

**Town of Brookline**

**JOHN R. PIERCE**

**K-8 SCHOOL**

**EDUCATIONAL PROGRAM**



*A description prepared for the Feasibility Study's Preliminary Design Program Submission to the Massachusetts School Building Authority*

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## **I. INTRODUCTION**

The Public Schools of Brookline provides educational programs for students in Preschool through Grade 12 in eight elementary schools and one comprehensive high school. In addition to traditional academic programs, the Public Schools of Brookline offer adult education courses, summer school, enrichment programs, and numerous athletic opportunities. As of October 2020, there were 6,891 students Pre-K through grade 12 students enrolled in the Public Schools of Brookline.

For decades, Brookline has educated its children in PreK-8 elementary schools to promote a strong community between older and younger students, reduce school transitions, support middle school students with relationships developed over time, develop strong relationships with families that have students in a school for a longer period of time, and provide a wide variety of curriculum offerings across many grade levels. The Town and the school community continue their unwavering support of the PreK-8 elementary school model. The eight elementary schools educate students in grades kindergarten through eighth grade, with an October 1, 2020 District-wide enrollment of 4,856 students. Typically, students attend the Brookline elementary school in their geographical neighborhoods.

The Public Schools Brookline has a long, proud history of academic excellence. Our schools are the heart of our community neighborhoods. Brookline is thrilled to be collaborating with MSBA on the Pierce School Project and take seriously this opportunity to create a forward-thinking school that not only supports our drive for academic excellence but also promotes and continuously challenges it. Art

Our Mission Statement reads *“Our **mission** is to ensure that every student develops the skills and knowledge to pursue a productive and fulfilling life, to participate thoughtfully in a democracy, and succeed in a diverse and evolving global society.”*

Enrollment over the past ten years, current enrollment and MSBA projections for the next ten years indicate a slight decline in student enrollment is expected. The agreed upon Grade Configuration and Design Enrollment with MSBA was a Kindergarten through Grade 8 school for 725 students and a Pre-Kindergarten enrollment of 48 students.

The following charts indicate the enrollment trends and projections.

### Total Enrollment by Year

YEAR	Total Enrollment
2011-2012	<b>716</b>
2012-2013	<b>752</b>
2013-2014	<b>783</b>
2014-2015	<b>815</b>
2015-2016	<b>824</b>
2016-2017	<b>854</b>
2017-2018	<b>859</b>
2018-2019	<b>865</b>
2019-2020	<b>842</b>
2020-2021	<b>709</b>
2021-2022*	852
2022-2023*	833
2023-2024*	811
2024-2025*	794
2025-2026*	788
2026-2027*	771
2027-2028*	758
2028-2029*	746
2029-2030*	739

### Current Total Enrollment by Grade

GRADE	Pierce Enrollment	District Enrollment
PRE-KINDERGARTEN	0	153
KINDERGARTEN	93	488
1	95	501
2	96	505
3	91	545
4	104	495
5	106	543
<b>Total Pre K – Grade 5</b>	<b>585</b>	<b>3,320</b>
6	103	568
7	79	503
8	75	555
<b>Total Grades 6 - 8</b>	<b>257</b>	<b>1,626</b>
9	0	509
10	0	490
11	0	573
12	0	503
<b>Total Grades 9 - 12</b>	<b>0</b>	<b>2,017</b>
<b>Total Enrollment</b>	<b>842</b>	<b>6,891</b>

\*projected per the Cropper GIS report by McKibben Demographics dated February 4, 2020

## **II. JOHN R. PIERCE SCHOOL INFORMATION**

### **A. BACKGROUND AND VISION**

The Pierce School is a K-8 teaching and learning community located in the heart of Brookline. Pierce is situated in a campus-like setting, with classrooms in three separate buildings - the Main Building contains three "units", known as A,B and C. The Historical Building is an adjacent building and the Sperber Education Center (SEC) is a part of the main building, however there is no interior connection to the primary building. There is a tunnel that connects the main building to the historical building, but it travels through a second-grade classroom and up and down levels and therefore is not used for most transitions. The SEC is located at the parking garage level and not connected internally with either of the other two buildings. Pierce is situated in one of the most densely populated areas of Brookline and welcomes students from four "buffer zones" within the town.

Pierce School values the diverse backgrounds from which all of our students come. Pierce School's teaching and learning is grounded in collaboration that promotes equity, academic achievement and the social-emotional well-being of all students. Collaboration among students, staff and families is highly valued. The "open plan" school building that Pierce has occupied since 1974 encourages collaborative teaching and learning which has proven to be an effective learning environment for our innovative and dynamic academic program. However, the open plan of the school has also provided its share of challenges with regard to noise attenuation, wayfinding and controlled connectivity. With the opportunity to renovate or replace the Pierce School facility, we hope to preserve important elements of its uniqueness and collegiality, while also addressing these challenges.

Our active parent community and PTO allows students and families to experience a variety of extra-curricular and enhanced school day programming. Programs such as Coder's Club, The Penguin Post school newspaper, annual FitFEST and the Pierce Performing Arts program are all parent-sponsored events of incredible value to students as they provide additional opportunities that nurture the "whole child". Educators come together in venues such as Common Planning Time, Child Study Teams and faculty meetings to focus on optimal academic achievement and social-emotional development of our students.

Currently, the system-wide program offered at Pierce is the Chinese Native Language Support program. In typical years this program serves roughly 120 students across K-8 (17-18% of the overall school population), with the majority being in Grades K-3. Pandemic border closings have led to a significant decrease in enrollment in this program, however we expect as borders re-open we will return to these numbers. Because this is, at present, the only district-wide Chinese Native Language program, we expect numbers to return to pre-pandemic levels. In this program, there are currently 2 EL teachers who are fluent in Chinese. Students enrolled in this program may be assigned to one of these teachers who provide primary language support as needed for clarification purposes or additional explanations only. The language of instruction is English and materials are also in English.

Approximately 26.2% of Brookline's English learners attend a school outside of their zoned school(s) in order to receive native language support. Due to Pierce's location near universities and hospitals and the relatively large number of rental units within the district, Pierce has a large number of families who relocate to our district for 1-2-year positions. This trend was increasing steadily until borders were closed by the Covid-19 pandemic. Students typically arrive in late summer (August) or in December/January with their families and depart on a

similar schedule. This has led to a large “churn” rate, especially in our younger grades.

In 2005, Pierce was a 3-section school. Over the 15 years that followed, enrollment increased steadily, often matching or exceeding the district growth rate and led the school to become a 5-section school. With several schools in close proximity to one another in North Brookline, Pierce experienced significant overcrowding, especially as more Chinese language learner families began moving to the district so they could walk to their assigned school. In 2018, Pierce reached its peak enrollment (865 as of October 1, 2018), and overcrowding became more severe. By this time the district was renting classroom space in an adjacent building and was using the teen center, a block away, for PE, health and/or music instruction. This overcrowding appeared to lead to some families leaving the neighborhood or district in search of less crowded schools. Enrollment appeared to level off (842 as of October 1, 2019) but then dropped significantly as a result of the Covid-19 Pandemic, with a total of 709 enrolled students as of October 1, 2020. Enrollment for fall of 2021 is expected to rise to pre-Covid enrollment.

## **B. GRADE AND SCHOOL CONFIGURATION POLICIES**

### **Current Pierce School**

Pierce is one of the larger of the eight elementary schools in Brookline. In 2019-2020 Pierce had 5 sections in grade K-6, and 4 sections in grades 7 and 8. Enrollment has shifted due to the pandemic and in 2020-21, Pierce has 5 sections of Kindergarten and 4 sections across all other grades. For the 2021-2022 school year, we anticipate with the return of our Remote Learning Academy students that Pierce will have 5 sections in grades 1, 7 and 8 and 4 sections at all other grades.

Due to the existing space deficiencies, including a three section campus without logical or efficient connection, Pierce faces several challenges:

- Some grade level teams are disconnected from one another.
- K classrooms do not all have access to attached bathrooms, requiring our youngest students to share bathrooms with middle school students.
- Overall the number of bathrooms is not adequate for the school population.
- Due to the existing concrete and brick structure, adequate access to electrical outlets is not consistent, and wireless connectivity is weak in several zones of the school.
- Open space classrooms face significant acoustic challenges.
- Classroom placement decisions are at times complicated by student needs for closed classrooms, especially in those grades where only one traditional closed classroom exists.
- Students are in mixed grade levels across two of buildings, creating traffic pattern challenges and leading to significant learning time loss due to transitions.
- Some teachers, including OT, PT, and APE, in addition EL instructors and math specialists do not have spaces where they can reliably service their students. These teachers work in hallways, teacher work rooms, or other locations not designed for that purpose.

### **Proposed Pierce School**

The Town of Brookline intends for the renovated or new Pierce School to serve 4 sections across all grades and 3-sections of Pre-K.

Ultimately, Public Schools Brookline's philosophy of education aligns with the concepts and framework of the Universal Design for Learning and will be striving to create a school that supports this framework.

Universal Design for Learning (UDL) is an extension of the architectural concept of Universal Design where curriculum is adapted: "UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone--not a single, one-size-fits-all solution

but rather flexible approaches that can be customized and adjusted for individual needs.” <http://www.udlcenter.org/aboutudl/whatisudl>  
Consistent with this concept is the plan that all students with special needs have classes that are in no way segregated or isolated.

### **C. CLASS SIZE POLICIES**

The Brookline School Committee, Brookline district leadership, and the Brookline Educators Union recognize that class size is an important factor in quality education. While recognizing that a steadily increasing enrollment in Brookline, coupled with limited space in our school buildings, has put pressure on class sizes, the average system wide class size has remained relatively steady during the recent 8-year period of enrollment growth. A goal of the new Pierce facility is to create classroom spaces that are personalized, yet flexible learning environments, which lend themselves to small group work, teacher-led, and independent work.

Pierce will serve a design enrollment of 725 students and 48 Pre-K students from the immediate geographic neighborhood with a majority of students living close enough to walk to school. Based on current anticipated enrollment and the School Committee's commitment to achieving class sizes of 18 or fewer in kindergarten and 21 or fewer in grades 1-8, the number of required classrooms is outlined below.

The Public Schools Brookline prides itself on delivering small class sizes, and our community has an expectation of small class sizes at the elementary level. The Brookline School Committee sets a target for class sizes with the expectation that class sizes will be below the policy guidelines. Past practice on class size reflects numerous factors affecting teaching and learning conditions including the function of the school.

The School Committee expects the Leadership Team to make all reasonable efforts to maintain class size at educationally effective levels, taking into consideration federal and state requirements, availability of

qualified staff, existing facilities and budgetary limitations. In determining class size, the Leadership Team also considers any extenuating circumstances that, in the opinion of the principal and teacher, warrant special attention.

Uniformity in class size is not the goal of the policy since the average class size will vary in different subjects and grade levels. Lower teacher/student ratios enhance the educational process with younger students requiring more individualized attention. Therefore, the recommended class size in the elementary and secondary schools are determined by grade level with exceptions made for classes in certain subject areas, the need for specialized instruction, and the availability of classroom space and equipment for the particular course of study.

<b>Grade</b>	<b>Policy Recommended Max. Class Size</b>	<b>Current Average Pierce Class Size</b>	<b>Target Class Size</b>
Pre-K	16	N/A	14-16
Kindergarten	18	19	16-18
Grades 1-8	21	22	19-21

This following chart indicates how the student enrollment per grade when the school opens for the 2025-2026 school year. There will be 4 sections per grade with 3 sections for Pre-K. The classroom size falls within the targeted range of average classroom size to provide the flexibility to accommodate extenuating circumstances and to allow the school to function as a 4-section school. Pre-K is not part of the design enrollment number, but is an integral part of Brookline's programming.

<b>Grade Level</b>	<b>Number of Homeroom classes</b>	<b>Anticipated Average Class Size</b>	<b>Enrollment with Avg. Class Size</b>
Pre-K	3	16	48
Grade K	4	18	72
Grade 1	4	20	80
Grade 2	4	20	80
Grade 3	4	20	80
Grade 4	4	20	80
Grade 5	4	20	80
Grade 6	4	21	84
Grade 7	4	21	84
Grade 8	4	21	84
Total	39		725 + 48 PK

Historically, all Brookline elementary schools have housed pre-kindergarten classrooms, providing inclusive educational opportunities to the children of Brookline. Since 2012, pre-kindergarten classes have been moved out of most elementary schools to other leased sites in town due to increasing enrollment and space constraints. Brookline values PreK-8 configurations and believes that pre-kindergarten classes serve most students best as part of a contiguous PreK-8 school community. Universal early childhood education is now being considered on the Federal level and space will be needed for a Pre-K program. Therefore, the Pierce School will include three pre-kindergarten classrooms, allowing more of the Town's youngest learners to be educated within an elementary school setting.

Through programming and physical space this school will also take into consideration the separate and distinct needs of 6-8th grade students while still allowing older students to be leaders and role models for the entire school community and interact with and support their younger peers. The middle school program should have a space that is distinctly theirs and that provides a sense of “graduating” to a different and unique part of the school community. At the same time, it should feel “semi-permeable” in that the middle school program should not feel sequestered or separate from the rest of the school. In our middle school model, grades 6-8 consists of 5 core content areas: math, science, English language arts, and world language. Therefore, each middle school grade requires 5 classrooms per grade in order to allow for the scheduling flexibility to maintain a rigorous academic program that is driven by the content and student needs versus space restrictions.

#### **D. SCHOOL SCHEDULING METHOD**

The Public Schools of Brookline has a rich program of specials – visual arts, performing arts, physical education, and health -- that allows students to begin to develop mastery in these areas within separate classes and through the integration of these subjects with the other disciplines. An additional benefit of these classes is the use of this time for teachers' planning (individual and common planning time). Appropriate space for the specialists to provide a high level of instruction is essential. At present we have many staff who need to share spaces; this means that space needs often drive our schedule, rather than our schedule being driven by student needs. Appropriate and adequate space should be part of the design for specialist programs. Such spaces would allow for student workspace, collaboration between students, teacher storage, and student storage.

Within a school week, all students in the school will take as many as five specials (typically two music, one art, and two physical education classes). For music, grades 4-8, students take Conservatory classes. With all grade 6-8 students scheduled simultaneously in Conservatory classes, students participating in Conservatory will need to be scheduled in up to 8 different spaces that can support music/performing arts instruction. Students also receive regular instruction in library and technology use that is scheduled with the librarian and the education technology specialist - this programming varies by grade level.

The visual arts room requires storage that can accommodate the ongoing work of hundreds of students, stored from week to week as students are working on their projects. The school will also require spaces to display artwork and student work throughout the school.

To properly schedule high-quality physical education across pre-K through 8, four appropriately sized teaching stations will be required.

K-5 students take world language within their homeroom classes, while students in sixth through eighth grade have dedicated world language classrooms. The world language program is described in detail later in the document and listed here only for purposes of understanding the complexity of the Pierce School scheduling process. In grades K-6 world language is taught three times per week with the length of each class period lengthening as the grade level increases. Because there are simultaneous Spanish and Mandarin classes, a dedicated classroom is required. Students in grades 7-8 should receive world language instruction 5 times per week.

The English Language Education (ELE) program is another area of attention in the school district's master schedule. We provide support in English language instruction primarily through pull-out services, as determined by the student's level of English proficiency. Students at the

entering and developing stage, and those who participate in the Native Language Support Program need classrooms designated for English language education. We anticipate needing four half-size ELE classrooms in the Pierce School to provide instructional support in small group and whole-class settings for students for a range of 4 to 12 students at a time.

In addition to the spaces needed for the programming described above, the Pierce School must also provide additional types of spaces for the teaching and learning that is aligned to our local standards and our strategic goals. These include:

- Appropriate spaces to schedule math specialists and literacy specialists providing intervention services to students;
- Special education services stationed and provided throughout the school with proximity to the clustered grade levels and access to small group spaces;
- Fully accessible classrooms allowing students with physical disabilities to be scheduled into any learning space in the building;
- Open spaces/makerspaces and a Fab Lab that support the work of the Engineering Design Process including defining problems, and exploring, creating, testing, and refining solutions and capturing the spirit of our open space historical experience;
- Grade-level project areas to allow elementary teachers to collaborate on interdisciplinary and project-based learning across all the classes of the grade, integrating student learning across disciplines;
- Grade level clusters that allow elementary world language teachers to move from class to class across a grade level more efficiently;
- Instrumental lessons conducted in the proper space, and not in an open classroom, hallway or an alcove where they disrupt other classes; We anticipate classes will be provided in strings, chorus,

clarinet, guitar, band and orchestra with additional small group lessons;

- Appropriate professional spaces available for teacher collaboration during common planning time;
- Adequate and secure storage spaces with moveable furniture allowing use by multiple users;
- Availability of appropriate open space for informal gathering; and
- Adequate spaces (walls, glass cabinets, display areas) for extended display of student work so that a space is not deemed “not available” while displaying student work.

The Pierce School schedule reflects an effort to designate adequate time dedicated to each core content area K-8.

In addition, specialist programs, which enhance the core program and provide contractual preparation time for classroom teachers, are also scheduled K-8. (Under Article 43, Section I - Teaching Hours and Teaching Loads – Each elementary teacher (K-6) will be scheduled for a daily preparation period. In a five-day week, at least four (4) of these preparation periods will be scheduled for at least forty (40) minutes in length, while the fifth will be scheduled for at least thirty (30) minutes in length. Such preparation periods are exclusive of the one-half (1/2) hour duty-free lunch period per day. The employee's supervisor shall have the responsibility to schedule preparation and lunch periods).

One challenge of scheduling a K-8 building is the divergent minutes of time each grade level needs. Pierce thinks of scheduling in 3 “chunks” - K-2, 3-5, and 6-8. Below are the time allocations for each grade level band. Note that we avoid scheduling specials for students in K-2 first or last period, as these are very challenging times for our youngest students.

## **Grades K-2**

Reading/Writing	450 minutes
Mathematics	300 minutes
Science/Technology/Engineering	65 minutes
Social Studies	65 minutes
Social Curriculum	150 minutes
Elementary W.L.	60 minutes
Art	45 minutes
Music	90 minutes
Physical Education	90 minutes

**Grades 3-5**

Reading/Writing	400 minutes
Mathematics	300 minutes
Science/Technology/Engineering	65 minutes
Social Studies	65 minutes
Social Curriculum	100 minutes
Elementary W.L.	90 minutes
Art	45 minutes
Music	90 minutes

(Includes Conservatory  
Grades 4 - 8)

Physical Education	90 minutes
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**Grades 6-8**

Reading/Writing	225 minutes
Mathematics	225 minutes
Science/Technology/Engineering	225 minutes
Social Studies	225 minutes
Social Curriculum	75 minutes
Elementary W.L.	135 minutes (Grade 6) 225 minutes (Grades 7-8)
Art	45 minutes

Music	90 minutes (Includes Conservatory grades 4 - 8)
Physical Education	90 minutes
Health and Wellness	90 minutes (Grades 7-8)*

*\*Note the district intends to expand this to include Grade 6. A plan has been developed but is not yet being implemented.*

## **E. TEACHING METHODOLOGY AND STRUCTURE**

“Form follows function” is a fundamental principle in science/engineering. The Pierce School expansion provides the opportunity to create the school facility in a form that supports the functions of 21st century education and promotes the collaboration that drives the high-quality and innovative teaching and learning that is called for in our strategic plan goals.

Brookline’s Learning Expectations meet or exceed the rigorous Massachusetts Curriculum Frameworks (which are based on the Common Core). The Brookline Learning Expectations have been developed by teams of teachers, led by curriculum coordinators, and are based on state and national standards. The Brookline School Committee reviews and approves the Learning Expectations for the district.

Our K-8 curriculum units and instructional materials are developed and identified to support all students in meeting the Learning Expectations. Units of study are constantly being revised and/or replaced as new units are developed and added that incorporate new content, materials, assessments and technology that are better aligned with our Learning Expectations. An emphasis on interdisciplinary work is also a goal as we work to provide the highest quality curriculum and instruction to every

student. We teach for understanding and mastery of the Learning Expectations and pay particular attention to personalization, 21st Century skills (e.g., critical thinking), Habits of Mind (e.g., growth mindset), social-emotional learning (e.g., respect for self and others), and non-cognitive skills (e.g., perseverance). The Pierce School will prioritize a collaborative, project-based learning approach that integrates disciplines, and engages students in working together, solving problems, investigating the world, thinking critically, demonstrating their learning, and taking action.

An overview of Brookline's educational programs follows that includes descriptions of how the new school building will support and promote this pedagogy to enable us to meet our goal of fully preparing students for their futures.

#### **a. Flexible Groupings**

General education teachers engage in flexible grouping methods to meet the instructional needs of their students and as determined in collaboration with special educators and other instructional specialists. Grouping and regrouping methods take place weekly within classrooms and among grade level classrooms. General education, special education, literacy and math specialists, and ELL teachers collaborate to provide tier one (general curriculum), tier two (strategic intervention) and tier three (intensive intervention) in the inclusive environment. Pullout instruction is provided for students who require it, based on their personalized instructional needs within tier two and tier three programming. There is shared responsibility among the faculty for all students' success.

Grade-level classrooms K-5 are organized in clusters where possible, however very few true clusters are possible. K and 1 classrooms are divided across two floors within the historic building, with 4 K classrooms and 2 first grade classrooms on the first floor. The second

floor houses one K classroom, three 1st grade classrooms, a 7th grade math classroom and an 8th grade math classroom. Grade 2 is stacked in Unit C, and classrooms are in close proximity to one another, allowing for ideal collaboration. Grade 3 classrooms are split between the 1st and 2nd floor of unit A. Grade 4 classrooms are all adjacent on the 2nd floor of unit A, while grade 5 classrooms are all adjacent on the 1st floor of unit A. 6th grade classrooms are relatively adjacent on the 2nd floor of unit A, excepting science, which is on the opposite side of unit A on the 1st floor.

Current architectural aspects of Pierce School, including three buildings with separate access points, preclude all the necessary adjacencies to ensure team proximity for Grades 7 and 8, which limits teacher collaboration and cross curricular projects.

**i. Implications for Design**

Close proximity is critical in order to achieve the requisite communication and collaboration for flexible grouping methods in grade level teams. Classroom clusters should be co-located with access to adjacent breakout rooms, extended learning areas, resource rooms, and storage areas.

**b. Social/Emotional Learning**

Responsive Classroom (K-2), Restorative Justice (3-8), and Positive Behavior Intervention and Support (PBIS) (K-8) represent the core social-emotional work at Pierce. Responsive Classroom is a student-centered, social and emotional learning curriculum. Restorative Justice from Suffolk University supports a growing social movement to build just and equitable communities and to institutionalize restorative approaches to problem-solving and harm. PBIS is a systems approach for establishing the social culture and individualized behavioral supports needed for schools to achieve both social and academic success for all students. PBIS allows for an

environment that is predictable by ensuring a common language and expectations among staff and students.

**i. Implications for Design**

Responsive Classroom, Restorative Justice and PBIS require classroom meeting areas to conduct “morning meetings” or “advisory” meetings. Each classroom should have an area zoned for these class meetings and other like functions, which should be a part of the larger room. Many staff members also lead Tier II instruction with small groups of students that focus on relationship building positive peer relationships.

**F. TEACHER PLANNING AND ROOM ASSIGNMENT POLICIES**

Below is a description of the current room assignment policies as well as how the Pierce School is currently organized due to space limitations.

**a. Unit A**

Unit A is three levels of primarily open concept classrooms. It houses our school library, most of the classrooms for grades 3-5, and a 6th and 8th grade science class. Grade level team meetings for 3-6th grade take place in Unit A while classes are being held in adjoining open spaces. Our guidance area is located in Unit A as well, with offices for guidance counselors, a shared classroom used by two special education teachers, and a literacy specialist space shared by 2 teachers. One of our EL teachers has a corner of the public conference room for her classroom. Students have very limited privacy in this area. We also have three of our EL teachers' classrooms in unit A, two sharing a very small closed space above the 8th grade science classroom and one in the “Crow's Nest” at the top of the open space. The library is a space where students have library instructional time, and where students from classrooms in the core go to take a break, do research, work in pairs or small groups, or

conference with teachers. The middle level of the library also serves as our Maker Space for the entire school and is without any walls separating itself from the larger classroom space. Our Maker Space is used primarily by lower grade students, in large part because of its location in open space, and due to the limited square footage of the space. The location and size also limit the tools and technology that can be explored within the Maker Space. An appropriately sized closed space would allow all grade levels to use this space.

**b. Unit B**

Unit B and the hallways leading to it house our 2 art rooms, 2 music classrooms (which were once one room and have been subdivided to make 2), our 7th grade science classroom, our gym, 2 world language classrooms, 1 EL classroom, our cafeteria and auditorium. Our gym is used for PE classes as well as large group music classes. Our auditorium/multipurpose room is used for lower grade PE classes, upper grade music classes, grade level assemblies and celebrations. It has a flat floor with retractable bleacher seating and is presently used for large group music instruction, physical education, grade level assemblies, and after school arts / performances. It is not large enough to hold more than  $\frac{1}{3}$  of our school population without seating students on the floors and in aisles. Because it lacks storage, we use the gym locker rooms for storage space for our theater program and the auditorium. Our EL teacher has a table outside of her room because the space is too small for small groups to work effectively within the room. The lower grade vice principals share an office near this part of the building, our building aid has a small space here and our METCO and Steps to Success programs share a space that is sandwiched between those spaces (and thus has no private entry) nor privacy. The Middle School Vice Principal uses this space for meetings and phone calls and all three VPs use this space to meet with and support students, hold parent meetings, provide a break space and hold in-school suspensions.

**c. Unit C**

Unit C houses all of our 2nd grade classrooms, a world language classroom (which is a transformed hallway with walls that do not go all the way to the ceiling), 4- 6th grade classrooms, our OT space which is very undersized for our population, as well as our multipurpose PIT space. This Pit is used for APE, special education movement space, whole grade level meetings, break spaces and small assemblies. Our math specialists have an office in a mechanical room above 6th grade classrooms.

**d. Historical Building**

The Historical Building houses all K-1 students, plus 7<sup>th</sup> and 8<sup>th</sup> grade math classes. Closets have been converted to office and student workspaces, including for literacy instruction and OT/APE support staff. Classroom teachers use hallway spaces as extensions of their classrooms as they are undersized for early childhood spaces. Closets within classrooms have been converted to bathrooms in several cases.

**e. SEC**

The SEC houses two 8th grade classrooms (ELA and Social Studies), two middle grade learning centers, and numerous small offices. Students must transition outside of the building along two busy streets to access this space.

Transition time between our multiple buildings and wings takes away from student learning time, with as many as 100 minutes per week of instructional time lost.

**f. Implications for Design**

Better functional and spatial relationships and adjacencies are the key to the successful design of the new facility. With addressing the diverse needs of learners and community being core values of the Pierce School, the newly built school needs to be a warm and inviting place for all children, families, and staff.

Students thrive in a learning community where teachers know them well; in a community that supports a sense of safety, respect and trust; and in a community that is energizing and promotes creativity and flexibility. To promote a small school feel, the educational plan calls for clustering grade levels. Grade levels should be clustered in three grade spans (PK-2, 3-5, and 6-8) that will allow for a more personalized learning environment and help ensure that every single student feels closely connected to their teachers, classroom, and fellow students.

Clustering in these three groupings will support a professional culture where educators work in teams within each cluster and take collective responsibility for preparing students in their grade span for the upcoming grade span. Each cluster should have a sufficient number of learning areas inside and outside of classrooms for small group work, and specialized instruction, and collaboration to support the school and district's emphasis on inclusive practices. This physical organization creates the intimacy and scale necessary for educators and students to continue to build Pierce's caring, connected, and collaborative learning community in the rebuilt and expanded school building.

While these clusters will help create an intimate and personal feel for students, they are not meant to operate as separate learning communities. The three clusters must be linked physically and educationally to create a PreK-8 school community that is an integrated whole. Easily accessible common core spaces, flexible

teaching spaces, collaborative learning areas, and project spaces, the cafeteria, multipurpose room, and other core spaces should serve as the connective tissue that bring the community together. Pierce requires a welcoming and easily accessible community arrival space that can accommodate the influx of students during morning and support arrival and dismissal procedures that can easily be monitored by staff.

Input from teachers, principals, and district administrators makes it clear that classroom spaces need to be adaptable to the many different structures and instructional methods used today and into the future and should allow for teacher collaboration both within grade level teams and across specialists. While the choice of classroom furniture will play a large role in how flexibly a classroom can be used, the model classroom will have some consistent features such as areas for small group instruction and work, a nook for students to work independently or in pairs, a seating area at desks or tables for an entire class for full group instruction, counter space that abuts a wall and can be used for individuals to work at while standing or sitting on stools, integrated technology (interactive projector and white board, ELMO, etc.) magnetic whiteboard space to be used during instruction as well as display space, and built in storage.

The students, faculty and parent community in Brookline value spaces where the school community can gather to celebrate learning and to spotlight the arts through assemblies and performances. After school, extended day programming has and will be provided until 6:00 p.m. with several hundred students participating in these programs on a daily basis. While the extended day program will utilize the learning spaces in the building, an administrative office with storage space designed specifically for their needs will be essential.

The Pierce School is a relationship-oriented community that practices and values inclusive partnerships and mutual support in all aspects of the school community. This is the overall spirit of the school that will drive the design of the facility.

## **G. OTHER SUPPORT PROGRAMS**

### **a. METCO**

The Public Schools of Brookline and the Pierce School have long been a founder and participant district in the Metropolitan Council for Educational Opportunity (METCO) Program. METCO is a school integration program that enrolls Boston students in high-performing public schools in suburbs to reduce racial isolation. There are currently 26 Boston students enrolled at Pierce. These families are fully included in the Pierce community and receive additional support from the Pierce METCO liaison.

### **b. Steps to Success Program (STS)**

The Public Schools of Brookline, including the Pierce School also participates in the Steps to Success Program (STS). The mission of STS is to promote equity for students from low-income families in Brookline by expanding their horizons, building upon their skills, and supporting their educational journey in order to maximize their life choices. STS has served more than 4,000 students to date, through school time programs such as after-school, vacation programs and camp access, career readiness through paid internships and workshops, and college success through advising, mentoring, and financial aid access. Pierce currently has 25 students that receive services and support from STS. The STS program offers an After-Hours University, which also requires space for students to receive homework support and tutoring, as well as enrichment club options and gross motor activities.

**c. Pierce School Extended Day (PSED)**

The Pierce School extended day program (PSED) has been in existence for the last 40 years. It is a critical part of the school as it is in all Brookline Public elementary schools. They provide space for a K-5 extended day program that operates until 6:00 pm via the Pierce School Extended Day program (PSED). Approximately 200 students participate in this program daily Monday through Friday. Community gathering space is necessary, as well as smaller spaces for homework support, small group activities and gross motor play. PSED also conducts a series of clubs after school, Mondays through Fridays, until 6:00 pm. This program offers students in grades K-6 club options that require use of space to engage in art, drama, and sports activities.

**d. Intramural and Extramural Activities**

The Pierce School hosts a variety of extramural programs via the Public Schools of Brookline as well as intramural athletic programs via Brookline Recreation Department. These programs utilize outdoor field space and the large gym for programming. The new design should include a large gym with space for bleachers to accommodate spectators during athletic events.

**e. PTO**

The PTO and parent volunteers are actively involved in before, during and after school programs and need a small office to be able to work out of and to store items.

**f. Community Service Programs**

Pierce staff and students take pride in the schools' outreach efforts and community service programs. Annual community service and outreach programs include:

- Boston Healthcare for the Homeless Sock Drive
- Cradles to Crayon supply drives
- 8th Grade Service Learning Projects

- Food Collection for the Brookline Food Pantry
- Girls on the Run (GOTR) Boston
- International Night
- Climate Adaptation Science Fair
- Project Bread's Walk for Hunger
- Spelling and Geography Bees
- Math League Intra-District Competitions

## **H. PRE-KINDERGARTEN & KINDERGARTEN**

### **Pre-Kindergarten**

The Early Childhood Program provides comprehensive, developmentally appropriate, inclusive educational opportunities to the children of Brookline. The Brookline Early Education Program (BEEP) consists of 24 programs serving 345 children. BEEP Pre-kindergarten programs are two-year programs and serve children ages 3-5. The BEEP Preschool programs are one-year programs that serves children ages 2.6 to 3.5. Classroom teachers use a Developmental Profile of Goals when designing their classes' curriculum content. The inclusive preschool and pre-kindergarten classrooms typically have a teaching staff of one early childhood master teacher and two support staff for 14-16 students. Each classroom is designed to meet the individual needs of young children with and without identified special needs. Multidisciplinary therapists work with teachers to provide appropriate services within the classroom and to enrich the learning opportunities for all.

With the inclusion of three pre-kindergarten classrooms at Pierce, appropriate small groups therapy space and specialists' offices should also be incorporated into the plan.

Historically, all Brookline Elementary Schools have housed pre-kindergarten classrooms, providing the aforementioned inclusive

educational opportunities to the children of Brookline. In 2013 pre-kindergarten classes were moved out of the Pierce School and displaced to other sites in town due to increasing enrollment and space constraints. The Pierce building project affords the opportunity to create three pre-kindergarten classrooms allowing for the Pierce community's youngest learners to once again be in an elementary school setting that promotes the continuity that is so important for early childhood learners. These classrooms will be inclusive half-day classes (8AM to 12:15PM). Some students will have identified special education needs (approximately 30 to 35%), others are financially vulnerable and will be supported by district financial assistance funding (10 to 12%), and others students' families will pay tuition. Options for extended school day until 2:30 will be available for students.

## **Kindergarten**

Brookline Public Schools offer full day kindergarten to all students who will turn 5 prior to September 1st of their enrolling year. At present the kindergarten classrooms are located on the 1st and 2nd floor of the Pierce historical building. 2 of the classrooms have bathrooms within the classroom, and two have nearby bathrooms that students can access but that are shared with middle school students. A small "K playground" is located outside the historical building. This area has artificial turf and a small play structure. Efforts at storing equipment in locked bins have led to vandalism and resulted in the loss of equipment, as this space is publicly accessible and surrounded by other buildings

## **I. GRADES 1-8**

### **a. ENGLISH LANGUAGE ARTS/LITERACY**

The English Language Arts Program serves to develop, assess, and support instructional practices for effective learning in reading, writing, and speaking. Staff development is provided based on

student and program needs across the system. The K-8 Language Arts program emphasizes explicit instruction in strategies of proficient readers and writers. These strategies are critical for effective reading and writing across the curriculum. Brookline uses The Continuum of Literacy Learning, PreK-8 (Fountas & Pinnell), a comprehensive and detailed description of student proficiency in literacy, as the document that guides daily instruction.

Literacy Specialists in each elementary school provide reading and writing support to teachers and students. Literacy specialists primarily pull same grade level small groups of students for literacy support services. Currently, these spaces are “borrowed” office and closet spaces, and the size of groups is limited by the size of the room in question.

Schedules for Grades 1 – 5 reflect a daily, 90-minute literacy block. During this protected instructional block, students receive small group reading instruction from their classroom teachers and participate in a variety of language arts learning centers, allowing students to refine reading and writing skills. Intervention for students who receive targeted literacy interventions is provided by one of our four literacy specialists. In grades 6-8 students have a daily 45-50 minute block of English Language Arts instruction. Students requiring additional support and literacy intervention receive targeted instruction from classroom teachers, special educators and ELL teachers during designated 45-minute instructional blocks each day.

Assessment practices include: running records and system-wide instruments including the Benchmark Assessment System (BAS). Teachers use other informal weekly assessments in an effort to measure student progress. Grade level data meetings are conducted two times per year, to examine whole class and small group instructional implications as well as identify students and

develop plans for individual literacy interventions. Tier 2 Intervention includes the Leveled Literacy Intervention (LLI) and Reading Recovery (grade 1).

**i. Implications for Design**

Although most of the reading and writing instruction takes place within the classroom environment, and across content areas, smaller work areas are necessary to facilitate individualized instruction, both 1:1 and small group settings. In addition, small work areas that comfortably hold 2-5 students would support individual and small group general education interventions in reading and writing. Areas designed inside and outside the classroom are preferred.

Pierce employs three literacy specialists and a literacy coach. Currently each has their own office space where planning, coaching, direct instruction and intervention take place. These small “cloffices” should be replaced with designated small group spaces for specialists to provide intensive intervention for groups of 2-5 students; such space should contain storage space for books and materials. Spaces should be located across grade level bands.

**b. ELL**

The English Language Learner Program (EL) supports a significant number of Pierce students. In a typical year our EL program serves an average of 19% of the student population. Pierce is home to the district-wide Chinese EL population, with 2 FTE teachers to instruct these students. Pierce also has 2.4 additional teachers (totaling 4.4 FTE) to serve non-Chinese speaking EL students.

Small groups of students, typically 6-10 students per group, meet with EL teachers several times per week both in and out of the classroom

for direct English instruction. Small group instruction is the preferred approach as this allows the teachers to differentiate their instruction based on the student's English Language Development (ELD) level. At present we have four ELL "classrooms", each of which is a non-traditional and sub-optimal space. One space is shared by two teachers and will often have two groups of students learning simultaneously in very close proximity.

The majority of our EL students are part of the Chinese EL program at Pierce. Our support model is both push-in and pull-out, as determined by the student's level of English proficiency. Hands on learning is encouraged, and students in younger grades spend time working in the school garden practicing their language skills.

**i. Implications for Design**

Students at the entering and developing stage require a designated EL learning classroom. This space would be used for small-group, same grade level pull out instruction. Level 1 and 2 students receive up to ten (10) 45-minute pull out blocks per week, in groups ranging in size from 4-12 students. Students level 3 and above receive five (5) 45-minute pull out blocks per week. Each space should be set up to allow students to work at desk/tables as they practice writing and reading competencies, and separate collaborative group area (on the rug, or in a circle of chairs) where students will practice speaking and listening competencies.

**c. MATH**

Elementary mathematics (grades K-5) utilizes Investigations as a focused, coherent, and rigorous mathematics curriculum that is fully aligned to the MA content and practice standards. Mathematics at the middle school level (grades 6-8) utilizes the Desmos version of Illustrative Mathematics as its core curriculum across all schools. In each case, deep and careful attention is paid to mathematics

content and to student thinking and understanding. Making sense of mathematics is the heart of the work for students and teachers.

Across the K-8 spectrum, each program embeds:

- A balance of conceptual understanding, procedural fluency, and application
- Core student mathematical practices that focus on reasoning, communication, and sense-making, allowing all students to “express their brilliance”
- Opportunities for learning about student thinking within and across lessons/units
- Meaningful review and practice through routines, activities, games, and practice problems, using a combination of paper, manipulatives, and technology
- Professional development resources and facilitation tools to “support teachers in their ongoing learning about content, practices, and pedagogy”

Students learn mathematics in whole class, small group, partner, and individual configurations. The curriculum includes a variety of hands-on activities and many materials that require space to store in each classroom, as well as emerging digital components, necessitating access to technology.

Three math specialists work with classroom teachers to:

- Co-plan or co-teach differentiated lessons
- Model lessons to highlight equitable teaching practices
- Support small groups of students or stations
- Provide curriculum-related resources
- Support assessment and analysis of student learning
- Facilitate professional development experiences

Math specialists also provide individual and small group intervention to students across all grade levels in spaces outside the classroom. The three math specialists share inadequate office space, where planning, coaching and intervention work takes place.

**i. Implications for Design**

The most effective instruction for in-depth math content and deliberate attention to mathematical practices places different requirements on the physical space. Instruction varies, in that there are opportunities for individual learning, pairs and small groups, and whole-class instruction. Teachers need the space to change as instruction changes – furniture easily reconfigured for different groups, ranging in size from 2-6 students, technology easily employed throughout the room, ample space so that students can spread out and use a variety of objects to manipulate and see the math, projection with robust Internet access to show real-life applications and simulations, examples of mathematical models, and sharing student work. Appropriate, safe and secure storage space is also critical.

The needs of the physical space in K-5 for math are mirrored in the middle school grades.

For math specialists services, Ideally a small group space would be available for students (in groups of 2-5 students) in each grade level band to receive individualized support, and materials storage would be built in, as there are many manipulatives involved in math instruction.

**d. SCIENCE AND TECHNOLOGY/ENGINEERING**

The Science, Technology, and Engineering program focuses on providing students opportunities to actively engage in the practices of

science while they explore content in all the major fields of science and engineering. Teachers implement hands-on science and engineering curriculum that requires the use of physical materials and student science notebooks.

In order to make learning richer and more meaningful for students, science and engineering practices are integrated throughout the Brookline K-8 curriculum. This approach is recommended and modeled by the national Next Generation Science Standards (NGSS) and the draft Massachusetts Science, Technology, and Engineering (STE) Framework, both of which integrate science and engineering practices within each grade level.

According to The Framework for K-12 Science Education (the basis for the NGSS), “[t]o support students’ meaningful learning in science and engineering, all three dimensions [content, scientific and engineering practices, and crosscutting concepts] need to be integrated into standards, curriculum, instruction and assessment.” Furthermore, “Engineering and technology are featured alongside the natural sciences (physical sciences, life sciences, and earth and space sciences) for two critical reasons” (1) to reflect the importance of understanding the human-built world, and (2) to recognize the value of better integrating the teaching and learning of science, engineering and technology.”

The Pierce School Garden, maintained by staff and students and integrated across the K-8 science curriculum, resides near the Kindergarten playground and is shared by teachers across grades.

#### **i. Implications for Design**

Teachers implement hands-on, inquiry-based science and engineering curriculum that requires flexible space. The spaces – indoor and outdoor – need to allow for and promote creativity and

innovation. Labs need to be well provisioned in order for students to advance an idea, investigate a line of inquiry, and design and test solutions to real-world problems. Science labs need ample space for students to work and for the safe storage of science materials and supplies. Specific needs of a science lab are in addition to the general design and development of other contemporary teaching spaces – wall space for visuals, projection area(s), technologically versatile, natural light, flexible furniture, etc. Overall, the renovated Pierce School needs to bring the science lab spaces up to the standards of Brookline's science program.

Each grade-level needs regular access to water in their teaching so sinks are necessary at all grade levels. The sinks in the middle school science classrooms should be equipped with chemical traps to minimize release of classroom chemicals into the environment. Elementary science classrooms should be equipped with flat surfaces near the windows for growing plants and terrariums. Additionally, space for storage of science materials and for set up and use of the materials for investigation or experimentation are required. These storage areas should be lockable and separate from the primary instructional space at the middle school level. Storage for the science materials when they are not in use is needed.

Middle School science classrooms have a set of unique needs. Classrooms should contain ample space for flexible seating, including areas for individual student desks, and a separate area for lab tables. Teachers and students need access to electrical outlets to plug in equipment. These outlets should be placed so that equipment can be plugged in safely without causing a tripping hazard (ceiling or floor-based outlets are recommended). In addition, all middle school science classrooms need to be equipped with the following safety equipment: proper storage

cabinets for chemicals, chemical safety shower, eyewash station, fire extinguisher, fire blanket, and goggle sanitizing cabinet.

An expanded Pierce garden system, with separate areas located near each grade level hub, will allow for more students to actively engage in hands-on outdoor learning in science and other classes.

**e. SOCIAL SCIENCES**

Students are engaged in history/social sciences curriculum that regularly aligns with the informational skills components of the new Massachusetts Curriculum Frameworks for English Language Arts (incorporating the Common Core Standards). The history/social sciences curriculum uses many different forms of media. Teachers continue to incorporate more technology into social studies teaching, enabling them to access real-time data, utilize digital textbooks and atlases, and support the development of digital literacy that includes Internet research, online student learning activities, and diverse instructional strategies to accommodate all learning styles.

**i. Implications for Design**

It is important that there is wall space available for maps and educational posters/displays, locations for physical objects such as globes or artifacts, as well as ample storage capacity for books and other content materials. Students also regularly engage in classroom discussions and other discourse-focused methods so it is important that furniture can be flexibly rearranged so students can work individually, in pairs, in groups, and as a full class.

**f. WORLD LANGUAGE**

The K-6 World Language Program is based on current pedagogical research about effective approaches to language acquisition. It meets the rigorous expectations of the Massachusetts Foreign

Languages Curriculum Framework as well as the nationally established standards for foreign language education. The overall goals are:

- To acquire proficiency in speaking, listening, reading and writing the target language;
- To acquire an understanding of and appreciation for other cultures;
- To reinforce learning of the general curriculum content through the study of a world language; and
- To develop students as language learners.

Grade K-6 World Language is Content-Enriched FLES (Foreign Language in the Elementary School), which provides a sequential language learning experience that aims to develop language proficiency, appropriate to each grade level. Content-Enriched FLES programs are those in which language lessons reinforce concepts from other subject areas: social studies, science, math, and English language arts.

The schedule for world language instruction, by grade, is:

- Grades K-2: 3 sessions x 20 minutes = 60 minutes/week
- Grades 3-5: 3 sessions x 30 minutes = 90 minutes/week
- Grade 6: 3 sessions x 45 minutes = 135 minutes/week.

The Brookline Elementary World Language Learning Expectations are based upon the “5 C’s” of the National Standards for Foreign Languages: Communication, Cultures, Comparisons, Connections and Communities. World language teachers, together with the K-8 Curriculum Coordinator for World Languages, continue to develop a proficiency-based curriculum grounded in culture as the program achieves implementation. The curriculum and assessments focus on what students can do with the language and reflect the proficiency descriptors of the National Performance Guidelines for K-12 Learners.

World language teachers use almost exclusively the target language (90%+) of Spanish for instruction and the emphasis is on functional communication activities in real-life situations. Lessons are carried out through the use of songs, games, books, and other interactive activities that provide students immediate opportunities to practice the language. Material is introduced in thematic units of School and Community, Family, and Climate (K- 2) and Community, Leisure Time, Climate and Food (3-5).

Students in Grade 6 are given the option to continue to further their learning in these themes in Spanish, or to begin a new language, Mandarin. This is the transitional year to a more formal middle grade program model. Class sizes in 6th grade sometimes exceed 21 students, as students have the option of which language to pursue. Because of the regrouping that this requires, 6th grade requires a dedicated world language classroom, to which students travel.

Our students in Grades 7 & 8 select to study either Spanish or Mandarin as a World Language. World Language classes meet five days per week for 45 minutes. In order to make the middle school schedule work, students are mixed into new groups for world language and thus require a dedicated world language classroom, to which they travel. Class sizes sometimes exceed 21 students, as students have the option of which language to pursue.

One EWL teacher instructs thirty-six blocks of 20-30-minute Spanish classes each week. A second part-time EWL teacher (0.6 FTE) instructs twenty-seven blocks of 20-30-minute Spanish each week. Two other teachers instruct students in both EWL and middle school WL. Both teach ten 30-minute blocks of EWL in addition to their middle school classes.

#### **i. Implications for Design**

Our 5 World Language teachers (equaling 4.5 FTE) require 2 shared office spaces for planning, collaborating and conferencing with classroom teachers and parents. In order to properly serve our students, Pierce is in need of 3 designated world language classroom spaces. At 4 sections across grades 6-8, Pierce needs 52 45-50-minute blocks per week of world language instructional time.

The district has a plan to increase 6th grade world language minutes to match those in 7th and 8th grade, which will increase our need to 60 45-50-minute blocks per week. These classrooms will also be used for small group instruction during middle school WIN blocks and for advisory blocks. Without these spaces, our schedule is driven by what rooms are available, which leads to inadequate transition times for students and staff and limits the materials that teachers can use to support instruction.

## **J. LUNCH PROGRAMS**

The mission of Food Services is to provide healthy, tasty, high-quality, sustainable, affordable meals to the students and staff of the Brookline Public Schools. Breakfast and lunch are served at all nine schools in the district. As part of the National School Breakfast and Lunch Program, we follow guidelines set by the USDA regulating what qualifies as a healthy breakfast and lunch. Meals are cooked from scratch, using real food, and we are continually looking for ways to improve our school meals.

Parents set up online lunch accounts and prepay meals. All students have an individual PIN number. A students' account can indicate a specific allergic warning or set restrictions on choices by parents.

There is one cafeteria in the existing Pierce School. This poses significant challenges for scheduling, dining, transitions and staffing support.

Presently, the Pierce School runs five lunch sessions given the space currently only has the capacity to seat only two grade levels during a lunch period. Our first lunch period begins at 10:15 am, with our last lunch period ending at 1:05. The number of lunch sessions requires a significant number of staff to provide adequate supervision. This poses a challenge to us, given the constraints of the current collective bargaining agreement, and our need for a robust student supervisory plan in alignment with our anti-bullying initiative.

Currently, Pierce School has a staff of one kitchen manager and three attendants who work in a full-service kitchen. Prior to the COVID-19 pandemic, each lunch period included two grade levels, with lunch shifts that have complex, overlapping transitions to minimize overcrowding in the only hallway that leads into the space. Each lunch period utilizes one serving line, where students use a PIN number system when purchasing their lunch. The current cafeteria is inadequate in terms of space and sound issues, and one lunch line is not sufficient for serving such a large number of students in a timely manner.

**a. Implications for Design**

A new cafeteria design that allows for clear sightlines is crucial. To allow for multiple grades to eat at the same time, sub-spaces should be loosely defined to allow approximately 80 students to eat per section. Furniture should be flexible and designed to accommodate the range of students in K-8 and sound dampening strategies should be considered. Small spaces within the cafeteria that could be reserved for lunch groups (METCO, Steps to Success, Guidance) will allow for students to remain in the cafeteria itself even while meeting in small groups. Smaller nooks that still have visual access to the main space would allow for students who are overwhelmed by the large numbers to remain in the cafeteria in a quieter, calmer environment.

Multiple serving lines would allow students to quickly purchase their lunch. Ideally a K-2 line, a 3-5 line, and a 6-8 line would allow the counter height to be appropriate for students. These lines should feed into the section of the cafeteria where that grade level would be having lunch to avoid students having to pass through other grade seating areas on their way to their table. Because students in grades 6-8 have recess immediately before or after lunch, locating their section of the cafeteria nearest to the park access point will be both safest and least disruptive to other grade levels.

The cafeteria will be used for other activities both during and after school, so flexibility should be a key part of the design.

## **K. TECHNOLOGY INSTRUCTION POLICIES AND PROGRAM REQUIREMENTS**

### **a. Educational Technology / Vocational Learning**

Technology and digital learning play an ever-increasing and critical role in teaching and learning, both inside and outside of schools. Technology provides an opportunity to transform learning, when used purposefully. Our classrooms need to be flexible and dynamic spaces that allow for all types of learning, have reliable access to the digital resources available to enhance teaching and learning, and operate with an understanding of the appropriate role of technology in our schools and students' lives.

In Brookline, we envision technology improving our ability to:

- Communicate and collaborate in our schools, our community, and the evolving global society;
- Create and demonstrate understanding across a wide range of disciplines such as art, design, social studies, engineering, science, and music;

- Maximize learning for all students using techniques and materials that take into account varying backgrounds, capabilities, and learning styles;
- Ensure that all students obtain digital literacy, media literacy, and digital citizenship skills that are required in the 21st century;
- Create a well-integrated, learner-centered environment focused on inquiry into engaging problems;
- Enrich and extend professional learning for all teachers and instructional leaders; and,
- Enable all school personnel to effectively and comfortably use technology as a teaching and administrative tool so that more resources and time can be focused on teaching students.

Our school's technology infrastructure include, but not limited to: a robust and reliable wireless network to support multiple devices per user; multiple and strategically placed electrical outlets and drops for easy access, relocation and setup; sufficient space for technology closets; and well provisioned classrooms that aligned with the current standards and anticipate new ones.

Standard learning spaces should include: a wireless access point and appropriate network drops; voice over internet protocol (VOIP) phone; a mounted projection/interactive whiteboard with enhanced audio system; a district-issued teacher laptop; and a document camera.

Teachers should have access to control a control panel with proper ports that allow for easy document camera connections, interactive whiteboard equipment controls, and speakers. With these guidelines as the standard, there will be some learning spaces that have more technology in the room and others possibly less. Additional technology needs in speciality spaces is dependent on the

educational goals and functional demands of the particular program and space.

In addition to the technology integrated into all typical classrooms, the fab lab and maker spaces will require specific space and storage requirements such as lockable closets for materials and tools, flexible workspaces, ceiling drops for power, LAN access as well as clean spaces.

Instructional technology is integrated into the classrooms and is supported by a full-time Educational Technology Specialist (ETS). The ETS supports teacher use of multiple laptop carts and is called upon to troubleshoot minor technology problems for classroom teachers and specialists. For more involved technology issues, teachers and specialists are instructed to contact the district Help Desk for assistance.

Due to enrollment and loss of rental space, in the 2020-21 we had to eliminate our computer lab. In prior years students accessed the computer lab for typing instruction, coding lessons, and interdisciplinary project work. The space was also used for both MCAS and ACCESS testing, and for Music Production classes (within Music Conservatory).

#### **i. Implications for Design**

In a renovated Pierce School, a flexible, clean technology space will allow us to continue to offer programming both in school and before and after school. A space, perhaps adjacent to the Library/Media center and/or the Maker Space, with large tables and flexible seating, mounted projector technology, and proximity to the ETS office will allow for large and small group work. This space could also be used as a classroom for the music

conservatory class titles “music production”, which relies heavily on computer generated music.

**b. Instructional Technology**

Pierce School currently offers the following instructional technology:

Kindergarten

- Every teacher has a laptop
- 1 Printer is shared between the five K classrooms and with 1st grade
- All classrooms have an Elmo/LCD Projector
- All students have an assigned Chromebook that is stored in a nearby cart.

Grade 1

- Every teacher has a laptop
- 1 Printer is shared between the five 1 classrooms and with K
- All of the classrooms have an Elmo/LCD Projector
- All students have an assigned Chromebook that is stored in a nearby cart.

Grade 2

- Every teacher has a laptop
- 1 printer is shared between the five classrooms
- All of the classrooms have an Elmo/LCD Projector
- All students have an assigned Chromebook that is stored in a nearby cart.

Grade 3

- Every teacher has a laptop
- 2 printers are located in the library and are shared by all of unit A
- All of the classrooms have an Elmo/LCD Projector

- All students have an assigned Chromebook that is stored in a nearby cart.

#### Grade 4

- Every teacher has a laptop
- 2 printers are located in the library and are shared by all of unit A
- All of the classrooms have an Elmo/LCD Projector
- All students have an assigned Chromebook that is stored in a nearby cart.

#### Grade 5

- Every teacher has a laptop
- 2 printers are located in the library and are shared by all of unit A
- All of the classrooms have an Elmo/LCD Projector
- All students have an assigned Chromebook that is stored in a nearby cart.

#### Grade 6

- Every teacher has a laptop
- 2 printers are located in the library and are shared by all of unit A
- All of the classrooms have an Elmo/LCD Projector
- All students have an assigned Chromebook that is stored in a nearby cart.

#### Grade 7

- Every teacher has a laptop
- Four of five the classrooms have an Elmo/LCD Projector
- All students have an assigned Chromebook that is stored in a nearby cart.
- Teachers access shared printers within the school.

#### Grade 8

- Every teacher has a laptop

- Two of the five of the classrooms have an Elmo/LCD Projector
- All students have an assigned Chromebook that is stored in a nearby cart.
- Teachers access shared printers within the school.

## **L. MEDIA CENTER/LIBRARY**

The school library/media center is an integral part of the learning and school community in Brookline schools. The mission of the school libraries is to enable students to be critical thinkers, enthusiastic readers, skillful researchers and ethical users of information. As a central learning hub, the library serves as the heart of the school, welcoming the entire school community by providing space, resources, and services essential to learning in the 21st century.

The Pierce School library is staffed with a full-time, certified school librarian. Classroom teachers sign up for library time. During this time, the librarian and classroom teacher collaborate to promote independent reading and support student research, and manage book circulation. Classes, accompanied by the classroom teacher, can use the library and its resources for the purpose of research and inquiry in connection to the classroom curriculum.

At present the library collection (~19,000 books) is spread over all three levels, with the additional "book room" books (~12,500 books) being on the central level. The book room collection is a challenge because while it is within the library, it is not managed by the librarian.

The present configuration allows for one class of students to meet in the library at a time, which limits the number of classes that can access the space in large groups. Because it is central to students in grades 3-5, those classrooms currently have the most access to our collections, as

do their teachers. Small group spaces exist within the library, but because of the open space they must work at a whisper volume.

#### **a. Implications for Design**

The Pierce library is the hub of unit A and has been for decades. As such, it is crucial that the new library be located in a central area so that all grade level bands have access to the space.

Book stacks should have clean sightlines and should be organized near the circulation desk for easier check-in and check-out areas. Collections should be organized in traditional ways, but flexible shelving that allows for specific areas (i.e., picture books, new and noteworthy, curriculum driven units, etc.) to be created as needed. Having a separate space for the book room collection would allow better circulation management for both collections of books.

A designated teaching area for whole class library lessons and separate small group work areas, with easy sight access for supervision, will allow the library to be used by more students at once. Distinct class zones provisioned with standard classroom technology so students can receive whole group lessons on online research, and quiet zones where students can have a cozy place to read, will carry forward the community library experience that Pierce School has come to love.

### **M. ARTS PROGRAM**

Pierce currently has two art classrooms that serve students across K-8. Twenty-six 40-45-minute blocks are taught by two Art teachers (1.6 FTE), while twelve 40-45-minute blocks are taught by a second part-time Art teacher (0.6 FTE). You must walk through the large art room to access

the 2nd art room. Each classroom lacks proper storage space for materials. One classroom houses a kiln.

**a. Implications for Design**

In the new Pierce, in addition to 2 appropriately sized art classrooms, Pierce is in need of two separate art workrooms that allow for storage of material/equipment, ample storage capacity within the classroom for artwork in process, as well as teacher preparation. The two classrooms can share a workroom area if they are placed in close proximity to one another and the workroom is scaled up in size. Otherwise each will need its own storage area. A kiln should be strategically placed between both rooms, as clay work is an important part of the curriculum across grades.

The two art rooms in the Pierce School should be designed to meet the needs of students across the grade levels. Multiple sinks at appropriate student height, and furniture and amenities scaled to meet the needs of the grade level clusters, are required. The visual art classrooms need a technology/media station (computers with photo/video software and Internet access). There should be ample space for whole demonstrations and exhibiting exemplary artwork on the walls. In the corridor outside the visual art classroom, as well as corridors throughout the school, there should be ample wall space designed for student artwork to be exhibited, including a 3D wall case centrally located in the school.

**N. MUSIC/PERFORMING ARTS**

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The Public Schools of Brookline is proud to continue a tradition of a strong performing arts department. Each K-8 school has music instruction for all students across all grades. Grades K-3 students meet for 40 minutes, twice a week for general music. Grades 4 and 5 meet for 45

minutes once a week for general music. In addition to general music classes, all grade 4 students begin by playing a string or band instrument, and in grade 5 choose to participate in band, orchestra, or choral ensembles. In grades 6 through 8, students may continue with band, orchestra, or chorus or take classes in music production, guitar, or general music.

Two Music teachers (2.0 FTE) instruct a combined total of forty-two 40-45-minute General Music blocks each week. In addition, they each teach 3 blocks per week of conservatory music (see below for the remainder of that staffing. (One teacher leads one block per week of 5th grade chorus and 2 blocks per week of 6-8 chorus. The second teacher leads 1 block per week of 5th grade guitar/ukulele and two blocks per week of 6-8 guitar/ukelele.) These classes happen in two music classrooms that were once one large space and were subdivided. Both spaces are undersized.

Conservatory classes are taught by itinerant staff, who serve all elementary schools in town. As a result, we are limited in our ability to schedule these classes across all days of the week. Conservatory classes take place one afternoon and one morning per week. Instrumental music instructors teach weekly Conservatory classes to students in grades 4 – 8 (a total of 8 traveling teachers across a wide range of musical electives). Grades 4 & 5 participate in one Conservatory class in addition to their weekly General Music class. Students in grades 6 – 8 participate in two Conservatory blocks weekly, ranging in size from 10 to upwards of fifty students, electing to play an instrument in the band or strings orchestra, sing in the grade level chorus, learn guitar/ukulele, or take a Music Production or general music class. Due to the lack of physical space, students attend Conservatory in a music room, the auditorium, the cafeteria, the gymnasium, the art room, in general education classrooms, or at times, in lobby areas. This can create significant distractions for other members of the school community.

It is anticipated that the Pierce School will continue to host a variety of music concerts (choral and instrumental) and musical theater productions during the school year. Additionally, students in grades 3 – 8 are involved in large scale musical theater productions sponsored by the Pierce PTO. Performances take place in the auditorium, which has a capacity of 300 people. As such, we are limited in the number of classes and families we can invite to attend a performance or have to schedule multiple showtimes. Due to lack of space and fire code restrictions there is no opportunity for the entire school to gather for school assemblies.

Currently, the gym and/or auditorium is used for school assemblies that need to occur at three different times, one for grades K-2, another for grades 3-5, and a third for grades 6-8.

#### **a. Implications for Design**

Pierce school will require two music classrooms plus one chorus/band room that should be right sized. These spaces should have access to a shared and securable storage area. Curriculum needs require storage for myriad musical instruments, including drums, guitars, and smaller instruments, in addition to music stands. In order to accommodate the existing district Conservatory programming (described above) we require 8 available spaces (inclusive of music rooms) for conservatory music instruction. These spaces should have walls and doors to prevent sound travel.

Music and theater performances will require a multipurpose space. Per School Committee policy, the Public Schools of Brookline requires that all elementary schools have a multipurpose room with the capacity to seat at least 40% of its total occupancy. This space would be used for small assemblies, large group Conservatory music, and flex grouping across grade levels. It should be located centrally in the

building to allow access to all grade levels, and in a part of the building that can be opened up to the public while classrooms are closed off after hours. The multipurpose space and the music rooms should be clustered together. Each of these spaces require large storage rooms for equipment, such as hundreds of folding chairs, music stands, large percussion instruments, sound equipment, guitars and ukuleles. The stage of the Multipurpose Room needs direct access to a music classroom that can serve as a backstage room during practices and performances. The stage should have wings that can provide off stage entrance and exits from stage left and stage right. A long-term storage room for props and costumes is needed. A sound and light booth within the Multipurpose Room is also necessary. This space should have a high-quality, built-in sound system. In addition, acoustic separation, both internal and external, should be considered. Usage by outside and after school programs must be considered and planned for in the design of all of this space.

## **O. PHYSICAL EDUCATION PROGRAMS**

### **a. Physical Education, Health and Wellness**

The Wellness Education department provides standards-based instruction to all students across grades, K-8. Students participate in quality instructional physical education programming twice per week, for 40-45 minutes in each class. The curriculum is aligned with the Massachusetts Frameworks and the National Standards for Quality Physical Education.

The curriculum follows a developmental sequence from body management competence, to fundamental skills, to specialized skills, while simultaneously addressing physical fitness and social skills.

Pierce has 3.7 FTE physical educators; a full-time teaching load is 26-29 classes per week. One Physical Education teacher instructs

twenty-six 40-45-minute blocks each week (1.0 FTE). A second Physical Education teacher instructs twenty-six 40-45-minute blocks each week (1.0 FTE). A third full time Physical Education / Health and Wellness teacher instructs twenty-five 40-45-minute blocks each week. A fourth part time Physical Education / Health and Wellness teacher instructs 19 40-45-minute blocks each week [0.7 FTE].

The Pierce School houses only two gym spaces – one medium-size gym, and one “small” gym, which is used as a dynamic and engaging fitness center rotation area for students in grade 5-8. Our schedule dictates that three Physical Education classes be scheduled at one time. Therefore, two classes must “double up” in the medium gym, with an average of 40-42 students total, in order to accommodate all of the instructional sessions, while another section meets in our auditorium. This is not ideal for programming or for student learning.

There is no dedicated classroom space for Health and Wellness classes, therefore when teaching those classes, teachers travel to 7th and 8th grade classrooms for instruction. This leads to complex scheduling constraints, especially since our part time health and wellness teacher often has to teach at other nearby schools as well.

#### **i. Implications for Design**

The renovated Pierce School should have the following gym spaces in order to meet our programming needs:

- Large Gym (6,000 SF)
  - Traditional wood gym floor, lined for basketball (or basketball and volleyball), a painted warning track (red/yellow/orange) near ‘out of bounds’ line to help students realize they need to slow down or stop before running into the wall.

- Bleachers, one side of gym, 3-4 rows high, so parents can watch recreational games
- Padded walls under main baskets and practice baskets.
- Proximity to exterior access and egress that ideally can be secured from the rest of the building
- Equipment Storage
  - 3 areas
    - 1 large area for PE staff, located between large and small gym
    - 1 small area to be shared with school staff and extended Day/PTO
    - 1 small closet for recreation programs
- Small Gym (2,500 -3,000 SF)
  - Resilient rubber for school gym floors, used by more early elementary students
  - This space will be utilized to provide pre-k movement, physical education, and special education (APE/OT/PT) in addition to being the primary physical education space for students in grades K-2.
  - The small gym should be able to be used as a movement/dance studio.
- Fitness Center
  - This flexible space should have excellent sightlines to the large gym while also providing acoustic privacy (floor to ceiling glass walls would be ideal). The Pierce School has a robust fitness program that allows for more focused skills development for students in grades 6-8. With a larger and designated fitness center, this could be expanded to include students in 5th grade.
  - All of these three spaces should have high-quality, built-in sound systems. In addition, acoustic separation, both internal and external, should be considered for all of these spaces.

- For programming purposes, a dedicated health and wellness classroom will allow for a schedule that is not driven by space constraints. This room could also serve as a music conservatory space for middle school conservatory. In addition, as the district considers moving to add 6th grade health and wellness to the programming, having this space will prove crucial. A small attached office with this classroom will allow two (or more) teachers to share the space effectively, including storage for curriculum binders and sexual health boxes.

#### **b. Outdoor Space for Physical Activity**

Outdoors, Pierce has 2 play areas including Pierce Park, a public park with a baseball diamond, basketball courts and play structures, maintained by the town Parks and Recreation department. We use this park for recess for grades 1-8. This park space is shared with local recreation programs, daycares and neighbors. It is accessed via an enclosed bridge that goes over School Street. There is no crosswalk. The bridge has a relatively narrow access point, making two-way traffic challenging. It is also not ADA-compliant.

A number of neighborhood athletic groups use the park when school is not in session. In addition, playground areas are available for student use on school property. The “Kindergarten Playground” sits between the Historical Building, main building and town Library. There is a play structure at this play site. Kindergarten students also have access to a small paved area with two hopscotch grids painted on the pavement and a lower basketball hoop.

#### **i. Implications for design**

Ideal access would be at street level and would allow for students to cross to the park using one route and return from the park using another route to avoid crowding and safety issues. Students should

have easy access to the main park from both the cafeteria and the gymnasiums as transitions from these locations are most frequent.

## **P. SPECIAL EDUCATION PROGRAMS & STUDENT SERVICES**

### **a. Special Education**

The percentage of students at Pierce School with special needs is reflective of the District percentage (11.2%) FY21. Inclusion is a core belief and practice in the Public Schools of Brookline. This educational model challenges schools to meet the needs of all students by educating learners with disabilities alongside their non-disabled peers. The environment necessary to nurture and foster inclusion is built upon a shared belief system between general and special education, and a willingness to merge the talents and resources of teachers.

The mission of all of the schools in Brookline is to “educate each student to become a responsible adult and contribute to the quality of life in a free, changing society. Develop capable, confident learners who contribute to their community, participate thoughtfully in democracy, and succeed in a diverse and evolving global society.” An inclusive education helps prepare students with disabilities for an integrated adult life and builds understanding and acceptance within the broader community.

Students with special needs are supported by our Learning Centers (LC) which are designed for students with varied learning disabilities who require a higher level of services. The LC classes have a low staff to student ratio allowing for increased individualization and differentiation. Students receive higher levels of direct, specially designed instruction in academic areas within the Learning Centers. Due to overcrowding, we have had to create shared learning center

spaces, where two groups of students at different grade levels are meeting in different sections of the same room, with different teachers. In addition, related service providers have lost their spaces and now utilize large closets, open hallways, and other substandard spaces.

Student Services are defined as school psychologists, inclusion facilitators, learning center teachers, speech/language pathologists, occupational therapists, physical therapists and nurses. In some cases, these positions are shared among more than one school, but together they represent a team-based approach to supporting students and families in need at the elementary level in Brookline.

Teachers at the Pierce School support students through a variety of teaching models: co-teaching, team teaching, flexible grouping, small group instruction, and individualized instruction. Teachers believe that all learners should be provided differentiated forms of instruction and recognize that all students learn in different ways, rates, and timeframes. To that end, the Pierce School continually adapts its staffing support, instructional methodologies, and assessment practices to meet student needs.

Tiered levels of instruction provide the general education foundation of Pierce School's continuum of service model. Pierce Staff provides tiered levels of instruction to all students (tier one - the general classroom curriculum; tier two - strategic levels of instruction; tier three - intensive levels of instruction usually at the individualized level). If a student demonstrates academic and/or social/emotional/behavioral concerns despite thorough RTI procedures, the teacher refers the student to the building Child Study Team or the CST Team. These teams support teachers implementing additional strategies.

Special education services throughout the district address the needs of identified learners with disabilities between the ages of three and twenty-two, who require specialized instruction to support access to the curriculum. A wide range of services is provided to meet the individual needs of students, from academic intervention to related services in areas such as speech therapy, occupational therapy and physical therapy. Availability of therapeutic services for students requiring special education intervention in the realm of social, emotional and adjustment areas is present at all schools and levels.

Staff works closely with families in assuring the services needed are identified and provided to students in accordance with applicable mandates. Strong collaboration with general education staff is a concerted effort to provide services to students in the most inclusive manner, which benefits all students within the class setting. Providing consultation, collaboration and professional development opportunities to both regular education and special education staff across the district is one active approach to further the joint efforts of all teachers to provide students with special education services in the most inclusive setting that is appropriate.

Pierce School offers instructional spaces for pullout small group and individual instruction provided by learning center teachers, and inclusion facilitators, who support inclusion for students with significant disabilities. Related service providers include two speech/language pathologists, 1.5 occupational therapists, a part-time adaptive physical education teacher, a psychologist, and part-time board-certified behavior analyst (BCBA).

Special education learning spaces are spread among general education classrooms. The location of the classrooms allows staff to communicate and collaborate fluidly throughout the day on student needs and programming. The number of students in these classrooms

is monitored to ensure a lower class size is maintained to allow the flexible learning requirements of the students. The Learning Centers at Pierce resemble large office spaces, for 1:1 or small group instruction.

### **I. Implications for Design**

Pierce has learning centers that support students across grade levels. 7 special education teachers work with small groups to support students. Clusters of two special education classrooms in each grade level band, with one being a half size classroom and the other being a  $\frac{1}{3}$  sized classroom will allow teachers the opportunity to serve students within their grade level cluster.

Pierce has 1.5 FTE occupational therapists who provide a mixture of push in and pull out services to students on IEP's. Some pull out services are delivered in small groups and others are individual. Presently the space for these services is extremely limited, which leads to frequent use of unsuitable spaces. A designated room for these services will be important for serving our students who require this service. This small group room should hold up to 4 students and should have an adjacent shared office for materials storage for OT/PT/APE.

We have part time staff that provide PT and APE services for students at Pierce school based on the needs of students in a particular year. There is no designated space for this at present. A small room near the gym, or a larger space shared with our OT staff, would be an ideal location for this space and would allow for collaboration with physical education teachers and a minimally restrictive experience for students.

We have 1.8 FTE Speech and Language Pathologists who share one space. They provide a mixture of push in and pull out services

to students on IEP's. Some pull out services are delivered in small groups and others are individual. Presently these two teachers share one small space, which impacts the size of the groups that each teacher can pull. Two designated small group rooms for these services will be important for serving our students who require this service. These small group rooms should hold up to 4 students and should have an adjacent office for materials storage. Speech and language classes are scheduled across the day, so each teacher needs access to a separate space.

**b. Youth in Transition Program - Grades 5-8**

Schools are an essential part of the safety net for students with serious mental health or medical issues. With an increase in hospitalizations among the district's middle school population, there is a need for a transition program to serve students who are not yet ready to join the regular school environment. Supports and services would include integrated academic, clinical, family, and care coordination while students participate in the transition program. Participation can range anywhere from 1-12 weeks, depending on student needs. A renovated Pierce School would be an ideal location for this program and would require a separate classroom, located centrally within the building, and an attached office for clinical staff.

**c. Skills and Language Program - Grades 3-8**

This would be a new program to PSB. This program would be for students in special education with language and communication needs. Supports and services would include intensive reading supports in small groups as well as speech and language supports in small groups. Students would also receive academic support in both pull out and general education environments that are specific to their grades. Space required here would be a half size classroom with an adjacent but enclosed small group space and a nearby office in the vicinity of the 3-5 grade level classrooms, and a similar space in the vicinity of the

6-8 grade level classrooms. These spaces would be shared by several staff members and would run up to two grade level small groups (2-6 students) in each classroom at the same time.

**Q. VOCATIONAL EDUCATIONAL PROGRAMS / ENRICHMENT CHALLENGE SUPPORT**

Pierce doesn't have a true vocational education curriculum, but the Brookline Public Schools has a commitment to enable all children to reach their full potential. The mission of the Enrichment and Challenge Support Program is to assist and support classroom teachers in providing for those students who show a capacity for high levels of academic, intellectual and/or creative achievement.

Presently, the ECS program is being re-imagined and pilots of various models are being implemented at several schools. The goal of these pilots is to make adjustments to the program that allow for the most effective and efficient delivery of services. Currently, at Pierce a part-time ECS teacher (0.5 FTE) works collaboratively with Educators, Guidance Counselors, and Administration to provide information, consultation, and extension opportunities. She works with teachers to help them differentiate instruction and develop extension and enrichment opportunities within their classrooms. The Pierce School ECS Resource Teacher also leads whole-class, small group, or one-on-one extension lessons as a way of supporting classroom teachers. ECS teachers are also available as a resource to the parent community. While we expect there may be some changes to the model, we do expect these core instructional strategies will continue to be implemented in some capacity.

**a. Implications for Design**

The ECS teacher should have a dedicated office space in close proximity to the Makerspace. The ECS teacher uses the office space

to collaborate with and coach teachers, and to conference with parents. Presently our ECS teacher manages the Makerspace and instructs whole classes and small groups in that space. Because we would expect that to continue in the new design, a small adjacent office large that was able to be open to, or closed off from, the maker space would be ideal.

## **R. TRANSPORTATION POLICIES**

Brookline Public Schools provides bus transportation for K-8 students residing more than 2.0 walking miles in their districted school. These students are transported at district expense. All students in Grades K-6, who live less than 2.0 miles from their school, are responsible for their own transportation. The Department does make exceptions for students whose needs are “safety” related. K-6 students who live 2.0 miles or more from the school may opt to purchase a bus pass in accordance with the MBTA fee schedule. Special education transportation services are separate from regular bus transportation.

The Pierce Elementary School has one full size district bus to transport students in the Chinese NLSP, and one Boston bus for METCO students. Students who are bussed are dropped off in our bus drop-off lane between 7:30 am and 7:40 am daily. Monday through Thursday, school dismisses at 2:30 pm and on Fridays, school dismisses at 1:40pm due to weekly professional “collaborative time” for teaching staff. Due to the fact that the Pierce School site has limited driveway space, there is no designated live student drop-off or pick-up on the site.

Many students walk or bicycle to school or parents park nearby on local streets and walk the remaining distance to the school with the students. The school staff provides safety and supervision on the school property during arrival and dismissal times. The town Police Department provides crossing guards in the vicinity of the school.

## **S. FUNCTIONAL AND SPATIAL RELATIONSHIPS**

The John R. Pierce School serves the lively, urban Brookline Village neighborhood and is one of the largest of Brookline's K to 8 schools, with a 2020-2021 population of 686 students (a dramatic decrease of recent years, ranging from 750-850 students). Pierce School values the diverse backgrounds from which all of the students come. Pierce School's teaching and learning is grounded in collaboration that promotes equity, academic achievement and the social-emotional well-being of all students.

## **T. KEY PROGRAMMATIC ADJACENCIES**

Pierce School depends on adjacencies for communication, collaboration, flexible grouping, and teaming. Providing learning areas both in and outside classrooms for small group work, individual tutorial spaces, and additional instructional break out rooms are critical in a school with a focus on integrated classrooms at grades K-8, requiring specialized instruction and an emphasis on inclusive practices.

Community and collaboration are core values among students, staff and parents, and the open plan of the present building has provided unique opportunities for interconnectivity. Pierce School is a warm and inviting place for children, staff and families. A priority for the students, staff and Pierce community is to bring a "small school" feel to a large elementary design. We hope to achieve this through the articulation of smaller learning communities and neighborhoods within the renovated and/or new building, in which grade level groupings of general classrooms are co-located with adjacent breakout rooms, meeting spaces and extended learning areas.

## **U. SECURITY AND VISUAL ACCESS REQUIREMENTS**

Pierce Elementary School requires a safe main driveway entrance access to the school site with safe secondary access for emergency needs. Pierce Elementary School also requires:

- Access Control utilizing a security access fob device by authorized staff.
- Visual Security of the main entrances utilizing a video monitoring/recording system that will be monitored at the school secretary's desk.
- Safe staff parking
- Safe visitor parking
- Safe pathways for pedestrians and bicyclists coming from varied directions to the school
- Safe bus access systems that may share, but should not interfere with, car drop off and pick up traffic.
- Safe recess grounds and play fields that can be properly supervised by staff and protected from vehicle traffic
- Visual access of the driveway, garage and parking lots
- 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 play fields