



# **Facility Utilization and Capacity Study:**

Harvard Community Unit School District 50

## **Harvard Community Unit School District 50**

401 North Division Street  
Harvard, Illinois 60033

April 16, 2019

**Wold Architects and Engineers**  
110 North Brockway Street, Suite 220  
Palatine, IL 60067  
woldae.com | 847 241 6100

**PLANNERS  
ARCHITECTS  
ENGINEERS**



**TABLE OF CONTENTS**

Executive Summary	2-3
Overview	4
Capacity Calculation	5-6
Washington School	7
Crosby Elementary School	8-10
Jefferson Elementary School	11-13
Harvard Junior High School	14-15
Harvard High School	16-18
Appendix	
Appendix A – Capacity Summaries, Based on Kasarda Series A, B, & C	
A.1.1 thru A.1.3: District	20-22
A.2.1 thru A.2.3: Washington School	23-25
A.3.1 thru A.3.3: Crosby Elementary School	26-28
A.4.1 thru A.4.3: Jefferson Elementary School	29-31
A.5.1 thru A.5.3: Harvard Junior High School	33-34
A.6.1 thru A.6.3: Harvard High School	35-37
Appendix B – Building Room Lists	
B.1: Washington School	39
B.2: Crosby Elementary School	40-42
B.3: Jefferson Elementary School	43-44
B.4: Harvard Junior High School	45-46
B.5: Harvard High School	47-50
Appendix C – Building Utilization Maps	
C.1.1: Washington School	52
C.2.1: Crosby Elementary School – First Floor	53
C.2.2: Crosby Elementary School – Second Floor	54
C.3.1: Jefferson Elementary School	55
C.4.1: Harvard Junior High School	56
C.5.1: Harvard High School – Basement	57
C.5.2: Harvard High School – First Floor	58
C.5.3: Harvard High School – Second Floor	59
Appendix D – Building Underpinnings	
D.1: Washington School	61-65
D.2: Crosby Elementary School	66-71
D.3: Jefferson Elementary School	72-77
D.4: Harvard Junior High School	78-79

**EXECUTIVE SUMMARY**

The purpose of the Facility Utilization and Capacity Study is to document the size, use, educational programming, and capacity of the existing facilities in Harvard Community Unit school District 50. The study enables an understanding of the correlation between programming and capacity at each school building in the context of the recently completed Demographic Trends and Enrollment Projects Report by Dr. John D. Kasarda. Primary comparisons are made to the mid-level Series B projections noted in the Kasarda report, which the District believes are the most likely and relevant. However, this report does note factors that could be affected should the forecast move towards the higher Series C projections.

In addition, the study aims to identify those conditions which may limit the way in which the school is used to accommodate student needs, both in the context of current programming and as may be impacted by forecasted growth. This information will contribute to a basis of information for future facility decisions. There are many factors which affect the capacity, and therefore the capacity versus future projections must be analyzed in a number of different ways in order to determine an appropriate future course of action regarding facilities.

Figure 1 below summarizes the 2018 – 2019 enrollment by facility with comparison to the calculated Instructional Capacities and the projected peak year enrollment for each building extracted from Kasarda Series B.

BUILDING	GRADE LEVELS HOUSED	2018 - 2019 ENROLLMENT	INSTRUCTIONAL CAPACITY	FORECASTED PEAK ENROLLMENT	PEAK YEAR
Washington School	PK/ECE	208	193	213	2026 - 27
Crosby Elementary School	K through 3	807	838	832	2021 - 22
Jefferson Elementary School	4 through 5	411	473	428	2022 - 23
Harvard Junior High school	6 through 8	596	746	645	2025 - 26
Harvard High School	9 through 12	751	964	858	2028 - 29
DISTRICT		2773	3214	2871	2028 - 29

Figure 1 – Enrollment and Capacity Breakdown compared to Kasarda Series B Peak Enrollments

Based on the Series B projections, enrollment will remain below the Instructional Capacity for each building through the 2028-29 school years. Washington School enrollment currently exceeds the Instructional Capacity but enrollment can be limited by the District. The forecast enrollment for Crosby Elementary school is essentially to be at or near capacity into the foreseeable future. Please note that the current enrollment figures and the projected enrollments for the Washington School as stated in the Kasarda report do not match the actual existing data. Figures for the Washington School have been adjusted accordingly.



Figure 2 below summarizes the 2018 – 2019 enrollment by facility with comparison to the calculated Instructional Capacities and the projected peak year enrollment for each building extracted from Kasarda Series C, which represents the largest potential growth scenario.

BUILDING	GRADE LEVELS HOUSED	2018 - 2019 ENROLLMENT	INSTRUCTIONAL CAPACITY	FORECASTED PEAK ENROLLMENT	PEAK YEAR
Washington School	PK/ECE	208	193	227	2028 - 29
Crosby Elementary School	K through 3	807	838	897	2028 - 29
Jefferson Elementary School	4 through 5	411	473	469	2024 - 25
Harvard Junior High school	6 through 8	596	746	733	2025 - 26
Harvard High School	9 through 12	751	964	995	2028 - 29
DISTRICT		2773	3214	3229	2028 - 29

Figure 2 – Enrollment and Capacity Breakdown compared to Kasarda Series C Peak Enrollments

Based on Series C projections, capacity will be somewhat stressed at Harvard High School. Crosby Elementary School will be at the Rated (Design) Capacity with class sizes between 24 and 25.

For each building, this report includes a discussion of capacity, the factors which affect capacity, a discussion of class size and how it is affected by the numbers of sections in the context of enrollment projections, and a brief discussion of possible inadequacies observed at each building during the course of the study.

The Appendices to this report include detailed comparisons for the district and each building comparing Series A, B, and C projections to Instructional Capacity year by year. Additional information includes lists by building of room sizes and individual room capacities, building utilization diagrams, and a description of the basic educational underpinnings for the buildings.



## **OVERVIEW**

The most accurate and reliable determinant of student capacity is based upon the way in which an organization allocates use of space, and policies regarding class size that may be established. As space is allocated for resource rooms, special education, or other curriculum based functions, the number of spaces or teaching stations available may be reduced, thus reducing capacity. Such functions may not have been planned in the original building design, or as frequently occurs, needs change year to year. When these circumstances arise, regular education classrooms are reassigned to meet needs other than core classroom space.

School Districts typically reassign space in each building in preparation for each upcoming school year. For this reason, capacity is framed in a number of ways within this report, based on the available teaching stations that were available in each building for the 2018-2019 school year, as well as other methodologies that reflect variation in capacity based on shifts in programming.

Teaching stations are identified as spaces accommodating curriculum for general education students (core classrooms) throughout the school day. Spaces dedicated to the instruction and support of Special Needs Students, other than self-contained full day use, are not typically included as a teaching station in the count due to the unique role that these spaces serve.

The process to document and analyze how District 50 schools are currently utilized included verifications with building Principals at each school and a comprehensive review and documentation of room utilization and student/staff schedules.

For each building a discussion section includes a summary of capacity and enrollment, how it compares to various demographic projections (A, B, and C scenarios), commentary as to number of sections housed and how class size is affected by the number of sections, other factors which may affect capacity, and any programmatic inadequacies which were cursorily noted during the study.



## **CAPACITY CALCULATION**

### **Instructional Capacity**

As previously stated, capacity may be expressed in a number of ways. In order to reflect the 21<sup>st</sup> Century Learning needs of Harvard Community Unit School District 50, Wold recommends using the *Instructional Capacity* method. *Instructional Capacity* (IC) is the most accurate indicator of the optimal number of students at which all of the programmatic functions and requirements can be met. For a typical elementary school, Instructional Capacity is based on the number of core classroom spaces (those teaching stations devoted exclusively to the delivery of the core curriculum) available and their size. The number of core classrooms available in each building is affected by the educational programming currently implemented. The capacity of each classroom is determined by dividing the net usable area of the room by an assignable square foot per student (ASF). The ASF used for each space is reflective of recognized planning standards that will support contemporary instruction and learning. The sum of the individual classroom capacities produces the IC.

For the Junior High and High School buildings, the IC calculation is also affected by the individual room utilization rates, that is, the number of periods that each space is used each day out of the total class periods available.

When the Instructional Capacity is exceeded, classes and course offerings may need to be eliminated or reduced to accommodate additional students. Exceeding the IC threshold negatively impacts the quality of education and instructional delivery options available. Current instructional methodologies depend on the net usable space within the classroom for student collaboration in multiple groupings, instructional technology, storage of resource materials, and active circulation within the room for maximum flexibility.

Compromises that result from exceeding the instructional capacity, whether by increased class sizes or loss of other programming, may create diminished performance and failure to meet community expectations.

### **Rated Capacity**

*Rated Capacity* (RC) is the capacity that is planned for when a building is designed, sometimes referred to as Design Capacity. When buildings are first planned, every classroom sized space is envisioned as being used for core delivery and regular education class sections. That number of planned classrooms is multiplied by a standard class size, typically 25 students, to arrive at the design capacity for the building. Over time, as functions not originally planned occupy those spaces, the number of available teaching stations is reduced. Rated Capacity assumes that all classroom sized spaces are utilized as core delivery teaching stations and other means are found to support the alternative programming which has not been counted in the Instructional Capacity calculation. It's inclusion in this study is for reference and to indicate how long a district may be able to wait should it become apparent that capacity increases will need to be planned.



**Theoretical Capacity**

The methodology for calculating a *Theoretical Capacity* mirrors Rated Capacity in that it assumes a standard number of students, generally a maximum of 30 students per section, and that all teaching stations are available. It also includes all other full sized classrooms such as art and music rooms, that could be reassigned to regular education should the District have to deal with unexpected rapid growth. In such an extreme scenario, the displaced programs are either suspended temporarily, or conducted in the regular education classroom.



## **WASHINGTON SCHOOL**

### **Capacity**

The Washington School houses programming for Pre-kindergarten/Early Childhood Education students, and related services. Evaluations and parent services begin from Birth to age Three. AM and PM classes are offered daily Monday through Friday for Three to Five year old students with both English and Dual language sections offered. The *Instructional Capacity* based on six classrooms available is 193 students. The 2018 - 19 enrollment is 208 students. Based on two daily sessions, with six classrooms, 11 classes of 20 students, and one SE class of 10 students, the *Rated and Theoretical Capacities* are 230 students

### **Factors Affecting Capacity**

The recommended classroom size for twenty students is 1000 square feet based on an assignable square footage (ASF) of 50 SF/student. The average classroom size at Washington School is 813 square feet. The enrollment at Washington school is limited by the class size and number of rooms available. Therefore, the size of the program is limited only by the facility and the need within District 50.

The enrollment and projections for the Washington School as stated in the Kasarda demographic report do not correlate to the facility capacity or enrollment for 2018 – 19 or moving forward. There is no direct correlation between the Kasarda figures and the predicted Kindergarten classes unless the Kasarda figure relates ONLY to the numbers of four to five year old students at Washington that will attend Crosby Elementary the following year.

### **Class Size and Number of Sections**

The typical maximum class size is twenty students, however, one session is currently serving special needs students and the class size is limited to ten students. There are a total of 12 class sections daily at two sessions per day. Each of the six full size classrooms is currently 100% utilized by the program.

### **Inadequacies Noted**

In addition to the Multi-purpose Room, there is a secondary Motor Area (Room 4B) which is very small and limiting. The small stage off of this space has been converted to office use for reading intervention staff. This area is not fully accessible and not used by students. Lastly, other staff is housed in inappropriate converted storage space. Several classrooms have been carved into smaller spaces in order to support program requirements.



## **CROSBY ELEMENTARY SCHOOL**

### **Capacity**

Crosby Elementary School includes students in grades Kindergarten through Grade Three. Kindergarten classes are full day. The calculated *Instructional Capacity* based on programming at Crosby Elementary is 838 students. The 2018 - 19 enrollment is 807 students. On this basis Crosby Elementary is essentially operating near capacity, with room for modest growth as long as growth is evenly distributed by grade level. Based on an original design of ten kindergarten classrooms, and nine classrooms each for grades one through three, and a maximum class size of 25, the planned design capacity was 225 per grade level for a total of 900 students. Currently one classroom has been created from the former Computer Lab adjacent to the Learning Center. Based on thirty-eight regular education full size classrooms and one full size special education classroom the *Rated and Theoretical Capacities* are 975 and 1170 students respectively. Current programming would be unsupportable at enrollments nearing these capacities.

### **Factors Affecting Capacity**

#### *Classrooms*

Capacity at a school is potentially affected by not only the number of classrooms available for full day regular education, but also the individual capacities and availability of support spaces. The addition of the converted classroom increases the *Instructional Capacity* by 32 students.

#### *Cafeteria*

Lunch is offered in four daily seatings, one per grade level. The capacity of the cafeteria is 256 students. The largest grade projected by the Kasarda Series B is forecast to be 227 students occurring in the 2020 – 21 school year. Under Series C the largest class size is forecast to be 236 students, so the cafeteria is expected to be adequate.

#### *Gymnasium*

Based on current programming of once per week per class for sixty minutes, with up to two classes sharing the gymnasium simultaneously, the single gymnasium is expected to be adequate.

#### *Music*

Based on current programming of once per week per class for sixty minutes, two music room are required. The two current rooms will meet the projected need.

*STEM and Art (STEAM)*

At the point of the original design, the Art curriculum was expected to be supported by the four Discovery Centers, each of which serves nine to ten classrooms. Based on current programming of once per week per class for sixty minutes the Discovery Centers would be used two hours per day for Art. The Discovery Center was to be used as an extended learning “STEAM” space for the remainder of each day. However, special needs programming has grown such that Discovery Center space has been appropriated for interventions, thus limited their availability for the intended function, including Art. While this may be workable in the short term, it is not a good long term solution.

**Class Size and Number of Sections**

Class sizes for the 2018 – 19 school year vary by grade level. The average class is just over 21 students per class. Figure 3 is a summary of the current number of sections and average class sizes by grade level.

		2018 - 2019	
GRADE	ENROLLMENT	# SECTIONS	AVG. CLASS SIZE
K	194	10	19.4
1	222	10	22.2
2	197	9	21.9
3	194	9	21.6
	807	38	21.2

Figure 3 – Current Enrollment

Under the Kasarda Series B Projections, the peak total enrollment at Crosby Elementary School will occur in the 2020 – 21 school year with a projected total enrollment of 832 students. The average class size based on maintaining the same number of sections would grow to 21.9 students. The largest single grade would occur in the same year, with a forecast of 227 third grade students. Class sizes in grades 1 and 2 would grow to an average of 22.9. Figure 4 below shows the impact on class sizes and number of sections for that year.

		2020- 2021	
GRADE	ENROLLMENT	# SECTIONS	AVG. CLASS SIZE
K	193	10	19.3
1	206	9	22.9
2	206	9	22.9
3	227	10	22.7
	832	38	21.9

Figure 4 – Series B Projections Peak Year



Worst case growth in class sizes would occur under the Kasarda Series C projections in the 2023 – 24 school year with a total projected enrollment of 891 students. The largest classes are the second and third grades, each with a projected enrollment of 232 students. This class is as large as 236 (2024 – 25) though the total enrollment is a bit smaller. The average class size grows to 23.4. By reducing the number of kindergarten sections to 9 and allowing the class size to grow to the average, the class size at grades 2 and 3 can be kept at a similar level. At 9 sections the average class in grade 2 or 3 would grow to 25.8 while at 10 sections the kindergarten class would be 20.9. Figure 5 shows the impact on class sizes and number of sections for that year.

		2023- 2024	
GRADE	ENROLLMENT	# SECTIONS	AVG. CLASS SIZE
K	209	9	23.2
1	218	9	24.2
2	232	10	23.2
3	232	10	23.2
	891	38	23.4

Figure 5 – Series C Projection Peak Year

Based on the projections, in order to maintain thirty-eight sections, the converted classroom will be required into the foreseeable future. An alternative scenario is to reduce the number of sections by one, allowing a small growth in class size. Figure 6 shows the effect on class size of reducing to 37 sections, freeing the extra classroom for other functions (such as intervention) under Kasarda Series B.

		2020- 2021	
GRADE	ENROLLMENT	# SECTIONS	AVG. CLASS SIZE
K	193	9	21.4
1	206	9	22.9
2	206	9	22.9
3	227	10	22.7
	832	37	22.5

Figure 6 – Series B Projection Peak Year with Reduced # Sections

### **Inadequacies Noted**

The only significant inadequacy in the Crosby Elementary School is the lack of adequate space for interventions resulting in the compromised use of the Discovery Centers as noted above.



## JEFFERSON ELEMENTARY SCHOOL

### Capacity

Jefferson Elementary School houses students in grades Four and Five. The calculated *Instructional Capacity* based on programming at Jefferson Elementary is 473 students. The 2018 - 19 enrollment is 411 students. There are nineteen regular education full size classrooms and three full size rooms used for other purposes: Cross-categorical special education, Gifted/STEM, and Music. The calculated *Rated and Theoretical Capacities* are 550 and 660 students respectively. Current programming would be unsupportable with enrollments nearer to these higher capacity calculations. Three smaller size classrooms are used for Special Education: Life Skills, ED/BD, and Resource.

### Factors Affecting Capacity

#### *Classrooms*

Capacity at Jefferson Elementary is also affected by the individual capacities and availability of support spaces.

#### *Cafeteria*

Lunch is offered in two daily 40 minute periods, each with two 20 minute sessions per grade level. The capacity of the cafeteria is between 126 and 158 students based on an ASF range of 12 to 15 SF/Student. The 2018 – 19 fifth grade class is 220 students, exceeding the capacity of the lunchroom by 62 students and making it impossible to seat a full grade at once. The largest grade projected by the Kasarda Series B is forecast to be 225 students occurring in the 2022 – 23 school year, with a largest total enrollment of 428 in the same year. Therefore, the current model will need to be maintained into the foreseeable future.

#### *Gymnasium and Music*

Physical Education and Music are offered twice per week for thirty minutes each session. Based on the current nineteen regular education sections, thirty-eight contact periods are required weekly, with a total of up to fifty 30 minute periods available, for a net utilization rate of 76%. Therefore the single gymnasium/multi-purpose room and single music room are adequate to accommodate the programming at the current level for the forecasted enrollments. Specials are offered on four days of the week (A, B, C, and D rotations), so the actual room utilization rate on those days is 95% (38 out of a possible 40 periods).

There is no band room. Sectionals are held in a very small awkward space. Larger sectionals are conducted in the Music Room. Full band rehearsals are in the multi-purpose room.

*Art*

Art is offered once per week for 30 minutes. Based on current programming of once per week per class for thirty minutes, only 19 of the available 50 periods would be needed. However, the current Art space is undersized with a capacity of thirteen students. For this reason, classes are split into two thirty minute periods each so that the art room is actually utilized 38 out of the available 50 periods weekly. Utilization rates are similar to PE and Music.

**Class Size and Number of Sections**

Class sizes for the 2018 – 19 school year vary by grade level. The average class is 21.6 students per class. Figure 7 is a summary of the current number of sections and average class sizes for each of the two grade levels.

	2018 - 2019		
GRADE	ENROLLMENT	# SECTIONS	AVG. CLASS SIZE
4	191	9	21.2
5	220	10	22.0
	411	19	21.6

Figure 7 – Current Enrollment

Under the Kasarda Series B Projections, the peak total enrollment at Jefferson Elementary School will occur in the 2022 – 23 school year with a projected total enrollment of 428 students, within the *Instructional Capacity*. The average class size based on maintaining the same number of sections would grow to 22.5 students during the peak year. Figure 8 shows the impact on class sizes and number of sections for that 2022 - 23.

	2022- 2023		
GRADE	ENROLLMENT	# SECTIONS	AVG. CLASS SIZE
4	203	9	22.6
5	225	10	22.5
	428	19	22.5

Figure 8 - Series B Projections Peak Year



Worst case growth in class sizes would occur under the Kasarda Series C projections for two years starting in the 2024 – 25 school year with a total projected enrollment of 469 students. This level would remain within the *Instructional Capacity* of 473. The largest class would occur in the fifth grade in 2024 – 25 at 239 students. When maintaining the current nineteen sections, the average class size grows to 24.7, with the fourth grade average class exceeding 25 at nine sections. Figure 9 shows the impact on class sizes and number of sections for that year.

		2024- 2025	
GRADE	ENROLLMENT	# SECTIONS	AVG. CLASS SIZE
4	230	9	25.6
5	239	10	23.9
	469	19	24.7

Figure 9 - Series C Projection Peak Year

Increasing the number of sections in order to reduce class size is not a viable option without displacing other programming currently in place.

#### **Inadequacies Noted**

There are a number of programmatic inadequacies noted during the course of the study.

1. As previously noted the art room is housed in space that was originally design as the original stage for the original gymnasium in 1953. Later this space was used as a Resource room. At 516 square feet, the room is too small to accommodate a full class for art. The room is not fully or appropriately equipped and has not storage or kiln room.
2. The building currently does not have a conference room.
3. There are currently seven (7) part time reading instructors who are inadequately housed.
4. It is desirable to have a sensory room, particularly in consideration of the ED/BD students housed in this building. Sensory rooms are becoming a more common need as special education students with disabilities in many categories, such as autism, are mainstreamed into the schools.



## HARVARD JUNIOR HIGH SCHOOL

### Capacity

For Junior High/Middle Schools and High Schools, where students change classes throughout the day, the calculation of capacity is somewhat more complex. Firstly, all teaching stations need to be included in the calculation as all rooms may be simultaneously occupied at periods throughout the typical day, limited only by scheduling constraints. Secondly, each teaching station may be utilized for a different number of available periods throughout the day. It is typically not possible to achieve 100% utilization of every teaching station due to scheduling constraints. The calculation includes a base number of students for each teaching station produced by dividing the net square footage of the room by the Assignable Square Foot/student. This figure is then multiplied by the utilization for the room (#periods scheduled divided by the number of available periods). Then the total for each teaching station is added to produce the Instructional Capacity.

Harvard Junior High School houses students in grades Six through Eight. The calculated *Instructional Capacity* is 746 students based on an average utilization rate of 76.4%, or approximately 7 out of the available 9 periods. Utilization rates of 75% to 80% are typical for a junior high school setting. The 2018 - 19 enrollment is 596 students. Twenty-four full size classrooms dedicated to core subject curriculum delivery, seven teaching stations devoted to exploratory subjects, two special education teaching stations, and two physical education teaching stations are included in the calculation. The calculated *Rated and Theoretical Capacities* are 750 and 990 students respectively.

### Factors Affecting Capacity

#### *Classrooms*

Typical classroom sizes at Harvard Junior High school range from 866 to 890 square feet, close to the recommended size to support 21<sup>st</sup> century learning of 900 square feet. Due to the consistency and larger size of the typical classroom, and a higher utilization rate (approximately 7 out of 9 available periods) HJHS has an Instructional Capacity comparable to the Rated Capacity. With an average class size of 22.3, in general, there is room for enrollment growth. On the other side of the equation, based on operating at this high utilization rate, there is not space available to expand programming into additional core or exploratory curricula. There are no underutilized spaces available to be re-purposed for supporting spaces such as STEM labs or Maker Spaces, for example.

#### *Cafeteria*

Lunch is offered in three daily 42 minute periods, one per grade level. The comfortable capacity of the cafeteria is 207 students based on an ASF of 15 SF/Student. The largest 2018 – 19 grade is in sixth grade at 202 students, essentially at lunchroom capacity. During peak years under Kasarda Series B projections class sizes may be as large as 227 students. Alternative table styles or table arrangements may be required in order to accommodate the larger numbers. Should growth accelerate toward the Series C projections, grade sizes may exceed 250 students, at the absolute limit students that can likely be seated at a time.



### *Gymnasium and Athletics*

Physical Education, which include Health curriculum, is part of every student's day Monday through Friday. For the 2018 – 19 school year, this represents 20 periods of physical education and 3 periods of health per day. With two gymnasiums, a fitness room, and a health classroom available, overall utilization is at 23/36 (63.8%) based on four teaching stations. The gym and fitness utilization rate is 74%.

The forecasted growth should not be an issue for the physical education core.

The gymnasium spaces are taxed the most during the Winter athletic season when used for Boys and Girls basketball, and wrestling. Changes in enrollment do not affect the athletic calendar.

### *Instrumental & Choral Music*

The Band Room has an ensemble capacity of 74 students.

### **Class Sizes and Number of Sections**

As in any junior high, middle, or high school setting, class sizes will vary by subject and fluctuate due to scheduling constraints. Smaller class sizes typically occur in language arts where there are more sections offered, and more typical class sizes occur in mathematics, science, and social studies. For the 2018 – 19 school year, the Harvard Junior High curriculum includes four core subjects at each grade level: Math, Science, Social Studies, and Language Arts. In Language Arts, where classes are offered in English, Spanish, and Dual-Language, class size may be as small as 12 students, based on the number of sections offered. For Math, Science and Social Studies, typical class sizes may range from 20 to 24 students.

The Kasarda Series B projections forecast an overall 8% growth over 2018 -19 at peak. This should increase typical core subject class sizes by approximately 1 to 2 students per class section at enrollment peak. Should growth trend more toward the Kasarda Series C projections (22% growth over 2018 – 19 at peak), the accompanying core subject class size may see growth of 4 to 5 students at the enrollment peak. Adding sections without adding classrooms as a strategy to reduce class size may be difficult due to the scheduling issues that accompany utilization rates beyond 7 out of 9 periods per day. While alternatively, decreasing the number of Language Arts sections and increasing class sizes in that subject area may be an option to open up classroom space, student achievement in that subject area might see accompanying decreases.

### **Inadequacies Noted**

The primary inadequacy noted at Harvard Junior High School is the lack of more up to date space to support 21<sup>st</sup> Century learning in the areas of STEM (such as the Robotics exploratory), small group/ large group collaboration, and the lack of available extended learning space.



## HARVARD HIGH SCHOOL

### Capacity

For Harvard High School, the capacity calculation methodology is identical to the Harvard Junior High School. In the high school setting it remains difficult to near a 100% utilization rate.

Harvard High School houses students in grades Nine through Twelve. The calculated *Instructional Capacity* is 964 students based on an average utilization rate of 82.3%, or slightly over 7 out of the available 9 periods. Utilization rates of 75% to 80% are typical for a high school setting. The 2018 - 19 enrollment is 751 students. Twenty-six classrooms are dedicated to core subject area curriculum delivery, and seventeen teaching stations are devoted to elective subject areas. Four special education classroom settings and four physical education teaching stations complete the teaching stations included in the calculation. The calculated *Rated and Theoretical Capacities* are 972 and 1149 students respectively.

For the 2018 – 19 school year, Harvard High School operates on an alternating 'A' and 'B' daily schedule. Each day features three 82 minute blocks and one 117 minute block during which lunch periods take place. The 82 minute blocks are divided into two 41 minute blocks for some subject areas.

### Factors Affecting Capacity

#### *Classrooms*

Typical classroom sizes at Harvard High school range from 621 to 985 square feet, with an overall average for core subject classrooms of 800 square feet. Due to the higher utilization rate (approximately 7 out of 9 available periods) HHS has an Instructional Capacity comparable to the Rated Capacity. Typical class sizes vary widely by subject, but in general, there is room for enrollment growth. On the other side of the equation, as at the Junior High School, based on operating at this high utilization rate, there is not space available to expand programming into additional core or exploratory curricula. Also like the Junior High, there are no underutilized spaces available to be re-purposed for supporting spaces such as STEM labs or Maker Spaces, extended learning spaces, or collaboration areas.

#### *Cafeteria*

Lunch is offered in three daily 39 minute periods. The combined capacity range for the Senior Café and Cafeteria/Commons is 250 to 325 per seating with a capacity total of 750 to 975 based on an ASF range of 15 to 20 SF/Student. The lunchroom capacity matches the Instructional Capacity of 964 students.



### *Gymnasium and Athletics*

Physical Education, which includes Health is part of every student's day Monday through Friday. For the 2018 – 19 school year, this represents an average of 21.5 periods of physical education and 4.5 periods of health per day. Two gymnasiums, a fitness room, and a weight room are available for PE use. The utilization rate for physical education is approximately 67%. Four classrooms are used for the health classroom curriculum during periods when they are not used for core subject curriculum. Because the forecasted growth is not expected to exceed the Instructional Capacity except for two peak years in Series C, the available physical education teaching stations should continue to meet the school's needs. However, locker room space is already at a premium for the current enrollment and athletic programs. This issue will be exacerbated by growth.

From an athletic standpoint, the gymnasium spaces are impacted differently each season. During the fall sports season, gymnasium use is primarily impacted by Girls Volleyball games and practices, and Cheerleading practices. The north gym is typically used for freshman games. The north gym has limited court space for team and spectator seating.

Winter sports include Boys and Girls Basketball and Wrestling. Practices, games, and meets have the highest impact on athletic use of the gym spaces during this period. Indoor baseball and softball practices. Changes in enrollment do not affect the athletic calendar.

### *Instrumental & Choral Music*

The Band Room has an ensemble capacity of 72 students. The Choral Room has an ensemble capacity of 65. At current and forecasted enrollments, these spaces should meet programmatic needs, dependent on the number of ensembles offered. Many programs will subdivide instrumental music into Concert Band and Woodwind ensembles if the number of participants grows to exceed the room capacity.

### **Class Sizes and Number of Sections**

As in any high school setting, class sizes will vary by subject and fluctuate due to scheduling constraints. Smaller class sizes typically occur in elective and AP or Honors sections.

The Kasarda Series B projections forecast an overall 14% growth over 2018 -19 at peak, which is forecasted to occur in 2028 - 29. The growth in the largest grade level at peak over the current largest grade is 11%. The forecast likely will result in an increase in class size of 2 to 3 students in a typical core subject class. The important factor to recognize is that based on the currently high level of classroom utilization, which is driven by the scheduling and number of course sections offered, the primary tool available to accommodate growth will be increased class size, with very limited ability to add additional class sections.



**Inadequacies Noted**

The primary inadequacy noted at Harvard High School is the lack of more up to date space to support 21<sup>st</sup> Century learning in the areas of STEM, small group/ large group collaboration, and the lack of available extended learning space.

Also of note is the arrangement and adequacy of spaces that support the physical education core. The percentage of locker room space to physical education teaching stations is low.



# **APPENDIX A**



# Harvard Community Unit School District 50

Facility Utilization and Capacity Study

Draft: March 6, 2019

GRADE	2018 - 2019 ACTUAL	PROJECTED		2019 - 2020		2020 - 2021		2021 - 2022		2022 - 2023		2023 - 2024		2024 - 2025		2025 - 2026		2026 - 2027		2027 - 2028		2028 - 2029	
		PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW
Pre-K	148	195	47	200	5	193	-7	197	4	193	-4	197	4	192	-5	197	5	193	-4	195	2		
K	194	180	-14	176	-4	182	6	174	-8	178	4	173	-5	179	6	172	-7	178	6	174	-4		
1	222	199	-23	185	-14	181	-4	187	6	179	-8	184	5	179	-5	185	6	178	-7	184	6		
2	197	220	23	197	-23	183	-14	179	-4	185	6	179	-6	184	5	179	-5	185	6	178	-7		
3	194	196	2	219	23	196	-23	182	-14	178	-4	185	7	179	-6	184	5	179	-5	185	6		
4	191	181	-10	183	2	206	23	183	-23	169	-14	171	2	178	7	172	-6	177	5	172	-5		
5	220	190	-30	180	-10	182	2	205	23	182	-23	170	-12	172	2	179	7	173	-6	178	5		
6	202	219	17	189	-30	179	-10	181	2	204	23	182	-22	170	-12	172	2	179	7	173	-6		
7	196	196	0	213	17	183	-30	173	-10	175	2	200	25	178	-22	166	-12	168	2	175	7		
8	198	193	-5	193	0	210	17	180	-30	170	-10	174	4	199	25	177	-22	165	-12	167	2		
9	207	205	-2	200	-5	200	0	217	17	187	-30	182	-5	186	4	211	25	189	-22	177	-12		
10	198	190	-8	188	-2	183	-5	183	0	200	17	170	-30	165	-5	169	4	194	25	172	-22		
11	183	198	15	190	-8	188	-2	183	-5	183	0	202	19	172	-30	167	-5	171	4	196	25		
12	163	175	12	190	15	182	-8	180	-2	175	-5	178	3	197	19	167	-30	162	-5	166	4		
TOTALS	2713	2737	24	2703	-34	2648	-55	2604	-44	2558	-46	2547	0	2530	0	2497	0	2491	0	2492	0		
DISTRICT CAPACITY	3214	3214		3214		3214		3214		3214		3214		3214		3214		3214		3214			
Surplus/Shortage	501	477		511		566		610		656		667		684		717		723		722			
A11																							
DISTRICT WIDE CAPACITY																							
Kasarda Series A Projection																							
Pre-K Projections adjusted for Actual 2018-2019 Enrollment																							

GRADE	2018 - 2019 ACTUAL	PROJECTED		2020 - 2021		2021 - 2022		2022 - 2023		2023 - 2024		2024 - 2025		2025 - 2026		2026 - 2027		2027 - 2028		2028 - 2029	
		PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW
Pre-K	208	206	-2	212	6	206	-6	210	4	207	-3	213	6	208	-5	213	5	211	-2	212	1
K	194	196	2	193	-3	200	7	192	-8	198	6	194	-4	201	7	195	-6	202	7	199	-3
1	222	204	-18	206	2	203	-3	210	7	202	-8	206	4	202	-4	209	7	203	-6	210	7
2	197	224	27	206	-18	208	2	205	-3	212	7	204	-8	208	4	204	-4	211	7	205	-6
3	194	200	6	227	27	209	-18	211	2	208	-3	214	6	206	-8	210	4	206	-4	213	7
4	191	188	-3	194	6	221	27	203	-18	205	2	203	-2	209	6	201	-8	205	4	201	-4
5	220	195	-25	192	-3	198	6	225	27	207	-18	208	1	206	-2	212	6	204	-8	208	4
6	202	224	22	199	-25	196	-3	202	6	229	27	209	-20	210	1	208	-2	214	6	206	-8
7	196	200	4	222	22	197	-25	194	-3	200	6	227	27	207	-20	208	1	206	-2	212	6
8	198	198	0	202	4	224	22	199	-25	196	-3	201	5	228	27	208	-20	209	1	207	-2
9	207	212	5	212	0	216	4	238	22	213	-25	209	-4	214	5	241	27	221	-20	222	1
10	198	195	-3	200	5	200	0	204	4	226	22	198	-28	194	-4	199	5	226	27	206	-20
11	183	203	20	200	-3	205	5	205	0	209	4	230	21	202	-28	198	-4	203	5	230	27
12	163	181	18	201	20	198	-3	203	5	203	0	206	3	227	21	199	-28	195	-4	200	5
TOTALS	2773	2826	53	2866	40	2881	15	2901	20	2915	14	2922	0	2922	0	2905	0	2916	0	2931	0
DISTRICT CAPACITY	3214	3214		3214		3214		3214		3214		3214		3214		3214		3214		3214	
Surplus/Shortage	441	388		348		333		313		299		292		292		309		298		283	
DISTRICT WIDE CAPACITY																					
A1.2																					
Kasarda Series B Projection																					
Pre-K Projections adjusted for Actual 2018-2019 Enrollment																					



# Harvard Community Unit School District 50

Facility Utilization and Capacity Study

Draft: March 6, 2019

GRADE	2018-2019 ACTUAL	PROJECTED		2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029
		PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW
Pre-K	208	217	9	223	6	217	-6	221	4	219	4	219	4
K	194	207	13	204	-3	211	7	203	-8	209	-8	209	-8
1	222	209	-13	222	13	219	-3	226	7	218	-8	218	-8
2	197	228	31	215	-13	228	13	225	-3	232	7	232	7
3	194	204	10	235	31	222	-13	235	13	232	-3	232	-3
4	191	193	2	203	10	234	31	221	10	243	31	221	10
5	220	200	-20	202	2	212	10	243	31	221	10	243	31
6	202	230	28	210	-20	212	2	222	10	243	31	222	10
7	196	205	9	233	28	213	-20	215	2	225	10	253	28
8	198	203	5	212	9	240	28	220	-20	222	2	228	6
9	207	217	10	222	5	231	9	259	28	239	-20	236	-3
10	198	200	2	210	10	215	5	224	9	252	28	226	-26
11	183	208	25	210	2	220	10	225	5	234	9	258	24
12	163	186	23	211	25	213	2	223	10	228	5	233	5
TOTALS	2773	2907	134	3012	105	3087	75	3162	75	3227	65	3245	0
DISTRICT CAPACITY	3214	3214		3214		3214		3214		3214		3214	
Surplus/Shortage	441	307		202		127		52		-13		-53	-75
A1.3													
DISTRICT WIDE CAPACITY													
Kasarda Series C Projection													
Pre-K Projections adjusted for Actual 2018-2019 Enrollment													



# Harvard Community Unit School District 50

Facility Utilization and Capacity Study

Draft: March 6, 2019

GRADE	2018 - 2019 ACTUAL	PROJECTED		2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	2024 - 2025	2025 - 2026	2026 - 2027	2027 - 2028	2028 - 2029										
		PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW								
Pre-K	208	195	-13	200	5	193	-7	197	4	193	-4	197	4	192	-5	197	5	193	-4	195	2		
K																							
1																							
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
TOTALS	208	195	-13	200	5	193	-7	197	4	193	-4	197	0	192	0	197	0	193	0	195	0		
INSTRUCTIONAL CAPACITY	193	193		193		193		193		193		193		193		193		193		193			
Surplus/Shortage	-15	-2		-7		0		-4		0		-4		1		-4		0		-2			
														A2.1									
														WASHINGTON SCHOOL CAPACITY									
														Kasarda Series A Projection									
														Pre-K Projections adjusted for Actual 2018-2019 Enrollment									



# Harvard Community Unit School District 50

Facility Utilization and Capacity Study

Draft: March 6, 2019

GRADE	2018- 2019 ACTUAL	PROJECTED		2020 - 2021 PROJ NEW	2021 - 2021 PROJ NEW	2022 - 2022 PROJ NEW	2022 - 2023 PROJ NEW	2023 - 2024 PROJ NEW	2024 - 2025 PROJ NEW	2025 - 2026 PROJ NEW	2026 - 2027 PROJ NEW	2027 - 2028 PROJ NEW	2028 - 2029 PROJ NEW								
		PROJ	NEW																		
Pre-K	208	206	-2	212	6	206	-6	210	4	207	-3	213	6	208	-5	213	5	211	-2	212	1
K																					
1																					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
TOTALS	208	206	-2	212	6	206	-6	210	4	207	-3	213	0	208	0	213	0	211	0	212	0
INSTRUCTIONAL CAPACITY	193	193		193		193		193		193		193		193		193		193		193	
Surplus/Shortage	-15	-13		-19		-13		-17		-14		-20		-15		-20		-18		-19	
														A.2.2							
														WASHINGTON SCHOOL CAPACITY							
														Kasarda Series B Projection							
														Pre-K Projections adjusted for Actual 2018-2019 Enrollment							

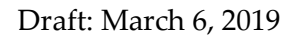
GRADE	2018 -	PROJECTED																			
	2019			2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	2024 - 2025	2025 - 2026	2026 - 2027	2027 - 2028	2028 - 2029									
	ACTUAL	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW								
Pre-K	208	217	9	223	6	217	-6	221	4	219	-2	225	6	221	-4	227	6	226	-1	227	1
K																					
1																					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
TOTALS	208	217	9	223	6	217	-6	221	4	219	-2	225	0	221	0	227	0	226	0	227	0
INSTRUCTIONAL CAPACITY	193	193		193	193	193		193	193	193		193	193	193	193	193	193	193	193	193	193
Surplus/Shortage	-15	-24		-30	-24	-28		-28	-26	-26		-32	-28	-34	-33	-34	-33	-34	-34	-34	-34

A.2.3

WASHINGTON SCHOOL CAPACITY

Kasarda Series C Projection

Pre-K Projections adjusted for Actual 2018-2019 Enrollment

Commission No. 183214



# Harvard Community Unit School District 50

Facility Utilization and Capacity Study

Draft: March 6, 2019

GRADE	2018 - 2019 ACTUAL	PROJECTED		2020 - 2021 PROJ NEW	2021 - 2022 PROJ NEW	2022 - 2023 PROJ NEW	2023 - 2024 PROJ NEW	2024 - 2025 PROJ NEW	2025 - 2026 PROJ NEW	2026 - 2027 PROJ NEW	2027 - 2028 PROJ NEW	2028 - 2029 PROJ NEW									
		PROJ	NEW																		
Pre-K																					
K	194	196	2	193	-3	200	7	192	-8	198	6	194	-4	201	7	195	-6	202	7	199	-3
1	222	204	-18	206	2	203	-3	210	7	202	-8	206	4	202	-4	209	7	203	-6	210	7
2	197	224	27	206	-18	208	2	205	-3	212	7	204	-8	208	4	204	-4	211	7	205	-6
3	194	200	6	227	27	209	-18	211	2	208	-3	214	6	206	-8	210	4	206	-4	213	7
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
TOTALS	807	824	17	832	8	820	-12	818	-2	820	2	818	0	817	0	818	0	822	0	827	0
INSTRUCTIONAL CAPACITY	838	838		838		838		838		838		838		838		838		838		838	
Surplus/Shortage	31	14		6		18		20		18		20		21		20		16		11	
A.3.2																					
CROSBY ELEMENTARY SCHOOL CAPACITY																					
Kasarda Series B Projection																					

A.3.2

CROSBY ELEMENTARY SCHOOL CAPACITY

Kasarda Series B Projection



# Harvard Community Unit School District 50

Facility Utilization and Capacity Study

Draft: March 6, 2019

GRADE	2018 - 2019 ACTUAL	PROJECTED		2019 - 2020 PROJ NEW	2020 - 2021 PROJ NEW	2021 - 2022 PROJ NEW	2022 - 2023 PROJ NEW	2023 - 2024 PROJ NEW	2024 - 2025 PROJ NEW	2025 - 2026 PROJ NEW	2026 - 2027 PROJ NEW	2027 - 2028 PROJ NEW	2028 - 2029 PROJ NEW								
Pre-K																					
K	194	207	13	204	-3	211	7	203	-8	209	6	206	-3	214	8	209	-5	217	8	215	-2
1	222	209	-13	222	13	219	-3	226	7	218	-8	219	1	216	-3	224	8	219	-5	227	8
2	197	228	31	215	-13	228	13	225	-3	232	7	222	-10	223	1	220	-3	228	8	223	-5
3	194	204	10	235	31	222	-13	235	13	232	-3	236	4	226	-10	227	1	224	-3	232	8
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
TOTALS	807	848	41	876	28	880	4	889	9	891	2	883	0	879	0	880	0	888	0	897	0
INSTRUCTIONAL CAPACITY	838	838		838		838		838		838		838		838		838		838		838	
Surplus/Shortage	31	-10		-38		-42		-51		-53		-45		-41		-42		-50		-59	
A.3.3																					
CROSBY ELEMENTARY SCHOOL CAPACITY																					
Kasarda Series C Projection																					

A.3.3

CROSBY ELEMENTARY SCHOOL CAPACITY  
Kasarda Series C Projection

GRADE	2018- 2019 ACTUAL	PROJECTED																		2028 - 2029 PROJ NEW	
		2019 - 2020		2020 - 2021		2021 - 2022		2022 - 2023		2023 - 2024		2024 - 2025		2025 - 2026		2026 - 2027		2027 - 2028			
		PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW		
Pre-K																					
K																					
1																					
2																					
3																					
4	191	181	-10	183	2	206	23	183	-23	169	-14	171	2	178	7	172	-6	177	5	172	-5
5	220	190	-30	180	-10	182	2	205	23	182	-23	170	-12	172	2	179	7	173	-6	178	5
6																					
7																					
8																					
9																					
10																					
11																					
12																					
TOTALS	411	371	-40	363	-8	388	25	388	0	351	-37	341	0	350	0	351	0	350	0	350	0
INSTRUCTIONAL CAPACITY	473	473		473		473		473		473		473		473		473		473		473	
Surplus/Shortage	62	102		110		85		85		122		132		123		122		123		123	
A.4.1																					
JEFFERSON ELEMENTARY SCHOOL CAPACITY																					
Kasarda Series A Projection																					



# Harvard Community Unit School District 50

Facility Utilization and Capacity Study

Draft: March 6, 2019

GRADE	2018 - 2019 ACTUAL	PROJECTED		2019 - 2020 NEW	2020 - 2021 NEW	2021 - 2022 PROJ NEW	2022 - 2023 PROJ NEW	2023 - 2024 PROJ NEW	2024 - 2025 PROJ NEW	2025 - 2026 PROJ NEW	2026 - 2027 PROJ NEW	2027 - 2028 PROJ NEW	2028 - 2029 PROJ NEW								
		2019 - 2020 NEW	2020 - 2021 NEW																		
Pre-K																					
K																					
1																					
2																					
3																					
4	191	188	-3	194	6	221	27	203	-18	205	2	203	-2	209	6	201	-8	205	4	201	-4
5	220	195	-25	192	-3	198	6	225	27	207	-18	208	1	206	-2	212	6	204	-8	208	4
6																					
7																					
8																					
9																					
10																					
11																					
12																					
TOTALS	411	383	-28	386	3	419	33	428	9	412	-16	411	0	415	0	413	0	409	0	409	0
INSTRUCTIONAL CAPACITY	473	473		473		473		473		473		473		473		473		473		473	
Surplus/Shortage	62	90		87		54		45		61		62		58		60		64		64	

A.4.2

JEFFERSON ELEMENTARY SCHOOL CAPACITY

Kasarda Series B Projection

A.4.2

JEFFERSON ELEMENTARY SCHOOL CAPACITY

Kasarda Series B Projection

GRADE	2018 - 2019 ACTUAL	PROJECTED		2020 - 2021 PROJ NEW	2021 - 2022 PROJ NEW	2022 - 2023 PROJ NEW	2023 - 2024 PROJ NEW	2024 - 2025 PROJ NEW	2025 - 2026 PROJ NEW	2026 - 2027 PROJ NEW	2027 - 2028 PROJ NEW	2028 - 2029 PROJ NEW										
		2019 - 2020 PROJ NEW	2020 - 2021 PROJ NEW																			
Pre-K																						
K																						
1																						
2																						
3																						
4	191	193	2	203	10	234	31	221	-13	234	13	230	-4	234	4	224	-10	225	1	222	-3	
5	220	200	-20	202	2	212	10	243	31	230	-13	239	9	235	-4	239	4	229	-10	230	1	
6																						
7																						
8																						
9																						
10																						
11																						
12																						
TOTALS	411	393	-18	405	12	446	41	464	18	464	0	469	0	469	0	463	0	454	0	452	0	
INSTRUCTIONAL CAPACITY	473	473		473		473		473		473	473	473	473	473	473	473	473	473	473	473		
Surplus/Shortage	62	80		68		27		9		9	9	4	4	4	4	10		19		21		
A.4.3													JEFFERSON ELEMENTARY SCHOOL CAPACITY									
													Kasarda Series C Projection									





# Harvard Community Unit School District 50

Facility Utilization and Capacity Study

Draft: March 6, 2019

GRADE	2018 -	PROJECTED		2019 - 2020		2020 - 2021		2021 - 2022		2022 - 2023		2023 - 2024		2024 - 2025		2025 - 2026		2026 - 2027		2027 - 2028		2028 - 2029	
	ACTUAL	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW
Pre-K																							
K																							
1																							
2																							
3																							
4																							
5																							
6	202	224	22	199	-25	196	-3	202	6	229	27	209	-20	210	1	208	-2	214	6	206	-8		
7	196	200	4	222	22	197	-25	194	-3	200	6	227	27	207	-20	208	1	206	-2	212	6		
8	198	198	0	202	4	224	22	199	-25	196	-3	201	5	228	27	208	-20	209	1	207	-2		
9																							
10																							
11																							
12																							
TOTALS	596	622	26	623	1	617	-6	595	-22	625	30	637	0	645	0	624	0	629	0	625	0		
INSTRUCTIONAL CAPACITY	746	746		746		746		746		746		746		746		746		746		746			
Surplus/Shortage	150	124		123		129		151		121		109		101		122		117		121			

A.5.2

HARVARD JUNIOR HIGH SCHOOL CAPACITY  
Kasarda Series B Projection



# Harvard Community Unit School District 50

Facility Utilization and Capacity Study

Draft: March 6, 2019

	2018- 2019 ACTUAL	PROJECTED		2020 - 2020 PROJ NEW	2020 - 2021 PROJ NEW	2021 - 2022 PROJ NEW	2022 - 2023 PROJ NEW	2023 - 2024 PROJ NEW	2024 - 2025 PROJ NEW	2025 - 2026 PROJ NEW	2026 - 2027 PROJ NEW	2027 - 2028 PROJ NEW	2028 - 2029 PROJ NEW										
		PROJ	NEW																				
GRADE																							
Pre-K																							
K																							
1																							
2																							
3																							
4																							
5																							
6	202	230	28	210	-20	212	2	222	10	253	31	234	-19	243	9	239	-4	243	4	233	-10		
7	196	205	9	233	28	213	-20	215	2	225	10	253	28	234	-19	243	9	239	-4	243	4		
8	198	203	5	212	9	240	28	220	-20	222	2	228	6	256	28	237	-19	246	9	242	-4		
9																							
10																							
11																							
12																							
TOTALS	596	638	42	655	17	665	10	657	-8	700	43	715	0	733	0	719	0	728	0	718	0		
INSTRUCTIONAL CAPACITY	746	746		746		746		746		746		746		746		746		746		746			
Surplus/Shortage	150	108		91		81		89		46		31		13		27		18		28			
A.5.3																							
HARVARD JUNIOR HIGH SCHOOL CAPACITY																							
Kasarda Series C Protection																							

A.5.3

HARVARD JUNIOR HIGH SCHOOL CAPACITY  
Kasarda Series C Projection



GRADE	2018 - 2019 ACTUAL	PROJECTED		2020 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	2024 - 2025	2025 - 2026	2026 - 2027	2027 - 2028	2028 - 2029								
		PROJ	NEW											PROJ	NEW	PROJ	NEW	PROJ	NEW	PROJ	NEW
Pre-K																					
K																					
1																					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9	207	212	5	212	0	216	4	238	22	213	-25	209	-4	214	5	241	27	221	-20	222	1
10	198	195	-3	200	5	200	0	204	4	226	22	198	-28	194	-4	199	5	226	27	206	-20
11	183	203	20	200	-3	205	5	205	0	209	4	230	21	202	-28	198	-4	203	5	230	27
12	163	181	18	201	20	198	-3	203	5	203	0	206	3	227	21	199	-28	195	-4	200	5
TOTALS	751	791	40	813	22	819	6	850	31	851	1	843	0	837	0	837	0	845	0	858	0
INSTRUCTIONAL CAPACITY	964	964		964		964		964		964		964		964		964		964		964	
Surplus/Shortage	213	173		151		145		114		113		121		127		127		119		106	

A.6.2

HARVARD HIGH SCHOOL CAPACITY

Kasarda Series B Projection





# **APPENDIX B**



## Facility Utilization and Capacity Study

Draft: March 6, 2019

## Appendix B.1



**Crosby Elementary School**

**Room List**

Room Number	Room Name	Area	Assignable SF	Instructional Capacity	Rated Capacity	Theoretical Capacity	Current Occupancy	Space Type
101	CLASSROOM - FIRST GRADE	797	35	23	25	30		CLS
102	CLASSROOM - FIRST GRADE	797	35	23	25	30		CLS
103	CLASSROOM - FIRST GRADE	788	35	23	25	30		CLS
104	CLASSROOM - FIRST GRADE	786	35	22	25	30		CLS
105	CLASSROOM - FIRST GRADE	786	35	22	25	30		CLS
106	CLASSROOM - FIRST GRADE	788	35	23	25	30		CLS
107	CLASSROOM - FIRST GRADE	780	35	22	25	30		CLS
108	CLASSROOM - FIRST GRADE	780	35	22	25	30		CLS
109	CLASSROOM - FIRST GRADE	780	35	22	25	30		CLS
110	TOILET ROOM - BOYS							SS
111	TOILET ROOM - GIRLS							SS
112	DISCOVERY CENTER - 1ST GRADE	1200						RLS
113	INTERVENTION	204						AS
	ELECTRICAL	61						SS
	STAFF RESTROOM							SS
200	GYMNASIUM	8661	75	115				ELS
200A	P.E. OFFICE	100						AS
200B	P.E. STORAGE	287						SS
201	MUSIC ROOM	1388	20	69				ELS
201A	MUSIC STORAGE	359						SS
202	MUSIC ROOM	1388	20	69				ELS
203	CLASSROOM - FIRST GRADE	1125	35	32	25	30		CLS
204	INTERVENTION	272						AS
205	LEARNING CENTER	1308						ELS
205A	STORY ROOM	342						ELS
205B	OFFICE/WORKROOM	189						AS
206A	JANITOR	62						SS
206B	ELEVATOR EQUIPMENT	64						SS
207	TECHNOLOGY	247						SS
208	SPECIAL EDUCATION RESOURCE CLASSROOM	491	65	8				RLS
209	STAFF LOUNGE	689						AS
210	CLASSROOM - SPECIAL EDUCATION	958	65	15	25	30		CLS
210A	STORAGE							SS
210B	TOILET							SS
212A	TOILET ROOM - GIRLS							SS
212B	TOILET ROOM - BOYS							SS
212C	JANITOR							SS
213	CAFETERIA	3077	12	256				AS
213A	STORAGE	142						SS
214	TOILET ROOM - BOYS							SS
216	TOILET ROOM - GIRLS							SS
301	CLASSROOM - KINDERGARTEN	977	50	20	25			CLS
301A	TOILET							SS
302	CLASSROOM - KINDERGARTEN	979	50	20	25			CLS
302A	TOILET							SS
303	CLASSROOM - KINDERGARTEN	979	50	20	25			CLS
303A	TOILET							SS
304	CLASSROOM - KINDERGARTEN	977	50	20	25			CLS
304A	TOILET							SS
305	CLASSROOM - KINDERGARTEN	977	50	20	25			CLS
305A	TOILET							SS
306	CLASSROOM - KINDERGARTEN	977	50	20	25			CLS



**Crosby Elementary School**

**Room List**

Room Number	Room Name	Area	Assignable SF	Instructional Capacity	Rated Capacity	Theoretical Capacity	Current Occupancy	Space Type
306A	TOILET							SS
307	CLASSROOM - KINDERGARTEN	977	50	20	25			CLS
307A	TOILET							SS
308	CLASSROOM - KINDERGARTEN	977	50	20	25			CLS
308A	TOILET							SS
309	CLASSROOM - KINDERGARTEN	977	50	20	25			CLS
309A	TOILET							SS
310	CLASSROOM - KINDERGARTEN	977	50	20	25			CLS
310A	TOILET							SS
311	DISCOVERY CENTER - KINDERGARTEN	900						RLS
312	SOCIAL WORKER	134						AS
313	PSYCHOLOGIST	170						AS
316	IDF ROOM							SS
317	STAFF RESTROOM							SS
400	MAIN OFFICE	567						AS
401	NURSE	316						AS
402	PRINCIPAL OFFICE	209						AS
403	FILES	88						AS
404	CONFERENCE ROOM	210	20	11				AS
405	WOMENS RESTROOM							SS
406	ASSISTANT PRINCIPAL	141						AS
407	MENS RESTROOM							SS
408	OT/PT	351						ELS
409	MAIL	179						SS
410	STORAGE	558						SS
411	KITCHEN	665						AS
411A	SCULLERY	72						SS
411B	SERVERY	192						SS
411C	KITCHEN OFFICE	86						SS
411D	DRY STORAGE	118						SS
412	ELECTRICAL	183						SS
413	FIRE SUPPRESSION	146						SS
414	BOILER ROOM	678						SS
415	RECEIVING	717						SS
415A	STORAGE	86						SS
415B	JANITOR	49						SS
501	CLASSROOM - SECOND GRADE	780	35	22	25	30		CLS
502	CLASSROOM - SECOND GRADE	780	35	22	25	30		CLS
503	CLASSROOM - SECOND GRADE	780	35	22	25	30		CLS
504	CLASSROOM - SECOND GRADE	788	35	23	25	30		CLS
505	CLASSROOM - SECOND GRADE	786	35	22	25	30		CLS
506	CLASSROOM - SECOND GRADE	786	35	22	25	30		CLS
507	CLASSROOM - SECOND GRADE	788	35	23	25	30		CLS
508	CLASSROOM - SECOND GRADE	797	35	23	25	30		CLS
509	CLASSROOM - SECOND GRADE	797	35	23	25	30		CLS
510	DISCOVERY CENTER - 2ND GRADE	1200						RLS
511	INTERVENTION	204						AS
512	ELECTRICAL	51						SS
513	STAFF RESTROOM							SS
514	TOILET ROOM - GIRLS							SS
515	TOILET ROOM - BOYS							SS
600	COUNSELOR	214						AS



**Crosby Elementary School**

**Room List**

Room Number	Room Name	Area	Assignable SF	Instructional Capacity	Rated Capacity	Theoretical Capacity	Current Occupancy	Space Type
602	JANITOR	53						SS
603	MECHANICAL	1258						SS
604	IDF ROOM	131						SS
606	CLASSROOM - SPECIAL EDUCATION	648	65	10				RLS
606A	OBSERVATION	246						AS
608	CLASSROOM - SPECIAL EDUCATION	648	65	10				RLS
610	WORKROOM	351						AS
611	MECHANICAL	1284						SS
612	JANITOR	53						SS
614	SPEECH & LANGUAGE	219						AS
701	CLASSROOM - THIRD GRADE	797	35	23	25	30		CLS
702	CLASSROOM - THIRD GRADE	797	35	23	25	30		CLS
703	CLASSROOM - THIRD GRADE	788	35	23	25	30		CLS
704	CLASSROOM - THIRD GRADE	786	35	22	25	30		CLS
705	CLASSROOM - THIRD GRADE	786	35	22	25	30		CLS
706	CLASSROOM - THIRD GRADE	788	35	23	25	30		CLS
707	CLASSROOM - THIRD GRADE	780	35	22	25	30		CLS
708	CLASSROOM - THIRD GRADE	780	35	22	25	30		CLS
709	CLASSROOM - THIRD GRADE	780	35	22	25	30		CLS
710	TOILET ROOM - GIRLS							SS
711	TOILET ROOM - BOYS							SS
712	DISCOVERY CENTER - 3RD GRADE	1200						RLS
713	INTERVENTION	204						AS
714	ELECTRICAL	51						SS
715	STAFF RESTROOM							SS
<b>Total Classroom Capacity</b>				<b>838</b>	<b>975</b>	<b>1170</b>	<b>807</b>	



Jefferson Elementary School

Room List

Room Number	Room Name	Area	Assignable SF	Instructional Capacity	Rated Capacity	Theoretical Capacity	Current Occupancy	Space Type
1	CLASSROOM - FIFTH GRADE	766	35	22	25	30		CLS
2	CLASSROOM - FIFTH GRADE	766	35	22	25	30		CLS
3	CLASSROOM - FIFTH GRADE	766	35	22	25	30		CLS
4	CLASSROOM - FOURTH GRADE	766	35	22	25	30		CLS
5	CLASSROOM - FOURTH GRADE	766	35	22	25	30		CLS
6	CLASSROOM - FOURTH GRADE	766	35	22	25	30		CLS
7	CLASSROOM - FOURTH GRADE	766	35	22	25	30		CLS
8	CLASSROOM - FOURTH GRADE	766	35	22	25	30		CLS
9	CLASSROOM - FOURTH GRADE	795	35	23	25	30		CLS
10	CLASSROOM - FOURTH GRADE	795	35	23	25	30		CLS
11	CLASSROOM - FOURTH GRADE	795	35	23	25	30		CLS
12	CLASSROOM - FOURTH GRADE	795	35	23	25	30		CLS
13	CLASSROOM - FIFTH GRADE	795	35	23	25	30		CLS
13A	TOILET ROOM - GIRLS							SS
13B	CUSTODIAL CLOSET	97						SS
13C	TOILET ROOM - BOYS							SS
14	CLASSROOM - FIFTH GRADE	1072	35	31	25	30		CLS
15	CLASSROOM - FIFTH GRADE	1072	35	31	25	30		CLS
16	CLASSROOM - FIFTH GRADE	1072	35	31	25	30		CLS
17	CLASSROOM - GIFTED & STEM	1012	50	20	25	30		CLS
17A	MECHANICAL	210						SS
17B	TOILET ROOM - BOYS							SS
17C	TOILET ROOM - GIRLS							SS
18	CLASSROOM - FIFTH GRADE	1012	35	29	25	30		CLS
19	CLASSROOM - FIFTH GRADE	1067	35	30	25	30		CLS
20	SPECIAL ED - CROSS CATEGORICAL	1067	65	16	25	30		RLS
21	CLASSROOM - FIFTH GRADE	1067	35	30	25	30		CLS
22	SPECIAL ED - LIFE SKILLS	544	100	5				RLS
23	SPECIAL ED - ED/BD	544	100	5				RLS
24	SPECIAL ED - RESOURCE	586	65	9				RLS
25	STORAGE	390						SS
25A	STAGE	755						ELS
25B	STORAGE	296						SS
26	GYMNASIUM/MULTI-PURPOSE ROOM	5880	75					ELS
	TOILET ROOM - BOYS							SS
	TOILET ROOM - GIRLS							SS
27	MUSIC ROOM	959	20	48	25	30		ELS
28	CAFETERIA	1892	12	158				AS
28A	KITCHEN	500						SS
29	LEARNING CENTER	2082						ELS
29A	OT/PT	108						AS
29B	SPEECH	107						AS
29C	PSYCHOLOGIST	104						AS
29D	BAND	141	20	7				ELS
29E	STORAGE	141						SS
29F	STORAGE	100						SS
30	STORAGE	191						SS
31	WORK ROOM	178						AS
31A	ART ROOM	516	40	13				ELS
32	BOILER ROOM	571						SS
34	STAFF LUNCHROOM	295						SS
35	SOCIAL WORKERS	217						AS

## Jefferson Elementary School

## Room List

[illegible]



Harvard Junior High School

Room List

Room Number	Room Name	Area	Assignable SF	Instructional Capacity	Rated Capacity	Theoretical Capacity	Utilization Rate	Space Type
I00	CLASSROOM - GRADE 7 - MATH	866	35	25	25	30	78%	CLS
I01A	SE RESOURCE	314	65	5			78%	RLS
I01B	CLASSROOM - LD LIFE SKILLS	726	65	11	25	30	78%	RLS
I02	CLASSROOM - GRADE 7 - SOCIAL STUDIES	866	35	25	25	30	78%	CLS
I03	CLASSROOM - GRADE 7 - LANGUAGE ARTS	866	35	25	25	30	78%	CLS
I04	CLASSROOM - GRADE 7 - ENGLISH/LANGUAGE ARTS	866	35	25	25	30	78%	CLS
I05	CLASSROOM - GRADE 7 - SCIENCE	866	35	25	25	30	78%	CLS
I06	CLASSROOM - GRADE 7 - SLA/ESL	866	35	25	25	30	78%	CLS
I07	CLASSROOM - PE	923	35	26	25	30	78%	ELS
I08	BAND	1477	20	74	74	74	56%	ELS
I09	CLASSROOM - PE	923	35	26	25	30	78%	ELS
I10	CLASSROOM - GRADE 8 - SLA	880	35	25	25	30	78%	CLS
I11	SPED - 6 thru 8 LA, MATH	343	65	5			78%	RLS
I12	CLASSROOM - 6 thru 8 WORLD CULTURES	880	35	25	25	30	78%	ELS
I13A	OFFICE	215						AS
I13B	WORKROOM	168						ELS
I13C	OFFICE	112						AS
	COPY ROOM							AS
I14	CLASSROOM - GRADE 7 - MATH	880	35	25	25	30	78%	CLS
I15	MAIN OFFICE	398						AS
I15A	NURSE	116						AS
I15B	SPECIAL ED OFFICE	400						AS
I15C	COPY/RECORDS	278						AS
I15D	PRINCIPAL OFFICE	170						AS
I15E	VAULT							AS
I16	CLASSROOM - GRADE 8 - SOCIAL STUDIES	880	35	25	25	30	78%	CLS
I17	SCIENCE LAB - GRADE 8	880	50	18	25	30	78%	CLS
I18	CLASSROOM - GRADE 8 - MATH	880	35	25	25	30	100%	CLS
I19	SCIENCE LAB - GRADE 7 & 8	880	50	18	25	30	78%	CLS
I20	SP ED RESOURCE	279	65	4			78%	RLS
I20A	ASSISTANT PRINCIPAL	156						AS
I21	CLASSROOM - GRADE 8 - LANGUAGE ARTS	880	35	25	25	30	78%	CLS
I23	CLASSROOM - GRADE 8 - ELA/AVID	880	35	25	25	30	78%	CLS
I24	CLASSROOM - GRADE 7/8 - SS/MATH	610	35	17	25	30	78%	CLS
I25	LIBRARY - GRADE 6 LA	3387					56%	ELS
I25A	SPECIAL EDUCATION	269	65	4				RLS
I25B	SOCIAL WORKER	202						AS
I25C	SOCIAL WORKER	148	20	7				AS
I25D	EXPLORATORY - ROBOT/HUMAN	142						ELS
I26	ART ROOM	1209	40	30	25	30	78%	ELS
I27	CLASSROOM - GRADE 6 SCIENCE	890	35	25	25	30	78%	CLS
I28	CLASSROOM - GRADE 6 - MATH	890	35	25	25	30	78%	CLS
I29	CLASSROOM - STEM	890	40	22	25	30	89%	ELS
I30	CLASSROOM - GRADE 6 - DL SOCIAL STUDIES	890	35	25	25	30	78%	CLS
I31	CLASSROOM - GRADE 6 SCIENCE/SOCIAL STUDIES	890	35	25	25	30	78%	CLS
I32	CLASSROOM - GRADE 6 - ELA	890	35	25	25	30	78%	CLS
I33	CLASSROOM - GRADE 6 - LA/READING EXT	890	35	25	25	30	78%	CLS
I34	CLASSROOM - GRADE 6 - LA/AVID	890	35	25	25	30	78%	CLS
I35	CLASSROOM - GRADE 6 - MATH	890	35	25	25	30	78%	CLS
I36	CLASSROOM - GRADE 6 - SLA	890	35	25	25	30	78%	CLS
210	GIRLS LOCKER ROOM	425						SS
211	BOYS LOCKER ROOM	498						SS

## Harvard Junior High School

## Room List

[illegible]



Harvard High High School

Room List

Room Number	Room Name	Area	Assignable SF	Instructional Capacity	Rated Capacity	Theoretical Capacity	Utilization Rate	Space Type
1	ART ROOM	864	40	22	25	30	44%	ELS
2	VOCAL MUSIC	1299	20	65	65	65	67%	ELS
	MEN							SS
	WOMEN							SS
3	CLASSROOM - SOCIAL STUDIES	621	35	18	25	30	78%	CLS
4	CLASSROOM - SOCIAL STUDIES	750	35	21	25	30	78%	CLS
5	CLASSROOM - SOCIAL STUDIES	985	35	28	25	30	78%	CLS
6	CLASSROOM - MATH	965	35	28	25	30	78%	CLS
7	CLASSROOM - SOCIAL STUDIES	955	35	27	25	30	67%	CLS
8	CLASSROOM - BUSINESS	957	35	27	25	30	78%	ELS
	MEN							SS
	WOMEN							SS
	STAFF TOILET - MEN							SS
	STAFF TOILET - WOMEN							SS
20	BOILER	1954						SS
21	MECHANICAL	448						SS
24	STORAGE	120						SS
34	WORK ROOM	90						AS
35	STORAGE	1208						SS
36	STORAGE	1476						SS
37	STORAGE	996						SS
100	ART LAB	1000	40	25	25	30	78%	ELS
101	GYMNASIUM - AUXILIARY	4300	75	57	57	57	100%	ELS
102	STAGE	832						ELS
102A	STORAGE	142						SS
102B	STORAGE	105						SS
102C	PE OFFICE	117						AS
103	BAND	1439	20	72	72	72	67%	ELS
103A	STORAGE	294						ELS
103B	STORAGE	22						ELS
103C	PRACTICE	26						ELS
103D	PRACTICE	27						ELS
103E	OFFICE	155						AS
103F	OFFICE	256						AS
104	GIRLS ATHLETIC LOCKER ROOM	648						SS
104A	STORAGE							SS
105	GIRLS LOCKER ROOM	610						SS
106	FOODS LAB	1051	40	26	25	30	78%	ELS
106A	STORAGE	49						SS
107	DRAFTING LAB	776	40	19	25	30	78%	ELS
107A	STORAGE	89						SS
108	WOOD SHOP	2219	100	22	25	30	67%	ELS
108A	FINISHING ROOM	163						ELS
108B	STORAGE	126						SS
108C	OFFICE	53						AS
109	WRESTLING ROOM	2243						RLS
109A	STORAGE	41						SS
109B	STORAGE	41						SS
110	METALS/MANUFACTURING LAB	3070	100	31	25	30	67%	ELS
110A	OFFICE	324						AS
110B	STORAGE	310						SS
110C	STORAGE	100						SS



Harvard High High School

Room List

Room Number	Room Name	Area	Assignable SF	Instructional Capacity	Rated Capacity	Theoretical Capacity	Utilization Rate	Space Type
I10D	LOCKERS	139						SS
I10E	TOILET							SS
I11	CLASSROOM - AGRICULTURE	779	35	22	25	30	78%	ELS
I11A	STORAGE	59						SS
I11B	STORAGE	91						SS
I12	BOYS ATHLETIC LOCKER ROOM	490						SS
I13	BOYS ATHLETIC LOCKER ROOM	769						SS
I13A	SHOWER ROOM							SS
I13B	STORAGE	32						SS
I13C	TOILET							SS
I14	PE OFFICE	154						AS
I14A	TOILET							SS
I14B	STORAGE							SS
I15	COACHES DRESSING	125						AS
I16	TRAINING ROOM	257						AS
I16A	TOILET							SS
I16B	STORAGE	48						SS
I17	BOYS LOCKER ROOM	907						SS
I17A	STORAGE	178						SS
I17B	TOILET							SS
I17C	STORAGE	16						SS
I17D	SHOWER ROOM							SS
I18	PE OFFICE	115						AS
I19	STORAGE							SS
I20	TOILET							SS
I21	COMPETITION GYMNASIUM	9171	75	122	122	122	100%	ELS
I22	FITNESS	1639	75	22	25	30	100%	ELS
I23	LIFE SKILLS	855	100	9	25	30	78%	RLS
I23A	STORAGE	80						SS
I24	SCIENCE LAB	977	40	24	25	30	78%	CLS
I24A	OFFICE	130						AS
I24B	PREP/STORAGE	75						SS
I25	SCIENCE LAB	977	40	24	25	30	78%	CLS
I25A	OFFICE	130						AS
I26	SCIENCE LAB	963	40	24	25	30	78%	CLS
I26A	PREP/STORAGE	178						SS
I26B	OFFICE	128						AS
I27	CLASSROOM - DRIVERS ED	1046	35	30	25	30	78%	ELS
I28	CLASSROOM - SCIENCE (Environmental/Physical)	887	35	25	25	30	78%	CLS
I29	SPED - CROSS CATEGORICAL	347	65	5				RLS
I30	CLASSROOM - SCIENCE (Environmental/Physical)	797	35	23	25	30	78%	CLS
I30A	STORAGE	76						SS
I30B	STORAGE	84						SS
200	LIBRARY	1964						ELS
200A	COLLABORATION	153						ELS
200B	COLLABORATION	167						ELS
200C	WORK ROOM	181						SS
200D	OFFICE	137						AS
201	CLASSROOM - MATH	540	35	15	25	30	78%	CLS
202	CLASSROOM - FOREIGN LANGUGAGE - SPANISH	531	35	15	25	30	78%	ELS
203	ISS	371						AS
204	CLASSROOM - FOREIGN LANGUGAGE - SPANISH/MATH	715	35	20	25	30	78%	CLS



Harvard High High School

Room List

Room Number	Room Name	Area	Assignable SF	Instructional Capacity	Rated Capacity	Theoretical Capacity	Utilization Rate	Space Type
205	CLASSROOM - SPECIAL ED	483	65	7			67%	RLS
206	CLASSROOM - FOREIGN LANGUGAGE - SPANISH	725	35	21	25	30	78%	ELS
207	CLASSROOM - MATH	665	35	19	25	30	78%	CLS
207A	OFFICE	184						AS
208	CLASSROOM - MATH	697	35	20	25	30	78%	CLS
208A	OFFICE	240						AS
209	CLASSROOM - ENGLISH, SPANISH LIT	476	35	14	25	30	56%	CLS
210	CLASSROOM - ESL ENGLISH, SPANISH, READING	480	35	14	25	30	78%	CLS
211	CLASSROOM - ENGLISH	811	35	23	25	30	78%	CLS
212	CLASSROOM - SPANISH	814	35	23	25	30	78%	CLS
213	CLASSROOM - ENGLISH	810	35	23	25	30	78%	CLS
214	CLASSROOM - ENGLISH	814	35	23	25	30	78%	CLS
215	CLASSROOM - ENGLISH	806	35	23	25	30	78%	CLS
216	CLASSROOM - ENGLISH	802	35	23	25	30	78%	CLS
217	CLASSROOM - ENGLISH	811	35	23	25	30	78%	CLS
218	CLASSROOM - MATH	801	35	23	25	30	78%	CLS
219	CLASSROOM - MATH	808	35	23	25	30	78%	CLS
220	CLASSROOM - READING	802	35	23	25	30	67%	CLS
221	TRANSITION OFFICE	440						AS
222	CLASSROOM - SOCIAL STUDIES	447	35	13	25	30	67%	CLS
223	FACULTY WORK ROOM	447						SS
224	CLASSROOM - BUSINESS	796	35	23	25	30	78%	ELS
225	CLASSROOM - MATH	857	35	24	25	30	78%	CLS
226	CLASSROOM - BUSINESS	857	35	24	25	30	67%	ELS
227	WEIGHT ROOM	1753	125	14				ELS
	BOYS RESTROOM							SS
	GIRLS RESTROOM							SS
302	MAIN OFFICE	518						AS
303	WORK ROOM	154						SS
304	ASSISTANT PRINCIPAL	179						AS
305	DEAN OF STUDENTS	179						AS
306	PRINCIPAL	222						AS
307	GIRLS RESTROOM							SS
308	NURSE	270						AS
309	OFFICE	124						AS
310	TOILET							SS
311	CONFERENCE ROOM	1052	20	53				AS
312	GUIDANCE OFFICE	172						AS
313	OFFICE	141						AS
314	OFFICE	145						AS
315	OFFICE	121						AS
316	OFFICE	129						AS
317	OFFICE	120						AS
318	OFFICE	100						AS
319	CAREER CENTER	149						AS
320	STAFF TOILET - MEN							SS
321	JANITOR	19						SS
322	STAFF TOILET - WOMEN							SS
329	BOYS RESTROOM							SS
330	GIRLS RESTROOM							SS
331	MECHANICAL	392						SS
339	SENIORS CAFÉ	1603	15	107				AS



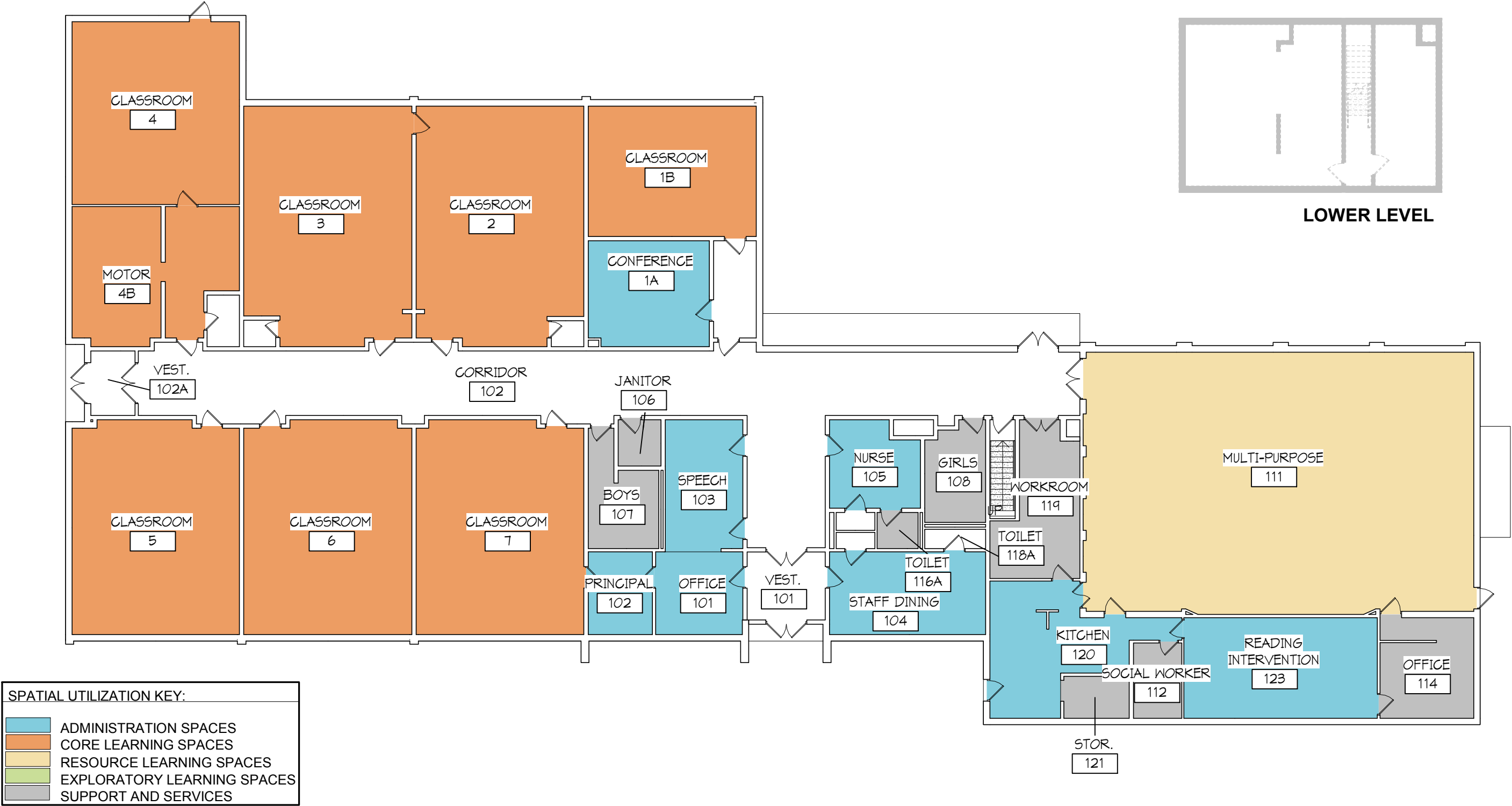
Harvard High High School

Room List

Room Number	Room Name	Area	Assignable SF	Instructional Capacity	Rated Capacity	Theoretical Capacity	Utilization Rate	Space Type
340	CAFETERIA COMMONS	3257	15	217				AS
341	SERVING	1148						SS
342	KITCHEN	873						SS
343	SCULLERY							SS
344	OFFICE	100						SS
345	TOILET	144						SS
346	DRY STORAGE	144						SS
347	COOLER	106						SS
348	FREEZER	115						SS
349	STAFF LOUNGE	693						AS
355	PE STORAGE	273						SS
360	BOX OFFICE/CONCESSIONS	106						SS
361	WOMENS RESTROOM							SS
362	JANITOR	35						SS
364	MENS RESTROOM							SS
400	AUX GYM BALCONY							SS
404	ELECTRICAL/MECHANICAL	288						SS
405	BOYS RESTROOM							SS
407	STAFF RESTROOM							SS
408	GIRLS RESTROOM							SS
<b>Total Classroom Capacity</b>				<b>964</b>	<b>972</b>	<b>1149</b>	<b>82%</b>	



# **APPENDIX C**



C.1.1 WASHINGTON FLOOR PLAN



C.2.1 CROSBY ES MAIN LEVEL PLAN



C.2.2 CROSBY ES UPPER LEVEL PLAN



SPATIAL UTILIZATION KEY:	
<div></div>	ADMINISTRATION SPACES
<div></div>	CORE LEARNING SPACES
<div></div>	RESOURCE LEARNING SPACES
<div></div>	EXPLORATORY LEARNING SPACES
<div></div>	SUPPORT AND SERVICES

C.3.1 JEFFERSON ES MAIN LEVEL PLAN



**SPATIAL UTILIZATION KEY:**

ADMINISTRATION SPACES
CORE LEARNING SPACES
RESOURCE LEARNING SPACES
EXPLORATORY LEARNING SPACES
SUPPORT AND SERVICES



C.4.1 HARVARD JUNIOR HIGH MAIN LEVEL FLOOR PLAN



SPATIAL UTILIZATION KEY:

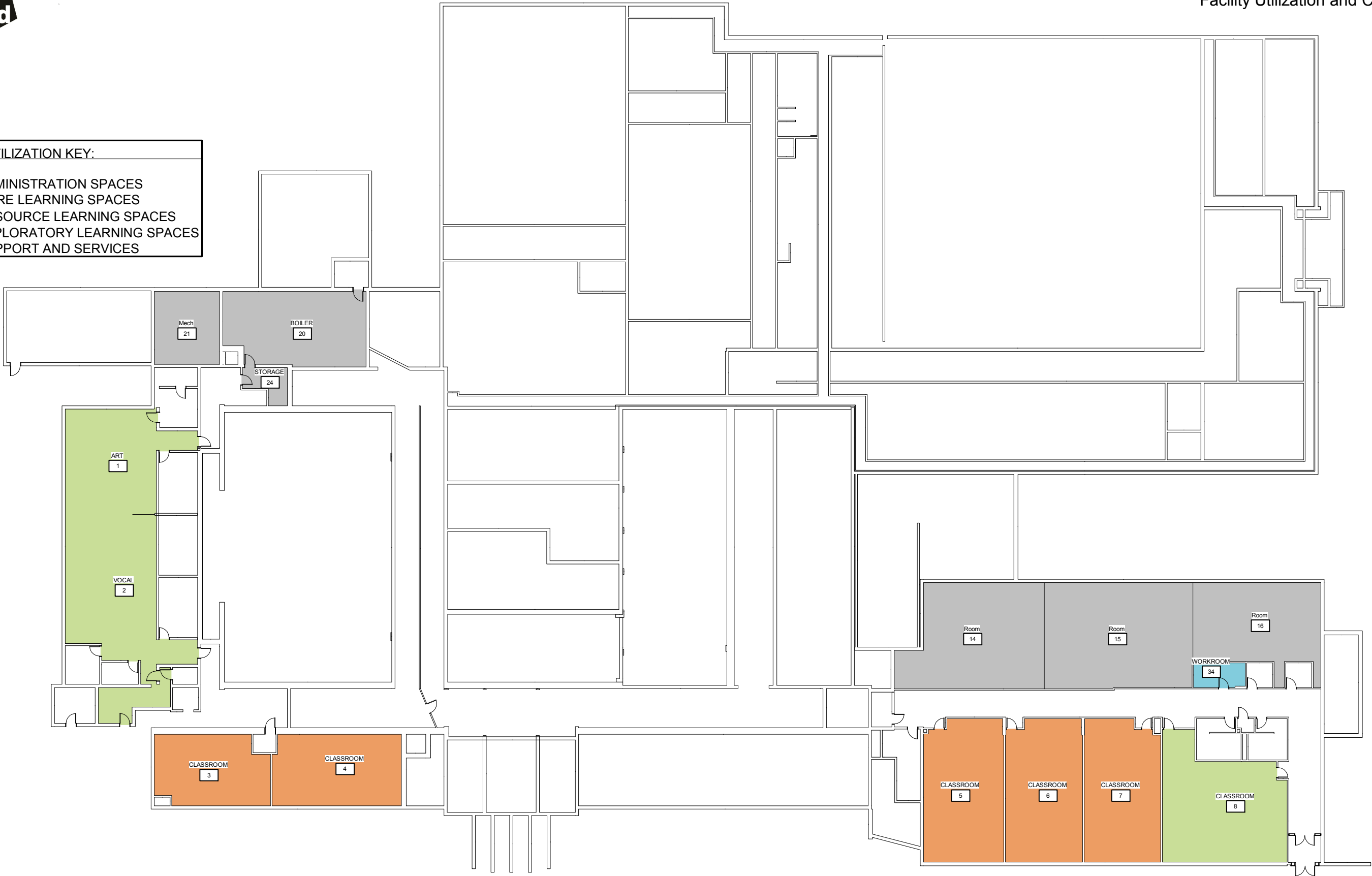
ADMINISTRATION SPACES

CORE LEARNING SPACES

RESOURCE LEARNING SPACES

EXPLORATORY LEARNING SPACES

SUPPORT AND SERVICES





**SPATIAL UTILIZATION KEY:**

ADMINISTRATION SPACES
CORE LEARNING SPACES
RESOURCE LEARNING SPACES
EXPLORATORY LEARNING SPACES
SUPPORT AND SERVICES





SPATIAL UTILIZATION KEY:

ADMINISTRATION SPACES

CORE LEARNING SPACES

RESOURCE LEARNING SPACES

EXPLORATORY LEARNING SPACES

SUPPORT AND SERVICES





# **APPENDIX D**



## Appendix D.I

### Washington School Basic Educational Underpinnings

Grade Levels Housed: Pre-Kindergarten

Sections 2018-19: 12 Half Day Sections ages 3 through 5; plus weekly parent and children sessions birth to 3 years old

#### *Enrollment*

The 2018 - 2019 Washington School enrollment is 208 students. Note that the figure stated in the Kasarda Demographic Study states that the enrollment is 148 students. Actual enrollment at Washington is limited to the capacity of the facility. Enrollment is anticipated to remain at capacity or a level to be set by the District.

#### *Capacity*

The calculated **instructional capacity** is 193 as currently utilized. Six full size general classrooms (100%) are used for core sections. One of these six has a half day section for special education students, at a smaller class size of 10 students. The remaining sections house up to 20 students. One classroom houses four full year, full time staff members and accommodates group meeting with parents and children ages birth to 3.

**Rated Capacity** is based on utilizing all full sized classroom spaces in the core curriculum, and a uniform class size. For pre-kindergarten, when calculating design capacity a planning number of 20 as the standard class size is used. The product of the number of instructional spaces times 20 students per space is then multiplied by the utilization rate, which provides the rated capacity. In this calculation, one section is calculated at 10 students as noted above, therefore, the **rated capacity**, based on utilizing all classrooms for core sections, is 230 students.

**Theoretical Capacity** for pre-kindergarten is equivalent to the Rated Capacity at 230 students.

#### *Curriculum*

Washington School's core delivery includes the following:

Lunch: No lunch is served

Gym: Students use both a small gross motor room and the multi-purpose room for motor activities.



**2018 - 2019 Enrollment: 208 Students**

**Instructional Capacity: 193 Students**

**2018 - 2019  
ENROLLMENT**

<b>GRADE</b>	<b># SECTIONS</b>	<b># CORE CLASSROOMS</b>	<b>AVG. CLASS SIZE</b>	<b>TOTAL STUDENTS</b>
<b>EC/PK</b>	12	6	17.3	208
<b>TOTAL</b>	12	6	17.3	208

**Rated Capacity: 230 Students**

Full size classrooms currently used for functions other than core classrooms includes Birth to 3 staff.

**RATED CAPACITY**

<b>GRADE</b>	<b># SECTIONS</b>	<b># CORE CLASSROOMS</b>	<b>OTHER CR SIZED SPACES</b>	<b>AVG. CLASS SIZE</b>	<b>TOTAL STUDENTS</b>
EC/PK	11	5.5	-	20	220
EC – SE	1	0.5	-	10	10
Birth to 3			1		
<b>TOTAL</b>	12	6	1	19.2	230



**Theoretical Capacity: 230 Students**

**THEORETICAL CAPACITY**

<b>GRADE</b>	<b># SECTIONS</b>	<b># CORE CLASSROOMS</b>	<b>OTHER CR SIZED SPACES</b>	<b>AVG. CLASS SIZE</b>	<b>TOTAL STUDENTS</b>
<b>EC/PK</b>	11	5.5	-	20	220
<b>EC- SE</b>	1	0.5	-	10	10
<b>Birth to 3</b>			1		
<b>TOTAL</b>	12	6	1	19.2	230



**Core Curriculum Spaces:**

*Grades PK:* Six (6) classrooms

*Other full sized classrooms:* (1) currently used for Birth to 3 staff;

**Specialized Learning Environments:**

*Physical Education/Performance:* Gymnasium, includes stage. Stage is used for reading intervention staff

*Intervention:* Variety of staff in small offices or converted storage rooms.

**Administration:**

*School:* Offices for school administration, and health office.

**Building Support:**

Includes storage area, custodial, electrical, and mechanical.



## Appendix D.2

### Crosby Elementary School Basic Educational Underpinnings

Grade Levels Housed: Grades K through 3

Sections Per Grade Level: 2018-19, 10 Sections Kindergarten & 1, 9 Sections Grades 2 & 3

#### *Enrollment*

The 2018 - 2019 Crosby Elementary School enrollment is 807 students. The anticipated enrollment for the next several years is expected to remain stable barring any unexpected spikes in enrollment, with a maximum of 832 students in the 2020-21 school year.

#### *Capacity*

The calculated **instructional capacity** is 838 as currently utilized. All thirty-seven (37) of the full size general classrooms (100%) are used for core sections. The originally purposed technology room adjacent to the Library has been repurposed as an additional classroom, currently serving first grade. In addition one full size room and three half size classrooms serve Special Education programming.

**Rated Capacity** is based on utilizing all full sized classroom spaces in the core curriculum, and a uniform class size. For most purposes, when calculating design capacity a planning number of 25 as the standard class size is used. The product of the number of instructional spaces times 25 students per space is then multiplied by the utilization rate, which provides the rated capacity. The **rated capacity**, based on utilizing all classrooms for core sections, is 975 students.

**Theoretical Capacity** is based on utilizing all full sized classroom spaces, including special purpose rooms, and a uniform class size. For most purposes, when calculating design capacity a planning number of 30 as the maximum class size is used. The product of the number of instructional spaces times 30 students per space is then multiplied by the utilization rate (as applicable), which provides the theoretical capacity. The **theoretical capacity**, based on utilizing all classrooms for core sections, is 1170 students.



*Curriculum*

Crosby Elementary School's core delivery includes the following:

- Lunch: 4 periods: 40 minutes total; 20 minutes lunch, 20 minutes recess (half the cohort is at lunch while the other half is at recess for each grade level seating)
- Gym: All grades 1x per week for 60 minutes (1 teaching station – 2 classes per session)
- Art: All grades 1x per week for 60 minutes
- Music: All grades 1x per week for 60 minutes
- Library: All grades 1x per week for 60 minutes
- Technology: All grades 1x per week for 60 minutes
- Character Ed: All grades 1x per week for 60 minutes



**2018 - 2019 Enrollment: 807 Students**

**Instructional Capacity: 838 Students**

**2018 - 2019  
ENROLLMENT**

<b>GRADE</b>	<b># SECTIONS</b>	<b># CORE CLASSROOMS</b>	<b>AVG. CLASS SIZE</b>	<b>TOTAL STUDENTS</b>
<b>EC</b>	0	0	0	0
<b>K</b>	10	10	19.4	194
<b>1</b>	10	10	22.2	222
<b>2</b>	9	9	21.9	197
<b>3</b>	9	9	21.6	194
<b>TOTAL</b>	38	38	21.2	807



**Rated Capacity: 975 Students**

Full size classrooms currently used for functions other than core classrooms includes Special Education

**RATED CAPACITY**

<b>GRADE</b>	<b># SECTIONS</b>	<b># CORE CLASSROOMS</b>	<b>OTHER CR SIZED SPACES</b>	<b>AVG. CLASS SIZE</b>	<b>TOTAL STUDENTS</b>
EC	0	0	-		
K	10	10	-	25	250
1	9	9	-	25	225
2	9	9	-	25	225
3	9	9	-	25	225
Converted Tech Lab	1	1	-	25	25
Special Ed	-		1	25	25
<b>TOTAL</b>	<b>38</b>	<b>39</b>	<b>1</b>	<b>25</b>	<b>975</b>



**Theoretical Capacity: 1170 Students**

**THEORETICAL CAPACITY**

<b>GRADE</b>	<b># SECTIONS</b>	<b># CORE CLASSROOMS</b>	<b>OTHER CR SIZED SPACES</b>	<b>AVG. CLASS SIZE</b>	<b>TOTAL STUDENTS</b>
<b>EC</b>	0	0	-		
<b>K</b>	10	10	-	30	300
<b>1</b>	9	9	-	30	270
<b>2</b>	9	9	-	30	270
<b>3</b>	9	9	-	30	270
<b>Converted Tech Lab</b>	1	1	-	30	30
<b>Special Ed</b>	-		1	30	30
<b>TOTAL</b>	<b>38</b>	<b>38</b>	<b>1</b>	<b>30</b>	<b>1170</b>



**Core Curriculum Spaces:**

*Grades K through 3:* Twenty-eight (28) classrooms, plus one lab converted to core classroom – ten (10) Kindergarten Classrooms, ten (10) First Grade Classrooms, nine (9) Second Grade Classrooms, and nine (9) Third Grade Classrooms. See below for specialized learning.

*Other full sized classrooms:* (1) currently used for Cross Categorical Special Education;

**Specialized Learning Environments:**

*Physical Education/Performance:* Gymnasium, includes stage.

*Art:* Conducted in Four (4) multi-purpose Discovery Centers or in core classrooms

*General Music:* Two (2) dedicated classrooms.

*Technology:* Learning Center and 1:1.

*Library/Learning Center:* Includes story room, stacks, reading area, and group-work tables.

*Cafeteria:* Dedicated Cafeteria, with full preparation kitchen, capacity 256, currently used by up to 222 per lunch period.

*Special Education:* (1) full sized classrooms used for cross categorical special ed.  
(3) Half size classrooms used for SE Resource

*Intervention:* (6) small group and/or offices for intervention.

**Administration:**

*School:* Offices for school administration, and health office.

*Staff:* One (1) dedicated staff lunch room.

**Building Support:**

Includes storage area, custodial, electrical, and mechanical.



### Appendix D.3

#### Jefferson School Basic Educational Underpinnings

Grade Levels Housed: Grades 4 and 5

Sections Per Grade Level: 2018-19, 9 Sections Grade 4, 10 Sections Grade 5

##### *Enrollment*

**The 2018 - 2019 Jefferson School enrollment is 411 students.** The anticipated enrollment for the next several years is expected to remain stable barring any unexpected spikes in enrollment, with a maximum of 425 students in the 2022-23 school year.

##### *Capacity*

The calculated **instructional capacity** is 473 as currently utilized. Nineteen (19) of the available twenty-two (22) full size general classrooms (86%) are used for core sections. The remaining classrooms are used for special education and gifted/STEM programming.

**Rated Capacity** is based on utilizing all full sized classroom spaces in the core curriculum, and a uniform class size. For most purposes, when calculating design capacity a planning number of 25 as the standard class size is used. The product of the number of instructional spaces times 25 students per space is then multiplied by the utilization rate, which provides the rated capacity. The **rated capacity**, based on utilizing all classrooms for core sections, is 550 students.

**Theoretical Capacity** is based on utilizing all full sized classroom spaces, including special purpose rooms, and a uniform class size. For most purposes, when calculating design capacity a planning number of 30 as the maximum class size is used. The product of the number of instructional spaces times 30 students per space is then multiplied by the utilization rate (as applicable), which provides the theoretical capacity. The **theoretical capacity**, based on utilizing all classrooms for core sections, is 690 students.



*Curriculum*

Jefferson School's core delivery includes the following:

Lunch: 2 periods: 40 minutes lunch, comprised of two 20 minute grade level seatings each

Gym: All grades 2x per week for 30 minutes (1 teaching station)

Art: All grades 1x per week for 60 minutes

Music: All grades 2x per week for 30 minutes

Library: All grades 1x per week for 60 minutes

Enrichment/Specials: Grade 5 for 40 minutes per day

Readers Workshop: 40 minutes per day

Band: Daily small group lessons



**2018 - 2019 Enrollment: 411 Students**

**Instructional Capacity: 473 Students**

**2018 - 2019  
ENROLLMENT**

<b>GRADE</b>	<b># SECTIONS</b>	<b># CORE CLASSROOMS</b>	<b>AVG. CLASS SIZE</b>	<b>TOTAL STUDENTS</b>
<b>ECL</b>	0	0	0	0
<b>K</b>	0	0	0	0
<b>1</b>	0	0	0	0
<b>2</b>	0	0	0	0
<b>3</b>	0	0	0	0
<b>4</b>	9	9	21	191
<b>5</b>	10	10	22	220
<b>Life Skills</b>	1	1		
<b>ED/BD</b>	1	1		
<b>TOTAL</b>	21	21	-	411



**Rated Capacity: 555 Students**

Full size classrooms currently used for functions other than core classrooms includes Special Education Resource, STEM & Gifted, Life Skills & ED/BD.

**RATED CAPACITY**

<b>GRADE</b>	<b># SECTIONS</b>	<b># CORE CLASSROOMS</b>	<b>OTHER CR SIZED SPACES</b>	<b>AVG. CLASS SIZE</b>	<b>TOTAL STUDENTS</b>
<b>ECL</b>	0	0	-		
<b>K</b>	0	0	-		
<b>1</b>	0	0	-		
<b>2</b>	0	0	-		
<b>3</b>	0	0	-		
<b>4</b>	9	9	-	25	225
<b>5</b>	10	10	-	25	250
<b>Life Skills ED/BD</b>	1	1	-	25	25
<b>SE Resource</b>	-	1	-	25	25
<b>Gifted/ STEM</b>	-	-	1	25	25
<b>Art</b>	-	-	-	-	-
<b>Music</b>	-	-			
<b>TOTAL</b>	20	21	1	25	550



**Theoretical Capacity: 690 Students**

**THEORETICAL CAPACITY**

<b>GRADE</b>	<b># SECTIONS</b>	<b># CORE CLASSROOMS</b>	<b>OTHER CR SIZED SPACES</b>	<b>AVG. CLASS SIZE</b>	<b>TOTAL STUDENTS</b>
<b>ECL</b>	0	0	-		
<b>K</b>	0	0	-		
<b>1</b>	0	0	-		
<b>2</b>	0	0	-		
<b>3</b>	0	0	-		
<b>4</b>	9	9	-	30	270
<b>5</b>	10	10	-	30	300
<b>Life Skills ED/BD</b>	1	1	-	30	30
<b>SE Resource</b>	-	1	-	30	30
<b>Gifted/ STEM</b>	-	-	1	30	30
<b>Art</b>	-	-			
<b>Music</b>	-	-	1	30	30
<b>TOTAL</b>	20	21	2	30	690



**Core Curriculum Spaces:**

*Grades 4 through 5:* Nineteen (19) classrooms - nine (9) Fourth Grade Classrooms, and ten (10) Fifth Grade Classrooms. See below for specialized learning.

*Other full sized classrooms:* (1) currently used for Cross Categorical Special Education; (1) currently used for Gifted/STEM; (1) currently used for Life Skills & ED/BD

**Specialized Learning Environments:**

*Visual Arts:* Gymnasium used as multi-purpose room, includes stage.

*Art:* One (1) dedicated space, undersized and without access to water.

*General Music:* One (1) dedicated classroom without storage.

*Computers:* Learning Center.

*Library/Learning Center:* Includes stacks, reading area, and group-work tables.

*Physical Education:* Gymnasium used for PE.

*Cafeteria:* Dedicated Cafeteria, with warming kitchen, capacity 158, currently used by up to 220 per lunch period.

*Special Education:* (1) full sized classrooms used for cross categorical special ed. Resource pull-out, 4 staff.

(2) Half size classrooms used for self-contained Life Skills and ED/BD

*Intervention:* (1) small classroom used for reading intervention. Individual offices for speech, psychologist, OT/PT, and social workers. (7) part-time reading specialists without dedicated space.

**Administration:**

*School:* Offices for school administration, and health office. Missing functions include Work Room and Conference Room.

*Staff:* One (1) dedicated but undersized staff lunch room.

**Building Support:**

Includes storage area, custodial, electrical, and mechanical.



## Appendix D.4

### Harvard Junior High School Basic Educational Underpinnings

#### Grade Levels Housed – 6th, 7th, & 8th

##### *Enrollment*

**The 2018 - 2019 Junior High School enrollment is 596 students.** The anticipated enrollment for the next several years is expected to remain stable barring any unexpected spikes in enrollment, with a Series B maximum of 645 students in the 2025-26 school year.

##### *Capacity*

The calculated **instructional capacity** is 746 as currently utilized with an average utilization rate of 76%. The **rated capacity** as currently utilized is 750 students. The **theoretical capacity**, as currently utilized is 990 students.

##### *Grade Level Organization*

#### 6th Grade – 202 Students (2018 - 2019)

Avg. Class Size - 19 Students

Core Subject Classrooms - 9

Math, Science, Social Studies, Language Arts (1 period each)

Dual Language offered in Social Studies, Spanish speaking and AVID offered in Language Arts, and Extended options available in Language Arts & Math

#### 7th Grade – 196 Students (2018 - 2019)

Avg. Class Size - 22 Students

Core Subject Classrooms - 7

Math, Science, Social Studies, Language Arts, (1 period each)

Dual Language offered in Science, Spanish speaking and AVID offered in Language Arts, and Extended option available in Math

#### 8th Grade – 198 Students (2018 - 2019)

Avg. Class Size – 21 Students

Core Subject Classrooms - 7

Math, Science, Social Studies, Language Arts (1 period each)

Dual Language offered in Science, Spanish speaking and AVID offered in Language Arts



Number of Periods per Day - 9 (42 minutes each, 3 minute passing periods)

Number of Core Subject Periods - 4 per day, 5x per week

Number of Lunch Periods - 3 periods, 42 minutes each including HIVE (1 per Grade level, lunchroom capacity 207 students)

Physical Education / Health - Full Year, 5x per week, 42 minutes each

Exploratory Curriculum Offered – All grades

Music

Art

World Cultures

Spanish

STEM

Robot/Human

Special Education

LD (Learning Disabilities)

ESL

Speech/Language

Hearing Impairment

*Athletics*

	Boys	Girls	Co-Ed
Fall	None	Volleyball	Cross Country, Soccer
Winter	Basketball, Wrestling	Basketball	None
Spring	None	None	Track & Field