 4 courses are semester based and 10 are full year electives. In the 2012-2013 school year, Biotechnology was developed as a STEAM-based science elective. Over the last 5 years, the department has added more STEAM (Science, Technology, Engineering, Arts and Mathematics) focused courses such as Advanced Engineering Design, Environmental Science, and Forensic Science. The department would like to consider adding other STEAM courses however there is no physical space in which to add more courses. For example, for the past 10 years, the department has considered adding robotics courses however there is no large available space in which to run this type of course. The department is also very interested in adding an innovation/maker lab for use by several disciplines and courses. In designing a new or renovated Sharon High School these needs should be considered and plan for spaces that are flexible, located so to integrate the curriculum areas, and large enough for student projects and collaboration. **The science department utilizes thirteen rooms for current course offerings. In looking to the future, the department felt that a minimum of 12 rooms would be needed to meet the main science discipline demand while the CAD lab space would be used to house**

6.2 EDUCATIONAL PROGRAM WITH EDITS SHOWN

the engineering design courses. The district acknowledges the MSBA's high school lab guidelines and is committed to the future flexibility of science labs in planning for a new or renovated high school facility.

All Sharon High School science courses are designed to be lab-based courses. Currently, 13 rooms are used as science spaces. Of the 13 rooms, only 2 meet minimum space requirements for laboratory classrooms. Six rooms were designed as science labs many years ago however they are grossly undersized and thus cannot be used effectively. Future space considerations should consider the need for dedicated Science labs that ensure the safety of students and staff and support the goals of the department and district.

In planning for new science spaces, there should be flexible work space in all science classrooms. Rooms need to be designed so that there is a combination of content teaching space as well as lab space since classes blend content with hands-on experiences. A dedicated space for storage and sterilization of safety equipment should be readily available and accessible in every room. Ideally, this would be in a universal location in every science room. Drains in the floors especially underneath emergency showers is something that should be considered.

Currently, there is one chemical storage room which can only be accessed by 2 chemistry rooms and the main hallway. One central chemical storage room is needed so that teachers do not have to carry chemicals far distances to their classrooms for use in laboratories. The proposed plan locates a single chemical storage room in close proximity to the proposed chemistry classrooms which are grouped together on the same floor.

In building authentic learning opportunities including project-based learning and inquiry-based learning labs, space is often needed to be dedicated to these more long-term labs. For example, AP Biology students conduct a plant lab where plants are grown over a month of time in varying conditions. This means that the lab space used by the AP Biology classes cannot be accessed by other classes during that month of time. Ample and numerous lab spaces would be able to accommodate this need more easily.

Since each science discipline has slightly different needs for lab space and this is not likely to change significantly in the future, rooms should be designed as biology specific rooms, chemistry specific rooms, physics specific rooms, and flexible science rooms which could be used for any of the three core science disciplines or a variety of science electives. Most science classes, particularly the Astronomy and Environmental Science classes, should have easy access to an outdoor space for making observations and conducting experiments. Bringing classes outdoors allows for more space for experiments as needed and helps to make important connections to the content being taught in natural science classes.

Science electives at Sharon High School are very popular courses in which to enroll. In addition to AP science courses, the department currently offers a range of electives including but not limited to: Biotechnology, Engineering Design, Environmental Science, Anatomy and Physiology, Astronomy, and Forensic Science. Some of these courses have very specific building needs which would enhance their already robust curriculum.

Forensic Science was introduced in the 2015-2016 school year and has been consistently enrolled with 2-3 sections of seniors per year. Now that the course is in its fourth year, the teachers have identified a need that cannot be fulfilled in the current building. Space is needed in which to set up a crime scene and let it remain set up over the course of a week, since the course requires students to fully process a scene. A flexible, open, small room with a shower hose and drain would be ideal.

The engineering design curriculum allows students to use technology, 3D printers, and other readily available materials to design solutions and test their designs for various products. The ideal space would be climate controlled, wired for various technology including laptops with ethernet access points throughout the room. It would have an adjacent space with open counters and floor space so that students can assemble products and test design solutions.

The environmental science course, AP Biology classes, and Biology courses all grow plants at varying times of year as

6.2 EDUCATIONAL PROGRAM WITH EDITS SHOWN

a part of labs. A flexible space that could act as a greenhouse with outlets for grow lamps and water access would support the curriculum and instructional needs. Having such a space would allow for inclusion opportunities for students serviced in our Pathways special education program.

Design Response:

The twelve science classrooms listed in the space template are broken down into three disciplines of four rooms each on the proposed plans: Chemistry, Biology and Physics. These disciplines are located in horizontal or vertical proximity to one another. Located at the beginning of the classroom wings they are also in proximity to art and technology spaces. This allows the science department to expand their offerings by using technology spaces for subjects such as forensic science and engineering design. The Biology classrooms are located on the ground level with direct access to a shared courtyard. The goal here is to take advantage of the site which includes a wetland directly adjacent to the propose school. The Chemistry department is located on the second floor with one chemical storage room in the center of the group of rooms. This adjacency limits travel distances for the handling of chemicals from the storage area to these classrooms. All science labs also have individual dedicated prep rooms. The physics classrooms are located on two floors and are stacked. They are all adjacent to a two story corridor space that can be used for vertical indoor experiments.

SCIENCE CLASSROOMS



Social Studies:

In the Social Studies Department, teachers and students do what historians, psychologists, geographers, sociologists, lawyers, economists, anthropologists, and archaeologists do. Students are taught to analyze, investigate, speculate, argue, classify, compare, generalize, hypothesize, question, and debate. Most of the Social Studies Department courses are historical in nature. Studying history means asking questions, answering questions, testing and revising answers in an ongoing attempt to know who we are, to understand how we got here and to determine where we might be going. The Social Studies department has been developing a curriculum for grades 6 through 12 that accomplishes what Howard Gardner describes in *The Unschooled Mind*. Gardner makes the case that student learning should not be focused on isolated bits of knowledge but rather understanding the causes and implications of our past and current decisions.

Currently the Social Studies Department uses 14 classrooms around the building, which are shared with other members of the department as well as members of the foreign language, math, science, and ELA departments. The lack of classrooms designed for integrated, project-based learning hinders the delivery of instruction and collaborative opportunities for students. Project based activities, Socratic dialogues and collaborative learning are impeded by some

6.2 EDUCATIONAL PROGRAM WITH EDITS SHOWN

of the classrooms to which teachers are currently assigned. For example, social studies classes are taught in science labs with fixed workstations that do not lend themselves to many of the group activities and collaborative dialogues conducted in Social Studies classes. Also, the lack of space within these classrooms limits the resource materials (maps, books, etc....) available to teaching staff. Plans for a new building should have some flexible spaces that lend themselves to the investigation of primary source materials. This might include technology, physical artifacts and documents. Serious planning should be given to creating comfortable learning spaces where guest speakers in person, or virtually could be invited or theatrical re-enactments, civic role- plays or the viewing of film and documentaries might take place. This kind of consideration to space design would enhance and compliment the kinds of activities the Social Studies department seeks to deliver. Additionally, an appropriate flexible space design would aid in the department's efforts to implement the new state frameworks in the classroom.

Design Response:

One of the goals of the drama classroom that is located next to the auditorium is to offer a location for larger groups of students to give speeches, debate, and hold forums and view films. In addition, the STEAM classrooms on each floor act as larger project based classrooms that could be used for project based activities for both social studies and all areas of study.

World Languages:

Language learning and culture exploration is a very important part of the learning experience for SPS students starting as early as first grade. Therefore, our goal is to ensure that students have exceptional opportunities to continue to develop and execute their language skills in a way that enhances their learning experiences in the other curricular areas.

Currently, students typically remain in one course for the whole academic year (e.g. Spanish II). We would eventually like to see proficiency-based grouping where students could move between courses as they meet the curricular expectations.

Students are eligible to earn a Seal of Biliteracy if they can demonstrate a certain level of proficiency either in their home language or their language of study at SHS. It would be useful to have small conference areas where students could meet native speakers from the community to learn and/or maintain their home language or practice their language of study in an authentic context.

To support student's development of languages, we currently have a language lab where students can conduct their listening and speaking assessments without distractions and background noise. The current space impedes the ability to expand this lab to include virtual experiences with native speakers via SKYPE or some other video conferencing technology.

Given that food is an important component of any culture, it would be beneficial to have access or in proximity to a space that is flexible and has equipment to support simple food preparation to accompany the language instruction.

Exchange programs are an important part of the language instruction at Sharon High. We host at least two exchange groups from Spain and China each year. It would be ideal for there to be a space for the exchange students to collaborate on a virtual project prior to their arrival and culminate the project with their English-speaking peer during their exchange visit.

Currently, students participate in exchanges such as the Chinese, French, Spanish Exchanges and the CIEE (Council on International Educational Exchange) during the summer.

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English Learner Program:

The changing demographics of the Town of Sharon has also led to the growth of our English Language (EL) programs. The number of students identified as an English Learner has tripled in less than five years. The growth of the English Learner program at Sharon High mirrors the growth of the district. The program has grown from a half-time traveling teacher between Sharon Middle and Sharon High to two full-time teachers. The teachers provide individual and in-class services to students in grades 9-12. They work collaboratively with general education/content area teachers to ensure the success of each of our students. The work collaboratively with the K-8 EL teachers to develop and modify curriculum to meet the needs of each individual student based on the student's language level.

Due to limited space, the two EL teachers and their students move from room to room around the building, sharing space with teachers from other departments. The teachers do not have a dedicated instructional space which limits their ability to provide hands-on, authentic learning opportunities for their students. In addition, the teachers do not have a space to collaborate with one another or the content area teachers to review accommodations for students.

The EL program requires a dedicated space that includes an instructional space that is flexible to provide small group and individualized instruction. It would be optimal for the instructional space to include office space, storage space and meeting space for parent and teacher meetings/collaboration.

METCO:

Sharon has been a METCO district since 1967 and values the cultural and racial diversity that the program brings to our suburban district. Sixty-six of our students are enrolled in the METCO program in grades 1-12. The program is staffed with a Director and one support staff person. It is expected that students enrolled in the program fully participate in school and community life in Sharon.

Over the past year, the program has gone through a reorganization to emphasize the need to ensure that students are fully integrated and achieve at the same level as resident Sharon students. We envision that the program will continue to evolve by offering academic enrichment support, parent/community engagement activities, and revitalizing the host family portion of the program. The program supports students in academic competition as well as socially and emotionally.

The METCO Director's office is located at Sharon High. The current space consists of a moderate sized office within the library that also acts as a meeting space. Future building plans should include office space and a meeting space that is flexible in order to provide before/after school tutoring support, parent meetings and guest speakers.

Special Education Programs/Services:

The majority of special education services are delivered inclusively in the general education classroom. Whenever required, individual and small group services are delivered through "academic labs." These are opportunities for students to work individually or in small groups with a special education teacher and/or service provider on their IEP goals and objectives. Currently, the spaces designated for "academic labs" are dispersed throughout the academic areas of the school and the school library.

In order to maximize learning for students, we envision that students receiving special education services, or require supports through accommodations access those services and supports through large-room learning centers staffed by teams of special educators, specialist and related service providers. This space should be flexible and able to accommodate individual and small groups for intervention supports from general education support staff. It should be designed using universally designed concepts for the space as well as the teaching tools. These spaces would be located amongst the academic areas in the building.

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Currently, substantially separate programs exist for students with autism spectrum disorder (ASD), those with social-emotional disabilities, those with cognitive and/or neurological impairments, and students in transition (18-22). They are served in the team-based learning, autism spectrum disorder, and a vocational/life skills program. These programs were developed in order to service students who would historically have been placed out of district due to the intensity of service needs. Currently, these programs are located in different areas throughout the building, separate from the core academic areas. In order to ensure a more inclusive learning community for all students regardless of need and ability, the sub-separate program classrooms should be located within the primary academic areas of the school. ~~They should be placed in close proximity to one another so to increase the collaboration amongst the staff and ensure the safety and oversight of all of the students. This would also allow for better resource management by the overlap of support staff and instructional assistants as well as the use of various tools and equipment.~~ The district is committed to ensuring that students with disabilities receive a quality education in the least restrictive environment. We will continue to meaningfully and purposefully include students in the general education classroom as well as the broader school community. There are currently six academic support labs for students with mild to moderate learning disabilities that we hope will be merged into two academic support centers located within the core instructional areas of the building, one on each floor, so that students can access the specialized supports and services that they need. In addition, six dedicated special education classrooms are proposed to be distributed in the six classroom wings of the proposed building. It is anticipated that half of these rooms would have associated toilets and half would not.

Due to the skills that students in the vocational/life skill program are working on, they require not only a space for academic instruction but also a space to develop daily living and work skills. There are various related service providers who support the programs, therefore, a moderate sized office space should be located within at least two of the sub-separate instructional spaces to ensure that the related service providers are able to provide counseling and conduct assessments with students.

The district developed a partial sub-separate program for students with language-based learning disabilities called LEAP almost three years ago. The first cohort of students in the program will enter the high school in two years. Due to the matriculation of the program, we are planning to develop a high school level LEAP program. Students receiving services through the LEAP program receive individualized, small group instruction in a sub-separate classroom from a special education teacher for reading and writing and receive math, science and social studies through a co-teaching model in the general education classroom.

Sharon High School does not have an adaptive physical education/wellness program. All students participate in a general physical education/wellness class. Accommodations and modifications are provided in the class to students who need the services. Also, if required, instructional assistants support the students in class.

Occupational/Physical Therapy services are currently served on a consult basis to the teacher and student. The consult service may occur in the classroom, or the therapists meet with the teacher outside the classroom. There are no anticipated changes to this consult model, and we expect to continue servicing approximately 6-10 students per school year.

The spaces designated for special education programs in the new building should maintain the current space allocations for the academic labs and the sub-separate programs. The spaces while located amongst the school and academic areas should also consider the needs for the program servicing students (18-22) and ensure easy access into the building and instructional areas.

Nursing services are a very important part of supporting the students attending SHS whether they receive special education services or not. There is a large number of students in the district who have varied medical needs including those with chronic illnesses. Currently, we have one full-time school nurse and a part-time floating nurse to support the medical needs of the students at Sharon high. The clinic is currently located in the main office area. It includes a

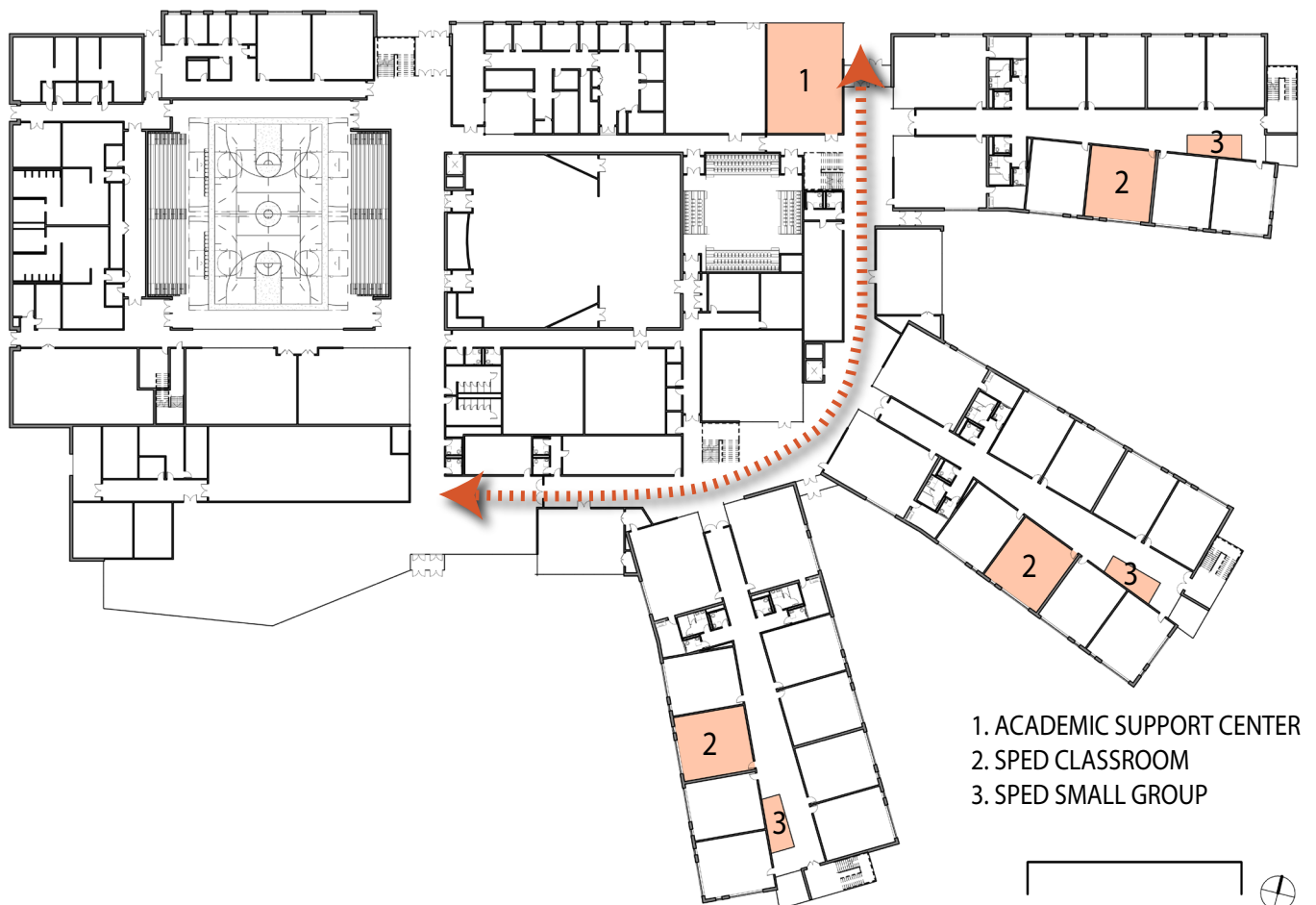
6.2 EDUCATIONAL PROGRAM WITH EDITS SHOWN

waiting area for students, a small office space, a sick and well child space, a restroom and an examination area. Due to the increased needs of students with allergies and diabetes, proper storage for medications and medical supplies are imperative in a new school where this is currently limited. The clinic should be located in an area of the building where it is easily accessible to students yet discretely located to ensure student confidentiality. It should be a welcoming space that offers a waiting area and a triage area for students. It should be properly equipped with the ability to refrigerate medications. Due to the growing needs of students, two restrooms would be optimal to support students who need assistance from the nurses or for those who are able to manage their medical needs independently. We should maintain a large examination area where curtains can be drawn for privacy. Two small office spaces are needed to accommodate the nursing staff. To support the nurse's workload, the space should be equipped with up-to-date technology to keep detailed medical records and information.

Design Response

The proposed plan locates six dedicated special education classrooms, one in each of the six classroom wings. In addition, each wing has a dedicated small group instruction space within the classroom environment. At the end of the circulation spine of the proposed plan on each floor there is an academic support lab. These labs are intended to offer multiple services for students looking for support with academics, and with social and emotional concerns. By creating these larger labs the intention is to attract a larger cross section of students to these locations making them seem less isolated. It also offers staff the opportunity to offer multiple levels of support and services from only two locations which should lead to a more robust level of student service.

SPECIAL EDUCATION



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Guidance and Support Services:

Social Emotional Supports:

Currently the high school provide social emotional supports and services through the School Adjustment Counselor and School Psychologists. They conduct individual and group counseling as well as social skills groups either during lunch block or during Eagle Block. They also provide seminars focused on various topics to build students' coping and social, emotional skills and to support families in the support of their children. In addition, they provide services to students enrolled in our sub-separate special education programs and work closely with the teachers and staff of those programs.

They are key members of the special education process, specifically, the school psychologists spend a significant time conducting confidential testing/assessments to determine eligibility for special education services and 504 accommodations. They currently are located in the library to access conference room spaces. However, their office locations are remote to the special education staff and administration for which they frequently collaborate.

Ideally, their office and conference room space would be located in a common area that is in close proximity to the special education programs that they serve, to classrooms and to the special education administration. They require spaces that ensure discretion and confidential engagement with students and families.

School Counseling:

Six school counselors and the Dean of Academic Affairs provide academic, social, and post-secondary planning services for students at Sharon High School.

Upon entering grade 9, students are assigned a counselor based on the alphabetical split of the class. Counselors currently carry an average caseload of 187 which can go up to 200 students and continue to work with the same group of students from grade 9 through graduation. This allows counselors and students to develop meaningful relationships over the years that aide in counseling students through annual course selection and eventually to post-secondary planning.

School Counselors also provide services for students through lunch period counseling seminars that meet 8 - 10 times per year. Because there are not adequate large group meeting spaces, counselors take time out of academic periods to meet with students, and present the same information twice to groups of 25 students, rather than the cohort group of approximately 50. These seminars are scheduled into available classrooms when possible, but are more frequently scheduled into classrooms from which those students are being taken (e.g. into an English I classroom when the seminar is for grade 9 students). To better support our students through the delivery of small group seminars, we require a moderate to large capacity meeting space that is flexible and allow for movement and discussion. It should be wired and equipped with presentation and amplification equipment.

The counseling office hosts over 120 college and university admission representatives each year. Representatives meet with as many as 70 students or as few as 1. Currently, these meetings take place most frequently in a small conference room in an area of the building that is far away from the school counseling offices. The library or the Dean's office is often used for moderate to larger meetings. The library is located upstairs at an opposite side of the building from the counseling offices. The Dean must find an alternate work space when his office is used for such meetings.

The department would benefit from a College/Career Center space that would provide accessible meeting area and minimize staff disruption. Such a space, if in or nearby to the counselors' offices would allow significantly improved efficiency for the counselors in working with students, families, other staff, and college representatives.

Counselors work closely with school psychologists, adjustment counselor, METCO director, school resource officer,

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and special education liaisons on a regular basis, including weekly “Case Conference” meetings. Despite the close collaboration, the staff are housed at opposite ends of the building, making this work very challenging.

We envision a “student services suite” where students would be able to access all counseling and special education services, including the Special Education Administrator and the Dean of Academic Affairs. Considering the significant number of parent meetings these individuals conduct, such a space would ideally be located near the administrative offices, or near a building entrance to ensure the safety and security of students and staff.

Design Response

The student services suite is located on the second floor directly above administration and immediately next to the main entrance stair. This location allows a close proximity between counseling and administration but with some separation so that counseling does not have a direct association with administration. The location directly above the main school entrance is also convenient for parent visitors and for visiting college representatives who will frequent this part of the school.

Teacher Planning and Room Assignment Policies

Teachers are provided with a preparatory planning period once per day. In addition, most departments are scheduled to have the same planning period so that departmental professional development and common planning can occur during the school day. Currently no teachers in the building have their own classroom as every classroom is shared by 2-5 teachers. When planning room assignments, considerations are made so that teachers are not traveling far distances between periods unless the teacher has a prep period separating the two courses so that they have time to travel the further distance. Departments meet in classrooms for professional development since space is limited.

The current schedule is designed to allow for ongoing professional development during the school day. It is an integral part of the day that would be better enhanced with spaces that are conducive to teacher collaboration time and site-based professional development. In addition, the district utilizes half day release time for professional development. There is no plan to change the current practices for professional development but a new facility designed for this purpose would enhance the current practices and enhance cross disciplinary and vertical planning and collaboration opportunities.

Teachers currently have a few small and inadequately equipped workspaces in the building. As a result of the growth with students and teachers, previous spaces designated for teacher workspaces have been converted to staff office space or instructional spaces.

To support and promote cross curricular collaboration and to implement more interdisciplinary and project-based units of study, teachers require work spaces that centrally located near the instructional classrooms that can also act as a space for individual, content level and cross-curricular planning and professional development spaces. The space should be flexible so to allow for small group planning to occur simultaneously with a moderate group of educators receiving professional development.

There are five curriculum coordinators who serve grades 6-12. They serve as department chairpersons at the high school level. Therefore, the majority of their time is spent in the high school building. Currently, there are three small office spaces that are shared by them. The current spaces impede their ability to plan and review teacher evaluations in a safe, private area.

To ensure that the curriculum coordinators have space that supports their work. It requires spaces for both individual and collaborative work as well as shared meeting space where confidential conversations and phone calls can occur. In addition, their space should be such that they can meet with both small and large groups of teachers for curriculum

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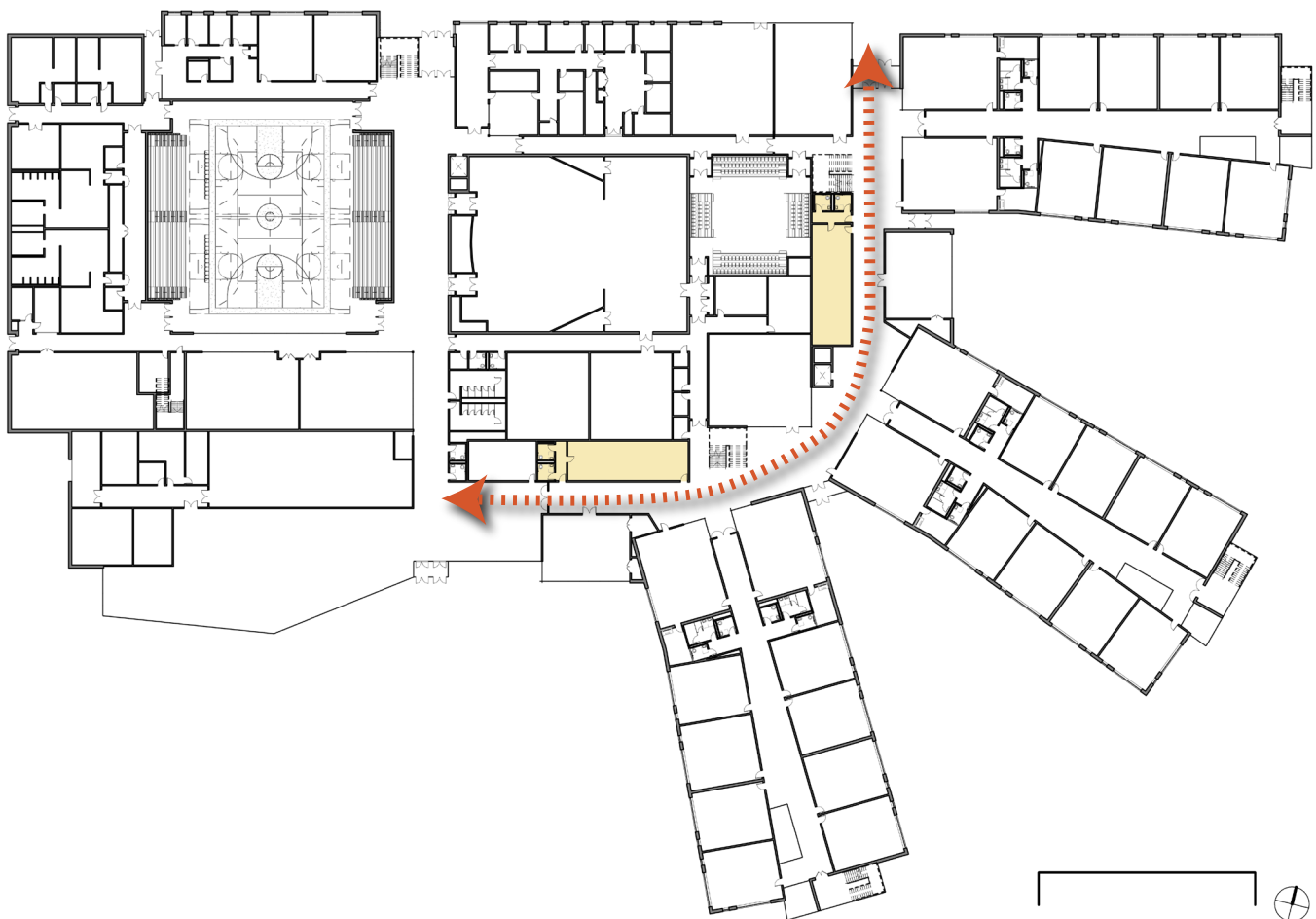
planning, development and professional development. This space would be equipped with the technology supports such as charging stations and large monitors.

Although we have implemented a 1:1 technology initiative, educators still rely on actual textbooks and other supplemental materials, therefore, a small storage space is needed to store those materials to be easily accessible to the teaching staff. Additional shelving would be an adequate space to support the professional growth of teachers by providing a professional library of books and resources.

Design Response

The proposed plan includes four teacher planning centers, two on each floor. These locations are centralized and highly visible as they are located directly off of the academic wings of the school. These spaces are planned to offer areas for storage, collaboration and will act as printing centers for faculty. Each will include a conference space for common planning meetings and professional development.

TEACHER PLANNING CENTERS



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Pre-Kindergarten:

The Sharon Public Schools Children's Center provides full-day and half-day substantially separate and integrated preschool education for students with disabilities. It is located in the Sharon Middle School. It serves approximately sixty-six students with and without special needs in an integrated environment. No changes to our current preschool program is proposed as part of this project.

Kindergarten:

The Sharon Public Schools offers full day tuition-based kindergarten in each elementary school in addition to a free half day program housed at Heights Elementary School. No changes to our current kindergarten are proposed as part of this project.

Lunch Program:

There are currently four lunches, each lasting 28 minutes long. Students generally dine by grade, and there are no plans at this point to integrate the lunches. However, if in the future, we transition from a departmental model to an academy model, the lunch schedule will be reviewed and revised as needed.

Currently, there is limited seating in the cafeteria for all students to eat within the lunch area. Many students can be found sitting in the hallway or in the library during their lunch periods. The serving lines are narrow and challenges the time frame for which students need to be served. There is an outdoor inner courtyard that students use when the weather permits.

In the future, the ideal cafeteria space would be large enough to seat $\frac{1}{4}$ or $\frac{1}{2}$ of the student population to optimize time on learning. Well-spaced food service stations and line with a variety of student seating options (i.e. booths, round tables, high tops) would enhance the student experience and allow this time to be one of social interaction and relaxation during the school day. In light of our robust visual and performing arts program, students would welcome an opportunity to share and display their talents. Therefore, the dining hall should include an integrated sound system, visual media (i.e. televisions), modern payment options, cameras, and charging resources for electronics to ensure its use throughout the school day. The space should be designed to allow students to use it after-school to study and complete homework rather than needing to leave campus for the local coffee shop.

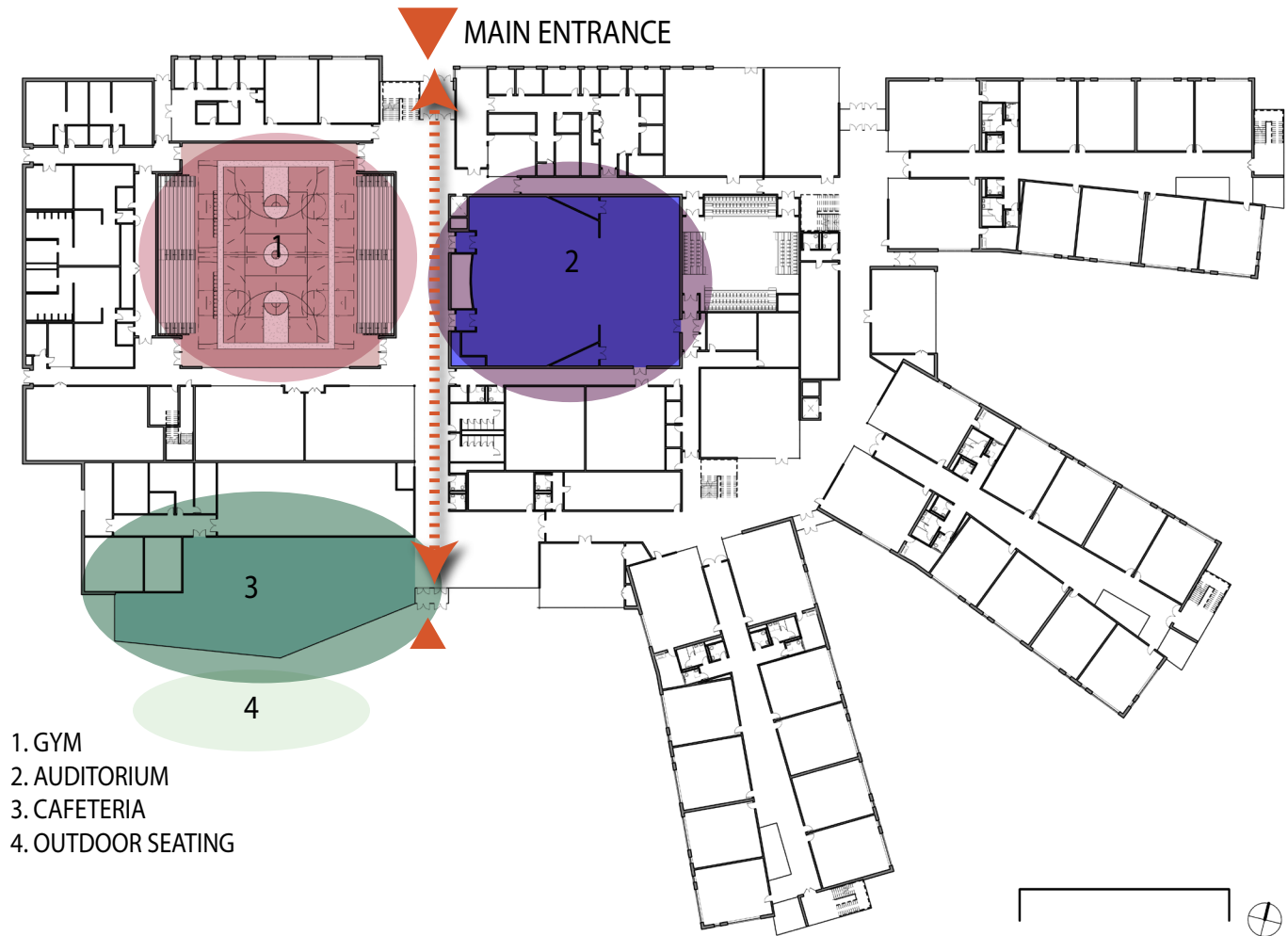
The dining area should also include a separate but visible space in the area or proximity for a teacher/staff dining hall. Currently, there are two adjoining rooms that serve as a very small dining hall for educators. A proper dining facility for staff would allow teachers an opportunity to decompress between classes and collaborate over lunch. This space would include at least two staff restrooms. If student lunches decrease from four sittings to three or two sittings, the staff area would need to be large enough to accommodate a moderate group of teachers comfortably.

Design Response

The proposed cafeteria is located at the end of the public entrance corridor and is open to a wide circulation zone that is intended to have flexible seating for students during the day. A snack bar is located at the entrance and on the corridor so students can purchase snacks and drinks. This could also potentially act as a concession area during performances and games as these functions are in close proximity. Students will enter school in the morning from both ends of the main corridor and it is envisioned that they may congregate in and just outside the cafeteria before going to classes. The cafeteria also has a unique location with a view to the nearby lake and will be developed with outdoor seating as well as a variety of seating options within the space itself. A staff dining area will be located across the corridor providing some separation but reasonable proximity.

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DINING



Technology Instruction Policies and Program Requirements:

Technology is a tool that is necessarily and intrinsically embedded into much of the daily work of our students and staff. Teaching and learning is not only enhanced by the use of contemporary tools, it is hard to believe that any powerful learning experience didn't start with, was developed on, made use of, or was assessed using some form of technology. Our goal in how technology is used at SHS is consistent with that philosophy stated above, that technology is a necessity that holds the potential to enhance teaching and learning in profound ways.

Currently, Sharon High School is in its third year of a gradual implementation of 1:1 access to mobile devices for all students and staff. All teachers and all grades 9 through 11 students have a MacBook Air laptop. Seniors and their classes still rely on either bringing their own devices or using laptops in the remaining carts stored around the building. There are 5 carts of 25 11" MacBook Airs.

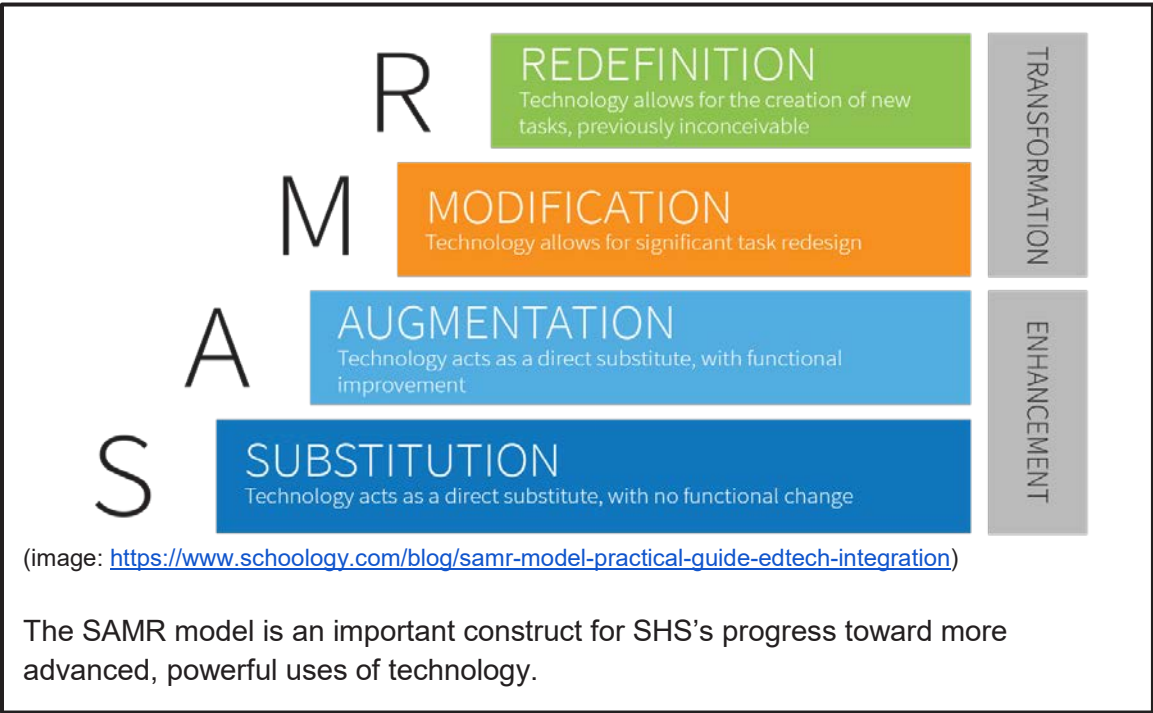
Along with the advancements in mobile technology access, we have continued to cobble together a more contemporary infrastructure in and around existing, aging, often inadequate learning, working, and storage areas of SHS. One head end room with virtually no emergency back-up, and three IDFs with no A/C, connected by 1 Gig fiber, are connected to the internet with a shared 1 Gig/s fiber connection through Comcast (which is the primary connection for all five schools in the district). Over the last few years, we have run about 75 ethernet "home-runs" and have connected most

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of those to Aerohive wireless access points, getting close to an AP in each classroom. Each classroom is equipped with either a wall-mounted Epson interactive projector (2016-2018), a ceiling mounted projector (2012-2018) shooting to a Promethean Board (2008-2011), or a large format monitor (2016-2018). Projection and sound systems are all connected to a classroom Mac desktop. SHS has two Mac labs dedicated to graphic design and art, one general purpose lab used by computer science, journalism, and as a flex space, one foreign language lab, and one TV studio and classroom with 12 desktops. Those devices and all of the systems running on them are supported by two tech support staff.

Instructionally, the integration of technology and the promotion of best practices are supported by a .75 technology coach and the library teacher who are part of the district's Digital Literacy Team. Teachers use technology in a variety of ways throughout the high school. The Digitally Enhanced Learning Initiative (DELI or 1:1 program) has brought with its professional development, incentives, and resources to promote a more hands-on, differentiated, innovative environment in the classroom. The use of a base Learning Management System, Schoology, allows teachers to organize, store, and present class materials and assignments electronically, making best use of student access. Additionally, the promotion of digital forms of presentation, assessment, research, communication, and writing have all been emphasized with this program. More time for teachers to collaborate, share, and explore technologically is always needed.

Unfortunately, keeping up with the demands of newer student learners who are used to being able to find, examine, and use information from anywhere at any time requires both infrastructure and pedagogical advancements. The current high school structure, with limitations on connectivity, power, storage, collaborative spaces, and open classrooms inhibits teacher creativity and student learning using technology. With each added hindrance, teachers grow increasingly reticent to experiment and develop more tech-based innovations in their instructional practice. For technology to be more fully and effectively integrated, teachers need to have more reliable access in spaces that promote collaboration, creativity, and communication. Increased support through more robust professional development is also key.



In a future-ready building, our hope is that technology is not only ubiquitous, but it is incredibly reliable, powerful, and easy to use. A new high school with a strong, scalable, and advanced infrastructure, would allow English teachers to

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bring in primary resources, make connections with authors and journalists, write and edit with peers around the world, and publish works in ways we haven't even invented yet. Science teachers would be able to embed 3D virtual labs and investigations into their regular routines, perform experiments with new levels of precision, and also collaborate with experts from around the world. Math students could be exploring advanced models and developing complex representations of algebraic, computational, or geometric theorems using more powerful tools. Musicians, artists, and designers could be creating visual and aural projects that are unimaginable today.

Key to these exciting possibilities will be research and exploration of new tools and new pedagogies, supported by curriculum coordinators, digital literacy team staff, and the sharing of colleagues within the high school. The support team is in place now, but will need to continue to do research and advance their own knowledge of newer, more powerful networks, devices, and curricular tools. The technology coaching staff will also be critical to the success of the integration and the ability to get more and more instruction in the Redefinition portion of the SAMR model shown above.

Media Center/Library:

Another critical component of the advancement of teaching and learning is the school library. As a hub of curated resources, a space for collaboration and presentation, a place to incubate and develop ideas, and an area devoted to research and literacy (in all its forms), the modern library can be one of the most important spaces in a school. If designed well, SHS's library could be a central spoke in the daily life of our school.

Today, the SHS library, which consists of one large 50' x 50' open space and several small offices, is one of the most up-to-date spaces in the building, and yet its distance from most classrooms, its closed-off entryway, and its slightly awkward second floor location provide challenges to its full use and effectiveness as a learning common. That being said, the current staff and administration have worked hard over the last few years reshaping the furniture and fixtures of the library to create more open and varied spaces, more flexible seating options, more mobile work spaces that promote collaboration, and more creation tools in a Makerspace complete with a green screen video area, robotics, electronics, art, and musical equipment. While there are some fixed desktops, the expansion of mobile devices and "collaboration stations" allow for more teams of students to work and learn together.

Students come to the library throughout the day, sometimes with a class, and sometimes on their own or in small groups. All 9th graders are introduced the current resources at the beginning of the year, and then receive brief tutorials on responsible research/citation practices and use of the online catalogue and databases. One full time Librarian and one part time assistant teach those classes, as well as co-teach with several classes throughout the year, offer before and after school open library time, sponsor book clubs and poetry projects, and help organize community events from STEM Talks to cultural performances.

While the library has grown in many positive ways over recent years, the actual architecture of the space has continued to present challenges. Our hope is to have a library with a variety of spaces that allow for multiple uses simultaneously. Where maker activities are more active and collaboration is louder, many come to the library to read, write, and research in a quiet place. Better acoustics, design elements like knee walls or glass dividers could allow for all kinds of work and learning while avoiding either the space getting too loud/distracting or the need for staff to hush students relaxing or exploring together. **Also, with the advent of maker spaces or innovation centers in other parts of the proposed building, the need for an actual Makerspace in the library decreases greatly. While collaborative or project-based learning activities may still happen in the library, the need for space, storage, and "maker" tools would move to a larger, more open space, conducive to collaborative designing, building, and creating projects.**

Furniture that is comfortable, flexible, and includes the requisite need for power and data are sorely lacking in our current space, but could enhance the library experience for everyone. Having those larger and changeable set ups in the library would also allow for whole classes to research or receive direct instruction, would allow for community

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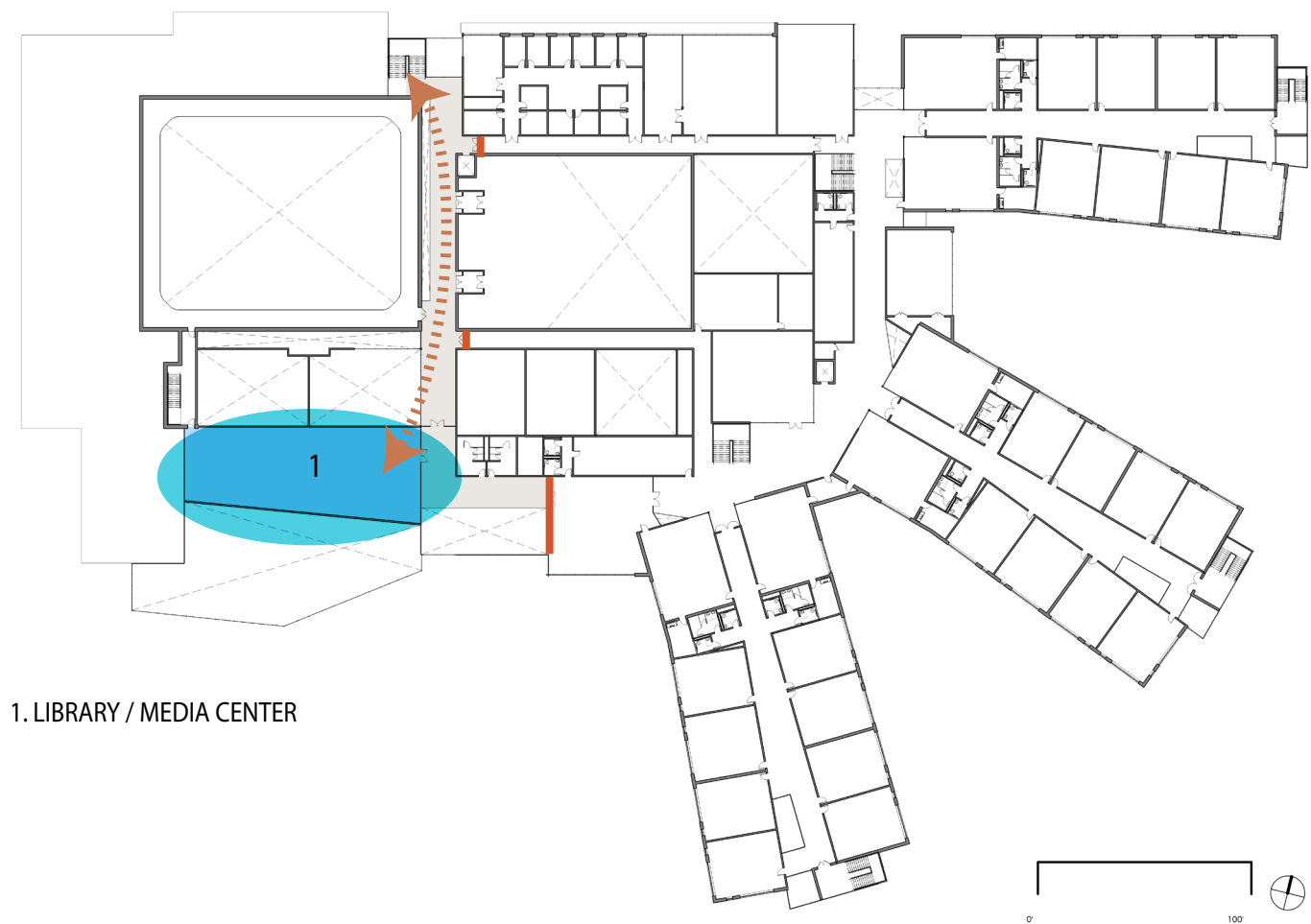
performance space, and could be the launching point for real-time connections with the global community.

The library, as a central hub, will be overseen by our excellent library staff, currently one library teacher and one assistant. As we do now, the library is open from before school starts until well after school closes. The library is often used for after school and evening clubs, activities and events, and we hope to continue and perhaps expand this access, especially as we improve the physical offerings. During the day, teachers will work with library staff to arrange for class visits and work with the library teacher. Sign-outs will be arranged for peak demand of the small group collaboration areas.

Design Response

The library in the preferred option is located on the second floor in a central location at the end of the academic circulation spine. The space is located so that it can be closed and accessed from the main entrance and main entrance stair while the rest of the academic area of the school is closed off. This will allow for public access, evening and weekend use when the rest of the school is not occupied.

LIBRARY



1. LIBRARY / MEDIA CENTER

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Visual and Performing Arts Programs:

The arts are highly valued in Sharon. Our community prizes the arts as an important piece to living a balanced life, and as a result, a significant proportion of students are involved in visual and performing art opportunities throughout their school career.

Students can take courses in Art, Music and Theatre. They have opportunities during the day and in a variety of extra-curricular clubs after school. Students from Sharon are award winning. Currently, the Sharon High School Theatre Company is the state champion in Drama. Students from our music program are nationally recognized on their instruments and in singing and consistently place in the top tier at Districts and SEMSBA. Each year our visual artists are Gold Key winners at the Scholastic Art Festival. Students from visual and performing arts go on to the top colleges and universities in the country to pursue their passion in the arts.

The Sharon High School Art Department offers 20+ Visual Arts classes spanning traditional and digital media, 2D & 3D animation, from Intro to AP level. All of the classes run at least 1 section per year, putting enrollment in the arts between 40-45% of the student population.

The Sharon High School Performing Arts Department consists of theater, vocal and instrumental music courses and performance ensembles. Ensembles include the Band, Jazz Band, String Orchestra, Chorus, a number of small instrumental and vocal ensembles, and Drama. Elective courses are Theater Production, Acting, Improvisation, Music Technology, Guitar, School of Rock, and Music Theory. Approximately 35% percent of the student body participates in the program.

All courses in any art require specific facility needs which are woefully inadequate at Sharon High School. There is one music room and one auditorium to accommodate the rehearsal and performance needs of the entire music and theatre program, resulting in a significant shortfall of space, time, and learning opportunities. As a result of the shortfall, music courses are taught in the following areas: the string program meets in the cafeteria; the music technology classes meet in a technology lab in another part of the building and in an art room; vocal music groups, music theory, and drama classes meet in the auditorium, sometimes at the same time; and guitar class meets in the music room. Teaching in rooms not intended for performing art use prevents the direct instruction and interaction students' need. They also create classroom management issues that distract from learning and work output.

One of our current hurdles is the use of the auditorium as classroom space. This space is large and is not set up for a classroom. Our drama classes do not have access to adequate technology, privacy, or space when the class is conducted in the auditorium. Much of drama is about taking risks as a performer, and the fact that the auditorium is often a pass through, or in use by other groups during a class time, prevents teacher and student from building a trusting relationship.

As in the performing arts, the visual art facilities are sorely lacking. The 2 studio rooms were originally built for the early childhood program. The former art rooms were taken over for science labs, as these rooms were much larger, but they were designed to meet the demands of an art room, unlike our current space. The newer rooms are much smaller and limit the ability to deliver the curriculum adequately and, in some cases, we are not meeting the state standards. The furniture, which lacks any flexibility, is inappropriate for the kind of artwork done in an art room, and severely limits mobility. In addition, the room was not designed with art in mind and therefore lack any functional display spaces, demonstration spaces, storage spaces, still life set-up spaces, life drawing spaces etc. In short, the curricular needs of art are not being met due to lack of appropriate space.

All of the arts share the same problem in that the spaces were not designed with flexibility in mind. All rooms lack storage for student book bags, which are placed next to chairs since, along the walls, there are all the materials associated with each discipline. The music room not only accommodates instruments, chairs and stands, but a large

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collection of percussion instruments along the rear wall. Art rooms have pottery wheels, easels, still-life setups, and displays. In each of these rooms there is little room to maneuver thus preventing the instructor from circling the room to assist students.

In our music room, the three walls are cinder block and the fourth is glass. Only recently were sound absorption panels installed to lower the decibel range in the room.

Currently there are no practice rooms in the building, and since our after-school programs are so robust there is little space for students who wish to increase their abilities to work. Without practice rooms dedicated to individual and small group rehearsing, there is little opportunity for one-on-one teacher-to-student coaching before, during, or after school. Such instruction can greatly improve the student's musical development and achievement. With so many classes and so little space, the music room and auditorium experience rapid turnover when setting up for multiple classes every day. This results in the loss of a large amount of instruction time because of setting up at the beginning and resetting at the end of class.

The auditorium, which must function as a classroom, and a performance space, constantly has to be set up and broken down to meet the demand of the space and the wide variety of users. This significantly cuts into instructional time for our drama teacher, and requires students to work as a moving company to get the space set up, rather than attending to academics. In addition, the stage lighting and sound are completely out of date and each year require costly repairs and adjustments.

The computer labs, where our digital art and music take place are marginally better. While the rooms accommodate standard class sizes, the equipment is cobbled together, old and new. Printers are often not working in the photography classes, and the budget limits the number of cameras available for instruction and student use. The furniture, both tables and chairs, are large, old and worn, and are not conducive to collaboration or focused work. While one lab has more recent iMacs, the other, which was not designed for real graphics work, is made up of five-year-old Mac Minis, that cannot handle the rendering demands of contemporary programs.

The lack of additional labs in the building limits additional course offerings like Architecture, Urban Design, and Industrial Design, to name a few. More art rooms/facilities are needed in addition to larger, more adequately designed spaces. Though we teach photography, there is no dark room, nor is there room for a spray booth.

Additionally, there is currently insufficient access to outdoor spaces, further limiting instructional opportunities.

Overall, a future facility should address all of the above-mentioned issues by providing dedicated space for all visual and performing arts, space that has storage, and rooms that maximize instruction opportunities will infuse all our programs with excitement and enthusiasm, as well as show a respect for visual and performing arts instruction in the school.

We envision our visual arts department t would live in a place where it can be observed daily, where students and staff can see the art-making process and the results. Ideally, the arts and other curriculum areas work together regularly and the facilities support that. Therefore, the spaces should be integrated into the content curriculum areas.

A future performing arts center would have two dedicated performance spaces. One Main-stage Proscenium Theatre/Auditorium with seating for 750 to be used for assemblies, large-scale performances, and other high-attendance events. And one drama classroom /multi-purpose room, with potential seating for 100-150 to be used for classes, presentations, small scale productions, and other low-attendance events.

The addition of a non-furnished theatre/multi-purpose room with space to build, rehearse, and design would help ensure that the educational needs of our drama classes and after-school program can always be met. At times and with frequency, use of the stage and auditorium is compromised by school/community events. This hampers daily lessons, as well as progress on the development of theatre and music productions. A supplemental space such as

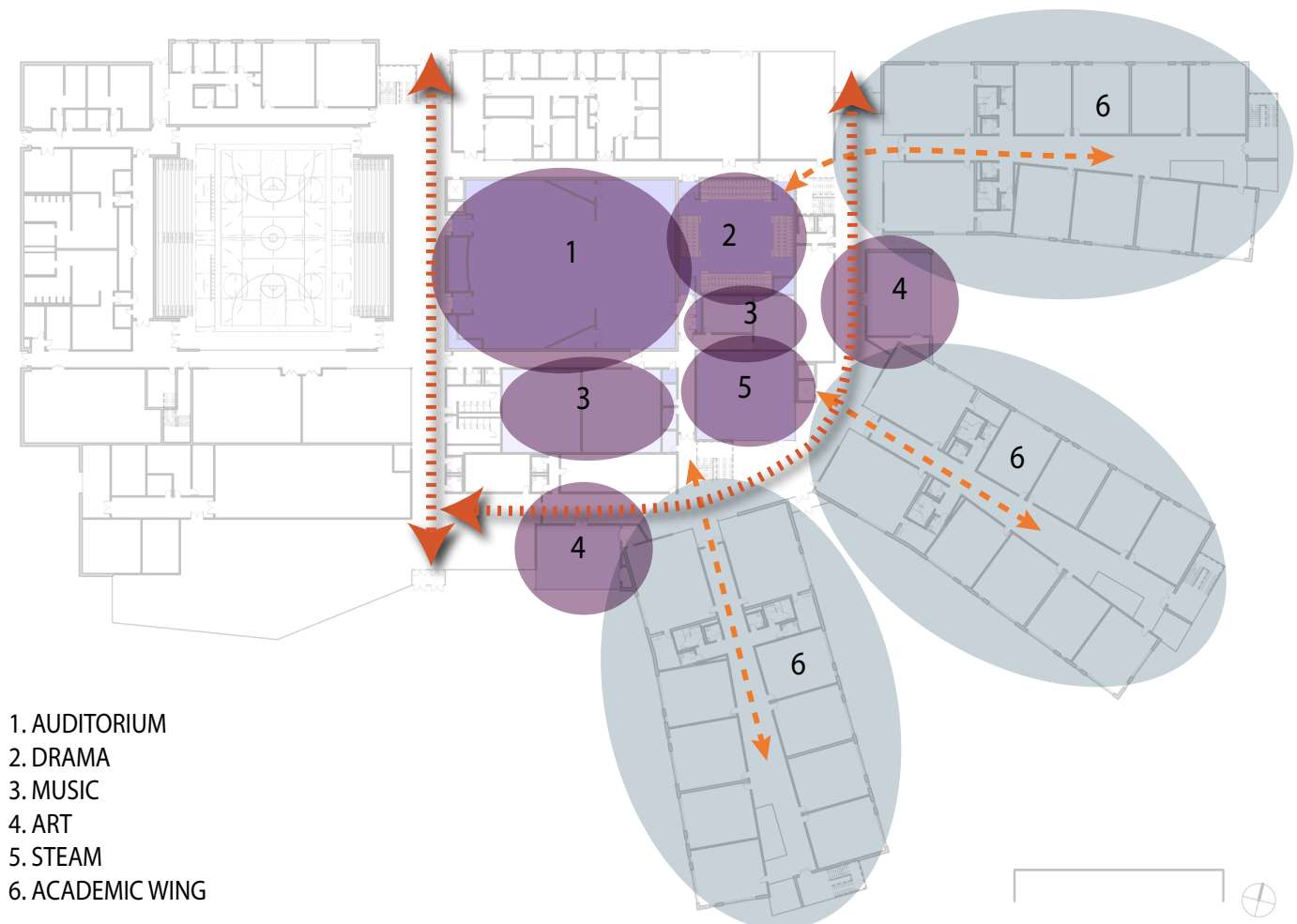
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envisioned would eliminate this problem. Additionally, the existence of the space could foster opportunities for larger groups of students or community members (50-75) to come together for speeches, debates, min-forums, exhibitions, video presentations, smaller musical/acting performances, and interdisciplinary programming - both during and after the school day. Scheduling conflicts with other gathering spaces such as our library, cafeteria, and gymnasium could also be eased.

Design Response:

The preferred option places the arts in the center of the school. The auditorium is adjacent to a theater classroom which will double as a black box, back of house area and large multi-purpose classrooms for all disciplines. Music is directly adjacent to the auditorium allowing for the easy transport of instruments to and from the stage and allowing music rooms to be used as green rooms for performances. The adjacency of theater and music to the first floor STEAM classroom provides the opportunity to use this large multi-purpose classroom for set design and construction in support of the theater program. Visual arts classrooms are located on the first and second floor directly off of the major circulation spine, making these spaces visible to all students moving through the building and on the first floor, offering direct access to the exterior of the building for outdoor projects. The second floor has a series of technology classrooms that can be deployed as lab space for classes like digital arts and architecture.

THE ARTS



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Wellness & Athletics Programs

Sharon High School strongly values the health and wellness of all of its members: students, faculty, staff, and community. Our current facility does not permit the offering of programs, services, or activities that the schools or town of Sharon deserves. All would benefit from a well-designed gymnasium, fitness center, multi-purpose rooms, and locker room facilities. Our existing facility and adjoining fields are currently utilized by the school for all of its wellness/PE classes, interscholastic athletics, and our town's community education and youth sports' programs. The indoor and outdoor facilities play host throughout the school year and through the summer for these various programs.

Our existing gymnasium, due to its 1950's construction and lack of renovation, is not air conditioned, not well-ventilated, and runs the extremes of being uncomfortably cold in the winter and intolerably hot in the summer. We have managed to put temporary upgrades into sound and technology, but all updates are patches and not permanent renovations. Our facility fails to meet most state laws and regulations for handicap accessibility, hosting playoff games, and lacks the capability to be divided into adequate spaces for simultaneous multiple-group use. Consequently, in our new facility we aim to solve most of these shortcomings of our current facility.

The new gymnasium should be air conditioned and large enough to accommodate three teaching stations with proper drop-down curtains. The new facility should also include a modern fitness center and adjacent multi-purpose rooms for wrestling, yoga, dance, cheer and other club activities. The fitness center must improve upon the existing "weight room" that services football players and wrestlers. An emphasis will be placed on outfitting the new center with modern cardiovascular training equipment that will be accessible and beneficial to all students and all sports teams. It should also be made readily available to our faculty and staff. Its current small size (900 sq. ft.) and emphasis on strength training is not ideal for the school and community. The current gymnasium and weight room negatively impacts the Wellness program we can offer to our high school students. Due to the lack of space, our curriculum only requires Wellness credits from our freshmen and sophomore students. Juniors and seniors are excluded from the lifelong benefits of wellness education concerning physical activity, nutrition, and sex education. We would like to expand our Wellness offerings to students in grades 11 and 12 as well as offer various elective classes such as Yoga and Dance, sports-skills development, and cardiovascular fitness training while continuing to enhance the students' knowledge of healthy living. Our Wellness curriculum is also hampered with the lack of a turf field in the stadium adjacent to the gymnasium. Most Wellness classes are restricted to indoor activity or to the parking lot due to the typically wet mornings in the fall and spring seasons.

Our new facility should include a gymnasium large enough for three teaching stations which can be divided off by drop-down curtains. Due to the programming we offer, two additional multi-purpose rooms including a Yoga/Dance/Cheer studio and Wrestling/Fitness classroom should accompany the new gymnasium. **These spaces will be located near the gym and near a main corridor so that students can easily access them and so that health and wellness are made visible to the entire school community.** Wellness locker rooms and teacher offices must be located within easy access of the gymnasium to allow our Wellness students to be properly supervised for changing before and after class without losing valuable instructional time due to traveling from the locker rooms to the facility.

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Additionally, the existing facility, and the new proposed gymnasium and Wellness rooms, are, and would be, utilized by our extensive state-sanctioned athletics' programs:

- Baseball (boys): varsity, junior varsity, and freshmen
- Basketball (boys and girls): varsity, junior varsity, and freshmen
- Cheerleading: competition and game-day
- Cross Country (boys and girls): varsity and junior varsity
- Field Hockey (girls): varsity, junior varsity, and freshmen
- Football: varsity and sub-varsity
- Golf: varsity
- Gymnastics: varsity
- Ice Hockey (boys and girls): varsity and junior varsity
- Indoor Track (boys and girls): varsity and sub-varsity
- Lacrosse (boys and girls): varsity and junior varsity
- Sailing (boys and girls): varsity
- Soccer (boys and girls): varsity, junior varsity, freshmen
- Swimming and Diving (boys and girls): varsity
- Tennis (boys and girls): varsity
- Track and Field (boys and girls): varsity and sub-varsity
- Ultimate (boys and girls): varsity, junior varsity
- Volleyball (girls): varsity, junior varsity, freshmen
- Wrestling: varsity and junior varsity

These extensive programs serve over two-thirds of our student body annually. Consequently, state-of-the-art facilities both indoors and outdoors are a critical need of our program. Our numbers continue to rise with the addition of new sports programs such as Ultimate, and club sports such as Rugby, Disc Golf, and Badminton. The new facility should be able to accommodate this growth and development. Male and female locker rooms are essential for both home and visiting teams, ample storage for large equipment, Athletic trainer office and exam/treatment area, an office for the Athletic Director and the Administrative Assistant, wrestling practice mat storage adjacent, or as an integral part of the wrestling/fitness class room, locker room with shower facilities for our coaches and referees. Careful consideration should be given to the location of the Athletic Director's office. They are responsible for the supervision and scheduling of all teams and areas of play in regards to our athletic program. Therefore, this office should be located in an area that allows easy access to the fields and is in close proximity to the gymnasium, fitness center, multipurpose rooms and team locker rooms.

Our vision for the gymnasium is a multi-purpose facility that has a regulation court down the center and appropriate stands for varsity athletics and the expected crowds that attend. We need to meet current and future regulations and standards for handicapped seating and movement into and out of the gymnasium. Additionally, the gym floor should include three standard basketball/volleyball training courts laid side-by-side, and counter-posed to the regulation court, to maximize practice space and times for the three levels of high school sports programs we have, and for three simultaneously scheduled Wellness classes to utilize during the school day.

With our large running program (cross country, indoor and outdoor track and field, wellness classes) an elevated track above the gymnasium floor should be installed. This would give full-time use for faculty and staff, the community, as well as our daily high-school students, at any time throughout the school day, week, and year. The design of the ceiling should also be thoughtfully considered to include essential components of the wellness and athletics programs. These essentials include motorized curtains, basketball hoops, and an indoor batting cage that can be lowered upon demand and setup with ease. The ceiling equipment should have a centralized keypad control station for operator use and safety.

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Our outdoor facilities are also in need of modernization. On the school campus itself, we are fortunate enough to have a stadium, however, it lacks adequate seating capacity to host tournament events, has no outdoor restrooms, utilizes a stand-alone basic shed with no internal power as a concession stand, a poor-quality grass field which takes hours of maintenance to keep in playable condition, and a 6-lane track that limits the size events that can be hosted. These facilities are far from ideal for the level and number of competitions hosted throughout the fall and spring seasons. The baseball diamond and field hockey field share the same patch of grass eliminating simultaneous use. Soccer, lacrosse and football teams, plus all sub-varsity teams, must practice and compete off site of the high school campus. This too creates safety issues and awkward practice schedules for athletes who are not fortunate enough to practice at the high school itself. It is essential to update the grass field within the stadium to turf. This would allow extensive practices and games for all of our sports programs to enjoy. The addition of lights in 2018 allows for sequential games and practices to be held. The community and youth groups could also utilize the facility on weekends and in the summer. Permanent playing surface and game-field lines would allow DPW to focus its efforts elsewhere.

While our indoor and outdoor facilities may have met the needs of our students from the 1950s to the 1990s, they have certainly lapsed since and fallen behind what is required of all state schools today. We look forward to enhancing our current Wellness curriculum and expanding its offerings to upper class students once again. Our athletic programs will truly benefit as well from a well-designed modernization plan and quality construction of both indoor and outdoor facilities.

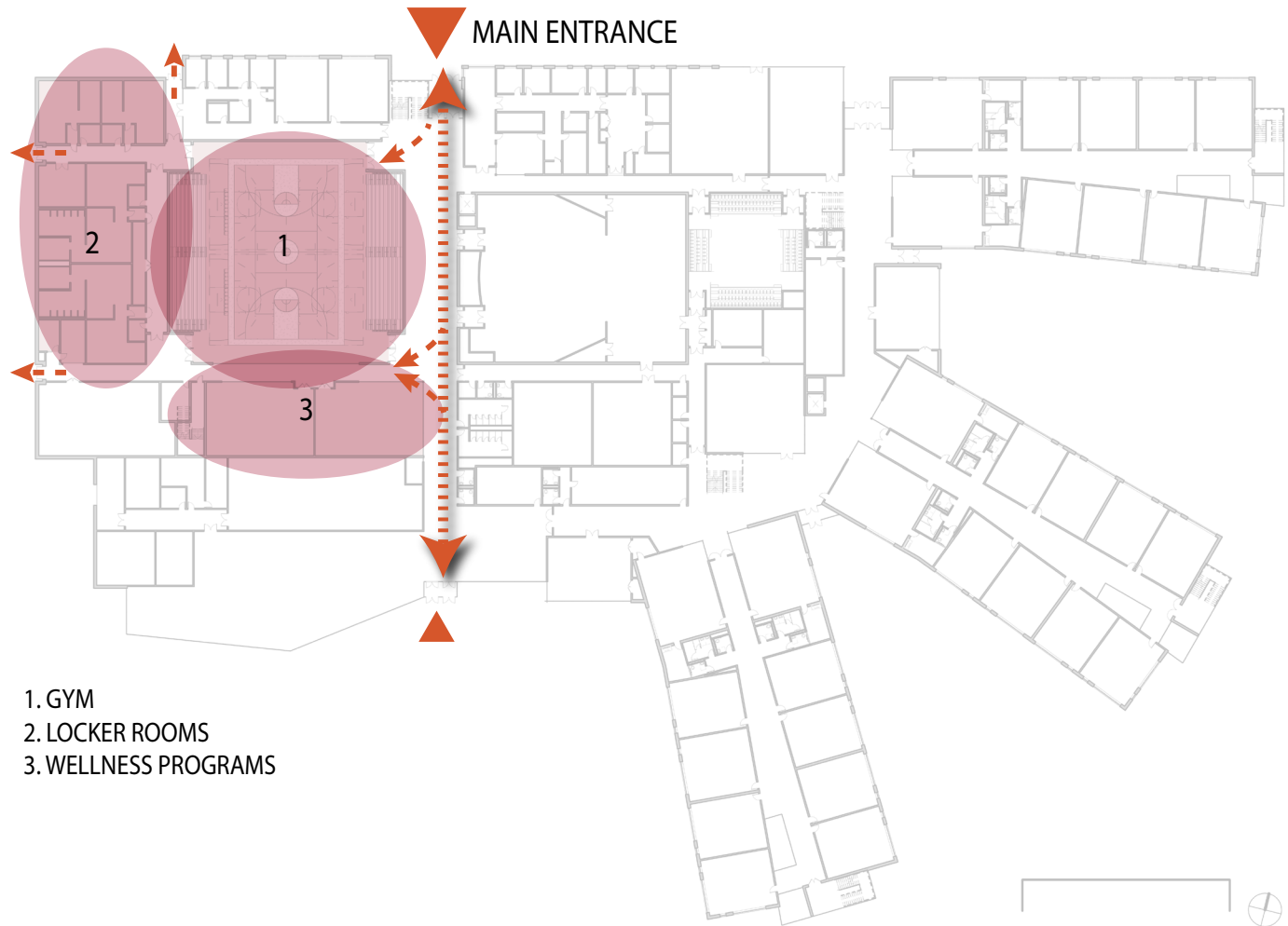
The last Coordinated Program Review was in 2013 and any identified issues have since been remedied. The next Coordinated Program Review will be in the spring of 2019.

Design Response

The preferred option locates the gym near the main entrance for game day visitors and for community use. Directly adjacent to the gym and located on the main entrance corridor are two multi-purpose spaces. This location will make the schools wellness programs present for staff and students and indicate the value the school puts in these activities. Locker rooms are located adjacent to both the gym and outside athletic facilities.

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HEALTH AND WELLNESS



Vocational Education Programs (non-chapter 74 programming):

Sharon High School currently offers several different vocational, technical, and STEM options for students. More offerings will be added in the future with the space that a new facility would provide. Current offerings include two engineering design courses (semester), four computer science courses (2 full year and 2 semester), several STEAM courses in both the science and art departments for example 2D/3D animation, forensic science, and TV/media production to name a few. In addition, the library includes a Makerspace. For details about these offerings and information about proposed programs please see the following departmental sections of the Educational Program as follows:

- For computer science and business courses see the Mathematics section.
- For engineering, robotics, and other STEAM courses see the Science section.
- For TV/Media production, 2D/3D animation and other STEAM offerings see the Visual and Performing Arts section.
- For information about the Makerspace see the library/media section.

Chapter 74 Programming:

There is currently no Chapter 74 programming at Sharon High School, nor is there a desire to add Chapter 74 programming at this time.

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Core Educational Activities Inside General Classrooms:

Within general classrooms teacher utilize a blend of traditional learning, inquiry-based learning, project-based learning, dialogs and discussions, audio/visual presentations, group work, and hands-on activities. As such each classroom needs to have the infrastructure to allow for each of these types of activities to take place. In addition, teachers frequently use technology in the form of PowerPoint presentations, short videos, and utilize the 1:1 student laptop to assist in delivery of instruction and in assessing student learning.

Core Educational Activities Outside General Classrooms:

Currently, Sharon High School has one outdoor classroom space within one of the school's three courtyards. There is a sign-up sheet for teachers to book this space. In addition, several teachers will use the grounds around the school to bring their classes outside. Science classes take students outside to complete laboratory activities such as estimating populations, making observations, and investigating natural phenomenon. Physics classes will use outdoor space for labs on projectile motion which cannot be done as easily indoors. Whenever outdoor space is utilized teachers remain with their classes to monitor them.

Students in the Pathways Program assist in maintaining gardens both in the courtyards and around the school facility. They also help manage the recycling program in the school. Environmental Science students have also completed project work in the courtyards and around the outside of the school. As such outdoor garden and lab space should be easily accessible to both the science classes and the Pathways Program.

It is our hope to continue to provide learning spaces that take advantage of an open-air environment. Currently, existing outdoor spaces have been the setting for direct instruction, class discussions and readings, writing and reflection, drawing/painting, scientific investigations, presentations and performances, and other learning-oriented sessions.

Two such open-concept spaces are proposed in the current conceptual plan. As the case is now, these spaces would likely have paved areas. In this way, necessary maintenance is minimal. Additionally, seating could be accommodated with light, movable, and weather-proof furniture (e.g. benches). The safety, security, and accountability of students would be attended to by faculty, as the case is now when such spaces are utilized. The outdoor spaces will be accessed directly from an interior classroom or hallway.

Transportation:

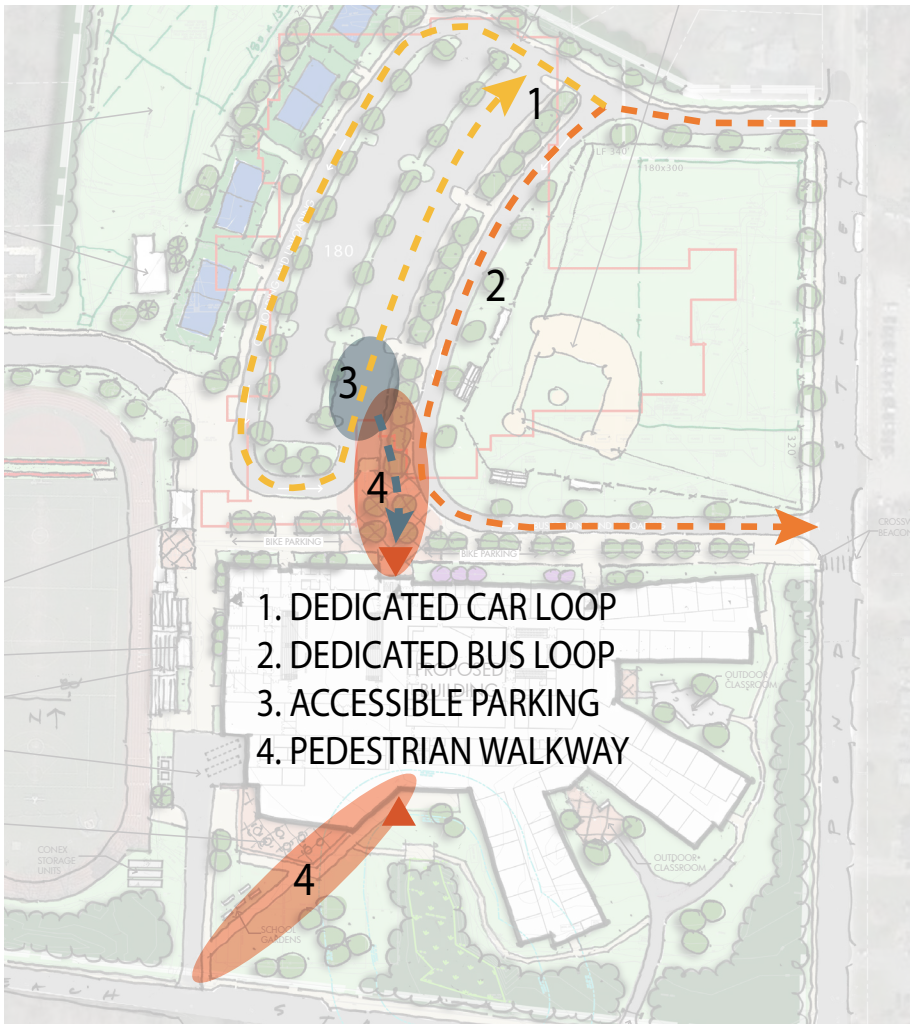
School buses, parent/guardian pick-ups/drop-offs, and arriving/departing staff all currently use the same entry and exit areas. The primary point for the vast majority of the population is in front of the high school off the only main road passing the high school. This creates significant congestion and puts drivers and walkers at risk. Three parking lots in the vicinity of the high school are used by students - one directly across the street from the high school, one adjacent to the lake near the high school, and one about a block away from the high school at a nearby religious center. Student busing and parking are fee-based. Staff currently park in four different areas around the school, which isn't ideal for the security of the facility before or after school.

The future complex should consider that there are limited public roadways leading to the school, so congestion is unlikely to be eliminated. Steps could be taken to mitigate the traffic and improve safety, however, by creating an access road around the school with additional entry/egress points, identifying helpful walkways with adequate lighting, ensuring separate vehicular paths for school buses and parent/guardian picks-ups/drop-offs, and developing a centralized parking area for staff that also preferably steers them to one main entrance.

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Design Response – The site plan for the preferred option anticipates a separate car and bus loop along with multiple routes for pedestrians as student parking is distributed in multiple locations. A new central parking field offers the opportunity to have a direct path to the front door and will allow buses and cars to be close to the main entrance for dropping and picking up passengers. The new access road will be longer than the current one allowing for additional vehicle stacking on site and off of the public roadway.

TRANSPORTATION



Functional and Spatial Relationships and Key Programmatic Adjacencies:

Administration Offices and the Nurse's Office should be located at the main entrance of the building to provide easy access to administration and to assist in building security. A Guidance and Student Support Services suite should be located toward the main entrance but separate from the administrative offices.

The following spaces should be accessible to the community without compromising the security of academic portion of the building: Community Education, TV/Media Studio, Gymnasium, Auditorium, and Library Media Center.

The cafeteria and student gathering space should accommodate $\frac{1}{3}$ to $\frac{1}{2}$ the student population at any one time, be centrally located, and have secure access to the outside. A school store would be located near the cafeteria/student gathering space. Custodial area should be near the cafeteria and convenient to deliveries. This should include a loading

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dock and mechanical area.

Site adjacencies should include an outdoor laboratory space for science classes, especially for environmental science and biology. Within the outdoor laboratory space, should be a greenhouse of sufficient size to support the science department. An observatory to house a 12" celestron telescope is necessary to support the astronomy classes and ideally would also be accessible to the community for evening events.

The proposed high school would maintain a departmental structure while creating the opportunity to move toward ~~an more interdisciplinary or academy structure in the future and project-based learning approaches~~. A large academic center or centers should be located within the academic areas of the school.

Design Response – The preferred option is organized around certain basic concepts. A public corridor allows access to the gym, auditorium and cafeteria on the ground level and library on the second level for public after hours use creating a community building. Community education and TV studio have direct access to the exterior. Both major building entrances are into the same corridor. The classroom wings rotate around a building core comprised of the arts and technology so every academic discipline is visible and accessible to all students. The classroom wings form outdoor spaces that can be used for programs ranging from science instruction to art activities. The building is organized to avoid an existing wetland and to take advantage of views into the landscape and to the nearby lake.

Security and Visual Access Requirements:

Emergency response plans are developed in collaboration with the police and fire departments. The in-house SRO is part of the team that evaluates what's in place, and the principal, nurse, and various members of the staff play important roles in drills and crisis moments pertinent to the safety of the school community. This group, in concert with local officials, would update existing emergency response plans. The most recent Medical Emergency Response Plan was submitted to the DESE in September of 2018.

Currently, there is an antiquated b/w camera system that helps monitor a number of exterior points around the perimeter of the school. This will need to be significantly improved. There are also no cameras on the inside of the building, which will be a necessity in a new or updated complex to emphasize the district's commitment to safety. Further, there is limited to no ability to secure and/or close off large sections of the building that do not require access from public or school populations that may use one section of the building (e.g. gym, auditorium). Restricting portions of the building from access when they are not being used will help maintain the integrity of those spaces.

Access to the building before and after the school day is difficult to control at this present point in time. There are several entryways, and students, staff, and guests arrive from different points. In the future, it would be ideal to design the facility so that stakeholders are guided (via signage/walkways/intercom stations/parking) to limited entry ways that can be monitored by school staff and a modern security camera system.

The school's current main entrance is awkward and not user-friendly or straightforward to guests who come into the school. Though security doors, a buzzer system, and camera are in place to help with safety, existing stairs, a lack of signage, and a series of required turns make it difficult for those visiting the school to figure out exactly where they should report to check in. Students also gather in this area before/after school making the space very congested. A future building would resolve these and other concerns with a larger foyer, with improved sight lines to check-in areas (i.e. main office or student services) and with student gathering spaces stationed away from the main entrance.

Design Response:

The proposed building will have a secure entry vestibule to control visitor access at the main entrance. Corridors within the proposed school have direct sight lines. The main entry corridor is intended to be wide enough to accommodate

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larger groups of people. The classroom wings can be locked down in the event of an intruder and are separated from the main building entrance.

SECURITY AND VISUAL ACCESS

