PREFERRED SOLUTION

Revision 1 – June 8, 2016

4.1 Summary of Preferred Solution

Alternative 4B

The preferred option solves many of the District's needs by constructing a mostly new school to create the educational and student commons spaces to fulfill the educational vision of the District. The large 1986 field house housing the important indoor track as well as substantial high bay space for a number of Chapter 74 shops and the older 1929 gymnasium converted to a library in the 1986 renovation shall be retained and renovated. Substantial portions of the existing building - generally older double loaded corridor classrooms in inefficient long wings as well as the 1979 auditorium wing and isolated cafeteria was deemed in poor repair and unable to hold the modern spaces needed to fulfill the educational program of a true blended comprehensive high school. Somerville is the State's most densely populated city and its lack of available space combined with the premium to purchase such space has lead the design team to develop a long range masterplan for the entire Central Hill campus bookended and encompassing the historic 1800's City Hall and the Carnegie library. The preferred option allows the city to remain in the majority of the existing school during the new build and then turn over the 1895 main central wing of the high school for much needed City facility use.

The new construction replaces the existing three story 1986 shop wing high school, with six story efficient new additions for the dining commons, media center, classroom/vocational spaces, PE support and supplementary programs. The additions and new construction will be predominantly located in the area towards the eastern half of the site, between the existing E Wing and the Somerville Public Library Main Branch and the open area to the west of the existing field house. The final phase of construction will remove the unused portions of the old school and take advantage of the steeply sloping grade along School Street to construct much needed vehicle parking space for staff and teachers with a field over the roof structure for PE outdoor use in the community lacking in open space resources and playing fields.

This alternative will involve phased demolition and construction activities due to the lack of sufficient swing space in the City to accommodate the entirety of the high school population. The portion of the existing building to be demolished is approximately 277,450 square feet, the portion to remain and be renovated is approximately 82,700 square feet and the additions total approximately 290,670 square feet, for a grand total of approximately 373,370 gross square feet and an estimated project cost of $263.8 million.

4.2 Educational Program

Design responses including desired features and/or layout considerations have been noted below in bold italics to indicate how the preferred solution, Alternative 4B, addresses the goals outlined in the Educational Program of the District.

4.2.1 Grade and School Configuration Policies

A. Current grade configuration

Somerville High School currently serves students in grades 9-12. The ages of students at SHS range from 13 to 22 years old. The current SHS Grade 9-12 configuration includes a small group of special education students whose IEPs call for education until they are 22 years old. They belong to either the Life Skills program or to the SHIP program which services students with complex medical/health issues.

B. Proposed grade configurations to be considered

While no changes are planned to the existing 9-12 grade configuration for the comprehensive curriculum at SHS, the district's special education day/alternative junior high school and high school (Next Wave – grades 6-8; and Full Circle – grades 9-12) are planned to occupy a portion of the new Somerville High School design as a separate educational program located in a substantially separate space within the building that includes a separate entrance. Students who currently attend Next Wave and Full Circle are housed in a separate building, the Edgerly, which is a 15-minute walk from Somerville High School. The design of the school is to serve 60% students on IEPs and 40% students who are at risk and need an alternative education model. Although some Full Circle students are independent enough to take classes in the CTE program at SHS or to participate in sports and extracurricular activities at SHS, the sheer distance between the buildings and commute time serves as a barrier for this to happen on any regular basis. Our current proposal aims to locate Next Wave/Full Circle within the new SHS building so that this group of students, if their education plans allow for it, can benefit from a more comprehensive school experience by having easy access to CTE programs, sports programs, clubs and extracurricular activities, a full-time nurse, and ELL services.

The preferred option maintains the Grade 9-12 program as described and best facilitates the full programmatic needs of SHS's varied student population. For more detailed descriptions of the Next Wave Junior High School and Full Circle High School and SPED programs see specific program responses later in this section.

C. Advantages of proposed grade configuration

I. Describe District's Approach to Facilitating Student Transitions

A transition plan is in place for rising 8th grade students throughout the district to visit Somerville High School and to attend a formal transition orientation during the summer months. These transitional experiences have been successful in helping SHS staff identify the academic, social and emotional needs of rising 8th graders so

that they are able to make a more seamless transition to the 9th grade. Somerville High School also offers a Ninth Grade Experience (NGE) designed to provide a strong support structure to ninth graders as they ease into high school.

Ninth grade teachers function as a team and meet two times per week to determine strategies aimed at maximizing the potential of the students they teach, focusing on maintaining parental and support service contact. These teachers meet regularly with Housemasters, guidance counselors, adjustment counselors, and special education liaisons to ensure students are receiving the full spectrum of support they need to get a good start in high school. Biweekly meetings are also used to discuss student progress, develop curriculum materials, and to meet or talk by telephone with parents and guardians.

Additionally, for students attending Next Wave/Full Circle, there will be a transition plan in place as part of each student's educational plan for how and how often the student is able to access and participate in SHS resources and activities. This transition plan will include appropriate supports and mechanisms for monitoring each student.

II. If a Different Grade Configuration is Proposed Describe the Plans to Facilitate Transitions in the Proposed Configuration

The new design plan for Somerville High School proposes including the District's alternative programs, Next Wave and Full Circle, into a substantially separate section of the new building. Next Wave and Full Circle currently serve as the District's special education day and alternative education programs, serving students whose IEPs call for substantially separate placement. Next Wave serves grades 6-8 and Full Circle serves grades 9-12. Particularly for students in grades 6-8, there will be a transition component built into each student's education plan that will allow for a student's gradual participation in SHS's 9-12 educational program. This transition component may include participation in advanced courses, i.e. Algebra I, sports and other curricular activities.

Transitions within the building between the distinct Next Wave/Full Circle and SHS education programs will be mitigated by housing Next Wave/Full Circle in a substantially separate section or wing of the building that includes a separate entrance, flexible classrooms that will accommodate an 8:1 student-teacher ratio but can also accommodate combined classes as well, therapeutic facilities to meet the specialized needs of students, a separate meeting space/conference room, an independent science lab/maker space to be utilized exclusively by NW/FC students, and other core educational facilities. The use of adjacent common areas such as the gymnasium, auditorium, or cafeteria will be coordinated through careful scheduling and supervision.

The highly specialized therapeutic program offered to Next Wave/Full Circle students requires a substantially separate environment in which students can work on gaining the skills to be able to function in a more inclusive environment. Placement of special education students into Next Wave/Full Circle is driven by IEPs that call for a substantially separate, smaller therapeutic educational setting. In contrast, special education students in the inclusion model at Somerville High School often need accommodations to help them access the curriculum, but are

able to effectively function in a larger school environment and do not need the intense psychological/social interventions provided at Next Wave/Full Circle.

The SHS Career and Technical program also entered into a new manufacturing job training partnership with Somerville Community Corporation in January of 2016 targeted at supporting young adults with their re-entry into the workforce. The Advanced Manufacturing Training Program (AMTP) targets Somerville residents ages 18-24 and focuses on preparing program participants for high-paying careers in the manufacturing industry. AMTP includes a full-time (500 hours) program which will be offered during the day with AMTP students learning alongside SHS students in the advanced manufacturing program, and a part-time (150 hours) evening program.

The preferred option best utilizes existing high bay space constructed in the 1980's for the "heavy" Chapter 74 shops while adding new standard academic spaces around these spaces that are associated with the STEAM and STEM goals of interdisciplinary education described throughout the District's March 1st, 2016 educational planning document.

4.2.2 Class Size Policies

A. District policies, targets and guidelines by grade

Somerville School Committee policy does not address class size. The Unit A contract between the School Committee and the Somerville Teachers Association stipulates maximum sizes listed below, "to the extent possible, within the existing facilities." Due to the broad range of educational needs of students, the target maximum class size at SHS is 23, but will be lower for specialized programs as noted below. The wide range of educational needs and programs/ courses offered to most effectively meet the needs of Somerville High's student population requires smaller class sizes to facilitate more personalized instruction. Class sizes are also dictated by safety considerations based on the course, and space constraints in the current building classroom configurations.

Kindergarten (One Teacher)	30	Special Class	18
Grades 1-6	30	Bilingual	20
Grades 7-9	30	Physical Education	30
Grade 10	32	Vocational	20
Grades 11 and 12	30	Secondary Corrective Reading	15

B. Current average class sizes by grade

Because of the wide range of educational needs at every grade level, average class sizes by program more accurately reflect the complexity of Somerville High School's curriculum structure than average class sizes by grade. As noted above, actual class sizes are dictated by the wide range of educational needs of Somerville's student population, safety considerations based on the course (i.e., working with a kiln in an art course), and space constraints in the current building classroom configuration.

Fall Semester 2015 Class Size Averages by Department/Program:

- Art Department: 15
- Business: 14
- English as a Second Language (ESL): 14
- English: 18
- Re-Direct Program: 9
- Health: 19
- Mathematics: 18
  Media: Film Studies – 13; TV/Media Production (Semester 2) 17
- Music: Chorus – 29; Band – 45; Orchestra – 42; World Percussion: 2; General Music – 13
- Physical Education/Fitness: 18
- Science: 18
- Social Studies: 19
- World Language: 17
- Career Technical Education – class sizes and staffing ratios in State – approved programs are regulated by Chapter 74 guidelines: Child Development – 8; Cosmetology – 16; CAD – 8; Graphic Design & Visual Communication – 10; Dental Assistant – 6; Health Careers – 9; Machine Tech – 4; Computer Tech/Cisco – 12; Carpentry – 10; Culinary – 12; Metal Fabrication – 11; Automotive – 8; Electrical - 11
- Special Education: Study Skills – 10; Resource courses – 15; Life Skills – 15; Transition – 3; SHIP - 3

Note: co-taught courses that include a subject area teacher and Special Education teacher are scheduled in the four major subject areas (ELA, Match, Science, Social Studies). Class sizes are not reported separately for these courses as they are representative of the department averages as a whole.

C. Proposed changes and why or statement that no changes are proposed

No changes to class size policies are currently being proposed.

4.2.3 School Scheduling Method

A. Current scheduling methodology including advantages and disadvantages

The current scheduling structure for a school day at Somerville High School is broken down into six “periods” for a total of thirty periods per week. Each period is fifty-five (55) minutes in duration with the exception of the first period, which is sixty-seven (67) minutes long to allow for daily morning video announcements. Students have four minutes to transition from one period to the next. Students enroll in seven courses per semester with each course meeting for four periods each week. This accounts for 28 of the 30 periods. The advantage of the current scheduling structure is the built-in flexibility of the remaining two periods per week, which are devoted to student support and enrichment, advisory, school-wide assemblies and student early release days for teacher professional development.

Period	Start	End	Monday	Tuesday	Wednesday	Thursday	Friday
1	7:55	9:02	A1	A2	A3	A4	B4
2	9:06	10:01	B1	D2	B2	B3	C4
3	10:05	11:00	C1	Rotating Extension Period	C2	C3	D4
4	11:04 11:34 12:04	11:34 12:04 12:34	D1	E2	D3	E3	E4
5	12:38	1:33	E1	F1	F2	F3	F4
6	1:37	2:32	G1	G2	Advisory/Common Plan. Time/Assemblies	G3	G4

B. Proposed changes and why or statement that no changes are proposed

While the current scheduling structure offers some distinct advantages, such as the flexibility of two built-in periods to allow for the delivery of student support and advisory programming and initiatives, we anticipate the need to make changes to scheduling as educational practices and the needs of students evolve in the years, and even decades ahead, in the new building. The current schedule could be further enhanced by building in additional flexibility, such as a before-school or after-school period that would expand students' scheduling options, thereby providing them with greater exposure to a wider range of courses. A building/layout that can support a more flexible schedule structure through thoughtful adjacencies, design of adaptable and agile classrooms and other learning environments, and improved transition flow will facilitate a flexible scheduling structure that better meets the needs of all students regardless of their primary academic pathway (CTE, standard, honors, AP, ELL). Unlike most Vocational/CTE programs, Somerville High School does not do a week on/week off schedule or a block schedule, in order to ensure that ALL students, including those in the CTE program can take full advantage of academic courses such as Advanced Placement and world language course offerings. The use of smaller, discrete blocks of time in space that will allow for a variety of instructional approaches such as 1:1, small group, independent studies, flipped classrooms, etc. will enable and maximize a more personalized and differentiated approach to teaching and learning that the current SHS structure does not allow to happen.

Changes in scheduling are dictated in large part by evolving educational practices. In order to ensure that SHS students are receiving the most current and relevant education that prepares them for the demands of globally competitive markets, a building layout should allow for a variety of different scheduling methodologies, and be flexible enough to accommodate changing educational practices.

The preferred option supports a variety of scheduling methodologies with its geographic mixing of academic and project based spaces.

4.2.4 Teaching Methodology and Structure

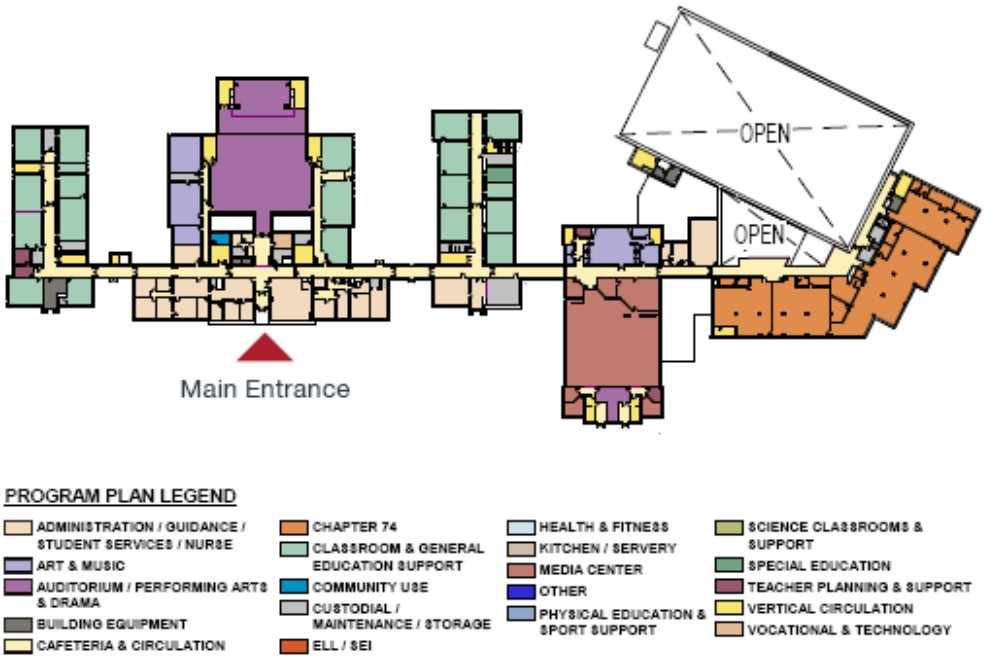
(e.g., academies, departments, houses, teams, etc.)

A. Administrative and academic organization/structure

(e.g., academies, departments, houses, grade based cohorts, teams, room assignment policies etc.)

I. Current Organization

Somerville High School is a public, 4-year comprehensive high school with a House administrative organizational structure and a traditional academic departmental structure that includes the following departments: Visual Arts, Business Education, English, English Language Learner, Health Education/Family & Consumer Sciences, Library Media Services, Mathematics, Music, Physical Education, Science, Social Studies, Special Education, World Languages, Center for Career and Technical Education (CTE), and Athletics. Each department is located in a separate section of the building and is overseen by a supervisor/department head responsible for department curricula and for the supervision, support and evaluation of all department staff members.



Existing Level 1

SHS currently offers an integrated structure of student support in the form of a House system. There are four houses, each consisting of a Housemaster/Assistant Principal, a Guidance Counselor, and a House Secretary. House staff members are located within the building in four house clusters that are distributed throughout the current building. Each includes separate offices for the Housemaster/AP and the Guidance Counselor, a reception area, and a conference room. Additionally, there is a Guidance Counselor for ELL students who, is based near the ELL Welcome Center, and a guidance counselor for freshman CTE students who is based in the CTE wing of the existing building. Students are assigned to houses alphabetically

based on last name and are assigned to the same Housemaster throughout the duration of their SHS career.

Academic programming is offered based on grade level with students generally selecting a college prep, Advanced Placement, and/or CTE pathway. A Ninth Grade Experience (NGE) is offered to all freshmen to assist in their transition to high school; that experience includes an optional CTE exploratory experience.

The current Administrative/Academic structure also includes a number of team-taught inclusion classes for special education students offered jointly by the special education department and academic departments, a Redirect program to support high needs students who are not in Special Education, and an Advisory program for all students. In Advisory, groups of students meet with their advisor to strengthen skills that will help them improve their academic performance and social responsibility. Advisory incorporates academic guidance, planning, organizational skills, and community building.

The Career and Technical Education program consists of six clusters, each containing one or more individual programs as follows:

- Construction Cluster: Carpentry, Electrical
- Transportation Cluster: Auto Technology
- Information Technology: Information Support Services and Networking
- Manufacturing Cluster: Architectural Design/Pre-Engineering, Machine Technologies, Metal Fabrication and Welding;
- Health Care and Human Services Cluster: Child Development, Dental Assisting Program, Health Careers/Introduction to Nursing Assistant Program;
- Commercial Services Cluster: Cosmetology, Culinary Arts, Graphic Arts & Visual Communications.

The preferred option may change some of the Chapter 74 cluster organizations due to final locations and space optimization during the next phase of design.

II. Proposed Changes and Why or Statement that No Changes are Proposed.

While the current administrative 'House' system offers an integrated structure of support within each House, the current building configuration does not allow for seamless integration of academic and support services, sharing of resources, ready access to additional support services available at the high school, or the opportunity to easily share professional expertise. Guidance and College & Career Readiness staff members are spread throughout the building, not all student support services are jointly located or adjacent to one another, and support programs are isolated from one another.

Proposed changes to the Administrative structure include the following:

- Thoughtful placement of administrative and student support services in adaptable, flexible spaces that could allow for the centralization of some administrative and student support services;

- Thoughtful placement of administrative and student support services which promotes a sense of connection and identity throughout the building, and provides for the informal supervision of students by non-teaching staff, which in turn allows students to use flexible student work areas more independently;
- Spaces and placement of spaces that will facilitate interdisciplinary work, professional collaboration, and communication between administrative and student support staff and teachers;
- Flexible classroom and conference meeting space to accommodate one-to-one or small confidential and non-confidential meetings, as well as larger meetings or professional development workshops of up to 15 people;
- Be in proximity to the Health Center and any other support services provided by the community

The current departmental structure does not facilitate interdisciplinary work or daily interdepartmental professional collaboration. Flexible classroom and spaces and thoughtful program adjacencies between specific core academic and career and technical education programs, coupled with centralized professional meeting and planning spaces, will allow for a wider range of educational program methodologies, increased and interdisciplinary teacher collaboration, larger group project work, and sharing of expertise and resources.

The preferred option supports a variety of options for supporting adult/student interactions. The current building is ad hoc in its configuration of administration and student support spaces. The preferred plan will allow for unified House support spaces and can also be co-located with teacher planning centers as well.

B. Curriculum delivery methods and practices

I. Current Practices – General Academics Covering Many Disciplines:

Many teachers are moving to more student-centered and personalized learning but are significantly influenced by current conditions that limit opportunities for more contemporary educational delivery methodologies. Teachers work to implement more contemporary educational methodologies in the best way possible, but are limited by inflexible classrooms designed for more traditional delivery methods, and limited technology due to building limitations. The English, Math, Science, Social Studies, and World Language departments design and implement curricula designed to help students master core academic content as well as develop important 21st century skills. Opportunities for authentic, relevant, real-world learning experiences are also woven into core instructional programs. Some of the existing limitations include:

- Small classrooms that limit flexibility
- Single teaching wall in many classrooms, making differentiation difficult
- Lack of ubiquitous technology that would allow students to participate in interactive and engaging methodologies
- Departmental organization that limits interdisciplinary activity
- Traditional classroom to classroom adjacencies that limit communication

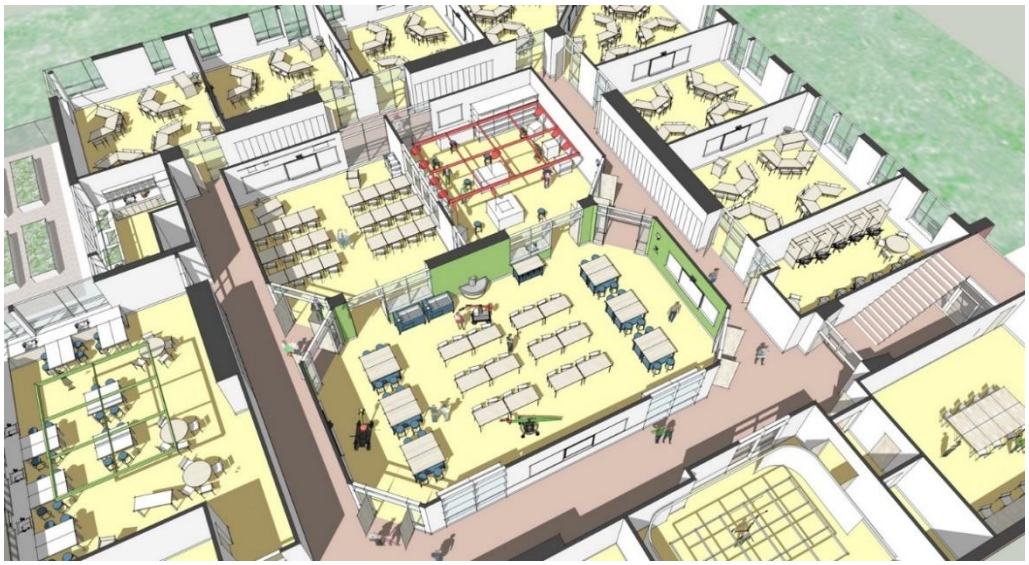
- A feeling of two schools sharing a campus (academic and CTE) with little academic cross fertilization

II. Proposed Changes and Why, or Statement that No Changes are Proposed

The goal is to move towards more student centric and personalized models that incorporate various educational delivery methodologies and which promote the development of 21st Century skills including: communication, collaboration, creativity, critical thinking, problem solving, global citizenship and others. Flexibility and adaptability within the classroom and through adjacencies are key elements to supporting a student-centered learning experience that is inviting, engaging, relevant, robust, and dynamic. In all classrooms, technology must be integral to teaching and learning. A future 1:1 ratio of laptops/devices to students should be assumed, as should the ubiquitous use of interactive technology throughout the facility.

The ability to store and charge devices within classrooms and other learning environments plays an essential role in the seamless integration of technology, providing opportunities for anywhere, anytime learning. The proper appointment of flexible, adaptable furniture including longer tables and standing-height tables that facilitate project work, as well as quiet nooks for independent work, are also critical in supporting scaffolding and differentiation.

Students should be able to showcase their learning, growth, and mastery in a variety of ways including through written papers and reports, performing scenes and skits in class, participating in debates and simulations, creating projects, presenting orally or by using multimedia in front of peers. Throughout their studies, students also need to be able to make 'real world' connections through project-based assignments that are relevant to current issues, and through interdisciplinary opportunities to talk with and learn from professionals and experts from the community. Ample wall space, exhibition space, storage space, lecture space, and flexible classroom spaces that can support small- to large-group instruction (100 or more students) are all elements that can further enhance instructional practices.



Example of shared program cluster

Organization and building elements that can contribute to these goals include:

- Interweaving of some CTE programs with academic teaching spaces
- Adjacencies of spaces that encourage communication between students and teachers
- Adjacencies of space that encourage interdisciplinary and project-based learning
- Classrooms of the proper size and appointments that promote flexible and changing use of the rooms
- Multiple teaching walls in learning environments that allow for student to student and small group teaching, and differentiation within a classroom
- Lightweight, ergonomic, and flexible furniture that contribute to the points above
- Spaces that can support burgeoning collaborative high-tech programs and extra-curricular activities available to all interested students at the school such as the FIRST Robotics Team, which is advised and supported by a collaboration of math, science and CTE teachers
- Transparency to and from classrooms to flexible student work areas, to allow for informal supervision of students as they work in more independent and small group contexts
- Multiple venues for the ongoing exhibition, showcasing and presentation of high quality student work

C. English Language Arts/Literacy

I. How Curriculum is Delivered

See paragraph 4.2.4.B.I for a general description of current curriculum delivery.

II. Proposed Changes and Why, or Statement that No Changes are Proposed

See paragraph 4.2.4.B.II for a general description of proposed changes and why.

D. Mathematics

I. How Curriculum is Delivered

See paragraph 4.2.4.B.I for a general description of current curriculum delivery. Additionally, in math and science students work collaboratively to conduct experiments and use manipulatives and a variety of technology to explore, understand and explain abstract concepts, create projects, solve problems, and complete activities.

II. Proposed Changes and Why, or Statement that No Changes are Proposed

See paragraph 4.2.4.B.II for a general description of proposed changes and why. The daily integration of current technology and resources, including the move toward a one-to-one laptop model, that would allow students to build hardware as

well as program software in Makerspace-type flexible learning environments, would greatly enhance how curriculum is delivered in math classes.

E. Science

I. How Curriculum is Delivered

See paragraph 4.2.4.B.I for a general description of current curriculum delivery.

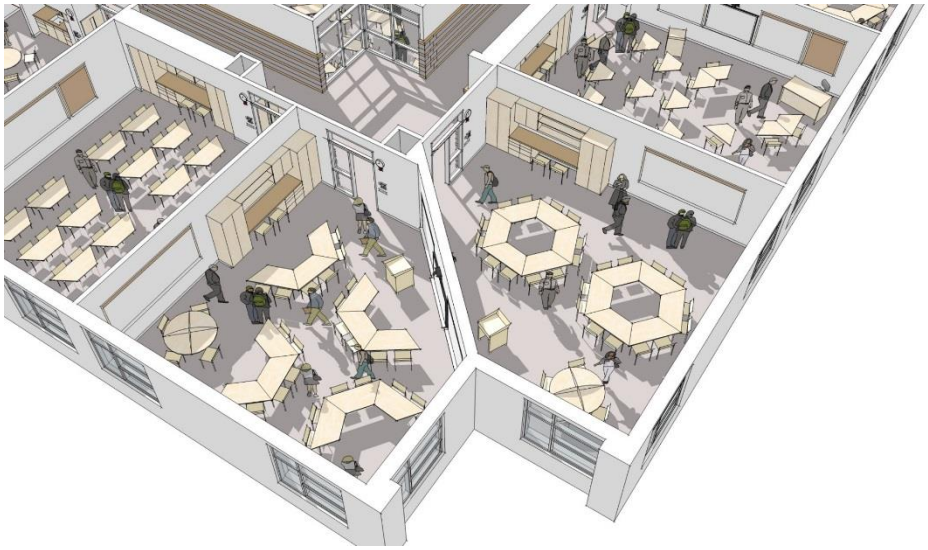
Science labs currently include traditional fixed benches that take up much of the room. Most lectures are conducted within these same (undersized) rooms. Though there is a desire to move from lecture and discussion mode to experiments, the room sizes make the transition difficult. Inflexible and traditional placement of fixed furnishings, such as laboratory tables, limit group sizes because of safety concerns. The sizes of the rooms are also not conducive to collaborative interdisciplinary project work.

II. Proposed Changes and Why, or Statement that No Changes are Proposed

See paragraph 4.2.4.B.II for a general description of proposed changes and why.

Additionally, Computer Science classes require a space with interactive whiteboards, tables that can be arranged in flexible groupings, adequate storage for portable technology and devices, and laptops for every student. Flexible, Makerspace-type spaces would provide students with the opportunity to build hardware as well as program software, and work with community partners regularly to gain real-world exposure and experience.

Science and engineering classrooms need to be flexible spaces to accommodate lecture and lab work and that would enable more academic cross pollination with other programs, particularly Math and CTE. Appropriate program adjacencies are critical to supporting this interdisciplinary work. Lab work and student research will be integrated into all lessons rather than the traditional separate lecture and lab portions of class. As already stated, the flexibility between a lecture and lab space is vital to provide for seamless integration of the two. Rooms need to be equipped with proper safety equipment, several sinks, peripheral and/or ceiling utilities, ample storage including cabinets, gas lines, fume hoods, and cutting-edge life and physical science lab equipment.



Flexible classroom arrangements and furniture

The preferred option supports the academic science programs most completely, providing critical new spaces that are programmatically organized and sized adequately to meet 21st Century needs. The preferred option will allow for specific labs to be co-located with counterpart Chapter 74 project based labs such as Bio/Chemistry with Allied Health and Medical Technology programs.

F. Social Studies

I. How Curriculum is Delivered

See paragraph 4.2.4.B.I for a general description of current curriculum delivery.

II. Proposed Changes and Why, or Statement that No Changes are Proposed

See paragraph 4.2.4.B.II for a general description of proposed changes and why.

Social Studies students would benefit from proximity to the Graphic Design & Visual Communications program and the Culinary Arts program. Interdisciplinary projects could include developing posters, maps, graphs, and other types of media, or creating meals from different cultures and historical periods. Social Studies students would also benefit from sharing space with the Art and Music departments, allowing for interdisciplinary art and music projects that support what students are learning about history.

The preferred option supports the academic humanities programs providing programmatically organized and appropriately sized classrooms and support spaces. The preferred option will allow for the humanities classrooms to be co-located together and in close proximity to the Learning Commons (Media Center) as a central nucleus for Social Studies, English, Languages and English Language Learners. The Learning Commons is conceived of as a place for STEAM and media technologies to also converge. One of the Ed plans key goals is to integrate the arts thoroughly into the curriculum and not simply strive for technically focused STEM environments throughout the school.

G. World Languages

I. How Curriculum is Delivered

To some degree, current practices follow those described above in paragraph 4.2.4.B.I. This is strongly supplemented by our language lab as described below. The language lab is a vital instructional space that allows students to master all modalities of the language acquisition process.

II. Proposed Changes and Why, or Statement that No Changes are Proposed

We build a strong community within each classroom. Students and teachers consistently collaborate, take risks, and make connections to the real world. Thus, it is important that classrooms are warm, bright, flexible, and inviting, instead of impersonal and institutional.

In all classrooms, technology must be integral to teaching and learning. Access to technology throughout class is crucial and there should not be access barriers for either students or teachers. The ability to store and charge devices within each classroom plays an essential role in the seamless integration of technology. Personal technology provides opportunities for anywhere, anytime learning.

III. If Considering Language Labs Describe the Types of Activities Anticipated for the Space, How It will be Staffed, Equipped

Somerville High School currently has a language lab that it considers as an integral part of its current and future programs. World Language instruction at SHS is strongly enhanced through the language lab, a virtual space that allows students to individually or in pairs rapidly access the internet and speak and record oral activities, and interact one on one with the teacher. The teacher is able to archive the student's recordings, create a zip file, and email the student's recordings to their email or mobile device.

The lab is an instrumental part of the SHS World Language curriculum and is staffed and used on a daily basis by all 9 World Language teachers. The language lab allows students the opportunity to master all domains of language acquisition. In addition, students in the Advanced Placement Language and Culture course take their AP exams in the lab. The lab should be equipped with a minimum of 30 student computers, 2 computers for teachers, mobile partitions for testing, and the ability to project teacher and student work on an interactive board.

Large Group Instruction at Humanities Pod

H. Academic support programming spaces

(e.g. ELL academic coaches etc.)

I. How Program is Delivered

English Language Learner Program

The primary goal of Somerville High School's English Language Learner (ELL) Program is to provide an educational environment that ensures that students whose first language is other than English participate fully in the school community and the community at large in order to reach his/her full potential and be prepared for the successful transition to college or career. The academic program for English Learners at Somerville High School includes a leveled sequence of English as a Second Language (ESL) courses offering explicit instruction in all of the language domains (listening, speaking, reading, writing, grammar) and placing a strong emphasis on the development of academic language proficiency. All English Language Development curricula are aligned to the World-Class Instructional Design and Assessment (WIDA) Standards as well as the 2011 Massachusetts Curriculum Frameworks and the Common Core State Standards.

ELL students are enrolled in "sheltered" content area courses in core subject areas such as math, history, science, social studies, and health to provide meaningful access to grade level curriculum as students become proficient in English. In addition, the ELL Program provides native language (Spanish and Portuguese) content support classes in math. Teaching methods and instructional strategies in these courses are highly interactive and include comprehensible input provided through visual and graphic displays and multimedia sources.

The ELL Program also provides specialized support classes for low-literacy students and students who have experienced gaps in formal schooling. These courses focus on academic language and skills that can be applied across the content areas. For ELL students who are identified with learning difficulties, there is a Resource ESL class with individual students' needs being addressed one-to-one by a dually certified (ESL and Special Education) teacher.

Teachers assume shared responsibility for the achievement of ELL students, and cross-disciplinary school-wide teams that include the ESL teachers, content-area teachers who teach English language learners, counselors who specialize in the needs of ELL students, and key staff members from the Welcome Center who speak the students' language, work closely to ensure success of all ELL students. These teams meet to create individualized supports for students who need to succeed academically. They meet regularly to align curriculum; plan integrated, cross-content projects; address student concerns; and monitor student progress and to ensure that ELL students have access to an array of learning resources and services.

The English Learner Welcome Center and the SAFE (Students Accessing Formal Education) Program at Somerville High School provide critical academic and social support to this population of students. A description of these support services follows:

English Learner Welcome Center

The Welcome Center is a support center for English Learners and their families providing tutoring, enrichment, and resource and referral. Multilingual staff members enroll new ELL students, conduct initial language and academic assessment, discuss school information with students and family members, and assist in orientation to SHS. Support to students is available at the Welcome Center on an ongoing basis including before and after school. The ELL Welcome Center is currently co-located in the SHS Guidance office in order to access counseling resources. Additional services that are available to students through the ELL Welcome Center include the ELL Wrap-Around Coordinator (mental health), Safe Harbors (housing), COPE (pregnancy and parenting), and services made available through city and community partnerships.

The preferred option supports the ELL and Newcomers to the city's school system thorough its close proximity to the main office and welcoming central entrance. ELL classrooms and office spaces are located adjacent to academic humanities and science programs as critical necessity to support each specific level of student proficiency and mainstreaming throughout their high school career.

SAFE (Students Accessing Formal Education) Program

Students with Interrupted Formal Education (SIFE) are offered a cluster of courses to prepare them academically for full engagement in Somerville High School curriculum. A SIFE student's course of study is determined by the ELL guidance counselor after a thorough review of educational history. In addition SIFE students are offered academic tutoring before and after school at the ELL Welcome Center, and may enroll in the Summer ELL newcomer program to receive intensive English Language development and Math instruction. SAFE Program teachers and the ELL Welcome Center staff meet on a regular basis to review student's academic progress and need for additional social supports and community resources.

See ELL comments above.

Ninth Grade Experience (NGE)

The goal of the ninth grade experience is to assist incoming ninth graders in adjusting to high school standards, expectations, and routines through a variety of educational and social opportunities. The ninth grade team consists of twelve teachers, three from each core academic department (English, Mathematics, Science, and Social Studies), who work closely together to build community and maximize student potential.

The ninth grade team meets together twice per week to address the needs particular to ninth grade students. The team works closely with the guidance counselors and Housemasters to identify specific student needs, plan interventions, and celebrate student successes. They also utilize weekly meeting time to communicate with families and create engaging and relevant interdisciplinary projects and units.

Students' needs are served through this program by providing the ninth grade teacher team with the time, resources, and flexibility to implement the program. The

ninth grade experience allows ninth graders to form a strong foundation for successful high school careers and beyond.

Newcomer Experience Support Team (NEST)

NEST is the ELL component of the Ninth Grade Experience and is designed to assist ELL ninth grade students in adjusting to high school standards, expectations and routines through a variety of educational and social opportunities. The implementation of the NEST program is targeted to foster academic success, improve attendance, reduce drop-out rates, and provide services needed for an acute population. The NEST Team consists of five teachers, and ELL and content SEI teachers who work closely together to build community and maximize student potential.

The NEST team meets together weekly to address the needs of ELL 9th graders, utilizing triggers and analyzing data. The team works closely with the ELL counselor, wraparound service coordinator, and therapist, as well as the Housemasters to identify specific student needs, plan interventions, and celebrate student successes. They also utilize weekly meeting time to community with families and create engaging and relevant interdisciplinary projects and units.

Redirect Program

Redirect is a General Education tutorial program for students who would benefit from additional academic and social/emotional support. Students use the class to work on academic assignments, develop organizational skills, and set performance goals. Organizational skill building is integral to the class and use of a planner is required. The teacher/counselor provides tutoring and reaches out to faculty and family to assist students in tracking their assignments and progress. Students are referred to the program by the Student Intervention Team (SIT).

In-School Suspension Program

The in-school suspension program is a short-term program that allows students to recalibrate and reintegrate in a safe and supportive setting. The program is staffed by a full-time teacher and is structured so that students have the opportunity to catch up on work. Current capacity is 14 students, with an average of 8-10 students in the program at any given time. The program also provides opportunity for peer tutoring support, and teachers often stop by to offer students extra help.

II. Proposed Changes and Why, or Statement that No Changes are Proposed

English Language Learner Program

To meet the diverse needs of all ELL students requires taking a holistic look at the entire ELL department to create a student-centered learning community and a shift in three key dimensions:

- Teaching and learning
- System structure
- Culture

Within this community, it is important to have an environment where students and teachers work collaboratively to create multimedia presentations, and then present

and deliver information to groups and initiate substantive dialogue. This can happen when there is space and time for common planning, teacher's conference and work area, flexible students' work area, project preparation space, and a computer room. Furthermore all support groups like the Welcome Center, and wrap-around services should be close at hand and readily available. Proposed changes and program enhancements include:

- Expansion of SAFE programming at flexible hours during the day
- Programming for over-age ELL students (possibly co-located with adult education programs)
- ELL Wrap-around Coordinator office and meeting space with a "trauma-sensitive" safe space for refugee, unaccompanied minor, and SIFE students
- Space for common planning and cross-departmental collaboration
- Quiet and private space in Welcome Center/ELL Suite for Language and Academic assessments.

Ninth Grade Experience (NGE)

No changes to this program are currently proposed.

The preferred option supports the freshman grade level and 8th grade transition by establishing a single top floor location for all general studies related to the 9th grade curriculum, this serves to mitigate the taller building structure to reduce student travel over the course of the day as well as collecting the youngest members of the school community in close proximity to student support and counselling specific to their needs.

Newcomer Experience Support Team (NEST)

No changes to this program are currently proposed.

See comments above and ELL response above.

Redirect Program

The SHS Redirect Program will evolve into a more formalized, non-special education academic support center in which students can enroll as a school day course and which would include a formal program of support to meet the individual needs of students. Better use of data and trends that will allow us to best allocate resources to students. The Redirect program would be located within close proximity to academic and student support services to facilitate easy access to additional support services.

In-School Suspension Program

We envision this program evolving into a more comprehensive flexible support program that can also be used as a longer-term re-integration program for students who have been out for medical or other issues.

Afterschool Academic Support

A variety of flexible, technologically equipped, comfortable medium to large spaces where groups of students can receive additional afterschool academic support would alleviate inequities in technology resources available to students at home, and provide an extended learning opportunity for students. Spaces should be able to accommodate students with different learning needs, including special education students.

The Preferred Option provides multiple spaces and technologies that are currently not available to support students struggling with social and academic integration, these spaces will be carefully considered in the schematic design phase.

I. Student Guidance and Support Services

(Social support, METCO, after school programs, anti-bullying programs etc.)

I. Current Services and Programs

School Counseling Department

SHS currently supports a comprehensive school counseling and college and career readiness curriculum for all students. The mission of the School Counseling Department is to facilitate the academic, personal/social and career development of all students through a School Counseling Program that is comprehensive, preventative and developmentally appropriate. Students receive counseling programming via advisory and through individual, small and large group meetings with all counselors.

Currently, school counselors provide overall coordination of academic, post-secondary and social/emotional support for all students. These services include: new student enrollment, 8th to 9th grade transition activities, individual academic advising, monitoring of graduation and post-secondary requirements, overall post-secondary and college application support, letters of recommendation for colleges, scholarships and other enrichment programming, college tours, Post-secondary/PSAT Day, scheduling, crisis intervention and student safety assessments, re-entry meetings and development of transition plans, short-term counseling, referrals to enrichment programs, referrals to community, mental health and school resources, a Career and Technical Education Exploratory class, redirect classes, adjustment counseling, PSAT/SAT/AP, MCAS and ACCESS testing oversight.

Counselors are integral members of IEP Teams and the SHS Student Intervention Team. Counselors oversee the referral, development and management of 504 accommodation plans. They actively work to facilitate communication between the home, community resources and school faculty in order to support student's high school overall success and graduation plan. In addition, Advisory curriculum lessons are created by the College and Career Readiness Director and delivered by teachers and counselors.

The School Counseling Department also supports a variety of other programming outside of the school day including a Post-Secondary Planning night, College and

Career Day, the College Fair, FAFSA Day, SHS Scholarship Awards Night, and After the Acceptance Night.

Current Structure

Currently, Somerville High School counselors are spread throughout the building. Four (4) counselors are located within each of the 4 Houses and are not housed near the two administrators that oversee the school counseling programming, making it difficult for counselors to collaborate and provide consistent services for all students. Ongoing communication, professional development and supervisory support are imperative in the school counseling field, and counselors do not currently have easy access to other counseling professionals in the high school.

School counseling offices are located throughout the school on various floors. There are four house counselor offices on the third and fourth floor, a CTE counselor located in the CTE wing of the building, an ELL counselor in the Guidance Suite, and a regular education Adjustment counselor on the fourth floor. A Guidance Suite on the first floor houses the School Counseling Director, the College and Career Readiness Director, a secretary, a College and Career Readiness room and two conference rooms. These conference rooms offer space for special education meetings and school-based counseling. One of these conference rooms also serves as a storage room for student files.

SHS Mediation Program

The SHS Mediation program is staffed by SPS and several community health agencies. It is currently located in a small office suite adjacent to the Main School Administrative Office, houses a full time Director and one full time staff member, and includes several small meeting rooms to hold mediation sessions.

Anti-Bullying and Other Positive School Culture Initiatives

The School's Culture Committee is made up of a diverse set of SHS community members. The committee plans Somerville High's culture initiatives. Other school-wide initiatives include annual administration of a culture survey among both students and staff.

II. Proposed Changes to Services and Programs and Why or Statement that No Changes are Proposed

All counselors would be located in a Counseling Suite within close proximity to the ELL Welcome Center, SHS Mediation Office, School Resource Officer (SRO), Health Center and other support services provided by the community. The School Counseling Suite should include a secretary workspace and waiting room and a College and Career Readiness (CCR) Media Center/room equipped with computers and with enough space to have the ability to meet with small groups of students to deliver lessons. This CCR room should have a window into the counseling suite/waiting room so that students can use the space independently. There should also be a registrar's office with a sliding window into the waiting room for assisting students/families and a large locked room for storage of confidential student information including all records/cumulative files, transcripts and state/college testing materials. The envisioned School Counseling Suite would also include:

- Conference room to accommodate meetings of 12-15 people.

- Four small conference rooms for school-based counseling meetings.
- Space to accommodate other community resources, counseling interns, small group testing, and the Mediation Program.
- One bathroom.
- Common area/work space for photocopier/printer/other equipment.
- Offices for the School Counseling Director, College and Career Readiness Director.
- Multiple flexible office spaces for school counselors and a regular education adjustment counselor. Offices should be large enough to hold meetings of up to 5-6 people, and should each be equipped with multiple computers/work stations that can be used by students.

The vision behind this School Counseling Suite is that student support resources would be available in a centralized location, within close proximity to other school resources. Students would be able to come to one office to work on college and career activities and receive social/emotional support at any given time. Counselors would be able to provide a comprehensive program for all students as ongoing collaboration and communication would be fostered by being together within one space.

The preferred option allows for the ultimate design to support the goals and needs of the SHS House model system but in modern and functional spaces that meets staff and student needs.

4.2.5 Teacher Planning

A. Existing teacher planning spaces and scheduled planning times and how they support delivery of curriculum

(Differentiate between professional development time as discussed below and teacher planning time that teachers have every day, opportunities for lesson sharing, "lessons learned" from new teaching methodologies, interdisciplinary opportunities, etc.)

In our current schedule, teachers have six of hours of planning time per week, one hour four days per week and two hours one day per week. During those planning times, teachers most often use their classroom space, if it is available. If their regular classroom space is not available, they find an alternative space to work. There are no existing spaces specifically designated as "teacher planning spaces." Alternative spaces that teachers find to work include department offices, computer labs (if not being used by a class), the library, or other empty classrooms.

In addition to the six hours of planning time per week, teachers also meet in Professional Learning Communities (PLCs) approximately once every other week, or about two hours per month. PLCs have been organized around grade level/subject teams to work on curriculum, instruction, and assessment. Again, there is no dedicated space for this work; teachers meet in classrooms during PLC time.

For small, interdisciplinary teacher or administrative team meetings, we have a small meeting room called Gallery 81 and the sign-up for that space is in the main office. That space is used for a variety of functions including meetings, interviews, conferences, and small staff celebrations. It is usually in high demand, but is not a particularly comfortable or professional space.

B. Proposed changes to planning time and number of spaces and why or statement that no changes are proposed

The PLC structure has proven particularly fruitful at SHS. This time for teachers to work in teams must be protected, if not increased. In addition to working in grade/subject level teams, it would be ideal to create space/time for teachers to work in additional teams, such as cross departmental/grade level teams, SEI/ELL teams, and Special Education/Support teams. It would be ideal to have numerous flexible, comfortable spaces in which teachers could work and collaborate on a regular basis; spaces that incorporate elements that encourage collaboration and productivity, such as easy access to mobile devices, wall space, data boards, phone, computers and/or an interactive board where teachers could create instructional materials, analyze data, and review student work together. These spaces would ideally be located throughout the school and in close proximity to the classrooms in which teachers are teaching.

Teacher Planning

C. Current professional development practices

Currently, teachers and counselors at SHS have, by contract, two hours per month of department and/or school-wide professional development time. For the past two years, most of the professional development time, about 75%, has been organized at the department level. Much of the time has been given to teachers to develop curriculum and common assessments, and to employ a data-cycle to analyze student work and design targeted instruction/intervention based on demonstrated student need. In departments, staff members also work as a full group on best practices and vertical alignment of curriculum. There is no dedicated space for this work; teachers meet in classrooms.

The school-wide professional development time for the past two years has been organized and run by the school's standing Culture Committee. This committee is comprised of twelve teachers and two administrators who use a data-cycle approach to assessing and improving school culture. When the entire SHS staff

meets, we generally re-arrange furniture in the library or sit uncomfortably in the cafeteria, as these are the only appropriate spaces that can accommodate approximately 150 staff members for an active meeting. The only other space in which the full staff gathers is the auditorium, which is appropriate only for passive meetings.

D. Proposed changes to professional development and why or statement that no changes are proposed

(Include retraining and/or additional certifications of staff who will be changing grade levels or disciplines as a result of proposed changes and associated timeline)

The addition of numerous comfortable spaces in which teachers can work collaboratively during PD times would maximize the impact of professional development work. Ideally these spaces would have elements that encourage collaboration and productivity, such as easy access to mobile devices, wall space, phone, data boards, or an interactive board so that teachers could create instructional materials and review student work together. Such spaces would be flexible enough to accommodate small group PD or large group PD organized by various content, grade-level, or project-based work assignments. Additionally, the school also needs spaces equipped with flexible furniture and various educational technology that can accommodate all 150 staff members in a working environment, as well as a space large enough to accommodate all teachers for large group presentations. Since PD may take the form of video conferences, web-based seminars, or live presentations, it is important the PD spaces allow for personal and virtual interaction, a variety of breakout spaces, and visual and tactile displays.

The Preferred Design reinforces the Educational Program by distributing common teacher planning rooms on each of the academic floors and generally adjacent to the Housemaster's suites. Within the fine arts and music suites general planning time occurs within the small office or classroom spaces for each program. Generally non-"ownership" of classrooms by teachers is intended throughout - although some teachers may find assignments to specific rooms – particularly in the areas of humanities and the Freshman Commons. The plan aggregates teachers into these rooms providing the best opportunities for interdepartmental interaction, program development and financial grant applications. The Planning Center's central locations also provide for easy student access and general floor observation (passive security).

4.2.6 Pre-Kindergarten

(SPED only, tuition programs, locations, full day, half day, if applicable); Not Applicable

4.2.7 Kindergarten

(full day, half day, locations, if applicable); Not Applicable

4.2.8 Lunch Programs

(number of servings, district kitchen, full service kitchens, warming kitchens, etc.)

A. How program is delivered

The Somerville High School kitchen and cafeteria is located in the basement of the school. Due to design constraints, the SHS kitchen currently serves as the backup central production kitchen for the district but should serve as the district's primary production kitchen. The SHS food service program currently delivers approximately 100-150 breakfasts per day and an estimated 650-700 lunch meals per day. Food is received from vendors via a service delivery dock area located at the back of the building and is either stored or prepared right away. Students scan their ID's as they retrieve their breakfast or lunch.

SHS's lunch program is delivered in three half-hour periods (11:04-11:34, 11:34-12:04, 12:04-12:34). Students go to one of three service lines for their lunch -- one for 'grab and go' meals, one for main entree meals, and one for the salad bar option -- and proceed to one of seven check-out stations. Students can eat in either the main café across from the kitchen that can accommodate approximately 300 students, or in one of two smaller café's on either side, each of which can accommodate up to approximately 100 students. None of the current lunch spaces offer any type of natural lighting, and are furnished with traditional long school cafeteria tables, providing very limited flexibility in seating arrangements.

The school lunch service also provides bag/boxed lunches for students going on field trips. A separate snack area stocked with healthy food options is also available adjacent to the cafeteria spaces.

B. Proposed changes and why, or statement that no changes are proposed

The Somerville High School kitchen and cafeteria should be a place where students can not only enjoy a nutritious meal and re-energize for the day, but also a place where students can comfortably connect and interact in a space that inspires community-building.

The kitchen should be designed as the district's central main production kitchen and include ample storage (refrigerators, freezers, dry stock room) to accommodate up to 1,500 students. Updated cooking equipment that meets current food service requirements would help ensure that we are meeting food safety standards, and providing students with the best possible food service.

Ideally, the design/layout of the space would offer more college-style dining with multiple meal options and lines, which would relieve wait time. The space should be bright, comfortable, welcoming, and offer multiple and varying types of seating areas where students can congregate, work, or relax.

The space should also be equipped with state-of-the-art technology to (1) relieve congestion during checkout through more advanced, wireless registers, (2) allow for prominent electronic display of menu options, and (3) provide opportunities for students to stay connected with the outside world and learn about school projects via electronic programming displays. Additional proposed changes are the addition of a dumpster and proper disposal system, as well as a recycling and composting area to support efforts to improve school sustainability.

The preferred design gives importance to student socialization and communal gathering by placing the commons in a geographically important center of the school and configuring the dining room into a large single room with multiple zones. The lunch program areas include the kitchen, a scramble style servery and open commons cafeteria spaces. The central location of this important gathering space is to support student, staff, and community use. By providing multiple zones within the commons a more flexible and useable space is available throughout the day.

4.2.9 Technology Instruction Policies and Program Requirements

(Labs, in-classroom, media center, required infrastructure, etc.)

A. Description of existing educational technology, how it is managed by the district, how it is used in the classroom, and overview of professional support and training offered to staff

The SPS Technology department manages the technology hardware and use throughout the district, and currently leverages wired and wireless infrastructure with a blend of stationary computers and mobile devices, such as Windows laptops, Chromebooks, iPads, as well as BYOD. Currently, most departments have their own computer lab that they share building-wide. The school also has a limited number of shared Chromebook and iPad carts available for use. Most classrooms are equipped with fixed projectors and interactive whiteboards.

The Technology Department also works in partnership with district and school departments in managing software, and offers various levels of support and training, from individual support to group workshops. The Department also utilizes a “train the trainer” method working with teachers who become experts and then help provide technology support and development to teachers within their department or across the school.

B. Proposed educational objectives being pursued as part of potential project, description of how updated equipment and systems would be managed and maintained by the district, how the equipment and systems would be used in the school, and plans for professional development, or a statement that proposed equipment and systems align with current equipment, systems and practices which are to be continued

Somerville High students and teachers have benefited greatly from the use of technology throughout the day. We are looking to build upon our successes and blend more mobile devices into the school, working toward a true 1:1 program for the new building. The Technology Department would continue to manage the devices, along with a robust wireless infrastructure to support the demand, and work with all school departments to align a curriculum that supports a 1:1 program. Ideally, the new Technology office areas at Somerville High would be constructed to provide Student Internship opportunities where students can operate portions of the Technology Help Center as well as provide support to mobile devices in the

classrooms. The space should be more conducive to walk-in support and have adjacencies to areas for group Professional Development opportunities. Classrooms will benefit from having projection capabilities and interactive boards.

Technology will be used prominently and ubiquitously in the new SHS. The expectation is that students will use a wireless device accessible to them throughout the day to access the curricula, to receive instruction (blogs, video, media creation, applications, etc.), to create digital content, and to perform on a variety of assessments. Simulated labs, flipped classrooms, virtual classrooms, video conference, and digital content creation will be a frequent experience for all students. Much like a college campus, such activities will take place in classroom spaces, media spaces, common spaces, open spaces, cafeteria spaces etc. Technology both as content and tool will enable, support, and prepare our students with a personalized learning experience and global learning experience.

In order to realize this technology vision, staff will need to stay current with how to integrate evolving technologies. The District will be adopting an aggressive schedule of offerings presenting technologies both as content (e.g. specific applications, coding) and as a tool to be integrated into lesson planning, instructional delivery, and assessment. PD will happen local to the school, within the district, and at partner organizations i.e. Tufts, MIT, Harvard. Since the fundamental principle in the District is that technology should be used to strengthen teaching and learning and to solve educational problems, the use of technology will always be tied directly to teaching and learning with a vision toward future use and global education. The use of technology by teachers and students will be in support of STEAM principles and project-based learning as integrated throughout the teaching and learning landscape at SHS.

C. Media Center/Library

I. Current Programming and How it is Delivered (Central Location or Distributed)

The SHS Library Media Department offers classes in TV Media Production and Film Studies through an Apple Mac Lab running Final Cut video editing software. Each class is a semester long with multiple sections depending on enrollment. The Library Media Department at SHS is also responsible for running morning announcements out of the SHS TV studio, a small space located on the first floor just outside the main entrance to the school auditorium. The current space is significantly undersized, limiting the amount of educational programming that can safely and effectively occur in this space. The studio houses three cameras, a teleprompter and a Tricaster TV switching board that allows for the merging of live video switching, broadcast graphics, virtual sets, special effects, audio mixing, recording, social media publishing and web streaming. Morning announcements and other school messages are

broadcast daily from this studio. Both students and SHS staff utilize this studio as much as possible on a daily basis, given the space limitations.

The Library Media Center is composed of a centrally located large space which was formerly the high school gymnasium and an additional space known as the Media Lab or Innovation Center, where students and staff can work on technology rich projects using Apple Macintosh Computers and audio and video equipment. This space meets an essential need for students who do not have access to technology at home. The Library Media Center also serves as a meeting space for the school administrative team and is often used for professional development. It is also utilized for out-of-school-time city meetings. The space is equipped with a Smart Board and 30 desktop PC's for student and staff use. Classes utilize the space and its technology on a sign-up basis. There are also 22 Chromebooks in the Library for student and class use, with an additional 35 Chromebooks currently on order for use in the library this year.

II. Current Staffing, Professional, Paraprofessionals, IT Specialists, Volunteers etc.)

The Library is currently staffed by one full time library media specialist and one full time library utility aide who manage the circulation of books and technology, and the collection and space. The library is staffed before and after school hours by teachers and staff members who receive an additional stipend for this out-of-school-time work.

Current staffing also includes one full-time TV Media Production Teacher who teaches Film Studies/TV Media Production classes, and is also responsible working with students to produce and deliver the school morning announcements.

III. Current Hours, Scheduling of Use During School and Non-School Hours for Group and Individual Use.

The library is currently open for school-related use Mondays through Fridays from 7:00 AM until 4:00 PM except on school holidays. Scheduling of the library during non-school hours is handled through a central facility registration system managed by the district's central office. The library is periodically used during the school day for a variety of other school-related activities, including for MCAS and Access testing for ELL students, concussion testing by the Athletics department, and for various school events such as Club Fair, College and Career Fair and musical instrument rentals. Other City departments often use the library for meetings during non-school hours.

IV. Proposed Changes and Why, or Statement that No Changes are Proposed

The use of the school library during the school day for activities such as MCAS testing that require closing the Library and/or Media Center reduces the availability of a critical educational learning space to the broader student body. A design that incorporates a separate space that can be closed off for such purposes in an appropriate location within the new school design would ensure the most efficient use of the Library and Media Center as a continuous educational space and resource for all students.

The new Library Media space should offer a comfortable and inviting environment with varied and flexible work areas, and be equipped with the proper technology to support thorough research and creative work. The space should be a place where students and teachers can work independently and in groups (small and large) and access the resources they need to produce their best work, therefore would need to have the flexibility to accommodate quiet work needs and interactive group projects. The inclusion of a Makerspace in the Media Center would allow for the practical application and lab environment students will need to test their creativity, collaboratively problem solve, build and design their ideas, and produce their projects.

The environment should include good lighting, ample natural light, windows that open but which also have shades to darken rooms for presentations, and ample charging stations for portable connectivity. The space should also include varied types of seating areas including open carpeted graduated seating, comfortable chairs for independent reading and studying, a terraced seating area for students to stretch out and use their laptops, and cafe style high-top tables and stools for small group work.

The Library could be further enhanced as an active learning space for students and staff members by incorporating other currently existing programs/elements of the school as part of the new Library Media Center, including the following:

- Incorporate the TV studio as part of the Library Media Center, transforming it into an innovation lab that has its own entrance and classroom space equipped with computers for video editing;
- Build in small group instruction and large group instruction areas that are separated from reading and quiet study areas and research areas;
- Include a Professional Development space equipped with computers to train teachers and other staff members, that could also be utilized for small group instruction/meetings;
- Add a Makerspace for STEAM-related activities, including working with equipment such as 3-D printers.

V. Narrative Description of the Types of Educational Activities Anticipated for a Media Center(s) Over the Course of a Typical School Day;

During the school day, students will utilize the Library Media Center to check out print and digital media, laptops and other devices, work on independent and collaborative research projects, and work on media-rich projects (including blogging, podcasts, green screens, video editing, and music production). Teachers and staff members will also utilize the space for professional development and staff meetings. Students and other community agencies can use the space in the evenings to showcase individual or group dance, theater or musical performances, or for community meetings.

Activities will vary on any given day in the Library Media Center, from large classes coming in to individual students looking for a quiet area to read, complete homework and projects, and conduct research using multiple devices. The space will be particularly busy before school, after school and during the three lunch periods, making the need for flexible, adaptable spaces

within the Center important to ensure that the space can be used for a wide range of activities, all of which support a strong, engaging, 21st-century focused learning experience. The Library Media Center should function not only as a critical educational space during the school day, but also as a safe and inviting place where students can meet for an after-school activity or merely to socialize and re-energize.

The preferred option capitalizes on the opportunity to redevelop the antiquated library experience of the current SHS – currently occupying the old gymnasium. The schematic design shows the learning commons located in the exact geographic center of the school both vertically and horizontally and is less a repository of books and more an active center for media use and distribution including a flexible "maker space" and multiple group project rooms.

4.2.10 Visual Art Programs

(In-classroom, specialized area)

A. How curriculum is delivered, number of periods per academic cycle, and number of students participating in art programs

The current art department offers a large compliment of classes covering a diverse range of skills and techniques for students at Somerville High. The art curriculum integrates twenty-first century skills and all academic subjects to provide a 'well-rounded education' for the diverse student population in Somerville. The current enrollment is 600 students and has been subject to increase changes each semester for the past few years. Each of the four Art Teachers sees students 4 times per week during each semester, for 55-minute periods (except period 1 which is 67 minutes).

The art department offers a wide range of courses aimed at students of varying abilities and interests. Currently, there is a wet photography darkroom and art computer labs which serve current and future curriculum. All students have the opportunity to explore the visual arts and enrich their academic and life experiences. In addition, students who wish to pursue careers in art are offered specialized courses and portfolio preparation. Students who wish to pursue an independent study in art should contact the art department supervisor. We currently offer 16 electives for students to take during their four years at SHS. We also have a Chapter with the National Art Honor Society which provides student members avenues for recognition of artistic talents and opportunities for leadership roles as visual arts students. Students provide community service through spotlighting the visual arts' program and through community work, such as painting murals for the City Hall break room and the SHS cafeteria, and creating scenery for school plays.

B. Proposed changes and why, or statement that no changes are proposed

In order to offer students a high-quality program and meet the growing demand for this program of study for students in grades 9-12, visual arts space needs to be designed and equipped to accommodate a wide range of projects. All Art rooms should have windows that can be opened in order to allow for ventilation and the use of natural lighting for creative development. Studio art rooms should be equipped with appropriate filtration for clean air and ventilation, and classrooms should be adaptive to meet the needs of all students and accommodate courses for Skill level students that need adaptive facilities.

The following spaces have been identified as key to ensuring a robust, state-of-the-art visual arts program. These spaces currently exist, but each is currently undersized and deficient in functionality that would allow student experimentation and expression to flourish:

- Photography Lab: Should include both a studio space and a dark room facility with large sinks. Studio space should accommodate student computers with digital projection capabilities.
- Ceramics Room: Classroom studio needs to incorporate a kiln room, large sinks, and active storage area. Typical equipment would include potters wheels, pug mill, raw clay, glazes, slab roller, and drying racks.
- Computer Art Lab: Should include graphics-capable student computers, a teacher computer with digital projection capabilities, as well as a large-format professional printer and 3D printer.
- Studio Art Room(s): Multimedia art rooms for 2D and 3D artwork, with student computers and digital projection capabilities in each room to enhance student usage.

The development of visual arts skills is greatly enhanced by the opportunity for students to showcase their work. A neutral color scheme and school design that incorporates multiple display options for 2-D and 3-D student work throughout the facility would not only support student visual arts development, but would promote a strong community culture that builds student pride and represented by student creativity.

The Schematic Design reinforces the school's vibrant arts program by maintaining two studio art rooms (one two dimensional and one three dimensional), providing one technology based digital arts lab and providing a shared use project lab for Computer Graphics/TV Studio editing which will serve the fine arts curriculum. The arts shall be closely associated with performing arts and hapter 74 graphics programs where possible in the new building. Display cabinets will be provided at each room and throughout the building to display student work.

4.2.11 Performing Arts Programs

(Music, dance, drama and theater, in-classroom, specialized area)

A. How curriculum is delivered, number of periods per academic cycle, and number of students participating in music programs

Somerville High School's Music Department's mission is "to inspire and guide every student in active music making through the use of a sequential and creative curriculum that nurtures the human spirit and promotes cultural understanding." A diverse menu of course offerings and an approach to "tiered learning" is designed to inspire students and faculty to practice a growth mindset in relation to students developing sequential skills that foster continuous improvement and musical skills that promote applied music literacy in a creative and joyful environment with an outcome that will lead to continued participation in music for life. The SHS music program differs greatly from more "traditional" high school programs in that SHS ensembles and classes are open to every student. There are no audition requirements and students are accepted at every level of musicianship.

Curriculum in the SHS Music Department is delivered by highly qualified teaching artists through the use of a sequential and tiered skills based model. The curriculum focus is rooted in the concept of "Authentic Learning", meaning that skills learned are directly related to the creation of organized sound. Constant synthesis of learned skills inspires students to take risks by improvising, as well as creatively moving to the next tier of proficiency. For the majority of SHS ensembles, learning is measured through the development of musical skills expressed in elements of effective communication, teamwork, and respect and understanding of diversity of cultural expression in the school community and in the world.

Currently, the music department has 378 students enrolled for the 2015-16 academic year with approximately 35% of students taking multiple music classes. All full year performance ensembles are operating at maximum capacity (75 choral students, 55 band students, 51 orchestral students). Our three ensemble rooms are used for 26 periods weekly. Music students share a technology lab with TV Media/Production which the Music Department occupies for music technology programming for 8 periods weekly. Another small classroom functions as the Intro to Guitar, Advanced Guitar and Jazz Band learning space. The Music Department also has access to an audio/visual room with sound equipment for traveling performances and recording, and a music technology learning space equipped with 14 iMacs for writing and recording music.

The music department space also has two distinct elements that operate outside of the school day. The first is that district middle school ensembles use our SHS ensemble rooms for their weekly rehearsal. There are 95 students in the All-City Middle School Chorus, 65 students in the All-City Middle School Orchestra and 45 students in the All-City Middle School Band. There is also an All-City Chamber Orchestra that has 25 students. Secondly, the SHS annual musical and drama production group uses the SHS ensemble rooms and the school's sole auditorium from September until April. More than 60 students are involved in the musical production and over 50 students are involved in the drama production. Currently, there is no adjacent space to the auditorium for use as a prop/dressing room. Both

productions have used the high school library to assemble their sets and to practice blocking for their productions.

B. Proposed changes and why, or statement that no changes are proposed

In addition to the need for a music and performing arts learning environment that can provide large group and small group opportunities, the SHS Music Department has tremendous need for instrument and music storage. Each space utilized for music instruction and performances currently has very limited storage space for an estimated 2,500 instruments and other performance equipment.

The SHS Music/Drama Faculty, in order to appropriately allow for creative expression and provide students with a robust music program, proposes the following changes in the new SHS building design:

- Multiple music ensemble rooms with an average capacity of 75-100 students adjacent to each other and situated around the perimeter of a main auditorium, with adjacent offices for ensemble teachers. Adequate storage for instruments, equipment and uniforms adjacent to each ensemble space would be ideal, including a string instrument storage space where temperature can be controlled locally. Small break-out/practice ensemble rooms attached to the larger ensemble rooms that can be monitored from the main ensemble room would allow for proper preparation prior to performances.
- Large, modern auditorium with sloped seating, professional level sound reinforcement, and a functional stage that allows ensembles to be setting up behind the curtain while another ensemble is performing. Proximity to a space for set, prop and costume construction, with adequate storage, allowing for a rich, full production learning experience. The auditorium space should also include adjacent dressing rooms, additional storage for audio/video equipment (microphones, monitors, cables, etc.), and be within close proximity to the City Cable editing/storage room.
- An informal space that offers “Black Box” functionality which can be used for drama classes, musical/drama rehearsals, full faculty meetings, professional development, smaller performances, presentations, and cultural events. Adjacency to an area/room for costume changes and space for prop storage would be ideal.
- Guitar/Jazz Ensemble room with a 25-30 student capacity for alternative performance ensembles. The room should be sound-proofed and include adequate storage for acoustic/electric guitars, basses and drums
- A flexible space to accommodate a Music Technology/Piano Lab for up to 20 students for electronic keyboarding and music technology classes, with appropriate storage for mid-sized electronic keyboards

- Music Practice Rooms – multiple small music practice sound-proofed rooms that would each accommodate 1-2 students for more individual instruction/study
- Music Department Main Office equipped with technology stations that can be utilized by students and teachers for performance planning, music project research, interdisciplinary projects, and professional development.

The preferred design reinforces the performing arts program by correcting adjacencies and space deficiencies for the above programs, along with providing a state of the art auditorium with a full-fly loft stage with improved lighting, sound, and acoustics. Community use of this space is also critical and its central location on the Central Hill campus and within the floor plan of the school supports this organizing principle.

4.2.12 Physical Education Programs

A. How curriculum is delivered

The focus of the Somerville High School Physical Education program is on whole student wellness. The suggested Health and Physical Education path for students to fulfill their graduation requirements currently includes the following grade-level requirements:

- Freshman: Health I
- Sophomores: Physical Education
- Juniors: Health II
- Seniors: Physical Education

Currently, SHS Health and Family/Consumer Science classes are taught in four general classrooms with limited lab space and equipment, and inconsistent technology. Fashion courses are taught in a separate room equipped with sewing machines. We currently offer three sections of Physical Education (PE) each block. Each section has 15-28 students.

B. Proposed changes and why, or statement that no changes are proposed

The following proposed changes detail the existing program structure and delivery, and the reasons for the proposed program changes.

Wellness Center

Health classrooms in close proximity/attached to fitness room and gymnasium. Currently, SHS Health and Family/Consumer Science classes are taught in four general classrooms with limited lab space and equipment, and inconsistent technology. Fashion courses are taught in a separate room equipped with sewing machines. Health Education classes are transitioning to Wellness courses, incorporating fitness concepts. As such, students will be using fitness equipment, large open spaces (gymnasium), and other physical education equipment during health/wellness classes. Ideally, these classrooms would be connected to the Multi-functional lab space described below for easy access.

Flexible grouping and fitness based furniture for health classrooms and transitional. Upon moving to Wellness courses, the health classrooms will include fitness-based furniture to allow for exercising in the classroom. Research shows that more movement and less sitting better prepares students for learning. Equipment may include stand-up desks with elliptical climbers underneath, stationary bike-desks, and yoga balls.

Multi-Functional Lab Space

As we transition into Wellness courses, classes will incorporate more inquiry-based and scientific activities. This includes dissecting muscle samples, using manipulatives, analyzing cells and other samples under microscopes, spaces to investigate bones structures, joints, and the human body. This space will also be used for CPR/First Aid trainings. It would be ideal for the classrooms to be connected to the lab to facilitate easy access, and adjacency to the Science classrooms might facilitate interdisciplinary work.

Multi-Purpose Room

Due to lack of space, current physical education course offerings must be held in the fitness room, weight room or field house, which limits our ability to offer a wide variety of courses in which students have expressed an interest. A flexible multi-purpose room would allow us to offer dance, yoga, Pilates, plyometrics, and meditation. An Introduction to Dance course will begin in the 2016-2017 school year and will run on the stage in the auditorium. The stage is not an ideal size for this program, and scheduling the only large meeting space in the building is problematic. Additionally, having students practice dance on the stage can create safety concerns that would be alleviated with a multi-purpose space where students could perfect their form on a safe, floor level space before performing on the stage. This multi-purpose space could also be utilized to serve students with Adaptive Physical Education accommodations in smaller, more intimate spaces. The space should be in close proximity to the gym, fitness center, health classrooms and lab.

Multi-Purpose Space

Large Multi-Use Fitness Center

Space constraints not only significantly limit enrollment in weight training and fitness education courses, but also create safety concerns for students and staff. The current weight room and the fitness room only allow for 20 students per class. One large flexible fitness center that can accommodate 50+ students at a time would allow us to increase the enrollment for these classes and be able to incorporate both free weights and cardio machines for both classes. Currently, if a student is enrolled in Weight Training and wants to use a cardio machine, the student needs to leave one space and walk through a hallway to get to the other space, creating both safety and supervision concerns. The Fitness Center should also include space and equipment for other workouts, including kettlebells, box jumps, training ropes, and medicine balls. The fitness room should be in close proximity to the health classrooms, lab, and gymnasium and could be designed to allow for use by members of the Somerville community during non-school hours.

Gymnasium

We currently offer three sections of Physical Education (PE) each block. Each section has 15-28 students. The space currently used is equivalent to three basketball courts, with two courts being 42'x75' and one auxiliary court being 60'x75'. The space is sufficient for some activities, but not all. A large gymnasium is needed for maximum capacity and to mitigate safety concerns when implementing specific activities. Within the cross courts should be one main floor for athletic competitions. Currently, the gym also houses equipment for physical education and athletics in two storage rooms.

Additional gymnasium storage space is an important consideration as the current two storage rooms in the gymnasium are inadequate to store all of the physical education and athletic equipment needed for effective program delivery. Additionally, the large volume of traffic in this space during school and non-school hours requires a high-impact multi-purpose floor. PE has integrated technological devices to measure students' resting and target heart rates. Students use the monitors not only in the fitness room but also as a warm up; as they train for their presidential fitness exams or the cooper walk/run test. This activity is done on the existing 6-lane track that surrounds the gymnasium floor. The track is also used for other activities within the lifetime activities, athletic and community events.

Locker Rooms

There are currently two locker room spaces located off of the gymnasium area. Each space also houses the physical education staff offices, showers, and a bathroom. A locker room that has secure lockers, privacy areas, showers, and is attached to the gymnasium will address many safety issues. There is also a need for two team rooms to be used for meeting spaces as well as locker room spaces for competitions. Locker room accommodations should also include unisex or transgender changing spaces. Currently, we only have two changing spaces -- separate boys' and girls' locker rooms. There is a need for an additional office space/bath shower space for sporting event officials. This space should be separated from the team rooms for privacy and safety reasons.

Physical Therapy & Athletic Training Treatment Space

SHS does not currently have a space that is conducive to physical therapy or athletic training. Both programs operate in tight quarters in a physical education space, with treatment space in an area that was designed for storage located close to the Field House. There is no designated space for Physical Therapy. A large enough space that can accommodate physical therapy to serve student-athletes in all athletic programs, a growing Sports Medicine course, and the athletic training program can also allow us to provide an effective, proactive approach to injury prevention and assessment. The appropriate location is in or adjacent to the fitness room, and the space should include adequate storage for physical therapy and training equipment and supplies.

Outdoor Space

There is currently no outdoor space designed for physical education programming for SHS students. A flexible outdoor space for wellness and physical education programming and for use by athletic teams for practice when weather conditions allow would help alleviate current field scheduling challenges and would allow us to offer additional activities and courses. The space could also serve as an additional community space when not in use for school programming.

Project Adventure/Rock Climbing Activities

Existing ropes course and climbing wall at the school are out of date and not up to code, therefore we are no longer able to incorporate this vital aspect into our Lifetime Activities class. An updated ropes course and rock climbing wall would allow us to offer an Adventure to Fitness class that will provide students with cooperation skills, team-building experiences, and which would serve as another avenue to inspire students to lead a healthy lifestyle. This type of course directly influences students who might not be interested in other fitness programs currently offered, and allows us to provide a variety of options to meet the varying interests of students.

Technology

We are currently piloting heart-rate monitors in two of our Fitness classes. The monitors allow us to quantify effort levels. They are a motivating factor that allows students to exercise efficiently and effectively. With Wi-Fi access in the gymnasium, we would be able to use the monitors for all activities in the gym. This would allow a student to practice a skill in a particular sport or activity and receive real time feedback in regards to how much more effort they need to exert to achieve maximum levels of fitness.

Adjacencies and Proximities

Having physical education and health classrooms be adjacent to the multi-functional health lab will promote and facilitate increased use of all spaces. Additionally, having classrooms adjacent to the fitness room and gym will allow staff to provide hands on practical instruction.

The preferred Option design reinforces the physical education program by co-locating the spaces in one contiguous level around the existing Brune Field House that serves a wide variety of student needs in a city with limited

outdoor field spaces. The current arrangement of spaces has security and access issues and control challenges that are insurmountable without aggressive modifications. New locker rooms will now be directly attached to the field house and the appropriate multipurpose spaces that support a coherent lifelong learning strategy around physical health will be appropriately located and sized and visible to the school and greater community utilizing the building after hours.

Outdoor space in Somerville is at an extreme premium – the small space the preferred design has been able to capture on the hillside as part of a structured parking deck is critically important to support the PE program during the school day – this is an issue of equity to compete with schools across the eastern Commonwealth that do not face this undue hardship.

Existing fields distributed across Somerville

4.2.13 Special Education Programs

(In-house, collaborative, facility restrictions)

A. Review the special education rubric included in appendix 1 and describe where existing program and spaces align with the rubric, where they do not, and potential changes to remedy in the proposed project

The Somerville High School Special Education program is multifaceted and consists of a wide range of programming and services to meet the needs of students as determined through the IEP team process. The program is implemented in inclusionary, pull out, self-contained, and community based models. Although the majority of students are supported in an inclusionary model, some students require a more intensive and specialized level of support that is best met in a substantially separate setting. All students are included as appropriate through a thoughtful process of planning and support(s).

B. List current special education programs serving students in the proposed project including the number of special education students currently served in each program

SHS currently offers the following special education programs:

- Self-contained Life Skills program for students with severe physical and significant intellectual disabilities, serving 8-10 students up to age 22 in grades 9-12, which offers a modified curriculum with a focus on pre-vocational experience and adaptive living skills.
- A self-contained SHIP (Somerville High School Intensive Program) classroom for students in grades 9-12 with severe, often multiple disabilities and/or medical frailties. The program includes a full-time nurse and necessary medical equipment. The program has a focus on life skills, pre-vocational, and adaptive living skills.
- A self-contained Transition Life Skills program for students from 18-22 years old. The program focuses on life skills, post-secondary employment, independent living, travel training, vocational, and adaptive living skills.
- Resource Room ELA and Math program serving 10-12 students with moderate special needs in grades 9-12, who require substantially separate programs with modifications to the facility and to core content.
- Study Skills programs. Resource Rooms for students with moderate special needs in grades 9-12, serving 10-12 students. Focus on executive functioning, remediation, educational planning, and becoming independent learners.
- Team Core Academic Classes (ELA, Math, Science, History and Social Sciences). Students are team- taught by general educators and special educators within the general education setting.
- School Adjustment Counseling programs for students in grades 9-12 offers students with individual/ small group counseling, social skills/social thinking development, and crisis management support.

- Related Special Education Services include:
    - Occupational Therapy - sensory and fine motor, individual and group
    - Physical Therapy - gross motor, motor planning individual
    - Speech Therapy - speech and language therapy individual & group
    - Vision services - visual planning, tracking, orientation and mobility
    - Assistive Technology - augmentative and assistive technology

C. List Deficiencies in the Existing Program that have been Identified Locally or Through State Review

- Lack of Special Education Department Head at SHS
- Appropriate classroom based toileting facilities for Life Skills and SHIP classrooms
- Functional daily living facilities model apartment that includes (but is not limited to) a kitchen with sink and refrigerator, washing machine and dryer, and shower
- Vocational/Job Readiness work space

D. List Specialized Programs and Collaborative Spaces/Program Located in the Current School.

Specialized special education programs currently located at Somerville High School include the following. Program descriptions are included in section 13b above.

- Self-contained Life Skills program
- Self-contained SHIP (Somerville High School Intensive Program) program
- Self-contained Transition Life Skills program
- Study Skills programs
- School Adjustment Counseling programs

Collaborative special education spaces/programs currently located at Somerville High School include:

- Team-taught Core Academic Classes
- Life Skills Vocational Class taught by a special education teacher in collaboration with staff from the SHS CTE program
- Occupational Therapy - sensory and fine motor, individual and group
- Physical Therapy - gross motor, motor planning individual
- Speech Therapy - speech and language therapy individual & group
- Vision services - visual planning, tracking, orientation and mobility
- Assistive Technology - augmentative and assistive technology
- Cambridge Health Alliance/Teen Connection program
- Student Mediation program
- ELL Welcome Center

E. List Proposed Programs Any Program/Service Needs that the District Hopes to Address in the Proposed Project

The following proposed programs and services will address identified deficiencies and enhance special education services to SHS students:

- SHIP Transition Program for students up to age 22 to address a 48-month age gap in current program services. The SHIP Transition Program will require a full-time nurse in a program separate office with necessary medical equipment including a large wheelchair access toilet room with a changing table that allows for adult assistance; a ceiling built lift for moving, changing, and lifting multiple physically handicapped non-ambulatory students. The program focus would be on life skills, post-secondary employment, independent living, travel training, vocational training, and adaptive living skills.
- There needs to be a dedicated space for a Transition Specialist who works to prepare SHS Special Education students for college, career (vocational), and life success. The Transition Specialist requires an office space along with a flexible space to instruct students 1:1 or in a small group format.
- Special Education Department Head office and conference room to meet with staff, parents, and other departments to work collaboratively to meet the specialized needs of students.
- A Life Skills/SHIP Apartment Model. Various special education programs require a separate space designed to provide a simulated daily living environment. The apartment should include a kitchen, living area, a large toilet room that allows for adult assistance, and a shower. This room would also be used by related service personnel when working with students in the transitional programs to help students develop and apply functional skills and increase independence within a natural environment.
- A High Functioning Autism Spectrum Disorder Resource Room/Classroom, moderate needs. The district has identified a high level of programming need for students with high-functioning autism/ spectrum disorder with an emphasis on social skill development. This program requires a classroom space with a break-out room that allows for students to engage in small group activities as appropriate with access to smaller setting spaces to access a safe zone, sensory activities and individual/small group therapies. Additionally, this program requires a small private space that can be used for individual counseling or family meetings. This program should be located in close proximity to the Sensory Room.
- An Autism classroom (nonverbal), severe needs. SPS currently has an autism program for students in grades K-8 that will be expanding programming as our middle school students move up to the high school. This program will require a classroom space with a break-out room that allows for students to engage in small group activities as appropriate with access to smaller setting spaces to access a safe zone, sensory activities and individual/small group therapies. This program should be located in close proximity to the Sensory Room.
- A Therapeutic Classroom for students with emotional anxiety, with an attached therapeutic office/workspace. SPS has identified a high level of programming need for students with significant school phobia and anxiety at the high school level. This program requires a classroom space with its own separate entrance

and a break-out room that allows for students to engage in small group activities as appropriate. Additionally, this program requires a small private space that can be used for individual counseling or family meetings.

- A Sensory Room for Occupational Therapy. This room is needed for students diagnosed with autism and/or sensory processing disorder or sensory integration disorder. Sensory processing disorder is a neurological condition in which a person responds inappropriately to sensory signals. These students require a therapeutic space for sensory which can be overwhelming and that often prevents the brain from getting and interpreting sensory information. Inappropriate reaction to bright lights, loud noises, motion, and other sensory experiences can trigger anxiety, motor problems, behavioral disturbances, and cause difficulty learning. The Sensory Room would have stations with active areas, calming areas, and various types of sensory activities. Rooms often have dim lighting, soothing colors, vestibular swings which hang from the ceiling and other sensory devices.

F. List programs/services that will continue

The following special education programs and services will continue. Program descriptions are included in paragraph 4.2.13.B above.

- Self-contained Life Skills program
- Self-contained SHIP (Somerville High School Intensive Program) program
- Self-contained Transition Life Skills program
- Study Skills programs
- School Adjustment Counseling programs
- Team-taught Core Academic Classes
- Related Special Education Services including:
  - Occupational Therapy - sensory and fine motor, individual and group
  - Physical Therapy - gross motor, motor planning individual
  - Speech Therapy - speech and language therapy individual & group
  - Vision services - visual planning, tracking, orientation and mobility
  - Assistive Technology - augmentative and assistive technology

G. List programs that will be eliminated

None.

H. List programs that will be added or enhanced as a result of the proposed project

The Next Wave and Full Circle special education day and alternative education programs will be enhanced as a result of moving over to the new Somerville High School. NW/FC students will benefit from access to additional resources and educational programs available at SHS, including CTE classes, modern language, athletic programs and additional after-hours support programs and activities.

SHIP Grades 9-12 & SHIP Transition Programs will be enhanced by the use and access to a sensory room, model apartment, and transitional specialist for transitional post-secondary planning.

All SHS Special Education programming will be enhanced by the addition of a Transition Specialist and vocational planning work area to help students with a wide

range of disabilities focus on post-secondary planning (college and career readiness, independent living and group work settings, vocational planning, transition to adult agencies), working with all collateral agencies for improved post-secondary outcomes.

The addition of the SHS Special Education Department Head will significantly improve the level of support and alignment with SPS goals for all students and increase inclusive and integrated opportunities for special education students.

The addition of the Life Skills/SHIP Apartment Model will make a significant difference in students' ability to apply skills learned in a natural setting that simulates a daily living environment. The apartment would also be used by related service personnel when working with students in the Transitional programs to help students apply functional skills and increase independence within a natural environment.

The Addition of the High Functioning Autism Spectrum Disorder Resource/Classroom will support SPS' identified need of programming for students with high functioning autism/spectrum disorder with an emphasis on social skills development.

Students are team taught by general educators and special educators within the general education setting. The addition of a special education work space near/attached to team core academic classes (ELA, Math, Science, History and Social Sciences) will offer the flexibility of grouping and allow students access to multiple modalities of instruction. This will help to minimize distraction and create a variety of teaching opportunities and environments that support student learning.

SPS currently has an autism program for students in grades K-8 diagnosed with autism that will be expanding programming as middle grades students move up to the high school. The addition of an Autism classroom for nonverbal students on the severe spectrum will help students be more successful within their community and with their typical peers.

The addition of a Therapeutic Classroom for students with emotional anxiety with a separate entrance and an attached therapeutic office/workspace will help to meet the SPS identified high level of programming need for students with significant school phobia and anxiety at the high school level.

The addition of a Sensory Room (Occupational Therapy) is needed for students diagnosed with autism and/or sensory processing disorder or sensory integration disorder and will allow students to access a therapeutic space for sensory that can be overwhelming to these students, and which prevents the brain from getting and interpreting sensory information.

Four special educators at SHS currently do not have a work space/office to share or work collaboratively. Special educators at SHS have a core area of academic focus (ELA, Math, Science, and History) and would greatly benefit from work space for collaboration with their co-teachers, for testing students, and to conduct meetings. The addition of work spaces for special educators would greatly enhance their ability to meet the needs of students with a wide range of special needs. These office spaces would serve 2 special educators in the core academic area.

Conference spaces for meetings with special education teams, teachers, parents, and outside agencies are essential for education planning and collaboration.

I. List programs or services that will be moved from within the district (from which school they are being moved) as a result of the proposed project

Next Wave Junior High School (grades 6-8) and Full Circle High School (grades 9-12) currently serve as Somerville's special education day and alternative education programs. Both are designed to meet the special academic, social, emotional, and behavioral needs of adolescents who, for many reasons, are unable to experience success in the traditional education settings. By combining the clinical concept of a therapeutic community with the educational concepts of individualized and specialized integrated learning experiences, Next Wave/Full Circle affects academic, social, and personal successes for very high-risk students between the ages of 12 and 21. The proposed project will move Next Wave/Full Circle to a wing or separate part of the newly designed Somerville High School.

J. Previous coordinated review

I. Provide the Date of the Last Coordinated Review Program and List Any Issues and/or Problems Identified in that Review

The most recent Coordinated Program Review was completed December-March of the 2014-2015 School Year. The following issues/problems were identified in that review:

- The need to provide Professional Development for general education around the IEP process and improve inclusion practices and meeting the needs of diverse students.
- Age Span Requirements - some programs and classrooms with more than 48-month age span.
- Determination of Placement - increase in participation of general educators in team meetings and education planning
- Team Meeting Attendance - increase in participation of general educators in team meetings and education planning
- Age of Majority - emphasis on transition planning and improved post-secondary outcomes aligned with IEP development.

II. Provide the Current Status and/or Remedy of Those Issues Identified as Part of the Review

Work is already under way to address all areas of concern identified in the latest CPR, including professional development to strengthen understanding of IEP process and inclusion practices.

The creation of work spaces both near/attached to team classes will provide greater ability for special educators and general educators to plan for the needs of all students in inclusive settings. Concerns regarding professional development and determination of placement will be addressed through the combination of special educators and general educators working together throughout the IEP process, and will be enhanced by locating special educators' office/work spaces in proximity to related core academic teachers. The addition of a SHS Special Education Department Head will support collaborative work with general education department heads around professional development and inclusive practices, which will in turn help increase Team Meeting attendance, resulting in an improved placement process.

The development of the SHIP transition program along with new programming for students with Autism and High Functioning Autism Spectrum Disorder, and the addition of a therapeutic classroom for students with emotional anxiety will support planning for students with relation to Age Span Requirements and Determination of Placement.

The addition of the Life Skills/SHIP Apartment Model, SHIP Transition classroom, and Transition Specialist will work to meet the requirements with regards to Age of Majority with an emphasis on transition planning and improved post-secondary outcomes aligned with IEP development.

K. List specialized programs and collaborative spaces/program that will continue, be eliminated or added as part of the proposed project

Somerville High School is committed to inclusive education and offering co-teaching opportunities in four major content areas. The existing building does not support the needs of special education co-teaching teams to be able to be flexible enough to provide individual, small group and whole class instruction in a room next to or near their general education classroom to access extra support and accommodations as needed. The addition of a special education work space in the areas of the four main core subjects (ELA, Math, Science, and History) will offer the flexibility of grouping and allow students access to multiple modalities of instruction. This will help to minimize distraction and create a variety of teaching opportunities/environments that support student learning and will help move SHS toward an inclusion model for special education students.

Currently special educators at SHS do not have a work space/office to share or work collaboratively. Special educators at SHS have a core area of academic focus (ELA, Math, Science, and History) and would benefit from workspace for collaboration with co-teachers, testing students, and for meeting with students. The addition of this space would greatly enhance their ability to meet the needs of students.

L. List special education day school programs that the district currently provides or participates in, and whether the programs will continue in the proposed project

Next Wave Junior High School (grades 6-8) and Full Circle High School (grades 9-12) currently serve as the district's special education day and alternative education programs. Both are designed to meet the special academic, social, emotional, and behavioral needs of adolescents between the ages of 12 and 21 who, for many reasons, are unable to experience success in the traditional education settings and who require a substantially separate educational setting. Next Wave/Full Circle programs are currently housed in a separate building with very limited access to current Somerville high School resources. Next Wave/Full Circle will continue to operate as an independent educational program but will be housed in a wing or separate part of the newly designed Somerville High School so its students have an opportunity and access to the resources, programs, and supports SHS has to offer.

The multi-faceted Special Needs programs at SHS are intended to be distributed across the entire building footprint – the preferred option is most responsive to these requirements and goals. Self-contained classroom sized spaces are grouped according to their particular needs and relationship to partner programs within the school. Students then work in small cooperative learning groups or individually and independently. Students may need to access multiple modalities of instruction during any given time period. Having the larger classroom area with smaller, direct, break-out spaces allows for the required flexibility in grouping to occur while minimizing distraction and creating a variety of teaching opportunities/environments that support the focused learning required for this population of students.

Classes will be taught in general classrooms. The standard size of the general classrooms combined with the smaller population size allows the required flexibility to provide individual, small group and whole class instruction with room for students to work independently. These classes may be scheduled in the self-contained classrooms or in other classroom space that allows for flexible use by multiple groups as well.

The Life Skills program has been provided an oversized classroom designed to provide a simulated daily living environment including a kitchen, living and learning area, a large toilet room that allows for adult assistance with a shower and changing table as well as nearby access to the outdoors. Students will also have proximity to the vocational preparation/exploration skills rooms.

The SHIP (Medically fragile student classroom) Program has been provided a large dedicated space designed to be flexible enough to provide small group and whole class instruction with room for students to work independently when appropriate. The room is located on the first floor of the administrative academic wing to support this population of students with the health suite and direct access to community and emergency medical assistance. A small individual toilet room is provided to support this program as well.

The Preferred Design reinforces the special education program by providing an even distribution of the SPED programs listed above, supporting the inclusionary model that benefits the population of students with the greatest social and academic support needs while providing the required adjacencies described.

The Preferred Design reinforces the guidance and career counseling program by locating the suite near the Administration area at the very front of the school but accessible to students from the academic wings of the school. The interconnection between Guidance, Administration, Nurses the Health Alliance program and the SPED and Parent Information Center offices is critical to the student support mission of the district. The guidance and career center has been provided and designed to be open and welcoming to students without requiring students to pass through the Administrative suite. Satellite House Suites are designed for housemaster and Guidance Counselor collaboration and support in close proximity to students

4.2.14 Vocations and Technology Programs

A. Current offerings

(Separately list Chapter 74 programming and non-Chapter 74 programming)

Current Career and Technical Education program offerings at Somerville High School include the following:

Chapter 74 Programs:

- Advanced Manufacturing
- Automotive
- Architectural Design/Drafting
- Carpentry
- Cosmetology
- Culinary Arts
- Dental Assisting
- Early Education and Care
- Electrical
- Graphic Design and Visual Communications
- Health Careers
- Information Support Services and Networking
- Metal Fabrication/Welding
- Exploratory, Grade 9

Note: See Section 4.2.14.C.I below for existing enrollments for each Chapter 74 program.

Non-Chapter 74 Programs:

- Business

B. Non-Chapter 74 Programming Vocational / Technical / Enrichment / STEM Programming

I. Describe Program (Design, Robotics, Maker Spaces, etc.), Activities, and how it is Coordinated with Other Curriculum as Applicable.

The following non-Chapter 74 programs are offered at the SHS Center for Career and Technical Education and are available to all Somerville High School students. Students can access these programs through the Guidance Department.

- Career Center -- used six periods per day, five days per week by all CTE students assigned
- OSHA-10 -- Every SHS CTE student becomes either OSHA 30 or OSHA 10 certified. This is an industry credential.
- Career-talent interest assessment -- Completed throughout the CTE students' lessons, with most of the assessment conducted during the exploratory process.
- Academic integration with Math and English Departments
- Resume writing support that assists students in gaining the necessary communication skills in every program
- College applications/preparation support
- Business: Entrepreneurship, personal finance, softs-skills, framework (140 students per week)

These non-chapter 74 programs and services address the following program strands:

- 4: Employability and Career Readiness Knowledge and Skills
- 5: Management and Entrepreneurship Knowledge and Skills
- 6: Technological Knowledge and Skills

II. How Curriculum is Delivered, Number of Periods per Academic Cycle, and Number of Students Participating in Program

Curriculum delivery:

- Grade 9: 4-periods per week
- Related theory: (classroom instruction)
- Grade 10: 1-period per week
- Grade 11: 2-periods per week
- Grade 12: 3-periods per week

Lab/Practical shop time:

- Grade 10: 3-periods per week
- Grade 11: 6-periods per week
- Grade 12: 9-periods per week

Center for Career and Technical Education (CTE) afterschool use:

- CTE-Safety committee – 30 students
- CTE-SKILLS USA – 30 students
- Culinary: Future chef's – 15 students

The number of students currently participating in each program is noted above under the "Current Offerings" (paragraph 4.2.14.A)

III. Proposed Changes and Why, or Statement that No Changes are Proposed

Chapter 74 Programs

Through research in employment trends and local data from the Regional Employment Board, the following two full programs would be proposed to be added to the currently existing menu of CTE programs once the new building is online to continue providing students with skills and expertise in growing industries.

- Plumbing
- HVAC

The Plumbing & HVAC programs were specifically selected as new additions due to the synergies that the two programs offer with respect to one another. Many of the same welding and pipe-fitting techniques that are taught in the Plumbing curriculum overlap with topics in the HVAC curriculum, and will allow for efficient construction of new space for both programs that leverages shared instructional areas for teaching these skills.

Furthermore, two of the existing programs are proposed to be supplemented with one dedicated classroom space each to allow for sub-specialty instruction. It is proposed that the existing Cosmetology program be supplemented by a Barbering sub-specialty, and that the existing Health Careers program be supplemented by sub-specialties in: Occupational Therapy Assistant, Physical Therapy Assistant, Geriatric Specialty, First Aid, CPR and EMT. The additional classroom space will allow for dedicated instruction alongside the existing Massachusetts CTE Frameworks, thereby increasing the capacity of the two programs with a very efficient and targeted use of additional space. On Wednesday June 1st 2016, a team of Somerville educators and the Advisory Chair met with members of the Department of Elementary and Secondary Education (DESE) to review the proposed Chapter 74 programming, for dialogue regarding the new program application process. The Somerville Public School team found this assistance useful, and specific suggestions resulting from that meeting have been incorporated into this revised Section 4 submission.

Lastly, the existing Information Support Services & Networking (ISSN) program is intended to be phased out by the time the new building is in place. This Advisory decision was arrived at from a review of placement data, IT industry trends as well as historic and current enrollment trends. The Advisory Committee noted that many of the skills being imparted to students through the ISSN program may be delivered as part of an integrated project-based curriculum.

STEM/STEAM Space / Fabrication Laboratory

Somerville was recently awarded grant funding to open a Fabrication Laboratory ("FAB LAB") in September 2016 in an underutilized section of the CTE wing of the high school. The opening of this Fab Lab provided Somerville High School with a "maker space" and lab to be used across all disciplines. Although currently housed in the CTE wing of the school, in the new school it is envisioned that the FAB LAB will be a hub of activity and will be located in an area where its value can be maximized by all departments. STEM and STEAM are also viewed as educational

concepts that will be embedded throughout a students' educational experience at Somerville High School, facilitated by adjacencies, targeted interdisciplinary work, and community partnerships.

Use of STEAM/STEM space within the school will be coordinated by the School Headmaster, working in partnership with Department heads and the CTE Director. The selection and design of the equipment and systems infrastructure for the FAB LAB will have flexibility as the primary guiding principle. Some equipment is currently being procured by the District for this program in the retro-fitted space in the CTE wing. Digital fabrication equipment such as 3D printers and laser cutters will be supplemented with traditional hand and power tools to create a robust maker environment. All current equipment procurement will be portable in nature, allowing resources from the retro-fitted space to be relocated to the space in the new high school upon its completion. The physical environment in the new school will be a combination of "dirty" and "clean" fabrication areas, supported by a flexible infrastructure of electrical power & lighting, portable exhaust systems, compressed air and water supply.

The equipment contained within the FAB LAB environment will require safety and operational protocols to be in place. Training on the proper and safe use of any equipment located in this space will be embedded into the curriculum and professional development plan for any discipline wishing to use the resource. The need for proper training in this space is no different than that which is required for use of a science lab or any of the CTE shop spaces. In fact, the comprehensive nature of the high school means that a culture of safe equipment usage is already integrated in the teaching and learning culture at Somerville High School, making the extension of these considerations into the FAB LAB environment a natural alignment. To support the culture of safety in the space, safeguards will be designed for acoustical and material safety with proper air quality and ventilation. Furthermore, proper floor clearances will be accounted for as part of the equipment layout design, and safety equipment such as automatic shut-off switches/valves and emergency showers/eyewashes will be provided.

The STEAM lab offers a wider distribution of project based learning principles to the broader student population at SHS. The lab combines the best of modern robotics, physics and art classroom spaces in one singular and central location. While the equipment is sophisticated it is less program specific and therefore inherently more flexible than the CTE shop spaces which are curriculum specific and dedicated throughout the day to students enrolled in the certificate programs. The lab is intended as an interdisciplinary environment where the arts, design and the creative process can be implemented in the physical realm through development of problem solving skills for real world application. It is intended that the lab will serve as a resource for projects requiring a longer duration and therefore cannot be contained in standard arts and science spaces being used for ongoing curriculum delivery.

A coordinated Professional Development schedule will be implemented to ensure that all teachers are familiar with STEM/STEAM principles and are able to incorporate STEM/STEAM-related project-based work into their daily educational practices. Overall, along with training on the safe and proper use of equipment, PD on integration of multi-disciplinary learning will be provided to ensure that all staff are prepared to most effectively utilize program adjacencies within the new school. An existing partnership with MIT for use of the Fab Lab will further support professional development of STEM/STEAM practices.

IV. Describe General Program Requirements Including Equipment, Practices, Safety Measures, Training, Partnerships and Support.

All 13 existing Chapter 74 approved shops have a complete list of equipment. Each of the 13 shops follows the Massachusetts State Frameworks in strands 1-6. Students must pass safety strand 1 and follow a program specific safety plan before proceeding to strands 2-6.

CTE – Program Area	***Certifications***	***Articulation Agreements***	***Partnerships***
Automotive Technology Chapter 74 approved	*ASE-Student, OSHA-10, Chapter 74*	*Universal Technical Institute, Ben Franklin Institute, Massachusetts Bay Community Colleges, New England Tech*	*Somerville DPW, Herb Chambers Motors, Valvoline*
Carpentry Chapter 74 approved	*OSHA-30, Chapter 74*	*Local 55 Apprenticeship Union, Local 22 Laborers Union, Massachusetts Bay Community Colleges, Bennett Street School, New England Tech*	*Assembly Row, Block 6, Somerville Housing Authority, Boston Closet*
Culinary Arts Chapter 74 approved	*Osha-10, serve-safe, Chapter 74*	*Massachusetts Bay Community Colleges, Johnson &Wales, New England Tech*	*Future Chef's, Tufts University, Many local restaurants*
Dental Assisting Chapter 74 approved	*Dental Assisting Association, OSHA-10, Infection Control, Chapter 74*	*Middlesex Community College*	*Tufts University, several local dentist offices*
Early Education and Care Chapter 74 approved	*OSHA -10, Mass EEC, Chapter 74*	*Massachusetts Bay Community Colleges, New England Tech*	*City of Somerville Public schools, k-8, Somerville YMCA*
Electrical Chapter 74 approved	*Osha-30, Chapter 74*	*Wentworth Tech, New England Tech, Ben Franklin Tech*	*Local 103, Gibbons Electric, Costas Hatzis Electric*
Graphic Design and Visual Communications Chapter 74 approved	*OSHA-10, Adobe, Chapter 74*	*Massachusetts Bay Community Colleges, Suffolk University, New England Tech, Ben Franklin Tech*	*City of Somerville,*

CTE – Program Area	***Certifications***	***Articulation Agreements***	***Partnerships***
Health Careers *Chapter 74 approved*	*CPR, First Aid,*	*Bunker Hill Community College, New England Tech,*	*Courtyard Nursing, Strongwater Farm, STAND-Students Taking Action On Nursing Diversity*
Information Support Services and Networking ISSN *Chapter 74 approved*	*CISCO – Academy, OSHA-10, Chapter 74*	*Massachusetts Bay Community Colleges, New England Tech,*	*City of Somerville,*
Machine Technology *Chapter 74 approved*	*MAC-WIC, OSHA10, Chapter 74,*	*Massachusetts Bay Community Colleges, New England Tech, Ben Franklin Tech*	*Gillette, Greentown Labs, Dale Engineering, Lytron Inc,*
Metal Fabrication and Welding	*OSHA-10, Chapter 74*	*Local 7, Local 17, Local 22, New England Tech, Ben Franklin Tech*	*Local 7, Assembly Row*
Architectural Design/Drafting *Chapter 74 approved*	*OSHA-10, CAD, Solidworks*	*New England Tech, Ben Franklin Tech, Massachusetts Bay Community Colleges, Wentworth Tech*	*Gale Associates*
Cosmetology *Chapter 74 approved*	*OSHA-10, Massachusetts State Cosmetology License, Chapter 74*	*Massachusetts Bay Community Colleges*	*Christina's, Michael's on Newbury, Supercuts, Sportclips*

Additional program-specific requirements include the following:

- Health Careers - Grade 12 - Required for the Certified Nursing Assistant CNA license
    - Internships with Courtyard Nursing in Medford on Monday and Thursdays for 3-periods
    - City of Somerville, working with school nurses on Fridays, 3-periods
- Early Education and Care - Grade 12 - Required for EEC credential license
    - Internship with City of Somerville elementary schools, 9-periods per week
- Dental Assisting - Grade 12 - Required for Dental chair and XRAY licenses
    - Internship at Tufts University School of Dentistry in Boston on Fridays, 3-periods

  - Internship with local dentist one day per week, 3-periods
- Co-operative education: Several programs, averaging around 10 students

C. Chapter 74 Programming

I. Existing Programming, Current Enrollment, and Capacity per Program

An aggressive five-year recruiting plan is in effect and has produced positive results in increased enrollment in various CTE programs. An annual Career and Technology Fair with authentic interaction has resulted in, and continues to produce increasing enrollment in CTE programs.

During Exploratory, Somerville High School students explore all CTE shops and spend one period of each cycle being assessed for talent and interest. Students follow a specific exploratory outline that includes safety, talent and interest assessment, hands-on competencies, career opportunities, and reflective writing and shadowing. Each student explores for four periods per week, from September to June, for a total of 144 hours.

A scope and sequence plan is designed for all 14 CTE programs. Each program varies, but the basic requirements for a chapter 74 certificate include passing all 3 years of 75% or better in 80% of the priority 1, 2 and 3 competencies in strands 1-6, OSHA-10 certification, completion of the business course, and secondary certification where applicable. Capacity is based upon existing square footage.

- Advanced Manufacturing (current enrollment 10; capacity 40)
- Automotive (current enrollment 41; capacity 60)
- Architectural Design/Drafting (current enrollment 14; capacity 40)
- Carpentry – (current enrollment 39; capacity 60)
- Cosmetology – (current enrollment 31; capacity 50)
- Culinary Arts – (current enrollment 41; capacity 60)
- Dental Assisting – (current enrollment 13; capacity 60)
- Early Education and Care – (current enrollment 22; capacity 40)
- Electrical – (current enrollment 35; capacity 50)
- Graphic Design and Visual Communications – (current enrollment 24; capacity 50)
- Health Careers – (current enrollment 34; capacity 50)
- Information Support Services and Networking – (current enrollment 25; capacity 40)
- Metal Fabrication/Welding – (current enrollment 30; capacity 50) – need additional teacher for capacity
- Exploratory, grade 9: (current enrollment 186; capacity 250)

II. If the District is maintaining the Same Curriculum and Offerings a Statement Confirming the District's Intentions.

Somerville High School will maintain 13 of its existing 14 Chapter 74 programs with curriculum aligned with the Massachusetts State Frameworks. The SHS Center for Career and Technical Education has also proposed the addition of two new CTE programs when the new building comes online.

For further documentation associated with the existing and proposed Chapter 74 programs, refer to the attached Chapter 74 Programming Submission located at the end of this Section.

III. Schedule of Implementation for the Proposed Programming Regarding Staffing, Curriculum Development and Project Program Enrollment from Start to Full Implementation.

The proposed addition of the new CTE programs has followed the DESE application process, including the completion of Sections 1, 2 & 8 of the application. Sections 1, 2 & 8 were submitted to the MSBA and DESE on Monday May 9, 2016. These specific sections of the application address the schedule of implementation for the proposed program staffing, curriculum development and program enrollment – as well as the associated budget implications. The submission process included input from the General Advisory Committee with membership from the Regional Employment Board, post-secondary partners, community members, students, parents and industry. Individual Program Advisory Committees (PAC) have been set-up and involved in the application process. On Monday January 25, 2016 the City of Somerville School Committee also voted unanimously for the implementation of the two new programs.

The DESE application process will continue to be followed throughout the transition period leading up to the new building. For the two new programs (Plumbing & HVAC), DESE will review the new facilities once the space housing the programs is fully constructed. For new programs, these site visits are typically performed in the month of October, with full approval for the new program being granted the following April. The project team will coordinate with DESE to target necessary approvals in conjunction with the overall project phasing. For existing Chapter 74 programs that are being relocated into new spaces, a similar site visit of the finished space is required to complete the application process, however the timetable for reviews of existing Chapter 74 programs is typically more flexible. Here again, communication with DESE will be ongoing to coordinate the necessary approvals with the target occupancy date(s) for the project.

The Chapter 74 vocational curriculum is a driving and sustaining force in the SHS culture- the opportunity to strengthen its cross curricular benefits and enhance the educational opportunities for all students in the school is a prime benefit of the preferred option as submitted. Many programs will now be connected to academic based and college track course of studies where inter-disciplinary operations can be more seamlessly enabled. The final distribution and layout of the spaces will be detailed in the schematic design phase.

4.2.15 Narrative Description of the Types of Educational Activities Intended For Core Academic Spaces over the Course of a Typical School Day

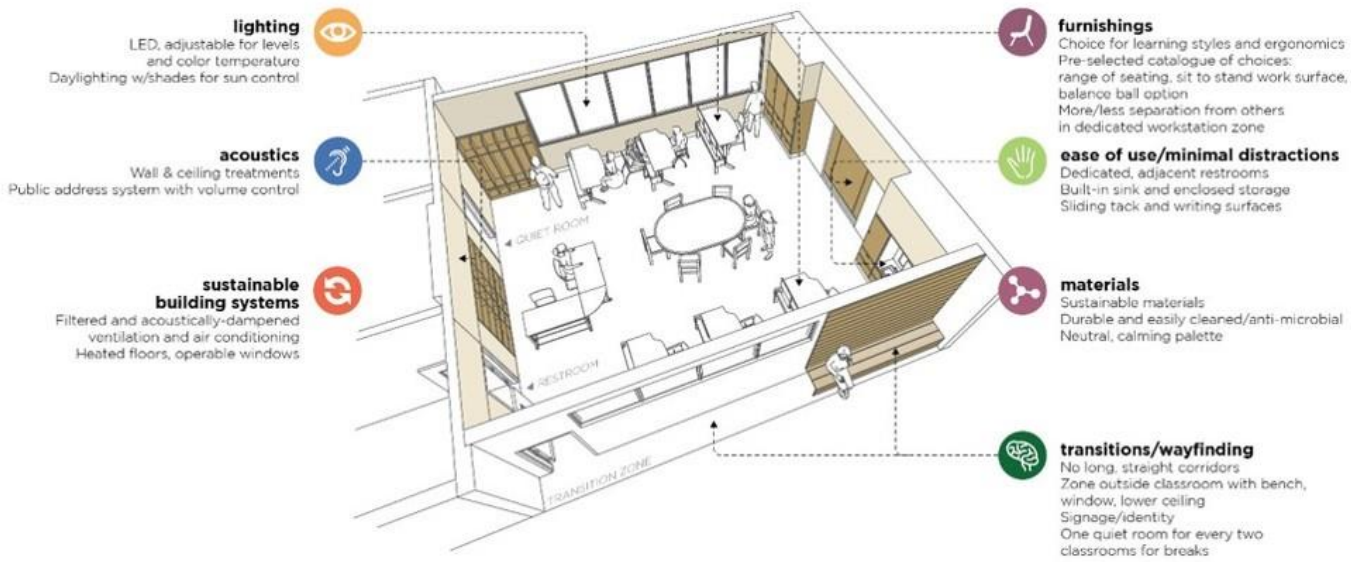
A. (Narrative description of core academic educational activities intended inside the general classrooms include how the activities support delivery of the educational program)

The SHS academic curriculum will help students master core academic content as well as develop important 21st century skills including creative and critical thinking, communication, technology and media literacy, collaboration, and leadership. In order to help students develop engagement with their community, opportunities for authentic, relevant, real-world learning experiences should be woven into all core classes. Building a strong community within each classroom will allow students and teachers to consistently collaborate, take risks, and make connections to the real world. Thus, it is important that classrooms are warm, bright, and inviting, instead of impersonal and institutional.

Lessons delivered in classrooms will be student-centered and engage students in tasks that involve collaboration, problem solving, and application of knowledge. As a result, instructional practices will change frequently throughout class. At the start of class, a teacher may demonstrate a concept or skill by using direct instruction or flip the experience by using an online, blended model. During this time, the teacher or projection is the focus of the lesson and the configuration of the class reflects that. Then, the teacher differentiates and personalizes learning by splitting the class into pairs and/or small groups. The furniture shifts quickly. Students collaborate and they explore the task by sitting in small groups with their peers. Other students stand and move around to write on paper or boards located on the walls, some students utilize technology, and other students move into centers or zones and explore personalized learning stations. Once again, the furniture shifts. The students continue to collaborate, take initiative, and dig deep into their learning. At the end of class, the teacher brings the class back together for a whole class debrief and the space shifts once again. Flexibility and adaptability within the classroom are key, and ample space is needed in the room to allow for multiple configurations throughout a lesson and the course of the day.

The SHS curriculum contains a variety of assessments that require students to showcase their learning, growth, and mastery. The end of the unit assessments are relevant, robust and complex and vary by student readiness, interests, and learning style. Students write papers and reports, perform scenes and skits in class, participate in debates and simulations, create projects, and present orally or by using multimedia in front of their peers. Additionally, in math and science, students work collaboratively to conduct experiments, use manipulatives to explain abstract concepts, create projects, solve problems, and complete activities using technology including graphing calculators, computers, iPads, and lab probeware. In order for students to participate in authentic learning experiences and project based assessments, classrooms need longer tables and standing-height tables so that students can work on inventive, real world projects and products. Once again, flexibility, mobility, and adaptability of a space for all disciplines is essential to practice and hone 21st century skills and learning.

In all classrooms, technology must be integral to teaching and learning. Access to technology throughout class is crucial and there should not be access barriers for either students or teachers. The ability to store and charge devices in every classroom plays an essential role in the seamless integration of technology.



Classroom furniture needs to be adaptable, flexible, and mobile. The furniture should include student desks that can move easily and configure into multiple groupings that will allow for scaffolding and differentiated instruction. When differentiating, the teacher will work one-on-one with a student or with a small group while the other groups are engaged and applying their knowledge. Ample space to work independently without disruption from other groups is essential for students. In order to accommodate group work, centers/zones, projects, individualized instruction and small group re-teaching, the room should be large enough so that students and teachers are not in close proximity. Classrooms need to be large enough to accommodate flexible grouping for large classes.

Currently, many teachers have limited space in the classroom and do not have multiple areas to collect and anchor ideas in their rooms on whiteboards, large post-its, etc. When teachers and students are collaborating or presenting their work, multiple large writing spaces on the wall are needed. Especially if classrooms are going to be shared by multiple teachers, there needs to be ample wall space so that student thinking such as anchor charts can be displayed throughout units and ample storage space including multiple teacher desks to accommodate the needs of at least two teachers. This is in addition to a central location where work is projected from a computer or device.

B. Narrative description of core academic educational activities intended outside of the general classrooms (including outdoor learning area)

I. (Include Spaces Needed to Support that Activity, how the Activities Support Delivery of the Educational Program, how the Spaces would be Used by Students and Scheduled and Monitored by Staff, and Desired Spatial Relationships and Adjacencies.)

In an ideal educational environment, learning should be happening in all areas of the school building, not just inside the four walls of a classroom. All building spaces should be utilized as learning environments, including presentation/lecture halls, the auditorium, hallways, common spaces, the cafeteria, and outdoor spaces.

Teachers consistently collaborate and want to combine classes to teach and support their students. In order to do so, a space that accommodates at least two classes (40 or more students) is necessary. A larger space (100 or more students) is also needed to accommodate student presentations, exhibitions, performances, and guest speakers. Because of our desire for students to connect the curriculum to the real world, we frequently bring in guest speakers; we have brought in multiple speakers to one event and have had students choose which speaker they would like to hear. These types of events are powerful, but require multiple medium to large spaces that can comfortably accommodate 150-200 students. In addition, a formal presentation space will be used for authentic assessment experiences in which students could make presentations and defend their work to larger groups and members of the community. Multiple spaces that can accommodate medium to large groups would allow us to expand our connection to the community.

Hallways and common spaces throughout the school can become places to inspire learning and creativity. Exhibition spaces in the hallways are necessary to showcase student work and 2-D and 3-D projects and common spaces can be utilized for collaborative work both during and outside of class time. Students who would like a small nook or “quiet” space to reflect on their own learning or complete a self-directed learning task should be able to find multiple spaces to do so throughout the building. Sufficient transparency should be provided to allow for views in and out of classrooms so that teachers can monitor students as they work independently and in small groups when outside of, but in close proximity of classrooms. Blinds can be provided to block these views when desired.

The Somerville High School cafeteria should be a place where students can not only enjoy a nutritious meal and re-energize for the day, but also a place where students can comfortably connect and interact in a space that inspires community-building and continuous learning. Students may choose to continue working on their studies in an Internet café-style environment, or sit with a peer group to work collaboratively on a project during a “working lunch.” Ideally, the design/layout of the space would be more like college-style dining with multiple seating and environment options.

Currently, we have very little outdoor spaces for students. Outdoor spaces could be used for multiple functions including biological and environmental studies and data

collection, physical education and athletic teams, and as a common space for classes or student groups to meet throughout the school day.

Desired site adjacencies to consider include locating spaces utilized for external out-of-school-time programming -- such as the gymnasium, auditorium, and cafeteria -- together to limit access only to those areas during non-school hours and to facilitate non-school related usage, security, and scheduling.

4.2.16 Transportation Policies

A. Current services and practices

Students generally walk, take public transportation, or are driven to and from school. Transportation to and from the high school is provided by the district only to students in homeless situations who are living outside the district and to special education students who have transportation services required in their Individual Educational Plan.

Transportation services for homeless students is provided by small van or cab, and arranged by the District Homeless Liaison. The number of homeless students attending Somerville High School varies throughout the year. Large yellow school buses are chartered for athletic events and field trips throughout the year. In addition, the school department owns two activity buses and several vans that are parked at the high school and are used for day or evening events.

B. Proposed changes and why, or statement that no changes are proposed

While no changes to the current transportation policies are proposed, it's important to note that the proposed Green Line extension will have some impact particularly on foot traffic in the area. The Green Line extension does include plans for a station at Gilman Square that would likely result in increased foot traffic coming up the hill from Medford Street, an important consideration in foot and auto traffic flow design around the building.

4.2.17 Functional and Spatial Relationships

A. List and describe desired educational adjacencies and why

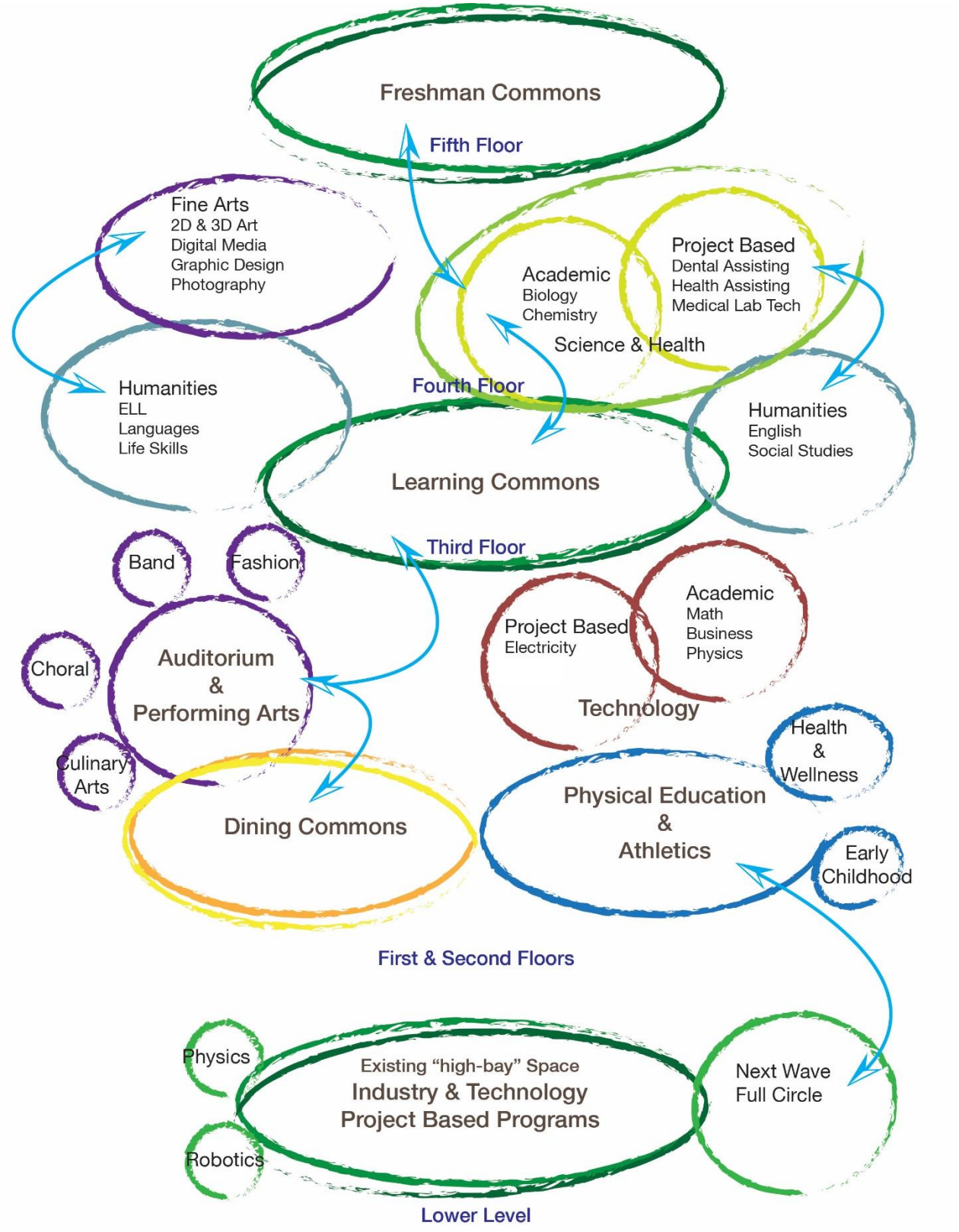
The new building should be designed in such a way that the designation of most academic classrooms, offices, and other spaces can be changed over time to accommodate important programmatic changes that may be needed, and to ensure the most efficient utilization of learning spaces. That being said, there are some programs with specific needs and requirements that may be more locked into a specific location once the building layout is created. This includes science and engineering labs/workshops, art rooms, and Career and Technical Education (CTE) spaces.

In terms of proximity and adjacencies, we would like to see greater integration of the science, math, and CTE departments, perhaps forming a STEM suite or wing within the building. Additional consideration should be given to the possibility of incorporating Arts into this complement of educational adjacencies to support

STEAM programming. The biology and life-science based classes could benefit from being able to work more closely with Health Careers and Health and Physical Education programming, the chemistry classes could benefit from being able to work more closely with Culinary Arts, and the physics and engineering classes would benefit from being able to work more closely with Pre-Engineering/CAD, Machine Shop, and Metal Fabrication. Additionally, there could be great collaboration between math and science teachers if the classroom spaces were situated closer to one another. For example, natural partnerships include AP Physics with AP Calculus and AP Biology with AP Statistics. Being able to form meaningful interdisciplinary relationships is not only impacted by the physical space and proximity but also by the schedule and administrative support for teacher collaboration.

To further the integration, another potential use of taking advantage of the proximity and adjacencies could be the creation of a Humanities or Creativity Wing where English Language Arts, World Languages, Social Studies could collaborate with Culinary Arts, Graphic Communications and Visual Design, Music and Arts. Interdisciplinary projects and opportunities for hands on learning would flourish in these non-traditionally linked areas.

Our current building is organized by a single excessively long corridor which results in a remarkable amount of time to get from one end of the building to the other. We hope that the layout of the new building will allow for more proximities by utilizing a configuration other than a straight line. This new organization will foster closer academic relationships via commonalities, themes and connectedness.


Freshman Commons
Fifth Floor
Fine Arts
2D & 3D Art
Digital Media
Graphic Design
Photography
Academic
Biology
Chemistry
Project Based
Dental Assisting
Health Assisting
Medical Lab Tech
Science & Health
Humanities
ELL
Languages
Life Skills
Fourth Floor
Humanities
English
Social Studies
Learning Commons
Third Floor
Band
Fashion
Choral
Auditorium
&
Performing Arts
Culinary Arts
Project Based
Electricity
Academic
Math
Business
Physics
Technology
Health
&
Wellness
Physical Education
&
Athletics
Early
Childhood
Dining Commons
First & Second Floors
Physics
Existing "high-bay" Space
Industry & Technology
Project Based Programs
Robotics
Next Wave
Full Circle
Lower Level

B. List and describe desired site adjacencies and why

Desired site adjacencies to consider include locating spaces utilized for external out-of-school-time programming -- such as the gymnasium, auditorium, and cafeteria -- together to limit access only to those areas during non-school hours and to facilitate non-school related usage, security, and scheduling. Common areas should allow for independent and separate access by the two distinct educational programs that will be housed at the high school – the Next Wave/Full Circle special education/alternative education programs serving students in grades 6-12, and the existing SHS comprehensive program for students in grades 9-12 – to facilitate transitions by both programs during the school day and to provide equitable access opportunities.

Locating the Student Support Suite close to the Nurses' station will further assist in providing students with all the wraparound services they need. These facilities should be located on the main floor for easy access by all students as well as emergency medical personnel.

As noted under desired educational adjacencies, interdisciplinary and project learning opportunities can be greatly enhanced through site adjacencies of academic and CTE programs that support STEM or STEAM programming, or potential Humanities programming.

Additional desired site adjacencies include locating physical education and health classrooms adjacent to the multi-functional health lab, which will promote and facilitate increased use of all physical education/health spaces. In addition, having classrooms adjacent to the fitness room and gym will allow staff to provide hands on practical instruction. The design would also need to allow for the ability to section off the fitness room and gymnasium for weekend use during after-school hours and weekend hours.

The Preferred Design allows for all Physical Education spaces to be connected together on one contiguous floor for safety and security and ease of program support both during the school day and for Athletic programs and community use/access afterhours.

4.2.18 Security and Visual Access Requirements

The Preferred Design reinforces the security and visual access established by the Educational Program by creating a clear front door to the building off Highland Avenue distinct from the adjacent City Hall and Library. This secure single point of entry is immediately adjacent to administration and will have greater visibility than the existing building. Emergency exit doors will include door contacts to monitor security. The layout provides greater opportunity for securing sections of the building after hours while the greater community is accessing the public spaces such as the auditorium and commons. A priority for the administration, the internal flow through the school is organized to remove dead-end and long corridors through a vertically stacked program with adult supervision on all levels and to minimize life safety and security concerns.

A. Describe the local process for the collaboration, coordination, and review required to update emergency response plans for the proposed school and to establish physical and operational requirements regarding security and access for the proposed project

The process for coordinating, reviewing and updating SHS emergency response plans and to establish physical and operational requirements regarding security and access involves working collaboratively throughout the year with the following City and community partner agencies:

- Somerville Police Department (SPD): Superior Officers, Emergency Preparedness Consultant & Cyber Forensics
- Somerville Fire Department (SFD)
- Be Safe Consultants
- Somerville Health & Human Services
- Riverside Health
- Cambridge Health Alliance

Our District Emergency Response Plan (Manual) is reviewed annually by SPD and SFD assigned Superior Officers. The process also includes multiple district reviews by SPD, SFD, and Somerville Public Schools (SPS), coordinated by the district's Student Services Department.

SPS will work with the building project Safety Consultant throughout the project, and will consult with both SPD and SFD via a security analysis in regards to camera surveillance, and security entrances and exits to establish physical and operational requirements for the proposed project. SPD, SFD and the City's Department of Public Works responsible for building maintenance meet as needed to assess building safety concerns.

B. Indicate the date of the most recent medical emergency response plan that was submitted to these

The Somerville High School Medical Emergency Response Plan was submitted 1/2016.

C. Describe the physical and operational requirements

(e.g. main entrance design and how it is to function/be managed, classroom and hardware features, visibility, alternative entries, surveillance and lines of sight etc.)

With respect to physical and operational requirements, the new Somerville High School design must address both the educational mission of the school as well as the safety and security needs for an intensively –used, public building situated in a very dense urban environment.

Regarding interior security, best practice in design to make visible and easily monitored spaces, including the strategic use of glass walls, is desired. Student

meeting spaces, sited adjacent to staffed office space, is one example of this approach.

Exterior considerations and the perimeter of the building must consider the urban environment of Somerville. Entry doorways should be kept to a minimum. The main entry space should allow for good sight lines and supervision from the Main Office or some similar space that is staffed throughout the day. Video monitoring is also needed, to be accessed by appropriate staff inside. Physical obstructions should be avoided in areas adjacent to the school perimeter in order to provide best monitoring.

Additional physical and operation requirements include:

- Bus and car drop-off areas with safe pedestrian walkways and minimal crossings on-site. Emergency vehicle access must be considered. Consideration should be given to access to public transportation access (bus and/or light rail).
- State of the art access control utilizing a security access fob device by authorized staff.
- Safe pathways for pedestrians and bicyclists coming from multiple directions. Bicycle parking adjacent to school's main entrance.
- Safe staff and visitor parking (visible, lighted and monitored)
- Safe access for kitchen, facility and shipping / receiving separate from school traffic to the main entrance.
- Safe and appropriate access to the perimeter of the building and to adjacent buildings and other public spaces near the High School.
- Separate external building entrance for Next Wave/Full Circle that contains the same security/access features as the school's primary main entrance.
- Separate external building entrance proposed for therapeutic classroom

Next Wave & Full Circle Programs

The preferred design provides a viable and equitable environment for the 42 year old Next Wave Junior High School & Full Circle High School, two "Substantially Separate/Alternative" School programs in a therapeutic setting for students whose academic experience is not capable of being fulfilled in a large "standard" school environment. First conceived as an isolated program wherever space was available in the city and serving students from 6th grade through graduation this program benefits from its separation and individualized approach to learning for each student's IEP. The successful program also best serves students when they can utilize appropriate physical and service aspects of the larger high school environment such as PE, athletic teams, and vocational training. Currently students are transported to the high school over a mile away to achieve this equitable access to 21st Century academic and career training. The new space will provide a separate environment with its own controlled access points, classrooms, student support services and dining and toilet facilities. Some students are on flexible schedules to support their individual academic and social needs.

The Next Wave 6th through 8th grade students generally are "aging" out of traditional middle school environments and need to associate with their older peers in the high school grade levels – peer mentoring and long term relationships with adults is also a critical component of maintaining a 6 to 12 grade structure as currently defined.

Chapter 74 Programming

The Chapter 74 programming submission that was included at the conclusion of the PDP Educational Program remains in effect. Updates to the submission include:

- ***On Monday April 11, 2016 the School Committee met to approve the continuation of the existing Chapter 74 programs and the addition of four new Chapter 74 program offerings. The certified School Committee meeting minutes indicating the unanimous vote of support is attached at the end of this Section for reference.***
- ***On Wednesday June 1, 2016, members of the educational leadership team from Somerville Public Schools met with DESE to review the proposed Chapter 74 programming for Somerville High School. The outcome of this discussion is represented in the edits incorporated in this 6/8/16 revised Section 4.***
- ***The deficiencies noted in the PDP submission for the existing Chapter 74 spaces will be addressed as part of the design of Alternative 4B. In***

the preferred solution, almost 75% of the school will be built as new addition construction, providing the opportunity to build new shop and support spaces that are tailored to each program's needs and associated DESE requirements. For those Chapter 74 spaces that are proposed in renovated space below the gymnasium and the auditorium, interior space will be completely reconfigured on par with new construction. Existing systems will be replaced to support modern programming, and compromised access issues will be addressed.

4.3 Preferred Solution Space Summary

The Space Summary for the Preferred Alternative 4B is an updated version of the addition/ renovation summary previously submitted in the PDP. This revised Space Summary was developed as a result of ongoing discussions between the District, DESE, the SBC and the Office of the Mayor. The goal was to capture all of the program space required to meet the educational vision and planning conducted over the course of the last year. The district is committed to delivering high quality educational spaces for all of the programs listed in the Space Summary – however the costs associated with constructing such a large school in today's economic climate and with input from the budgeting office of the City the SBC and the district have committed to reduce the building footprint and gross building area during SD phase of design, the goal will be to maintain all programs but seek out shared or slightly smaller resources where possible. The attached Space Summary for the Alternative 4B represents slightly higher than 1.5 Net to Gross multiplier due to four factors: Existing building inefficiencies, high rise construction required due to severely restricted space constraints, hillside construction and sloped site stepped foundations and buildings, and building around existing structures in multiple phases of construction.

Responses to the MSBA PDP review are attached in Section 1.6

The Preferred Alternative 4B as attached was approved by the Building Committee on May 23rd, 2016 and reaffirmed on May 26th, 2016 with the exception of a vote to reduce the overall NSF by 15,000 square feet during schematic design. And to strive to meet a minimum 1.55 Net to Gross multiplier given all of the site constraints. A summary of the changes between the 4B options from PDP to PSR are outlined below.

4.4 Variations from PDP initial space summary MSBA review comments

Core Academic Spaces:

The Space Summary is indicating a total of 65,966 NSF for the preferred solution, as compared to a total of 69,580 NSF that was reviewed in the initial space summary. This is attributable to the following:

General Classrooms, ESL Classrooms and Teacher Planning Rooms: Reduce area of each room from 850 NSF to 825 NSF (-1,250 NSF total) – Reduced to comply with the MSBA minimum class size.

Small Group Seminar: Reduce area from 425 NSF to 412 NSF for each room (-464 NSF total) – Reduced to match the revised typical classroom size for modular planning purposes. Quantity was also reduced from 4 to 3, as a formula error was identified in the MSBA guideline quantity for these spaces, as the formula was referencing the total student population in lieu of the intended FTE student population.

Large Group Instruction: Reduce area from 1,800 NSF to 0 NSF, as this space was shifted to the non-Chapter 74 Vocations & Technology category – See associated description of change to Vocations & Technology below.

Lecture Hall/Mini-Theater: Reduce area from 2,600 NSF to 2,500 NSF (-100 NSF total) – Where possible the district is committed to simplification of the net areas to allow for cost control.

Special Education – SHS Spaces:

The Space Summary is indicating a total of 11,116 NSF for the preferred solution, as compared to a total of 11,445 NSF that was reviewed in the initial space summary. This is attributable to the following:

Life Skills Classroom: Reduce area from 1,500 NSF to 1,390 NSF (-110 NSF total) – Where possible the district is committed to simplification of the net areas to allow for cost control. Reduced to match the size of a successful life skills suite based on prior project experience.

ASD Classrooms w/ Breakout: Reduce area from 850 NSF to 825 NSF for each room (-50 NSF total) – Reduced to match the revised typical classroom size for modular planning purposes.

Study Skills Classroom, Therapeutic Classroom, PT/OT/Speech Sensory Room, Transition Skills Classroom, Resource Rooms & Small Group Rooms: Reduce area from 425 NSF to 412 NSF for each room (-169 NSF total) – Reduced to match the revised typical half-classroom size for modular planning purposes.

Special Education – Next Wave / Full Circle Spaces:

The Space Summary is indicating a total of 8,068 NSF for the preferred solution, as compared to a total of 8,514 NSF that was reviewed in the initial space summary. This is attributable to the following:

Next Wave and Full Circle Classrooms: Reduce area from 425 NSF to 412 NSF for each room (-156 NSF total) – Reduced to match the revised typical half-classroom size for modular planning purposes.

NWFC Conference Room: Reduce area from 425 NSF to 400 NSF (-25 NSF) – Where possible the district is committed to simplification of the net areas to allow for cost control.

NWFC Commons: Reduce area from 425 NSF to 400 NSF (-25 NSF) – Where possible the district is committed to simplification of the net areas to allow for cost control.

Self-Contained SPED Toilet: Reduce quantity from 8 to 4 (-240 NSF) – The number of self-contained SPED Toilet rooms was mis-allocated to NWFC as part of the PDP submission.

Art & Music:

The Space Summary is indicating a total of 9,462 NSF for the preferred solution, as compared to a total of 11,120 NSF that was reviewed in the initial space summary. This is attributable to the following:

Art Classroom and Art Computer Lab: Reduce area from 1,440 NSF to 1,200 NSF for each room (-720 NSF total) – Now meeting the MSBA suggested area.

Art Workroom w/ Storage & Kiln: Increase area from 100 NSF to 200 NSF for each room (+200 NSF total) – size of spaces increased to partially compensate for the overall art classroom size reduction.

Photography / Dark Room: Reduce area from 1,000 NSF to 412 NSF (-588 NSF) – Reduced to match the revised typical half-classroom size for modular planning purposes.

Orchestra: Reduce area from 2,250 NSF to 1,500 NSF (-750 NSF) – Now meeting the MSBA suggested area for a music room.

Ensemble: Reduce quantity of small ensemble rooms to 0 (-200 NSF) – SHS staff identified that small ensemble practice activities could happen in the remaining suite of music spaces being planned.

Music Storage: Increased quantity of music storage rooms from 0 to 2 at 200 NSF each (+ 400 NSF total) – a quantity of music storage spaces was reintroduced to the space summary to partially compensate for the Orchestra Room space reduction.

Vocations and Technology

The Space Summary is indicating a total of 52,515 NSF for the preferred solution, as compared to a total of 49,335 NSF that was reviewed in the initial space summary. This is attributable to the following:

Barbering: Reduce area from 1,875 NSF to 0 NSF – See associated description of change to Cosmetology.

Cosmetology: Increase area from 2,500 NSF to 3,300 NSF (+ 800 NSF) – The designation of the Barbering program has been modified following SPS discussion with DESE. The Barbering program will now become a sub-specialty program within Cosmetology. The added area will permit the creation of a dedicated Barbering classroom within the Cosmetology suite of shop spaces.

Culinary Arts: Reduce number of rooms from 2 to 1 whilst maintaining the 6,250 NSF – The design intent of the preferred solution is to locate the Culinary Arts program in a portion of the school that will be built as new construction, whereas a combined renovation/addition approach was envisioned for the PDP submission, resulting in the prior quantity of 2 rooms.

Drafting: Increase area from 2,000 NSF to 2,200 NSF – Now meeting the DESE minimum shop area requirement.

Early Education and Care: Increase area from 1,500 NSF to 3,260 NSF (+1760 NSF) – This important Chapter 74 career education program requires the adjacency of an active daycare classroom for 2.5 to 4 year-olds to meet its mission and objectives of its curriculum.

Electricity: Reduce area from 4,540 NSF to 4,000 NSF (-540 NSF) – Where possible the district is committed to simplification of the net areas to allow for cost control and program fulfillment across all disciplines.

Health Assisting: Increase area from 2,400 NSF to 3,200 NSF (+ 800 NSF) – The designation of the Medical Laboratory Technology program has been modified following SPS discussion with DESE. The Medical Laboratory Technology program will now become a series of sub-specialty programs within Health Assisting. The added area will permit the creation of a dedicated sub-specialty classroom within the Health Assisting suite of shop spaces.

HVAC: Reduce area from 4,500 NSF to 4,000 NSF (-500 NSF) – Where possible the district is committed to simplification of the net areas to allow for cost control and program fulfillment across all disciplines.

ISSN: Eliminate program, resulting in an area reduction of 2,200 NSF – After careful consideration concerning the historic and current enrollment of the program, as well as the direction in which the school would like to move the program, the District has decided to phase out this existing Chapter 74 program.

Machine Tool Technology: Reduce area from 3,400 NSF to 3,000 NSF (-400 NSF) – Where possible the district is committed to simplification of the net areas to allow for cost control and program fulfillment across all disciplines.

Medical Laboratory Technology: Reduce area from 2,400 NSF to 0 NSF – See associated description of change to Health Assisting.

Metal Fabrication & Joining Technologies: Reduce area from 4,000 NSF to 3,000 NSF (-1,000 NSF) – Where possible the district is committed to simplification of the net areas to allow for cost control and program fulfillment across all disciplines.

Plumbing: Reduce area from 2,500 NSF to 2,250 NSF (-250 NSF) – Where possible the district is committed to simplification of the net areas to allow for cost control and program fulfillment across all disciplines.

Vocations and Technology – Non-Chapter 74

The Space Summary is indicating a total of 9,825 NSF for the preferred solution, as compared to a total of 8,250 NSF that was reviewed in the initial space summary. This is attributable to the following:

Large Group Instruction: Area was moved from Core Academic to Non-Chapter 74 Vocations and Technology category. This space will support the interdisciplinary goals of the District in a technology rich environment, characteristics that make it appropriate for inclusion in this space category (+1,800 NSF)

TV Studio Control Booth: Reduce area from 200 NSF to 0 NSF (-200 NSF) – Eliminated the dedicated control booth. The TV/Media Computer Lab will be placed adjacent to the Broadcast Studio and given a control window facing the studio, allowing for control activities to occur from within the lab.

Technical Career Resource Center: Area was reduced from 850 NSF to 825 NSF (-25 NSF) - Reduced to match the revised typical classroom size for modular planning purposes.

Health & Physical Education

The Space Summary is indicating a total of 39,829 NSF for the preferred solution, as compared to a total of 32,050 NSF that was reviewed in the initial space summary. This is attributable to the following:

Addition Renovation Solution vs. New Construction Solution: The MSBA PDP review comments were based upon an analysis of the New Construction space summary. Due to the fact that the preferred solution is an Addition Renovation scenario, several of the review comments needed to be adapted to the Addition Renovation space summary.

Athletic Director's Office: Reduce area from 300 NSF to 150 NSF (-150 NSF) – Now meeting the MSBA suggested total.

Media Center

There are no variations in the Space Summary for the preferred solution as compared to the MSBA PDP review comments.

Auditorium / Drama

There are no variations in the Space Summary for the preferred solution as compared to the MSBA PDP review comments.

Dining & Food Service

The Space Summary is indicating a total of 11,935 NSF for the preferred solution, as compared to a total of 12,138 NSF that was reviewed in the initial space summary. This is attributable to the following:

Chair / Table Storage: Reduce area from 500 NSF to 400 NSF (-100 NSF) – Where possible the district is committed to simplification of the net areas to allow for cost control.

Kitchen: Reduce area from 2,890 NSF to 2,815 NSF (-75 NSF) – The reduction in the size of this space was due to a reduction in the calculated FTE academic student population from 1410 students to 1387 students, as reviewed and agreed to by the MSBA.

Staff Lunch Room: Reduce area from 648 NSF to 620 NSF (-28 NSF) – Where possible the district is committed to simplification of the net areas to allow for cost control.

Medical

There are no variations in the Space Summary for the preferred solution as compared to the MSBA PDP review comments.

Administration & Guidance

The Space Summary is indicating a total of 10,922 NSF for the preferred solution, as compared to a total of 11,720 NSF that was reviewed in the initial space summary. This is attributable to the following:

General Office / Waiting Room / Guidance: Reduce area from 1,000 NSF to 700 NSF (-300 NSF) – Where possible the district is committed to simplification of the net areas to allow for cost control.

Records Room: Increase area from 168 NSF to 200 NSF (+32 SF) – Now meeting the MSBA suggested total.

Principal's Office with Conference Area: Increase area from 262 NSF to 375 NSF (+113 NSF) – Now meeting the MSBA suggested total.

Supervisory / Spare Office: Reduce area from 1,300 NSF to 1,000 NSF (-300 NSF) – Where possible the district is committed to simplification of the net areas to allow for cost control.

House Master's Suites and CTE Director Office Suite: Increase each area from 800 NSF to 825 NSF (+125 NSF total) – Increased to match the revised typical classroom size for modular planning purposes.

Guidance Office with HM Suite – (TBD) Increase area from 0 NSF to 300 NSF (+300 NSF) – The need for dedicated guidance offices outside the HM Suites were noted as part of additional programming discussions with the District.

Guidance Waiting Room: Reduce area from 527 NSF to 100 SF (-427 NSF) – Now meeting the MSBA suggested total.

Guidance Storeroom: Increase area from 35 NSF to 100 NSF (+65 NSF) – Now meeting the MSBA suggested total.

Teacher's Work Room: Reduce area from 850 NSF to 412 NSF (-438 NSF) – Where possible the district is committed to simplification of the net areas to allow for cost control.

Mediation Office: Reduce area from 222 NSF to 200 NSF (-22 SF) – An important and successful peer to peer program at SHS – this is space that is currently existing at the high school and is required to maintain the program.

Welcome Center (ELL): Increase area from 1,146 NSF to 1,200 NSF (+54 SF) – Somerville is a City of many first time immigrant families with over a dozen languages spoken within the school community. The Welcome Center is critical to the mission of meeting all of the citizens of Somerville's access and equity needs for their children.

Custodial and Maintenance

The Space Summary is indicating a total of 2,418 NSF for the preferred solution, as compared to a total of 3,062 NSF that was reviewed in the initial space summary. This is attributable to the following:

Receiving and General Supply: Area was increased from 529 NSF to 548 NSF (+19 NSF) - Now meeting the MSBA suggested total.

Recycling Room / Trash: Area was reduced from 400 NSF to 0 NSF – The Recycling / Trash room will be constructed as part of the planned parking garage structure, allowing this utilitarian space to be constructed in a more economical fashion.

Storeroom: Area was increased from 858 NSF to 895 NSF (+37 NSF) - Now meeting the MSBA suggested total.

Network/ Telecom Room: Reduce area from 500 NSF to 200 NSF (-300 NSF) – Now meeting the MSBA suggested total.

Other

The Space Summary is indicating a total of 300 NSF for the preferred solution, as compared to a total of 500 NSF that was reviewed in the initial space summary. This is attributable to the following:

School Store: Reduce area from 400 NSF to 300 NSF (-100 NSF) – An important and successful student business and career tech program at SHS. This is half the size of the current space in the existing high school.

PTO Storage: Reduce area from 100 NSF to 0 SF (-100 NSF) – This room will no longer be incorporated in the "Other" section but will be accounted for in the overall grossing factor, as noted in the MSBA comments.

Total Building Gross Floor Area

Alternative 4B total gross floor area is 373,373 square feet and has been revised in the Space Summary (4.11 Attachments) for MSBA review.

4.5 Sustainability Documents

The Somerville High School will be designed and constructed in accordance with the principles and criteria of the LEED V4.0 for BD+C: New Construction and Major Renovations – Schools, published by the U.S. Green Building Council. The project will strive to meet the threshold of 50-59 points, equivalent to a Silver rating.

A preliminary LEED scorecard is attached at the end of this section. This scorecard identifies the project design criteria and associated credits which are under consideration for this project.

Specifications will include instructions to Contractor regarding waste management and waste diversion goals (95%), material procurement goals, and construction indoor air quality goals.

This is an acknowledgement that the Somerville School District has identified a goal of 2% additional reimbursement from the MSBA High Efficiency Green School Program. As their Designer, we have submitted a completed LEED Scorecard showing all prerequisites and 58 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, cost estimates will match the scope of work indicated in the submitted scorecard.

4.6 Building Plans

Reference the Drawings for Alternative 4B included in Section 3.3.10

4.7 Site Plans

Reference the Drawings for Alternative 4B included in Section 3.3.10

4.8 Budget

See attached

4.9 Budget Statement

See attached

4.10 Project Schedule

See attached in Section 1.2

4.11 Attachments