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May 2, 2016

**RE: Preliminary Design Program for Somerville High School
Project - District Response to MSBA Review Comments**

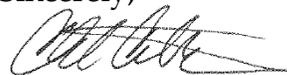
Dear Ms. Deleconio:

First, thank you for your time in reviewing our Module 3 Feasibility Study Preliminary Design Program (PDP) submission and providing thorough review comments for the Somerville High School Project in Somerville, MA on behalf of the Massachusetts School Building Authority. The comments provided are appreciated and will undoubtedly aid the Architect and OPM in developing the most beneficial and appropriate program for Somerville's new High School.

Since the PDP submission on February 29, 2016, the District, along with PMA and SMMA, has completed its in-depth analysis on each of the alternatives presented. The Building Committee and Community have identified Alternatives 2A, 3 and 4B as their three candidates for final evaluation, and most recently have selected Alternative #4B as their preferred solution, largely based upon its adaptability to the district's Educational goals. Further development and refinement of Alternative #4B is in process at this time and the District's PSR submission remains on target for June 2, 2016.

For ease of reviewing, we have structured this response in the same manner as the MSBA's PDP review comments. We look forward to the MSBA's response and are eager to continue with development of the preferred solution. As always, please feel free to contact me with any questions or concerns.

Sincerely,



Chad Crittenden
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May 2, 2016

District: City of Somerville
School: Somerville High School
Submittal: Preliminary Design Program
Submittal Date: February 29, 2016
Review Date: April 15, 2016
Reviewed by: Karl Brown

Re: Somerville High School

Responses to Preliminary Design Program Review Comments

SMMA No. 15070.00

MSBA REVIEW COMMENTS:

The following comments¹ on the Preliminary Design Program (“PDP”) submittal are issued pursuant to a review of the project submittal document for the Somerville High School presented as a part of the Feasibility Study submission in accordance with the MSBA Module 3 Guidelines, as produced by Symmes, Maini & McKee Associates, and its consultants. Certain supplemental components from the Owner’s Project Manager (OPM) – PMA Consultants, are included.

I. Summary Comments:

Although the PDP submittal is intended to be limited to a preliminary investigation of the feasibility study issues, there are several concerns summarized below that are not fully addressed in the submitted material that may have a significant effect on the District’s preferred option in the following phases of the study. The District and design team must continue to fully investigate these issues for the information provided in the subsequent Preferred Schematic Report (“PSR”) submittal. Refer to the additional comments to follow for a full review of these concerns:

- a. The provided material doesn’t explain the discrepancy between the District’s budget, the proposed scope and the

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

resulting budget of preliminary options. The Designer RFS gave a construction budget of \$100m - \$120m, the District's stated project budget in the submittal is \$245m - \$275m, and the design options range as high as \$297m, many of which are above the District's stated maximum budget. In addition, there are significant alternative scope items (51,648 gsf of undefined auxiliary spaces and various parking garage with field options) that potentially increase that scope. For the following PSR submittal, the District will have to be more definitive about the limits of its budget and what it intends to include in the scope of work.

- b. Although the Study Certification includes three design enrollments, there is no apparent investigation of alternates that don't include the larger scope including the two alternative Next Wave / Full Circle schools. How these schools relate to the 9-12 population, if at all, and why adding these essentially separate alternative schools is appropriate and desired, is not explained.
- c. As indicated in the comments in 3.1.2, the submittal appears to indicate that the Next Wave and Full Circle programs are combined with the high school but it is not clear based on the submitted information if the District is intending to keep the schools separate or to build a new centralized facility. Please review and respond to all of the comments regarding the Next Wave and Full Circle programs in order to finalize the review and approval that is required by the Department of Elementary and Secondary Education.
- d. Indications in the educational program are that the District will continue to operate the school as independent departments, although this isn't explicitly stated. If that is the intent, it should be clearly stated.
- e. The District states intent to increase the number of existing Career Technical Education ("CTE") programs although some of the current CTE programs appear to be under enrolled. The submittal should describe any investigations performed to confirm the viability of each of the existing and proposed CTE programs, and potentially discontinue programs that are under enrolled.
- f. Although previous renovation / addition projects at this facility weren't funded by the State, the MSBA notes that relatively new construction is being considered for demolition.
- g. The submittal does not go into detail how the District intends to address the historic nature of the existing building and surrounding environment, or how any attempts to conserve historic portions of the facility and its environment might ultimately affect the cost or the District's selection of a preferred solution.

Response:

- a. The District's \$100-\$120M stated Construction budget contained within the Designer RFS was very high level and based upon the MSBA allowable cost per square foot (\$287/SF) multiplied by the total square footage of the existing building (~360,000SF). Since the Designer RFS was published, it has become apparent that the existing building is not a likely candidate for renovation and the District has been provided with current market data information for both heavy add/reno and new construction projects in the region. Additional factors which influence cost have been analyzed by the Building Committee as well, including cost premiums resulting from the Chapter 74 components, the School's constrained site, challenging topography and the project's proximity to Boston. At this time, the District's target project budget remains an approximation, it is anticipated that a Proposition 2 ½ Debt Exclusion may be required in order to fund the project. The District continues to evaluate all available funding options during selection and development of the preferred schematic option. Upon selection of the preferred option, the District will then evaluate which alternative scope options are considered priority items and will be included in the Proposition 2 ½ Debt Exclusion. A ballot question is currently anticipated to appear on the November 2016 ticket to obtain voter support for the proposed project. It should be noted that Somerville's Director of Finance, Ed Bean, is intricately involved as a member of the School Building Committee and has previously offered the following: "The sheer magnitude of cost associated with the renovation/construction of Somerville High School leads to serious consideration of a Proposition 2 ½ Debt Exclusion. For example, if the City's Share were \$140 million, and the City borrowed the entire share, the aggregate indebtedness of the City would double compared to existing levels. A bond issue in the amount of \$140 million at current rates would add an additional \$8,891,725 in annual debt service to the city Operating Budget. This would not be sustainable with or without the consideration of other Capital Projects. The total value of needs identified for all projects over a ten-year horizon is \$238 million, excluding the cost of the renovation/construction of Somerville High School. These amounts are preliminary estimates for planning purposes and will and do change. To that end, a preliminary estimate of \$37 million for the city's share of the Somerville High School Project for debt service was incorporated into the CIP as a carrying amount. That estimate will now be revised upward based on new and better information from the architects."
- b. The primary goal of the Next Wave (grades 6-8) and Full Circle (grades 9-12) alternative schools are to provide students

who, for a variety of reasons have had difficulty experiencing success in a more traditional school setting, with a modified educational experience that will allow them to eventually transition to a more traditional and inclusive setting. While closely linked in this plan, Next Wave, Full Circle and SHS will continue to operate as independent schools/programs. Adding Next Wave and Full Circle as substantially separate “schools within a school” allows us to provide this high-needs population with the appropriate supports to meet their needs, while at the same time providing more equitable access to other resources and services available at Somerville High School, as well as a clear connection and pathway to SHS, the traditional educational setting toward which Next Wave and Full Circle students are working. Embedding Next Wave and Full Circle as schools within a school allows NW/FC students to maintain their own identity – an important consideration for a high-needs group of students with numerous challenges – and creates a sense of support and partnership, as opposed to a sense of exclusion that a separate ‘program’ within a larger school, or offsite setting, might create. It also gives these students access to the programming of Somerville High School, as appropriate for the individual student learning needs as they may then cross-register to SHS on a course by course basis. Including Next Wave students (grades 6-8) in this plan ensures that these students continue to benefit from alternative programs and services designed to meet the needs of NW and FC students, maintains their connection with alternative school staff, who work as a grade 6-12 team, experienced with NW and FC students. The direct High School connection also maximizes the opportunity for NW students to transition to Somerville High School instead of Full Circle by developing a sense of familiarity and connecting them to the programs and services at SHS at an earlier grade level.

- c. Please refer to each individual comment. Responses have been noted under each question/comment as appropriate.
- d. It is the district’s intent to continue to operate the school as independent departments, building in thoughtful department adjacencies as an integral piece of the educational plan in this project to ensure cross-departmental integration of learning experiences that meet 21st century learning goals, efficient use of skills and resources, and a cohesive student support structure.
- e. The enrollment data, as officially reported, under-counts the full enrollment in the CTE programs since it does not consider cross-registered students, general education students who enroll in CTE as an elective. This is unique to Somerville High and the handful of other Massachusetts high schools that maintain comprehensive CTE in addition to a full General Education program under one roof. In regard to the process of projecting enrollments in the CTE program themselves, the current 13-CTE programs at Somerville High School go through an annual program review by the General Advisory and Program Advisory Committees every October and April. We utilize a benchmark form to evaluate the need and viability of each existing program. During this review, programs are benchmarked on the following factors: employment trends, placement, viability to the geographical area and enrollment. The current few programs with low enrollment are programs that have larger numbers in electives that are not counted in the SIMS report due to our status as a comprehensive school. This is because, as stated previously, we allow students to take certain programs as electives. The proposed four programs of: HVAC, Plumbing, Barbering and Medical Occupations are clustered with other programs with much larger student enrollments. The need for these programs comes from data research through the Metro-North Regional Employment Board, Tisch College study at Tufts University and our General Advisory Committee. The CTE population has grown 100% over the past five years and is trending up as we align our programs with STEM.
- f. No response required
- g. To-date, the project team has participated in a total of three meetings with Somerville’s Historic Preservation Commission (SHPC), including two public, posted meetings and one working session. SHPC members voted unanimously in support of the three options selected by the SBC (Alt 2A, 3 & 4B) for final evaluation at their public meeting on March 29th. SHPC members expressed their desire to salvage the existing central academic building (1895 & 1914 vintage), along with the 1929 “War Memorial” building façade (current HS library). On March 31st, the project’s second Project Notification Form (PNF) was submitted to the Massachusetts Historical Commission (MHC), this PNF identified the three options for final evaluation and included SHPC’s comments indicating unanimous support for each of the three remaining options. A conference call consultation with MHC, as requested by them in their response to the project’s first PNF, followed shortly thereafter on April 1st. The project team is currently awaiting MHC’s response to the project’s second PNF filing; comments were anticipated on or before April 29, 2016.

3.1 Preliminary Design Program

Preliminary Design Program shall include the following:

- a. OPM certification of completeness & conformity – *Complete.*
- b. Table of Contents – *Complete.*
- c. Introduction – *Complete. Refer to comments shown in italics.*
- d. Educational Program – *Complete. Refer to comments shown in italics.*
- e. Initial Space Summary – *Complete. Refer to comments shown in italics.*
- f. Evaluation of Existing Conditions – *Complete. Refer to comments shown in italics.*
- g. Site Development Requirements – *Complete.*
- h. Preliminary Evaluation of Alternatives – *Complete. Refer to comments shown in italics.*
- i. Local Actions and Approvals Certification(s) – *Complete. Refer to comments shown in italics.*
- j. Appendices – *Complete.*

Response: No Additional Comments required

3.1.1 Introduction

- a. Brief summary of the Facility Deficiencies (and Current S.O.I., located in the Appendix) – *Provided.*
- b. Date of invitation to conduct a Feasibility Study (and MSBA Board Action Letter, located in the Appendix) – *Provided.*
- c. Executed Design Enrollment Certification (located in the Appendix) – *Provided.* The agreed upon design enrollments include 1,515 students for grades 9-12, 1,565 students for 9-12 including the Full Circle program, and 1,590 students for grades 9-12 including both the Full Circle and Next Wave programs.
- d. Narrative summary of the Capital Budget Statement and Target Budget for the proposed project– *Provided;* the District states “a target budget of \$245m to \$275m would be appropriate for a project of this magnitude that would fully satisfy Somerville’s Comprehensive Educational Program.” In the District’s response to this review, verify that these budget figures represent project costs and not construction costs. For subsequent submittals, and in order for the District to be clear about their evaluation of options, provide a budget limit for evaluation purposes (see additional related comments in 3.1.6 Preliminary Evaluation of Alternatives).
- e. Project Directory with contact information – *Provided.*
- f. Updated Project Schedule – *Provided;* the submitted schedule provides a 15 day duration for the MSBA DD, 60% CD and 90% CD review periods. Revise & resubmit a schedule that provides the required 21 day duration for these 3 tasks.

Response:

- a. Through e - No response required
- f. The durations indicated in the submitted schedule are calculated in working days (this is typical for Primavera scheduling software); the 15 working day duration included is equivalent to the required 21 calendar day MSBA review period for each submission.

3.1.2 Educational Program

Summary and description of the existing educational program, and the new or expanded educational vision, specifications, process, teaching philosophy statement, as well as the District’s curriculum goals and objectives of the program:

- a. *The District is proposing that the Next Wave / Full Circle programs are combined with the High School. However, it isn’t clear the District wants to keep the schools separate (separate school codes, principals, etc.), or build a new centralized facility for all three of them. In addition, it isn’t clear if this facility is intended to function as one school, or three schools. If the District is consolidating three schools into one, that should be stated explicitly. Please clarify the District’s intent and address the above and the following comments on these programs in your response.*
 - i. *Students who need a separate day school placement should be provided a day school that is separate. Students who need a "substantially separate" placement should have already been included in Somerville High School, and they should be integrated into the life of the school. Somerville has reported to DESE that the students in the Next Wave and Full Circle programs require separate day school placements: not substantially separate placements. Please discuss and clarify*

how students requiring a substantially separate program would be served if included at the high school.

- ii. If students in the Next Wave Program don't require a substantially separate program, please provide the basis for including these students in the high school population versus including them at a local middle school. Describe any benefits and challenges regarding adding younger 6th-8th grade students into a large comprehensive high school and how the challenges would be mitigated*
 - iii. Given the large current population of the Somerville High School, please describe the benefits and challenges of adding the Next Wave / Full Circle programs to this facility, confirm the District's ability to integrate these functions into the program, and administer these added programs.*
- b. Grade and school configuration policies – Provided.*
 - c. District class size policies– Provided. The submittal notes that although the District does not have a class size policy, the target maximum class size is 23.*
 - d. School scheduling method – Provided. The submittal notes that the proposed program does not have the typical week on/off CTE schedule. Describe how the schedule for a student in the CTE program relates to the same student's academic schedule, and confirm that the proposed block schedule allows adequate duration of individual CTE classes.*
 - i. The submittal notes that as a comprehensive program, the proposed curriculum will include a full range of class offerings including CTE, arts, athletics and specials. The MSBA notes that space utilization analyses of academic programs will be based on the number of students in the academic programs during any given period, and will not include students that are counted in capacity generating spaces in the CTE rotation.*
 - e. Teacher planning and professional development – Provided.*
 - f. Administrative and academic organization/structure (e.g., academies, departments, houses, grade based cohorts, teams, room assignment policies etc. teams, etc.) – Provided. The submittal notes that the existing academic portion of the school is organized by department, and CTE programs are grouped into 6 clusters of related courses. The educational program describes intent to introduce new design concepts (collaboration areas, transparency, etc) with a goal to move toward a more flexible and adaptable approach, including interweaving of some CTE programs with academic courses. However, multiple references in the SMMA programming meeting notes suggest the school staff has a preference to consolidate departmental class functions and administration. For example; staff in Math, Science, Languages, Special Education, Art, CTE, English, Counseling, ESL and PE departments all expressed a preference to further consolidate their departments. The educational program doesn't clarify whether the District plans to transition away from the departmental organization, or, if the District does plan to maintain the current departmental organization, why the existing building can't serve that purpose.*
 - g. Student Guidance and Support Services– Provided. There is concern that either the counselors don't have easy access to each other, or the students don't have easy access to the counselors. It isn't clear how the school intends to achieve both. The District describes a preference for the counselors to work near each other, without addressing how this would be easier for the students (given the four houses, it would seem more difficult for students to access counseling services in a central location).*
 - h. Teaching Methodology – Provided, with the following comments:*
 - i. World Languages – describe why the World Language classes (currently shown as conducted in a 1,100 nsf lab space) can't be held in a typical General Classroom in order to increase utilization of classroom spaces.*
 - ii. Visual Arts - Please provide current and projected participation and utilization rates for the proposed photography darkroom, and how this space could be designed to be re-purposed if the program were to be eliminated from the curriculum.*
 - iii. Music/Performing Arts – The education program notes that the District middle school programs and the All-City Chamber Orchestra use the High School ensemble rooms, chorus rooms, orchestra and school band rooms. Describe the extent that these District-wide functions increase the net area of the Art/Music and Auditorium / Drama functions, independent of the area required for the High School students. Please provide current and proposed High School participation rates in the proposed Music*

and Performing Arts offerings and the basis of the number of spaces proposed for these curriculum offerings.

- IV. *Vocations/Technology – Based on the provided data, the current Chapter 74 programs at the High School appear to be under-enrolled. The District must explain why they have proposed to expand their CTE offerings, and describe any potential plans to eliminate the under-enrolled programs.*
- i. *Educational Technology instruction policies and program requirements (labs, in-classroom, media center, required infrastructure, etc.) –Provided. The submittal states a goal of a true 1:1 program for the new building.*
- j. *Special Education programs (in-house, collaborative, facility restrictions) –Provided, with the following comments:*
 - I. *Per the September 9, 2014 MSBA Enrollment Letter to the District, if the inclusion of the Full Circle High School and the Next Wave Junior High School students is determined to be the Preferred Solution, and given that the Preliminary Evaluation of Alternatives is limited to options that include the 1,590 design enrollment / Next Wave / Full Circle programs, the MSBA staff cannot recommend a Preferred Option for Board approval until the District can demonstrate that the proposed inclusion of these alternative educational programs has been approved by the Massachusetts Department of Elementary and Secondary Education, the Somerville School Committee and necessary District officials. Meeting notes in the submittal dated Sept 9, 2015 state that, in a conference call with the District, the DESE approved inclusion of these programs into the educational program. However, please see comments and questions noted below. The MSBA understands that DESE is still evaluating the District’s request. Further, the MSBA will also require a written plan from the District describing the process for determining local support and approvals for potentially including these programs into the proposed project.*
 - II. *The submittal notes that “...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” and “...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.” For the purposes of reviewing the space utilization within the vocational and academic portions of the building, and given that their integration into the student population is described as substantially separate, please describe the extent that (if at all) these Next Wave / Full Circle students add to either the academic FTE enrollment, or the vocational enrollment.*
- k. *Lunch programs (number of servings, district kitchen, full service kitchens, warming kitchens, etc.) –Provided. The submittal notes that, although it does not serve this function now, the Somerville HS kitchen is intended to be the District’s primary production kitchen.*
- l. *Security and visual access requirements – Provided.*
- m. *Transportation policies – Provided.*
- n. *STEM / STEAM programs - The submittal states that the use of technology will be in support of STEAM principles and Project-based learning as integrated throughout the teaching and learning landscape at SHS.*
 - I. *Describe how the STEM/STEAM space will be scheduled.*
 - II. *Describe who will administer the space and where the space will be located; explain this choice and how this will affect the design and use of the space.*
 - III. *Describe the specific equipment and systems infrastructure required for this space.*
 - IV. *Describe any safety concerns for this space, and how the building design will address each concern.*
 - V. *Describe how the STEM and STEAM curricula will differ (both functionally and how the room and equipment differs), and how the principles of Project-based curricula will integrate the arts into a STEAM program.*
 - VI. *Describe any professional development or changes to staffing planned to implement these new programs.*

Response:

- a. *The district intends to keep Next Wave and Full Circle as separate schools, housed in a substantially separate wing of the new Somerville High School. Next Wave and Full Circle will continue to operate under the leadership of their own Principal and administrative team. Adding Next Wave and Full Circle as substantially separate “schools within a school”*

allows us to provide this high-needs population with the appropriate supports to meet their needs, while at the same time providing more equitable access to other resources and services available at Somerville High School, as well as a clear connection and pathway to SHS, the traditional educational setting toward which Next Wave and Full Circle students are working. Specifically, this population would benefit greatly from the opportunity to access a full array of vocational/CTE programming that SHS currently offers. Currently any access to CTE/vocational programming is limited by the co-location and schedule conflicts, making any participation difficult if not impossible. Additionally, NW/FC students have limited access to science labs, music, art, technology and languages--all of which could greatly benefit their engagement and participation during their high school years. Most importantly, while keeping the schools separate physically will maintain the small, therapeutic environment for students who require such, the concept of including NW/FC students in SHS where appropriate and providing opportunities for them to access and engage a rich learning environment with their larger peer group is something that both the NW/FC students and parents have been requesting for years. The principals of SHS and FC/NW will work jointly to ensure that schedule allows for such inclusion. Furthermore, embedding Next Wave and Full Circle as schools within a school allows NW/FC students to maintain their own identity – an important consideration for a high-needs group of students with a history of identity challenges – and creates a sense of support and partnership, as opposed to a sense of exclusion that a separate ‘program’ within a larger school setting might create.

- I. Next Wave/Full Circle functions both as a separate Special Education Day school and alternative middle and high schools. As such, NW/FC serves multiple cohorts of students, each needing something different. For the students who need a completely separate day school, our proposal allows for a school within a school model. In such a model, NW/FC students would be participating mostly in their self-contained space with the exception of utilizing common spaces at their own designated times such as the cafeteria, field house, lunch room, and the CTE programs. For students who may need a specialized program, that includes both separate space/classes and inclusion for some portion of the day. For these students, having access to general classes in the CTE/vocational and academic programming areas, extra curriculars, art, music, technology and languages will be vital to their sustained engagement and success in the high school years. Similarly, for the 40% of students who are non-IEP students in NW/FC but who need an alternative program of studies, being integrated and included in the broader SHS environment where appropriate, will be key to their secondary success and in preventing their potential drop out.
 - II. Somerville offers a K-8 school model. Including Next Wave students (grades 6-8) in this plan ensures that these students continue to benefit from alternative programs and services designed to meet the needs of NW and FC students, maintains their connection with alternative school staff experienced with NW and FC students, and maximizes the opportunity for NW students to transition to Somerville High School instead of Full Circle by developing a sense of familiarity and connecting them to the programs and services at SHS at an earlier grade level.
 - III. There are many benefits to adding Next Wave and Full Circle as a substantially separate school within a school model in this facility. It allows us to provide this high-needs population with the appropriate supports to meet their needs, while at the same time providing more equitable access to other resources and services available at Somerville High School, as well as a clear connection and pathway to SHS, the traditional educational setting toward which Next Wave and Full Circle students are working. It also provides the opportunity for joint professional development that can facilitate student transitions. The benefits would also include integration of Next Wave and Full Circle students into the CTE program and allowing better access to the curriculum. Maintaining substantially separate programmatic functions and administrative support for Next Wave/Full Circle and Somerville High School preserves the integrity of each programs’ goals, designed to serve the different needs of specific populations at each school, while at the same time greatly enhancing access to additional services, resources, and programs for Next Wave/Full Circle students that can further support their progress toward inclusion in a traditional school setting. The challenge of adding Next Wave/Full Circle programs to this facility is in coordinating facility use in a way that ensures a safe and gradual transition to a more inclusive environment for those students who demonstrate readiness for such a transition. The District already has in place coordinated efforts and centralized supports to support and administer programs throughout the district.
- b. No response required
 - c. No response required

- d. Because of the locked blocks in the Somerville High School schedule each CTE program by grade, has a specific number of blocks allocated each day. The times of certain grades vary by program due to internships, co-op and outside construction projects. In order to meet the state regulations for exploratory time, our grade nine students explore almost all of the freshman year. Under the current schedule our CTE students have the ability to meet all of the Massachusetts Core/State University requirements, plus have room for the arts.
- e. No response required
- f. The District plans to maintain the current departmental organization, but strengthen opportunities for collaboration through strategic and thoughtful adjacencies, co-location of departments, joint teacher planning areas, and flexible spaces that allow for multiple uses of areas by varying departments. Departments are organized by discipline in order to facilitate curricula delivery, professional development and educational evaluation and oversight. Maintaining departmental chairs and organization will be necessary as we envision a more robust curriculum to foster 21st Century learning. Department chairs will oversee this endeavor and any efforts that may be necessary to embark on delivering collaborative, innovative and integrated educational programming. The existing building is not designed to support co-location of departments or strategic adjacencies without compromising student safety and building oversight because of its elongated ‘wing’ design and inflexibility of classroom and other spaces. The current building also does not support collaborative learning, flexible spaces and interdisciplinary learning. The CTE programs, for example, which require specialized facilities, are currently located in a separate wing from the academic programs, making cross-integration between CTE and academic programming exceedingly difficult.
- g. In the case of guidance and student support, the model proposed is a distributed network model whereby there is a central hub for collaboration but the direct services themselves are conducted and provided both in and through the house structure. What has been missing in the current programming given the isolating nature of the SHS building is the opportunity for student support counselors to collaborate on a daily basis to share practice and thinking, particularly on the most difficult cases and emergencies. What the distributed network model for student support will provide is a central hub for that consultation and collaboration to happen on a daily basis. Because we offer within SHS a mixed delivery model of internal and external providers for counseling, advising and clinical support, it is necessary to ensure through the House structure that such services can happen closest to where students learn and reside. The flexible space of the House model will afford student support counselors to assign internal and external providers locations to provide both scheduled and unscheduled services. Given the crisis nature of the work that many of our support counselors provide, it will be necessary to have both private and public spaces in the Hub and in the Houses.
- h. Somerville School Department
 - I. World Language classes are regularly held in traditional classrooms, the utilization of which is reflected in the overall proposed quantity of academic classrooms. The proposed Language Lab will be utilized by all World Language classes on a rotating basis to supplement the educational opportunities for the rationale described in the Educational Program.
 - II. Please refer to the curriculum-space analysis below for photography class current and projected participation as well as utilization rates. The proposed program area of 1,000 NSF for the photography darkroom is sufficiently sized to be repurposed as a digital art computer lab environment if the curriculum dictates a shift to digital photography moving forward.

Course No.	Subject	Current Students per Subject 1,237	Proj. Students per Subject 1,515	Proj. Class Size	Sect.	Sessions Per Week	Total Sessions	Periods Per Week	Total Stations Required	Comments
VISUAL ARTS										
	Photography									
848-001 848-006	Photography 1	102	124	18	7	2	14.0	28	0.50	Semester Class
849-001	Advanced Photography	9	11	18	1	2	2.0	28	0.07	Semester Class
									0.57	
							0.50	/ .85 =	0.7	Say 1 Photography Space

- III. In order to meet the School Committee/District goal of creating a vibrant middle grades music program in a K-8 model, the SPS Music Department instituted All-City Middle School ensembles that rehearse and perform at Somerville High School due to the centrality of the venue and access to adequate equipment and rehearsal space. The creation of these All-City Middle School ensembles allows us to provide both middle grades and high school students with an authentic performance ensemble experience.

The **All-City Middle School Chorus** has between 90 and 110 student participants from grades 6, 7 and 8. The program includes an important mentorship component to connect the Somerville High School Chorus honors students with the Middle School ensembles for two joint performances, bringing the total number of students rehearsing and performing together to between 140 and 150. This ensemble meets weekly.

The **All-City Middle School Orchestra** has 60 to 70 student participants from grades 5, 6, 7 and 8. There is also a mentorship component embedded into this program that includes SHS Orchestra honors students for a weekly rehearsal, resulting in a total number of students rehearsing each week to between 100 and 110.

The **All-City Middle School Band** has 40 to 50 student participants from grades 6, 7 and 8. There is also a mentorship component embedded into this program that includes SHS Band honors students for a weekly rehearsal, bringing the total number of students rehearsing each week to between 60 and 75.

A significant and growing number of Somerville High School students participate in at least one of 17 music classes offered at the school. Current music offerings at SHS include: band (including honors level band), Jazz Band, Chorus (including honors level chorus), String Orchestra (including honors level string orchestra), Drum Line, Advanced Drum Line, World Percussion Ensemble, Special Music (Life Skills students), Musical Theatre, Show Choir, Piano, Music Technology, Music Theory, Guitar, Intro to Guitar (ensemble based), Advanced Guitar Ensemble, Viol de Gamba Ensemble.

In 2015-2016, 410 SHS students were enrolled in a music class, representing nearly 31% of the student population. Of the incoming freshman class, 119 students (34.3%) have enrolled in at least one music class. With the current trajectory (based on similar enrollment numbers), it is projected that in 2020 there will be approximately 476 students taking at least one music class at SHS.

- IV. All CTE programs are evaluated annually. We currently have two CTE programs that are under-enrolled. One program shows fewer numbers than the actual enrollment as we allow students to take this program as an elective. This data does not show up in the SIMS report, therefore enrollment appears lower than it actually is. The second under-enrolled program is currently undergoing a transformation from the old "shop" type of program to a more 21st century technology program. The transformation will incorporate a large influx of equipment, partnerships, career placements, and post-secondary opportunities. This program experienced a major upward trend in employment in the Greater Boston area over the past two years as the manufacturing boom has traveled from the western part of the state to the greater Boston area. The increase in technology and equipment is being funded by a recent grant award of more than \$600,000. Every CTE program will continue to be assessed annually.

i. No response required

j.

- I. The District is prepared to continue to pursue the necessary approvals for including these programs into the proposed project, and provide all required documentation to the MSBA.
- II. Access to programs and services at SHS is currently significantly limited due to the physical distance between the school sites when combined with the specialized needs of Next Wave/Full Circle students. Locating Next Wave/Full Circle in a substantially separate area within the Somerville High School building facilitates a gradual and safe introduction of traditional coursework and options for Full Circle students who demonstrate an appropriate level of readiness to integrate. While there is no way to estimate the projected increase due to the varying specialized needs and readiness of Next Wave/Full Circle students, we do anticipate that co-locating NW/FC within SHS will create an increase in enrollment in academic and/or CTE classes that will likely grow annually.

- I. No response required
- m. No response required
- n.

- I. 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 provides 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.
- II. 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.
- III. 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.
- IV. 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.
- V. 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.
- VI. 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.

3.1.3 Initial Space Summary

- a. Completed MSBA space summary spreadsheet - *Provided; refer to detailed comments in Attachment B.*
- b. Floor plans of the existing facility – *Provided.*
- c. Narrative description of reasons for all variances (if any) between proposed net and gross areas as compared to MSBA

guidelines – <i>Provided.</i>
Response: No response required
<p>3.1.4 Evaluation of Existing Conditions</p> <p>a. <i>There are multiple references in the submittal noting proposed project compliance with the 8th edition of the MA building code / 780 CMR. The OPM and Design Team must review the project schedule and verify that the code analysis and all design parameters used for this project are based on the edition of the building code that will be in effect when the project is submitted for building permit. Be advised that the MA Department of Public Safety and Board of Buildings, Regulations & Standards have approved a draft 9th edition of the MA Building Code (including an updated “Stretch Energy Code”). The design team should confirm in response to these review comments.</i></p> <p>b. <i>Previous projects – as reported in the submittal, the existing building includes several recent addition / renovations including a 1986 vocational & field house addition, a 2006 medical suite addition, and a 2014 auditorium, kitchen/cafeteria renovation. According to MSBA records, the most recent 2006 and 2014 projects did not include MSBA funding. The 1986 addition is 30 years old as of this review. In its evaluation of the feasibility study options, the District understands that MSBA regulations 963 CMR, Section 2.03(b) states that “Any project for the construction of a new school facility, or for the addition to or renovation of an existing school facility for which an Eligible Applicant is seeking partial funding from the Authority shall have an anticipated useful life of at least 50 years as a public school in the Eligible Applicant’s school district.” Provide a description of the District’s analysis that demonstrates discontinued use and replacement of the most recent facilities improvements (since 2000) represent the most appropriate and cost effective solution in addressing the educational needs of the facility. Demonstrate why they can’t be cost effectively incorporated into the District’s preferred solution, and the benefits of demolishing the areas in the preferred solution as applicable.</i></p> <p>c. <i>Confirmation of legal title to the property – Provided.</i></p> <p>d. <i>Determination that the property is available for development – Provided.</i></p> <p>e. <i>Existing historically significant features and any related effect on the project design and/or schedule – The submittal notes that the existing property includes multiple structures recorded by the Massachusetts Historical Commission (“MHC”) including the original 1895 high school and several various war memorials. In addition, the Central Hill area that includes the existing high school, 1914 library and 1852 city hall is included in the MHC inventory. However, the submittal states that the high school is not listed on any local or state historic register (although the adjacent city hall and library buildings are registered). In the project schedule provided in the subsequent submittal please include the timeline associated with filing with the MHC and obtaining MHC approval prior to construction bids. The District should keep the MSBA informed of any decisions and/or proposed actions and should confirm that the proposed project is in conformance with Massachusetts General Law 950, CRM 71.00.</i></p> <p>f. <i>Determination of any development restrictions that may apply – Provided.</i></p> <p>g. <i>Initial Evaluation of building code compliance for the existing facility – Provided. As noted, the existing building was constructed in various phases from 1895 to 2014, and is not compliant with current building codes.</i></p> <p>h. <i>Initial Evaluation of Architectural Access Board rules and regulations and their application to a potential project – Provided.</i></p> <p>i. <i>Preliminary evaluation of significant structural, environmental, geotechnical, or other physical conditions that may impact the cost and evaluations of alternatives. – Provided.</i></p> <p>j. <i>Determination for need and schedule for soils exploration and geotechnical evaluation – Provided.</i></p> <p>k. <i>Environmental site assessments minimally consisting of a Phase I: Initial Site Investigation performed by a licensed site professional – Provided. The submittal notes the existence of two 15,000 gallon underground fuel oil storage tanks and a 1,000 gallon underground diesel oil storage tank, and various residual soil contamination from multiple fuel oil spills in the boiler room and other areas. Potential sources are listed including coal ash and clinkers, and fuel oil burner discharge at the existing chimney. MSBA notes that all costs associated with abatement of contaminated soil from any source, and abatement of underground storage tanks must be itemized in the cost estimates for the following Schematic Design submittal as ineligible for MSBA reimbursement.</i></p> <p>l. <i>Assessment of the school for the presence of hazardous materials – Provided.</i></p>
<p>Response:</p> <p>a. <i>SMMA is aware of the upcoming code change. The existing building has been evaluated against the 8th edition of the code since that is the current governing document. SMMA is aware that any renovation, addition or new building</i></p>

option will need to comply with the governing code under which the building permit will be issued, which we anticipate as the 9th Edition.

- b. The disconnected nature and physical location of the 1986 and 2006 wings present unique challenges to the City's Educational Program and pose a near insurmountable obstacle in the implementation of critical adjacencies. The building as it currently sits includes a 900+ foot walk in addition to up to 5 flights of stairs from the entrances of the two rooms on opposite ends of the building, resulting in unavoidable operational efficiencies. Although the auditorium underwent approximately \$3M worth of partial renovations in 2014 due to Hurricane Sandy, the renovation consisted primarily of roof, ceiling, seating & minor electrical upgrades as required. The renovated auditorium remains insufficient and incapable of fully satisfying the school's needs as a performance environment, the stage lacks adequate space and a full fly loft, and the spaces located on the level beneath the auditorium lack natural daylight and are not suitable learning environments nor an efficient use of space. In the event that the existing auditorium is demolished, the project team will evaluate salvaging newer components of the existing auditorium (i.e. seating, theatrical lighting, audio systems, etc.) as part of development of the preferred option.
- c. No response required
- d. No response required
- e. No response required
- f. No response required
- g. No response required
- h. No response required
- i. No response required

3.1.5 Site Development Requirements – Provided.

Response:

No response required

3.1.6 Preliminary Evaluation of Alternatives

- a. The Preliminary Evaluation of Alternatives should include a detailed analysis of compliance with district objectives for each of the following:
 - I. Analysis of school district student school assignment practices and available space in other schools in the district – *Provided.*
 - II. Tuition agreement with adjacent school districts – *Provided.*
 - III. Rental or acquisition of existing buildings that could be made available for school use – *Provided.*
 - IV. Code Upgrade option that includes repair of systems and/or scope required for purposes of code compliance; with no modification of existing spaces or their function – *Provided.*
 - V. Renovation(s) and/or addition(s) of varying degrees to the existing building(s) – *Provided.*
 - VI. Construction of new building and the evaluation of potential locations – *Provided.*
- b. List of 3 distinct alternatives (including at least 1 renovation and/or addition option) are recommended for further development and evaluation – *Provided. Although the educational program does not state conclusively that the District proposes to limit study of options to those that include the Next Wave / Full Circle programs, and a preferred option has not been selected, none of the following options studied in this submittal include area associated with the smaller 1,515 or 1,565 design enrollments. The submittal includes the following options, all of which are based on the full 1,590 9-12 and Next Wave / Full Circle design enrollment:*
 - I. Existing building base repair option Alternative "0" with an estimated project cost of \$74m; this option is described as not meeting the District's educational needs, and does not address the student population growth.
 - II. Existing building renovation option Alternative "1" with a \$232m project cost; this option is described as not addressing the student population growth. The MSBA notes that at roughly 360,000 gsf, the existing building is only about 4,000 gsf or 1% smaller than the proposed new building options that include the full 1,590 student population. Please describe whether this renovation option would meet the needs of the 1,515 and/or the 1,565 student populations without the addition of the Next Wave / Full Circle programs.
 - III. Five addition/renovation options Alternatives "2, 3, 4, 4A & 4B" of varying scope, with project costs ranging from \$247m - \$277m. The MSBA notes that, although these options appear to meet the District's educational

goals, all five exceed the District's lower range of budget stated above (\$245m), and the last of these options Alternative "4B" exceeds the higher range of the budget (\$275m). The "Overall Conclusions" section in the submittal notes that these five addition/renovation options best meet the project goals and educational program, and will be studied further in the following phase of the study.

- IV. Two new building options (one on the existing site with a project cost of \$279m, and another on a 9.9 acre City-owned site currently used by the City DPW with a project cost of \$297m). The MSBA notes that both of these new building options exceed the District's \$275m budget. As noted in the previous comment, the District does not intend to continue investigation of the new building options (please confirm).

In addition, please note the following:

- V. An "Early Budget Scenario" spreadsheet in Section 6.6 includes the option to add various scope alternatives such as 51,648 gsf of unspecified auxiliary program spaces (\$26m project cost) and various parking garages with field options (\$9m-\$43m project costs). Confirm that the options listed above do not include this added scope and the District does not intend to include them in the options to be brought forward in the subsequent submittals. Explain the City's intent to consider this potential additional scope of work given that the majority of the options listed above exceed the District's budget without these added costs.
- VI. The submittal states that after evaluation of alternate sites, the existing high school site was determined to best suit to project.
- VII. School Building Committee meeting notes dated January 6, 2016 state a desire by the District to save the existing auditorium due to recent (2014) investments.

Response:

- a. No response required
b.

- I. No response required
- II. As described in the educational planning component of this study the school lacks many 21st Century and modern equivalent spaces, a repair or renovation project will result in the loss of existing academic spaces simply to make up for the lack of accessibility and code requirements as described in the due diligence narrative. In many instances there are numerous inefficient spaces that feed into the high multiplier and grossing factor creating the description of available space – including the large existing field house, single loaded and long corridors and excessive stairs. There is approximately 12,000 nsf of un-utilizable space underneath the auditorium.
- III. No response required
- IV. The District has not selected a new building option on either the existing site or the DPW site as one of their three preferred alternatives.
- V. Options 2, 3, 4A & 4B as described in the PDP submission did not necessarily include any of the various scope alternatives shown in the "Early Budget Scenario" document. Subsequent to the submission of the PDP to MSBA, deliberations by the School Building Committee (SBC) have identified that the three preferred alternatives that would include a parking garage with artificial turf field above it, as well as a small subset of existing on-site auxiliary spaces to be maintained at the site.
- The intent behind including a parking structure with turf field in the project is rooted in the compressed parcel available for the high school project in a dense urban environment. The garage/field approach is an efficient method of addressing both parking demand and providing an outdoor physical education environment that is non-existent at the site today.
 - The steep hillside to the north of the current high school does not easily allow for surface parking that would be efficient and accessible or visually appealing in the context of this neighborhood, by parking in a structure the site is more efficiently utilized.
 - The intent behind locating auxiliary space at the high school was originally consolidation of disparate City services that would allow for operational efficiencies. No off-site auxiliary space is currently being considered for relocation as part of the high school project, but there are four existing on-site auxiliary programs for which new space will be planned for as part of the PSR submission. These include Somerville City Cable, Somerville Child Care Center, the Cambridge Health Alliance Teen

Health Center and a DPW operations office. Each of these programs is currently being studied to find utilization overlaps with the high school program that would allow for an optimal additional net area.

VI. No response required
 VII. No response required

3.1.7 Local Actions and Approval – *Provided. Although the District has not proposed a grade reconfiguration or redistricting / consolidation for this project, see the comments above regarding DESE, Somerville School Committee and District official approval to relocate the Next Wave / Full Circle functions to this facility.*

Response:
 No response required

Attachment B Comments

The following review is based on the submitted preliminary space summary for new construction. The final MSBA determination of compliance with MSBA space guidelines in subsequent submittals will vary (in part) depending on the District’s preferred option and the extent that the proposed spaces are located either in existing construction, substantially renovated existing construction, or new construction. MSBA will expect spaces located in new or substantially renovated areas to be compliant with MSBA space standards.

As a comprehensive high school where students rotate their schedule between core academic and career technical education (“CTE”) spaces, the design enrollment used in each category of the evaluation below is determined by the agreed upon design enrollment, modified for each category to reflect the anticipated number of students in that area. Portions of the building will be used either by students in the CTE rotation, in the academic rotation, or, in some areas, by the entire school population. The proposed space summary also includes 75 students in a Next Wave/Full Circle program that are substantially separate from the general school population. This population is indicated in the SPED category.

As detailed below, the FTE student enrollment in the academic rotation is 1,387, the total population of the High School without the Next Wave/Full Circle is 1,515, the CTE population is based on the remaining 128 students, and the total population of the High School including the Next Wave/Full Circle students is 1,590.

Finally, note that the Next Wave/Full Circle area and general SPED population spaces (exclusive of Next Wave/Full Circle) are evaluated separately, and non- Chapter 74 spaces for the general population are evaluated separately from the Chapter 74 approved CTE spaces.

Spaces	Used by	Enrollment Used	Guidelines	Proposed	Difference
Core Academic Spaces	FTE / Academic Equivalent	1,387	65,080	69,580	+4,500
Special Education	Total Population without NWFC	1,515	16,110	11,445	-4,665
Special Education	NWFC only	75	8,514*	8,514	-
Art and Music	FTE / Academic	1,387	8,200	11,120	+2,920

	Equivalent				
Chapter 74 CTE spaces	NA	NA	54,940*	54,940	-
Non-Chapter 74 Voc Tech Program	FTE / Academic Equivalent	1,387	16,000	8,250	-7,750
Health and Physical Education	Total Population without NWFC	1,515	24,684	32,050	+7,366
Media Center	FTE / Academic Equivalent	1,387	8,569	7,500	-1,069
Auditorium and Drama	Total Population without NWFC	1,515	10,400	10,800	+400
Dining and Food Service	Total Population without NWFC	1,515	12,148	12,138	-10
Medical	Total Population without NWFC	1,515	1,310	1,310	-
Administration and Guidance	Total Population without NWFC	1,515	5,678	11,652	+5,974
Custodial and Maintenance	Total Population w/ NWFC	1,590	2,818	3,062	+244
Other	NA	NA	-	500	+500
Total Building Net	Total NSF of the Building		234,451	242,861	+8,410
Total Gross	Total NSF + 50%		351,677	364,290	+12,615
Grossing Factor	NA		1.50	1.50	1.50

**MSBA does not have guidelines for these categories, proposed areas are shown instead in order to calculate allowable building net and gross guidelines area totals.*

Core Academic – The City is proposing to provide a total of 69,580 net square feet (nsf) which is 4,500 nsf above the MSBA guidelines using a FTE academic equivalent enrollment of 1,387.

This overage is due to the addition of a large group instruction room (1,800 nsf), a lecture hall (2,600 nsf), and a language lab (1,100 nsf), and is partially offset by a reduction of one classroom. Note that the lecture hall and language lab are not included in the capacity generating calculation described above, and the large group instruction room is calculated as a capacity generating area for only 23 students. For further consideration of MSBA participation for funding of this additional 4,500 nsf area, please provide clarification regarding anticipated utilization rates of these spaces. Note that, based on the calculation above, area in this category in excess of MSBA space guidelines may be considered ineligible for MSBA funding

Response:

For the purposes of the curriculum space analysis, both the large group instruction room and the lecture hall are being counted as two classroom spaces towards the overall required classroom count for the projected 1,515 student population and an 85% utilization rate. Taking this stance towards the utilization of these two larger spaces will require two classes to co-locate at the same time, reinforcing the direction of inter-disciplinary teaching and learning that are outlined in the educational program. The provision of two different organizations of large scale learning environment is intended for educational diversity, with one space providing the flexibility of a flat floor and the other emulating a formal lecture environment that students may encounter during post-secondary education. The curriculum space analysis indicates a total station requirement of 7.29 for the World Language program for the projected 1,515 student population with a class size of 23 students. With an 85% utilization rate, this equates to a requirement of 8.60 classrooms. The proposed classroom count currently includes a total of 8 World Language classrooms, with the Language Lab accounting for the difference. Currently SHS suffers greatly from the lack of any large flexible open floor teaching environments hindering the multidisciplinary and interactive programming as required in the Educational Program.

Special Education –The City is proposing to provide a total of 11,445 nsf which is 4,665 nsf under the MSBA guidelines using a total population without Next Wave/Full Circle enrollment of 1,515
(for the purposes of this review, the Next Wave/Full Circle spaces are not included in this evaluation). Please note that the Special Education program is subject to approval by the Department of Elementary and Secondary Education (DESE). Formal approval of the City’s proposed Special Education program by the DESE is a prerequisite for executing a Project Funding Agreement with the MSBA.

Response:

Documentation of Special Education spaces will be submitted to DESE in time for their approval prior to PFA execution.

Art and Music – The City is proposing to provide a total of 11,120 nsf which is 2,920 over the MSBA guidelines using a FTE academic equivalent enrollment of 1,387.
This overage is partially due to 3 art rooms that are 240 nsf larger than standard, the proposed addition of a 1,000 nsf photography / dark room, and a 2,250 nsf orchestra space. Note that the orchestra space is not included in the capacity generating calculation described above. For further consideration of MSBA participation for funding of this additional 2,920 nsf area, please provide clarification regarding anticipated utilization rates of these spaces. Note that, based on the calculation above, area in this category in excess of MSBA space guidelines may be considered ineligible for MSBA funding.

Response:

The overage of 240 nsf for the three art rooms is intended to match the area of the science rooms and yield a modular size for the spaces. Given the vertical organization of the school that is necessitated by the compressed urban site, modular sizes of the educational spaces wherever possible is highly desirable to simplify construction. As final design ensues all efforts will be made to properly size (whether slightly smaller or larger for the sake of a simplified organizational plan). See the response to comment 3.1.2.h above for the proposed utilization of the Photography / Dark Room space. The proposed utilization of the Orchestra room is listed below:

Course No.	Subject	Current Students per Subject	Proj. Students, per Subject	Proj. Class Size	Sept.	Sessions Per Week	Total Sessions	Periods Per Week	Total Stations Required	Comments
	PERFORMING ARTS	1,237	1,515							
	Instrumental Music									

852-001	Orchestra	23	28	50	1	4	4	28	0.14	
852S-001										
852S-002	Orchestra - Semester	10	12	50	1	2	2	28	0.07	Semester
853-001	Orchestra Honors	10	12	50	1	4	4	28	0.14	
868-001										
868-002	Advanced Drum Line	13	16	15	1	2	2	28	0.07	Semester
869-001										
869-002	Drum Line	30	37	15	3	2	6	28	0.21	Semester
									0.64	
							0.64	/ .85 =	0.8	Say 1 Orchestra Rooms

Ch. 74 CTE – The City is proposing to provide a total of 54,940 nsf.
Please note that the Chapter 74 CTE programs are subject to approval by the Department of Elementary and Secondary Education (DESE). DESE’s agreement with the City’s proposed CTE program is a prerequisite for executing a Project Funding Agreement with the MSBA.

Response:
 Documentation of Chapter 74 CTE programs will be submitted to DESE in time for their approval prior to PFA execution.

Non-Ch. 74 Voc-Tech – The City is proposing to provide a total of 8,250 nsf which is 7,750 below the MSBA guidelines using a FTE academic equivalent enrollment of 1,387.
The 400 nsf storage room should not be included in this category as programmed net area, and should be included instead as part of the overall building grossing factor. Otherwise the MSBA takes no issue with the remaining proposed area in this category.

Response:
 The purpose of the 400 nsf storage room in question is to accommodate the storage needs of the robotics program. For educational space, the robotics program will utilize the Fabrication Lab – however the storage needs for this program are discreet from the Fabrication Lab itself, and sizable in nature due to the project materials needed. The provision of the dedicated 400 nsf storage room for this purpose was seen as a method of avoiding the creation of a second 1,800 nsf space for robotics, and can be labeled as a Project Support Room if this clarifies its use. Because of its primary role in support of the curriculum, and the benefit of increasing the utilization of the Fabrication Lab it was proposed as net square footage, as opposed to a space pulled from the overall grossing factor. The project team respectfully requests that the storage room in question be classified as programmed net area.

Health and Physical Education – The City is proposing to provide a total of 32,050 nsf which exceeds that included in the MSBA guidelines by 7,366 nsf using a total population without New Wave / Full Circle enrollment of 1,515.
 This overage is due to proposed additional 6,000 nsf of gymnasium area (two additional teaching stations), an additional 2,500 nsf PE alternative space, 500 nsf additional gym storage, 800 nsf athletic storage room, 300 nsf trainer’s office, and an additional 250 nsf health instructor’s office. These overages are partially offset with 2,484 nsf of reduced locker room area. The MSBA notes that there is a 5,000 nsf elevated walking track that is not included in the space summary as net area which must be itemized for project costs in the Project Scope and Budget submittal. Based on the need for the additional teaching stations and the reduced locker room area, the MSBA accepts these variations to the guidelines exclusive of the elevated walking track that will be considered ineligible for MSBA funding.

Response:
 No response required

Media Center – The City is proposing to provide a total of 7,500 nsf which is 1,069 nsf below the MSBA guidelines using a FTE

academic equivalent enrollment of 1,387. <i>The MSBA takes no issue with the proposed area in this category.</i>
Response: No response required
Auditorium/ Drama – The City is proposing to provide a total of 10,800 nsf which is 400 nsf over the MSBA guidelines using a total population without Next Wave/Full Circle enrollment of 1,515. <i>This overage is due to a stage that is 400 nsf larger than MSBA guidelines. Reduce the overall area of this category to conform to guidelines.</i>
Response: The additional 400 nsf is proposed for the stage as a method to increase the utilization of that space. By increasing the size of the stage to a total of 2,000 nsf, SMMA believes that the stage can function as both a stage and a black box theater. The black box theater was a program component that was identified by the District in the educational visioning process as an improvement to their performance space capacity and diversity. The larger stage can provide the black box theater functionality without creating a second dedicated space. The project team respectfully requests that the additional 400 nsf be considered for inclusion in the size of the stage given this clarification of its purpose.
Dining and Food Service - The City is proposing to provide a total of 12,138 nsf which is below the MSBA guidelines by 10 nsf using a total population without Next Wave/Full Circle enrollment of 1,515. <i>The MSBA takes no issue with the proposed area in this category.</i>
Response: No response required
Medical – The City is proposing to provide a total of 1,310 nsf which meets the MSBA guidelines using a total population without Next Wave/Full Circle enrollment of 1,515. <i>The MSBA takes no issue with the proposed area in this category.</i>
Response: No response required
Administration and Guidance – The City is proposing to provide a total of 11,652 nsf which exceeds the MSBA guidelines by 5,974 nsf using a total population without Next Wave/Full Circle enrollment of 1,515. <i>The proposed spaces in excess of MSBA standards includes 4 House Master's Suites totaling 3,200 nsf, an 800 nsf CTE Director Office Suite, various supervisory / spare offices totaling 1,300 nsf, a Meditation Waiting Room, Meditation Room, Meditation Office suite totaling 782 nsf, and a 1,200 nsf ELL Welcome Center. Note that the 5,974 nsf area in this category in excess of MSBA space guidelines may be considered ineligible for MSBA funding, pending evaluation of the District's preferred solution.</i>
Response: No response required
Custodial and Maintenance – The City is proposing to provide a total of 3,062 nsf which exceeds the MSBA guidelines by 244 nsf using a total population including Next Wave/Full Circle enrollment of 1,590. <i>The proposed difference in this category is due to a slightly larger Network/Telecom Room. Reduce the overall area of this category to conform to guidelines.</i>
Response: The size of the Network/Telecom Room identified in the Custodial & Maintenance space category will be reduced to the 200 nsf value noted in the guidelines. The remaining 300 nsf will be shifted into the "Other" space category, as the additional area represents Information Services offices and work area, which are currently located on site at the high school and need to be reconstituted to maintain IT operations.
Other –The City is proposing to provide a total of 500 nsf which exceeds the MSBA guidelines by 500 nsf. <i>This overage is due to a 400 nsf School Store and a 100 nsf PTO Storage Room. Please note that storage areas in excess of those included in the guidelines should be carried in the grossing factor outside of the net area calculation. Otherwise, areas in this category in excess of MSBA space guidelines may be allowed in the project but will be considered ineligible for MSBA funding</i>
Response: The PTO Storage Room will be removed from the "Other" space category and accommodated for in the overall grossing factor as noted. The School Store will remain in the "Other" space category. The School Store, which presently exists at the high school, is run by the CTE students and is a vital part of the business curriculum – providing opportunities for authentic retail skill acquisition.
Total Building Net Floor Area – The City is proposing to provide a total of 242,861 nsf which exceeds the MSBA guidelines by

8,410 nsf using the design enrollment figures in each category as described.

In the response to these review comments, the District should address the items in each category above. Based on the response and in subsequent phases of the study, the MSBA will review the proposed project for conformance with the MSBA guidelines and programmatic needs that may vary from the guidelines.

Response:

No response required

Total Building Gross Floor Area – The City is proposing to provide a total of 364,290 gsf which exceeds the MSBA guidelines by 12,615 gsf using the total net square feet of the guidelines plus 50%.

The allowable Total Building Gross Floor Area will be based on the allowable Total Building Net Floor Area and a grossing factor of 1.5, to be determined upon MSBA review of the Schematic Design submittal.

Response:

No response required

Please note that upon moving forward into subsequent phases of the proposed project, the Designer will be required to confirm in writing, with each submission, that the design remains in accordance with the MSBA guidelines and that they have not deviated from the allowable gross square footage and educational program approved in the previous submittals.

Response:

Acknowledged

Very truly yours,

SMMA | Symmes Maini & McKee Associates

Lorraine B. Finnegan, AIA
Principal

cc: ACP, MDR, PMA, City of Somerville, Somerville School Department (MF)

enclosures: