CAPACITY ANALYSIS

Introduction

The Design Team analyzed the capacity of all the educational facilities using two different metrics: capacity as determined by the gross square footage of the building and capacity based on classroom count. Examining the buildings using both metrics yields a more comprehensive understanding of the capacity of each facility to support the District's enrollment.

When examining capacity by gross square footage (GSF), the District as a whole is under capacity meaning that there may be extra building square footage to support the existing enrollment. This could be a result of the additional square footage in the Rodman facility that is currently being used for district offices and a third-party vendor. Luce, JFK, and Hansen are all over capacity and likely experiencing overcrowding.

The capacity analysis by classroom count revealed that JFK Elementary School and Luce Elementary School are over capacity.

Capacity by Gross Square Footage

The capacity by gross square footage analysis reveals how many students the building can support by looking at the overall building size, regardless of interior partitioning. The overall gross square footage used to determine capacity includes all parts of the permanent building from the outside face of the exterior walls. It does not include temporary modular construction. It tells us how many students can fit in the "container" as compared to the MSBA's suggested building size for a building of the same enrollment. If a building is undersized by this metric, it could imply that core spaces such as the gym, cafeteria, or library are undersized, instructional spaces are undersized, or spaces that would appear in the standard MSBA program may be missing altogether. Similarly, if a building appears oversized, this could indicate program spaces above and beyond the standard MSBA program or oversized interior spaces. This analysis does not identify inappropriate, undersized, or missing spaces within the building. The graphic on the following page shows the capacity of each school in the District as well as the suggested enrollment based on the size of the building. Facilities that are overcapacity are shown in red, appropriately sized in yellow, and under capacity in green.

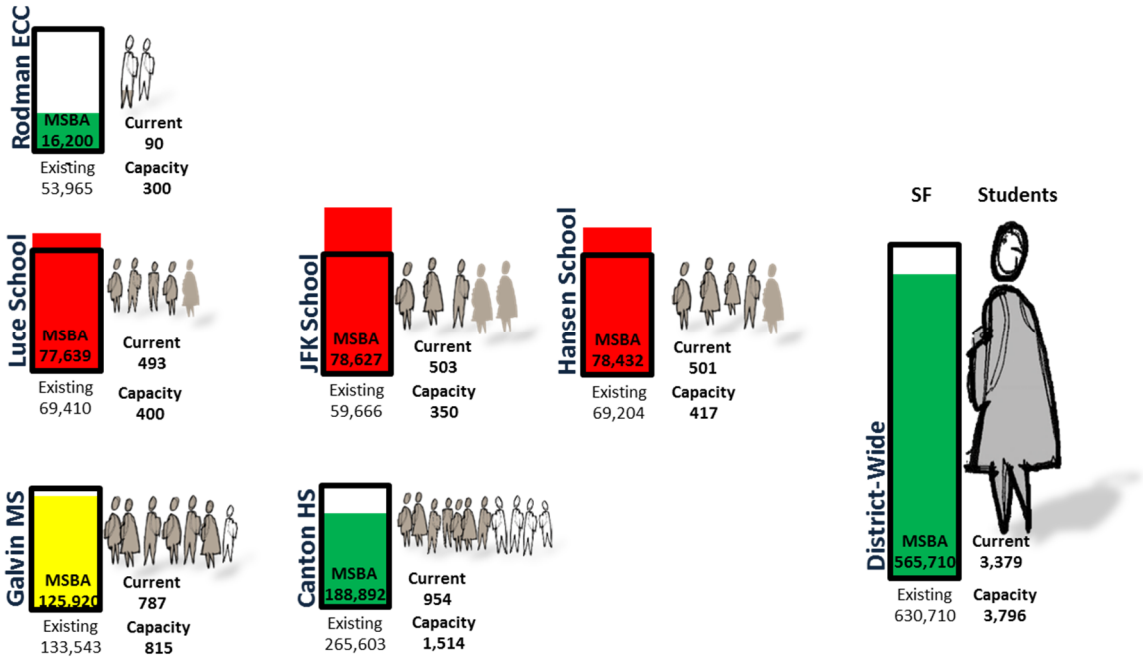


Image 1: Summary of Building Capacity and MSBA Guidelines

Rodman Early Childhood Center

Rodman Early Childhood center is 53,965 GSF and current enrollment is 90 pre-kindergarten students. The MSBA suggests that a population this size would only need 16,200 GSF. Should this building be considered for elementary grades, it could serve up to 300 students.

This analysis does not consider the needs of pre-k students. Rodman is a 3-story building and pre-k classrooms should all be located on the ground floor; limiting the space that could be used for the pre-k program. We understand that the Rodman building is being used to house district offices and space is also rented out to a third-party vendor. This analysis does not consider these extra functions and only considers Canton's pre-k population.

Luce Elementary School

The Luce School is 69,410 GSF and current enrollment is 493 students. The MSBA suggests that a building would need to be 77,639 GSF to support the enrollment. Based on these standards, a building the size of Luce should house 400 students and therefore is overcapacity.

JFK Elementary School

The JFK School is 59,666 GSF and current enrollment is 503 students. The MSBA suggests that a building would need to be 78,627 GSF to support the enrollment. Based on these standards, a building the size of JFK should house up to 350 students and therefore is overcapacity.

Hansen Elementary School

The Hansen School is 69,204 GSF and current enrollment is 501 students. The MSBA suggests that a building with Hansen's enrollment should be 78,432 GSF. Based on these standards, a building the size of Hansen should house 417 students and therefore is overcapacity.

Galvin Middle School

Galvin Middle School is 133,543 GSF and current enrollment is 787 students. The MSBA suggests that a building with Galvin's enrollment should be 125,920 GSF. Based on these standards, a building the size of Galvin should house up to 815 students and therefore is about at capacity.

Canton High School

Canton High School is 265,603 GSF and current enrollment is 954 students. The MSBA suggests that a building with Canton High School's enrollment should be 188,892 GSF. Based on these standards, a building the size of Canton High School should house up to 1,514 students and therefore is below capacity.

Capacity by Classroom Count

The second metric for determining a facility's capacity is classroom count. For elementary schools, capacity is determined by multiplying the number of grade level classrooms by the District's class size policy. For middle and high school, capacity is determined by multiplying the total number of teaching stations by a utilization factor. For this analysis, capacity was calculated using a 71% (current schedule) and 85% utilization rate. The utilization factor is determined by the schedule and refers to the percentage of the day in which a particular space is being used for instruction. Section C-3 Utilization Analysis provides information relative to Canton's utilization factors. To determine students per classroom, the Design Team used the median of the range listed by grade level in the District's class size policy. Class sizes are as follows:

Pre-kindergarten = 15 students
Kindergarten = 18 students
1st-2nd grade= 19 students
3rd-5th grade = 22 students
7th – 12th grade = 23 students

The classroom count capacity analysis does not account for missing program spaces or spaces that are inappropriate for their function. Modular temporary classrooms are not included in the classroom count.

Schools overcapacity by classroom count are likely experiencing higher class sizes, displaced specialty classes such as art and music, or an inability to serve students in their home school.

The following chart summarizes the capacities of each building in the District using this alternate methodology. If the current enrollment exceeds the calculated capacity, the capacity is shown in red and the building is considered overcapacity.

School	# of PK/Kindergarten Classrooms 18 Students/ Class	# of Gen Ed Classrooms 1st-2nd Grade @ 19 Students/ Class	# of Gen Ed Classrooms 3rd-5th Grades @ 22 Students/ Class	Total Teaching Stations 7th-12th Grades @ 23 Students / Class	Total Existing Classrooms / Teaching Stations	2016-2017 Enrollment	Capacity 71% Utilization Rate Grades 7-12	Capacity 85% Utilization Rate Grades 7-12
Rodman ECC	6	-	-	-	6	90	90	-
Hansen ES	5	8	12	-	25	501	506	-
JFK ES	3	8	13	-	24	503	492	-
Luce ES	4	8	12	-	24	493	488	-
Galvin MS	-	-	-	49	49	787	800	958
Canton HS	-	-	-	56	56	954	914	1095

Rodman Early Childhood Center

Rodman has six pre-kindergarten classrooms. By this calculation, Rodman can house 90 students and is at capacity. We understand that the classroom count suitable for pre-k students on the ground floor of the Rodman facility drives the enrollment number for the District's pre-k program. By mandate there cannot be more than 15 students per pre-k classroom and therefore the program is capped at 90 students. Based on the number of families waitlisted for the pre-k program, the District projects that this enrollment could grow to 175 *if space were available*.

Hansen Elementary School

Hansen has five kindergarten classrooms, eight 1st -2nd grade classrooms, and twelve 3rd-5th grade classrooms. By this calculation, Hansen can house 506 students and is at capacity.

Currently, one of the five kindergarten classrooms is being used to serve students from the JFK district because space is not available in their home school. If students from JFK could attend their home school, there would be one additional classroom available at Hansen.

* *Prior to the 2017-2018 school year, the district converted a computer lab at JFK to serve as an additional classroom, relieving the need to house JFK students at Hansen. Technology instruction is now being taught with mobile devices within classrooms, limiting the need for dedicated computer labs.*

JFK Elementary School

JFK has three kindergarten classrooms, eight 1st-2nd grade classrooms, and thirteen classrooms for 3rd-5th grade. By this calculation, JFK can house 492 students and is overcapacity. As noted above, one class of kindergarten students from the JFK catchment area attend the Hansen School because appropriate space for kindergarten is not available at JFK.

**As of the 2017-2018 school year, there are five kindergarten classrooms at JFK.*

Luce Elementary School

The Luce has four kindergarten classrooms, eight 1st-2nd grade classrooms, and twelve classrooms for 3rd-5th grade. By this calculation, Luce can house 488 students and therefore is overcapacity.

Galvin Middle School

The Galvin Middle School has 49 teaching stations. Classrooms are typically used 5 out of 7 periods per day for instruction, yielding a 71% utilization factor. At 71% utilization, the school can house up to 900 students. The school could increase its utilization factor by using classrooms for instruction 6 out of 7 periods per day, yielding an 85% utilization factor. At 85% utilization, the school could house 958 students. The middle school is at capacity when using a 71% utilization factor and has extra capacity if the schedule were to run at 85% utilization.

Canton High School

Canton High School has 56 teaching stations. Classroom use ranges from 1 to 6 out of 6 periods per day for instruction, with an average utilization factor of 71%. At 71% utilization, the school can house up to 914 students. The school could increase its utilization factor to reach 85% utilization. At 85% utilization, the school could house 1,095 students. The high school is overcapacity when using a 71% utilization factor and has extra capacity if the schedule were to run at 85% utilization.

MSBA COMPARATIVE ANALYSIS

Introduction

The MSBA Comparative Analysis compares the size of individual spaces within each school building against the suggested size of similar spaces in the MSBA's space guidelines. The MSBA has square footage guidelines for general classrooms (classroom guidelines are given as a range), special education space, art and music, health and fitness, vocational, administrative, and maintenance spaces. In the analyses to follow, the design team looked at each school building and categorized the size of programmed rooms that correspond to a program in the MSBA's guidelines into four categories. Spaces are either undersized, slightly undersized, aligned, or oversized. Spaces that are undersized are more than 10% smaller than MSBA guidelines for a space of similar use. Spaces that are slightly undersized fall below the suggested range of classroom sizes but are no more than 10% under the guideline. Spaces that are aligned, fall within the range of classroom sizes or are within 10% of the guideline when an exact number is suggested. Spaces that are oversized are at least 10% larger than suggested.

The District has a variety of undersized, aligned, and oversized spaces. Most spaces at JFK and Hansen are undersized. Undersized spaces may create obstacles for the District to deliver their desired educational program. While the guidelines provide a benchmark for sizing classrooms, core spaces, and support spaces, this analysis is not an indicator of the quality of education being delivered within each space. It also does not indicate spaces that are missing or inappropriate for their programmed use.

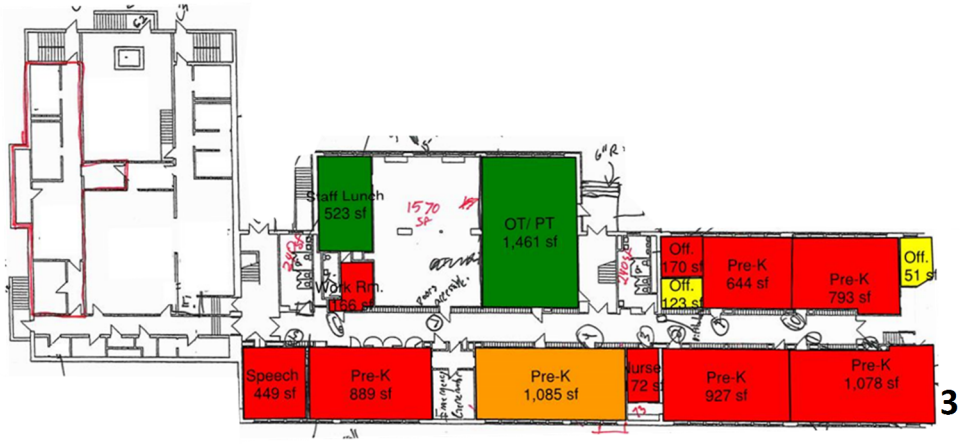
Comparative Analysis by School

The diagrams to follow show undersized spaces in red, slightly undersized spaces in orange, aligned spaces in yellow, and oversized spaces in green. Spaces in white are not included in the MSBA space guidelines and therefore not included in this analysis.

Undersized | Slightly Undersized | Aligned | Oversized

Rodman Early Childhood Center

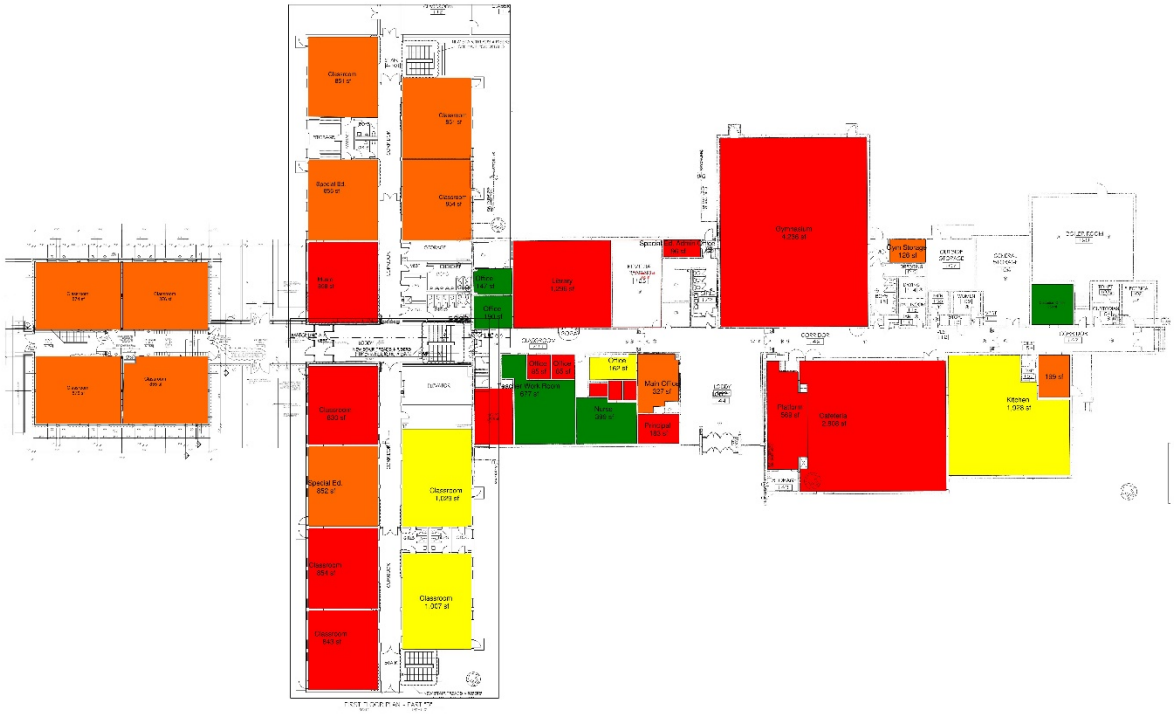
All instructional spaces associated with the pre-kindergarten program at Rodman are undersized. The OT/PT space is oversized compared to a conventional OT/PT classroom, however the OT/PT space in Rodman is also used as a multipurpose room for the entire program. The pre-k program was scaled to fit available space in the District and could be better served with more appropriate space.



Lower Level

Hansen Elementary School

The Hansen School has a mix of undersized, aligned, and oversized spaces. Most grade level instructional spaces are slightly undersized or undersized with the exception of two classrooms on the first floor. Many support spaces occupy full classrooms and are oversized for their program. Core spaces including the library, cafeteria, and gymnasium are all undersized.



Level 1


Classroom
819 sf
Classroom
815 sf
Reading/ Math Specialists
810 sf
Classroom
820 sf
Classroom
817 sf
Classroom
815 sf
Classroom
815 sf
CORRIDOR
Classroom
854 sf
Classroom
853 sf
Spec. Ed. Resource
854 sf
SLP/ ELL
822 sf
Art
851 sf
ELEVATOR

Level 2

JFK Elementary School

All instructional spaces at JFK are undersized; approximately half of which are slightly undersized. All core spaces including the cafeteria, gymnasium, and media center are below MSBA guidelines. Similarly, all grade level classroom spaces are below the guidelines. The two resource rooms are aligned or oversized; however, these spaces often serve more than one learning activity simultaneously, of which each activity could benefit from having dedicated space.

Level 1


UPPER GYMNASIUM
STAIRS
STOCK
CORRIDOR
GIRLS TOILET
BOYS TOILET
SEE DETAIL SHEET FOR ENLARGED PLAN

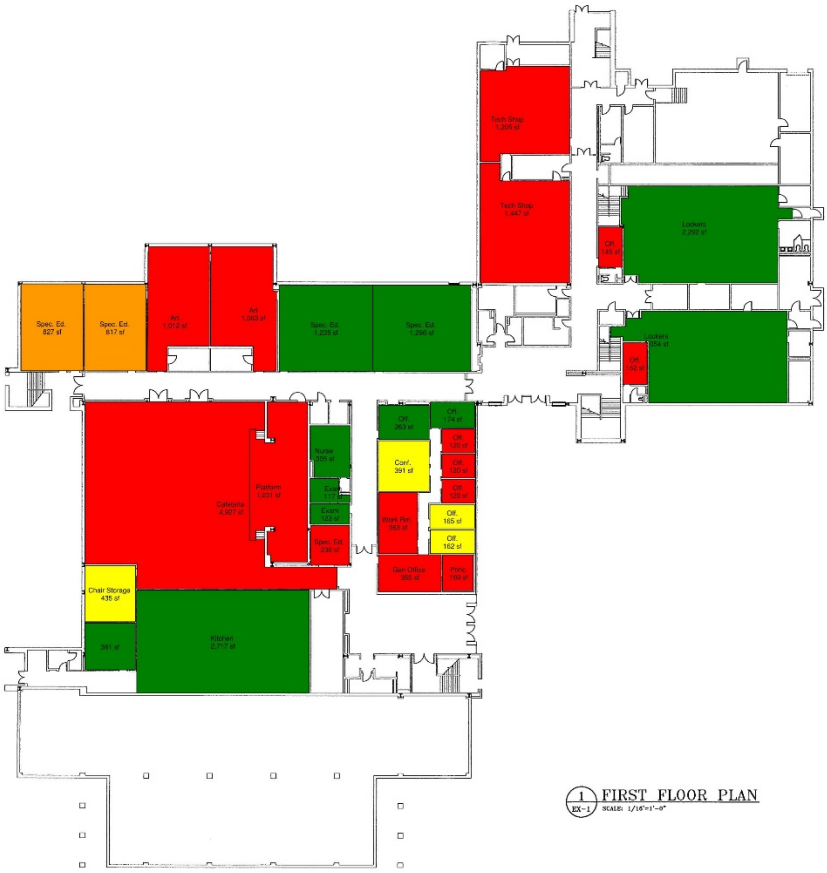
Level 2

Luce Elementary School

The Luce School is a mix of undersized, aligned, and oversized spaces. Classrooms from the original portion of the building are all slightly undersized while classrooms in the newer additions mostly align with MSBA guidelines. The gym, cafeteria, and library are all undersized for the size of the population being served.

Galvin Middle School

The Galvin Middle School has a mix of undersized, aligned, and oversized spaces. Most general classrooms, art and music classrooms, vocational classrooms, and science labs are undersized. Some classrooms align with MSBA guidelines. Some support spaces occupy full classrooms and are oversized for their function. Many support spaces serve more than one learning activity at a time and could benefit from dedicated space. The cafeteria is undersized for the school's population while the athletic spaces, including the gymnasium and locker rooms, are larger than the state's guidelines.



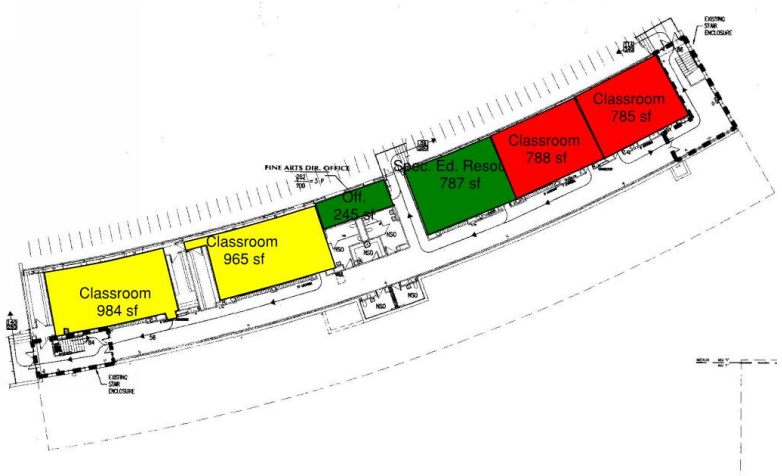
Level 1

Level 2

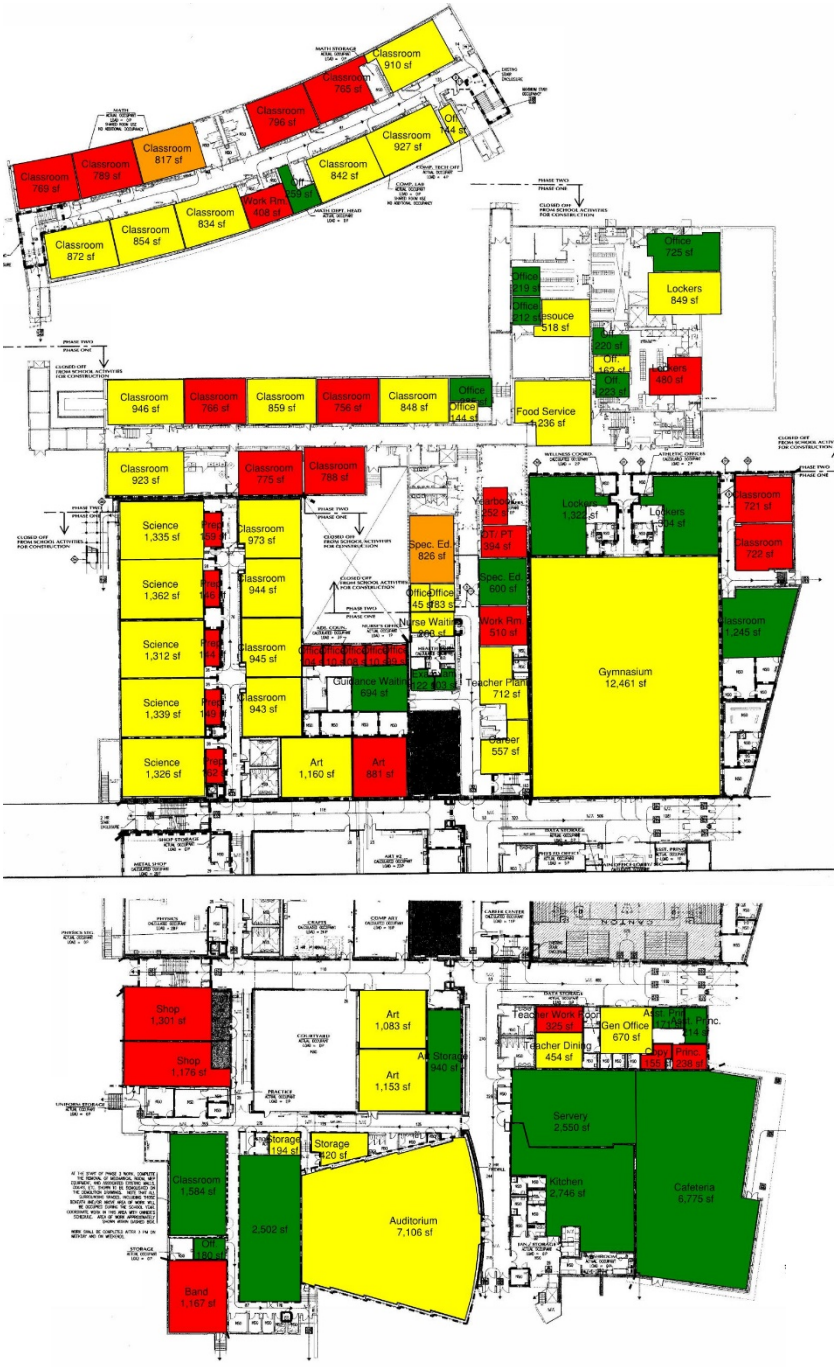
Level 3

Canton High School

Canton High School has a mix of undersized, aligned, and oversized spaces. This building was built under the guidelines of the SBA and therefore many instructional spaces align with MSBA guidelines, with few exceptions. Additionally, core spaces such as the auditorium, gymnasium, and media center are aligned with current guidelines. The cafeteria and locker rooms are oversized per today's guidelines.



Lower Level – C Wing


Classroom 910 sf
Classroom 765 sf
Classroom 796 sf
Classroom 817 sf
Classroom 789 sf
Classroom 769 sf
Classroom 927 sf
Classroom 842 sf
Work Rm. 408 sf
Classroom 834 sf
Classroom 854 sf
Classroom 872 sf
Office 725 sf
Office 219 sf
Office 212 sf
Resource 518 sf
Lockers 849 sf
Lockers 480 sf
Classroom 946 sf
Classroom 766 sf
Classroom 859 sf
Classroom 756 sf
Classroom 848 sf
Office 144 sf
Food Service 1,236 sf
Classroom 923 sf
Classroom 775 sf
Classroom 788 sf
Science 1,335 sf
Science 1,362 sf
Science 1,312 sf
Science 1,339 sf
Science 1,326 sf
Classroom 973 sf
Classroom 944 sf
Classroom 945 sf
Classroom 943 sf
Spec. Ed. 826 sf
Office 145 sf
Office 183 sf
Nurse Waiting 206 sf
Guidance Waiting 694 sf
Art 1,160 sf
Art 881 sf
Yearbook 252 sf
OT / PT 394 sf
Spec. Ed. 600 sf
Work Rm. 510 sf
Teacher Prep 712 sf
Career 557 sf
Gymnasium 12,461 sf
Lockers 1,325 sf
Lockers 1,094 sf
Classroom 721 sf
Classroom 722 sf
Classroom 1,245 sf
Shop 1,301 sf
Shop 1,176 sf
Art 1,083 sf
Art 1,153 sf
Art Storage 940 sf
Storage 194 sf
Storage 420 sf
Classroom 1,584 sf
2,502 sf
Auditorium 7,106 sf
Band 1,167 sf
Teacher Work Room 325 sf
Gen Office 670 sf
Teacher Dining 454 sf
Servery 2,550 sf
Kitchen 2,746 sf
Cafeteria 6,775 sf

Level 1


Classroom 777 sf
Classroom 826 sf
Classroom 834 sf
Off. 84 sf
Classroom 984 sf
Classroom 701 sf
Spec. Ed. Resource 615 sf
Multipurpose 1,933 sf
Media Center 5,938 sf
Seminar 588 sf
Classroom 921 sf
Classroom 853 sf
Classroom 768 sf
Classroom 858 sf
Computer Lab 830 sf
Classroom 762 sf
Classroom 766 sf
Off. 280 sf
Science 1,382 sf
Science 1,369 sf
Science 1,356 sf
Science 1,351 sf
Science 1,377 sf
Classroom 940 sf
Classroom 936 sf
Spec. Ed. Resource 562 sf
Spec. Ed. 559 sf
Spec. Ed. 492 sf
Spec. Ed. 840 sf
Spec. Ed. 532 sf
Conf. 300 sf
Off. 111 sf
Off. 132 sf
Teacher Planning 78
Computer Lab 1,004 sf
Computer Lab 822 sf
TV 822 sf
TV Editing 299 sf
TV 971 sf
TV Studio 796 sf

Level 2

UTILIZATION ANALYSIS

Introduction

This utilization analysis describes the efficiency of space use throughout the District. The Design Team studied how spaces are functionally being used, by how many users, and for how many minutes per day. This analysis tells us how much space is dedicated to different program areas as well as the local concentration or distribution of programs, the average number of students occupying each space, and how many minutes per day spaces are being used to deliver instruction. Both class size and the amount of time classes are occupied by students affects the number of students a school can serve. The analysis below provides an understanding of how some spaces may be used more efficiently.

The number of students per classroom affects how many students the building can serve. By studying how many students there are per classroom by school, we recognized inefficiencies. These inefficiencies could include spaces that are oversized for their function/ number of users or unnecessarily small class sizes. MSBA class size guidelines, Canton's class size policy, and average class sizes are listed below:

	MSBA Guidelines	Canton Class Size Policy	Canton Average Class Size
Preschool	18	15	15
Kindergarten	18	18	20.5
1st-2nd Grade	23	19	19.5
3rd-5th Grade	23	22	21
6th-8th Grade	23	23	21
9th-12th Grade	23	23	24

The percentage of the day that classrooms are used for instruction varies depending on the school's schedule. The District's elementary schools run on a typical elementary school model: students remain in their grade level classrooms for general instruction and visit a special such as art, music, or gym for a one-hour period once per day. The middle school has a 7 period per day schedule and students change classrooms each period for different subjects. The high school operates on a rotating seven-block schedule where one block is dropped per day. At the middle and high schools, teachers' home base is their classroom. When students are not in the classroom for instruction, teachers use their classroom for planning time.

The utilization of each school is highlighted below. In the corresponding diagrams, spaces are color coded by their programmatic use as it corresponds to categories of space in the MSBA's Space Summary. Refer to the key for space uses.


MSBA SPACE SUMMARY
CORE ACADEMIC SPACES
SPECIAL EDUCATION
ART & MUSIC
HEALTH & PHYSICAL EDUCATION
DINING & FOOD SERVICE
MEDICAL
ADMINISTRATION & GUIDANCE
CUSTODIAL & MAINTENANCE
OTHER
MEDIA CENTER
CIRCULATION

JFK Elementary school

	Average Class Size	Average % of the Day Classrooms Used for Instruction
Kindergarten	21	80%
Grades 1-2	20	80%
Grades 3-5	21	80%
Student Services/ Special Ed	5	51%

Level 1

Level 2

At JFK, general education class sizes range from 19 to 22. Student services and special education classrooms are used by 1 to 15 students for anywhere between 17% and 100% of the school day.

Hansen Elementary School

	Average Class Size	Average % of the Day Classrooms Used for Instruction
Kindergarten	19	90%
Grades 1-2	19	80%
Grades 3-5	21	80%
Student Services/ Special Ed	4	75%

Level 1 **Level 2**

At Hansen, general education class sizes range from 18 to 23. Student services and special education classrooms are used by 1-8 students for anywhere between 33% and 100% of the school day.

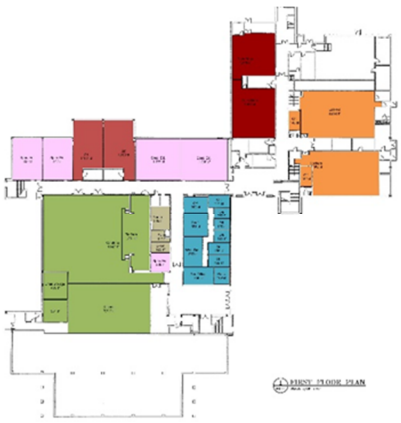
Luce Elementary School

	Average Class Size	Average % of the Day Classrooms Used for Instruction
Kindergarten	21	100%
Grades 1-2	19	80%
Grades 3-5	21	80%
Student Services/ Special Ed	5	56%

At Luce, general education class sizes range from 17 to 23. Student services and special education classrooms are used by 1-7 students for anywhere between 17% and 100% of the school day.

Galvin Middle School

	Average Class Size	Average % of the Day Classrooms Used for Instruction
General Ed Grades 6-8	21	71%
Student Services/ Special Ed	7	53%



Level 1

Level 2

Level 3

At Galvin, general education class sizes range from 15 to 53. Student services and special education classrooms are used by 2-27 students for anywhere between 17% and 100% of the school day. Most classrooms used for general education are in use for instruction five of the seven school day periods. Teachers remain in classrooms for planning purposes the remaining two periods. Should the middle school enrollment increase, the district may consider altering the schedule so that classrooms can be used for instruction for six out of seven periods per day.

During the 2016-2017 school year, Galvin administration appointed a committee to study the possibility of team teaching and a sliding schedule. In this model, a team of teachers work with a learning community of students. Each team of teachers would design their own schedule to coordinate curriculum, lesson plans, classroom usage, and delivery. This utilization assessment did not consider the schedule explorations of this committee.

Canton High School

	Average Class Size	Average % of the Day Classrooms Used for Instruction
General Ed Grades 9-12	22	71%
Student Services/ Special Ed	7	53%

Lower Level **Level 1** **Level 2**

Canton High School operates on a rotating, seven-block schedule. Each day students drop one period, yielding a six-period school day. The variety of programs offered results in a wide range of class sizes; from 1 to 257 students. Classrooms are used for instruction anywhere from 14%-100% of the school day. Should the high school enrollment increase, the District could look to change the schedule and/ or class sizes to increase the utilization of space.

Overall, the District is effectively using the space available. At the elementary schools, there is little opportunity to increase the efficiency of space use without a substantial organizational and operational shift. Class sizes are already around or above Canton's class size policy. At the middle and high schools, there is not an immediate need to increase the efficiency of space use. Should enrollment increase, the

District could opt to change the organization and operations of the schedule in order to use spaces for instruction more frequently throughout the day.

FUNCTIONAL SPACE USE

Introduction

Throughout the District, there are examples of spaces that do not exist that are needed to support the Canton's educational mission. Similarly, there are existing spaces being used for programs that they were never meant to serve. This analysis documents the spaces and space characteristics that negatively impact the delivery of education in Canton.

The design team toured each building, interviewed faculty and staff, and hosted workshops with teachers and administrators to understand whether there may be spaces needed to support the educational program that are missing or spaces that are inappropriate for their function. Teachers and administrators expressed a desire for space that aligns with evolving educational delivery methods that incorporate more experiential, project-based, and student-centric learning. To fully realize this vision, there is a need for a greater variety of spaces; including small group meeting space, break out space, clean zones, messy zones, quiet areas for independent learning, active learning areas, access to food, and space for building, making, and creating.

The lists below highlight program-specific spaces within each school that are either inappropriate, inadequate, or missing altogether.

Missing, Temporary, or Inappropriate Space Use

Rodman Early Childhood Center

- Insufficient special education spaces
- No small group rooms or breakout space
- No professional conference space

JFK Elementary School

- Program requires an additional kindergarten classroom (currently one section of kindergarten from the JFK district is housed at the Hansen School)
- No space for reading intervention
- No space for student support services
- Program would benefit from designated special education spaces (multiple functions share full classrooms)
- Teacher work room is a converted electrical room
- No space for OT/ PT
- Desire for breakout spaces
- Desire for small group rooms

Hansen Elementary School

- No space for title 1
- No space for reading RTI
- No space for math RTI
- Windowless office spaces
- Desire for breakout spaces
- Desire for small group rooms

Luce Elementary School

- Inadequate storage
- Windowless instructional spaces
- Desire for breakout space
- Desire for small group rooms

Galvin Middle School

- (5) Windowless classrooms
- Program would benefit from designated special education spaces (multiple functions share full classrooms)
- Desire for assembly space

- No ELL classroom
- Inadequate conference space
- Inadequate professional admin space
- Program would benefit from designated classrooms (some teachers need to share classrooms)
- Desire for collaborative teacher planning space
- Desire for breakout space
- Desire for small group rooms

Canton High School

- Inadequate performing arts program space
- Desire for collaboration space/ breakout space

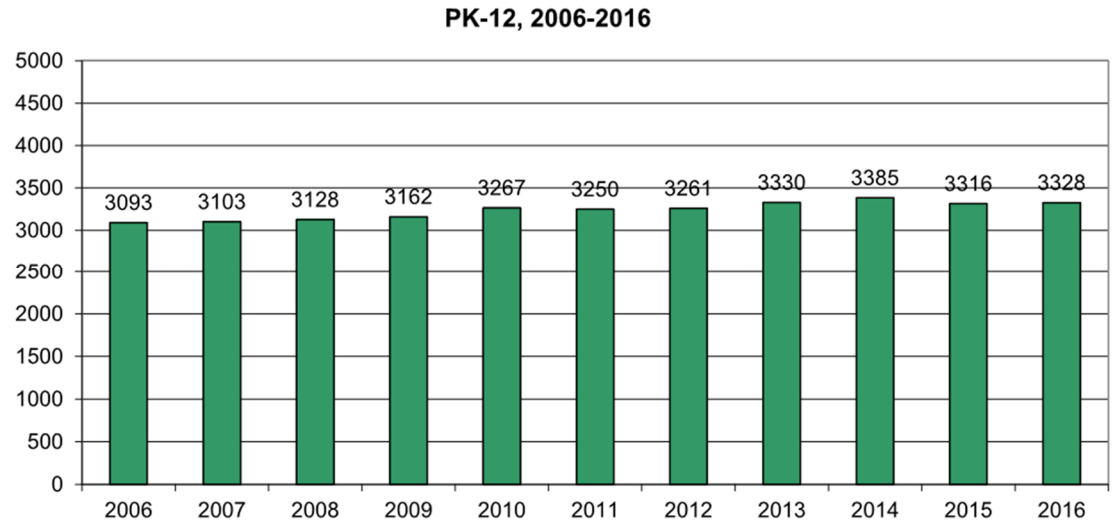
ENROLLMENT ANALYSIS AND TARGETS

Summary

Two independent enrollment projections were analyzed as part of this study. To provide a more detailed investigation of student enrollment in the District, an additional enrollment forecast was developed by Dr. Jerome McKibben of McKibben Demographics. The NESDEC projection predicts that total student population will increase slightly (4.9%) over the next 10 years. The McKibben forecast predicts that the total student population will remain basically level with a slight increase of 26 students over the 10-year period. The more detailed McKibben analysis was used as the basis for planning in the Master Plan. For purposes of developing Master Plan options, the highest enrollment value for each grade grouping over the forecast period was used. An additional two percent (the statistical margin of error) was added to each value as a conservative measure for developing future options. The District determined that, for purposes of estimating Pre-Kindergarten enrollment, 175 students was the appropriate value. The NESDEC and McKibben reports are included as Appendix X-3 and X-2, respectively.

NESDEC Enrollment Projection

The NESDEC study used historical enrollment data provided by the District to develop a ten-year enrollment forecast for grades K-12 for the period of 2016/17 through 2026/27. The NESDEC projection uses a Cohort Survival methodology to forecast changes in future enrollments based on the survival of existing grade populations and modifiers such as birth rates, economic conditions, changes to the housing market, etc. The NESDEC study predicts that the K-12 Student Population will increase 4.9% over the forecast period or 159 students.



McKibben Enrollment Forecast

Canton Public Schools retained Dr. Jerome McKibben to conduct an additional enrollment assessment to better understand future student enrollments within the District, ensuring that an accurate forecast was developed as potential alternative grade configurations and facility options were considered.

Dr. McKibben reviewed historical enrollment data provided by the District, birth and death rates provided by the Massachusetts Department of Health, and population migration date provided by the Internal Revenue service and United States Bureau of the Census. Based on this information several key observations were made:

1. The resident total fertility rate for Canton public schools over the life of the forecasts is below the replacement level. (1.79 vs. the replacement level of 2.1)

2. Most in-migration to the District continues to occur in the 0-9 and 30-44 year old age groups.

3. The local 18-24 year old population continues to leave the District, going to college or moving to other urbanized areas. This population group accounts for the largest segment of the District's out-migration flow.

4. The primary factors causing the District's enrollment to stabilize over the next 10 years are a substantial increase in the number of empty nest households (home owners age 70+), "turnover" that will equal the number of homes (homeowners age 50-59) that become empty nests, and a sustained in-migration flow of young households.

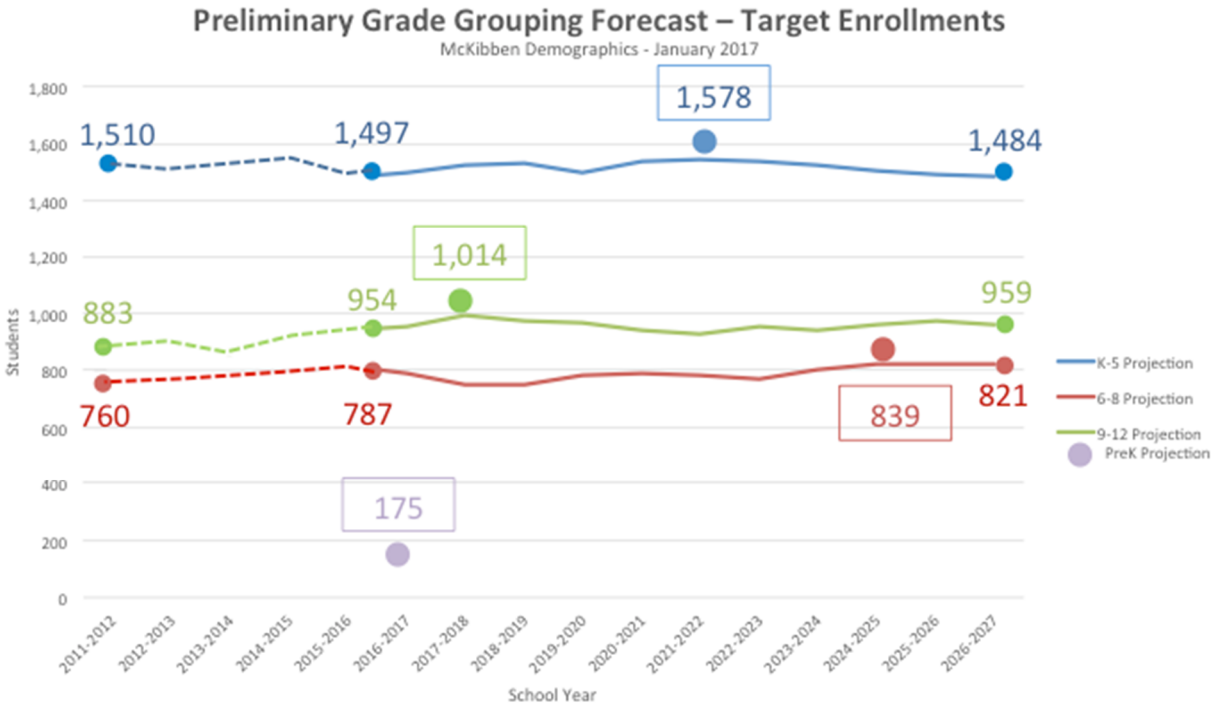
5. Changes in year-to-year enrollment over the next eight years will primarily be due to the size of the grade cohorts entering and moving through the school system in conjunction with the size of the cohorts leaving the system.

6. The elementary enrollment will begin a slight decline after the 2021-22 school year. This will be primarily due to the fact that the rising 5^{Th} grade cohorts will be greater than 275 in size.

7. The median age of the population will increase from 42.4 in 2010 to 44.2 in 2025.

8. Even if the District continues to have some form of annual new home construction (even if that construction is rental units), the rate, magnitude and price of existing home sales will increasingly become the dominant factors affecting the amount of population and enrollment change.

9. Total District enrollment is forecasted to increase by 22 students, or 0.7% between 2016/17 and 2021/22. Total enrollment is forecasted to grow by 4 students, or .1%, from 2021/22 to 2026/2027. The total enrollment increase over the 10-year projection period is 26 students.



Canton Public Schools: Total Enrollment

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
K	219	222	246	214	229	241	235	235	234	231	227	225	221	218	216	220
1	238	238	240	281	221	239	257	252	251	250	246	242	240	236	231	228
2	251	234	240	249	284	228	243	261	256	258	257	253	249	247	244	239
3	264	269	239	248	252	283	232	248	265	263	265	264	260	256	256	253
4	267	266	278	253	244	266	290	238	254	273	271	273	272	268	267	267
5	271	267	267	285	252	240	271	295	242	262	281	279	281	280	278	277
Elementary Total	**1510**	**1496**	**1510**	**1530**	**1482**	**1497**	**1528**	**1529**	**1502**	**1537**	**1547**	**1536**	**1523**	**1505**	**1492**	**1484**
6	272	265	260	275	279	256	238	268	292	240	259	278	276	278	277	275
7	240	272	257	257	274	263	251	233	263	289	238	256	275	273	275	274
8	248	232	267	269	260	268	260	248	231	260	286	236	253	272	270	272
Middle School Total	**760**	**769**	**784**	**801**	**813**	**787**	**749**	**749**	**786**	**789**	**783**	**770**	**804**	**823**	**822**	**821**
9	228	232	206	245	241	236	244	237	226	210	237	260	215	230	248	246
10	208	223	223	218	260	242	241	249	242	231	214	242	265	219	235	253
11	228	210	222	224	219	262	244	243	251	244	233	216	244	268	221	237
12	219	233	207	227	223	214	265	246	245	254	246	235	218	246	271	223
High School Total	**883**	**898**	**858**	**914**	**943**	**954**	**994**	**975**	**964**	**939**	**930**	**953**	**942**	**963**	**975**	**959**

VISIONING SESSION #1

Introduction

Canton Public Schools held the first visioning session of this study on January 18, 2017. Dore & Whittier facilitated the workshop and approximately 50 stakeholders were invited to participate. Stakeholders included district administration, teachers of various grade levels, parents, high school students, town committee members including school committee, and community members. The primary goal of Visioning Session #1 was to present emerging best practices in education and educational facility design as it relates to Canton Public Schools. The session included presentations from the design team, video clips from educators, students, and other design firms, and small and large group exercises. Participants were invited to react and respond to videos, imagery, and presentations of a variety of ideas to identify aspects of educational delivery and space planning that may be appropriate in Canton. See Appendix X-1 for a complete agenda and presentation.

The visioning sessions were held at the Canton High School library. Participants were assigned to tables of 6-8 people to ensure diverse experiences and backgrounds for table-top discussions.

Why do we educate?

To begin the visioning session, the design team posed the question “Why do we educate?” to the larger group of participants. According to the District’s mission statement, “Canton Public Schools is an educational community that seeks to blend the academic growth with the social development of every child. [Canton Public School’s] goal for every child is to be a successful learner and accept mistakes as a step in human growth”. Participants built upon this mission statement to include ideas such as:

- To teach students to think critically
- To raise functional adults that contribute to society
- To prepare students for jobs
- To promote global connectivity, responsibility, and cultural understanding of one’s own culture and the cultures of others.

The question of why we educate is important as it helps us understand how the function and practice of education has shifted over time. In turn, school facilities must adjust to support the changes in education. As part of the initial exercise, participants were asked to discuss with their table how the world is different today than when they were in school. Some commonalities are listed below.

Differences	Similarities
• Technology • Globalization • Increased competition • Emphasis on creativity and innovation • Increased uncertainty about future • Faster pace of life	• Need for human interaction • Need for reading, writing, and arithmetic • Need for play • School building organization • Structure of school day

As participants reflected on the changing world, they also discussed the skills students need to succeed in today's world and how a student's learning experience may need to adapt to the teaching of those skills. Important skills and learning experiences are highlighted below:

21st Century Skills	21st Century Learning Experiences
• Communication	• Student-centric
• Collaboration	• Authentic/ applicable
• Technology Literacy	• Engage a variety of learning modalities
• Creativity	• Promote understanding (not memorization)
• Resilience/ perseverance	• Collaborative
• Empathy	• Engage technology
• Curiosity	• Build relationships

Understanding what skills students are learning and how they are learning these skills affects the organization and types of spaces needed to support learning.

EdNext Presentation: Next Generation Learning Practices and Facilities

Dore & Whittier presented a series of facts, images, videos and examples related to next generation learning practices and facilities. The videos specifically related to technology, trends in educational best practices, project-based learning, and experiential learning. Participants were asked to react to the presentation and respond to the following prompts:

- What elements sparked excitement?
- Are any of these practices occurring in Canton? Should they be?
- What obstacles exist? How can they be overcome?

Participants discussed prompts at their tables. The following observations were offered in response to the next generation education presentation:

<u>Elements of Next Generation Education that Excite</u>

- Divergent thinking

- Celebrating multiple intelligences
- Interdisciplinary learning
- Project based learning
- Collaborative learning where students learn with and from each other
- Finding students' passions
- Real-world application
- Teaching the "whole child"
- Some aspects of the current model are working and should continue

Next Generation Learning in Canton

- 35 teachers trained in project based learning during the 2016-2017 school year
- Interdisciplinary units
- Invention Convention
- PACE (3rd-5th grade only)
- Community Service
- Elective courses & extracurriculars (video production, American identities, Cultural Awareness)
- Student internships

Obstacles

- State regulations prevent extensive teacher autonomy and creativity
- Students still need to excel on state mandated standardized tests
- Data driven/ fact-based state requirements
- Students are assessed as individuals, not in collaborative groups
- Facilities were built for stand and deliver instruction. Spaces do not accommodate project based learning, collaboration, or multi-modal learning
- Change is difficult and it is hard to visualize a new system of education
- Buy-in from parents and the community
- Money (facilities, resources, technology)
- Time (collaborative teacher time, time on learning, professional development)

The design team presented a series of school buildings that embody planning and design principles that support next generation teaching and learning. Facility characteristics include:

- Agility – The ability to adapt with changes in education over time.
- Movement – The ability to support small and large movement activities.
- Variety – Different types of learning environments to support different types of learning (big, small, open, closed, quiet, energized, formal, informal, etc.).
- Visibility – Visual connection between spaces so students can "see and be seen", puts learning on display, allows for passive supervision.
- Ubiquitous technology – Functional integrated technology available for use in classrooms, public spaces, meeting spaces, assembly spaces, etc.

- Efficiency – Compact building design with flexible spaces and furnishings that can be used for multiple functions.

The design team discussed planning principles that may affect the way students learn. The design team emphasized planning techniques that augment safety and security by separating public and private spaces. This allows classrooms to be locked during public events or after-hours building use and creates additional barriers to entry in the event of a lockdown. Building organization can also support learning communities that breakdown the larger student population into smaller groupings and promote teachers and students working as a team. Within learning communities, many next generation facilities include shared breakout spaces and small group rooms for learning activities that spill out from the classroom. This variety of space also gives students choice in their learning environment, which encourages ownership of learning. Some types of spaces further support next generation learning including space for exhibition, presentation zones, maker spaces, outdoor learning opportunities, and informal access to food.

Furniture can also transform learning environments. Modern furniture designed for education in the 21st century should consider seat time, ergonomics, variety, mobility, flexibility, storability, and durability.

Participants were asked to respond to the next generation design features by identifying the characteristics that are most appropriate to serve the educational vision in Canton. Responses included:

- Flexibility
- Variety of spaces – different learning environments for different activities
- Universal design
- Separation of public and private
- Large instructional spaces
- Shared breakout space for grade levels/ grade level teams
- Outdoor learning/ Connection to nature
- Exhibition and presentation spaces
- Movement
- Variety of seating options, especially in cafeteria
- Openness, visibility and transparency throughout the building
- Residential elements to promote comfort, coziness, and calm
- Access to quality natural daylight
- Access to technology
- Interdisciplinary organization
- Teacher collaboration space
- Age/ developmentally friendly building materials
- Passively supervised space/ student-led areas

Key Take-aways

At the conclusion of the visioning session, participants were asked to share their general impressions of topics presented and discussed. The list below summarizes the key take-aways of the session:

- Space communicates value to students
- Safety and Security is important
- Consensus building process is necessary and underway
- Space should support education
- Space & educational delivery should support an interdisciplinary approach
- Student input is so valuable
- Student community space promotes social and emotional learning
- Desire for access to food outside of lunch
- Flexible & agile facilities can plan for tomorrow and adapt to needs 50 years from now
- Facilities can inspire culture

Principals' Workshops #1

Introduction

During the Principals' Workshops, the administration and the design team drilled down deeper to understand Canton's educational delivery methods and assess how the current facilities support teaching and learning goals. There were two sets of workshops held for elementary school principals, the middle school principal and staff leaders, and the high school principal and department heads. Dore & Whittier facilitated each workshop.

This section will cover the first set of elementary, middle school, and high school principals' workshops. The intent of the first workshop was to define long-range educational goals and identify the space needs necessary to support those goals. Each workshop's content and structure corresponded to the different educational goals and space needs at the elementary, middle school, and high school levels. See Appendix X-1 for complete agendas and presentations from each workshop.

Elementary School Principals' Workshop #1

The first Elementary School Principals' Workshop was held April 14th at the Rodman Building. This workshop was designed to help understand the common educational objectives of the elementary schools in terms of instructional strategies, content organization, and ideal facility characteristics. Through group discussions and interactive design exercises, the principals reached consensus as to how an elementary school building should be organized to best support teaching and learning.

Presentation of Analysis to Date

Dore & Whittier presented the educational adequacy analysis that had been performed to date. These analyses included capacity by gross square footage and classroom count, comparative analysis of individual instructional space size, utilization analysis by minutes per day and students per classroom, and future enrollment forecasts. For a full description of the space needs analyses, see the Space Needs Analysis portion of this report.

Presentation of Exemplar Facilities

Dore & Whittier presented exemplar facilities and space types that embody 21st century design principles for educational facilities. See Appendix X-1 for the full presentation.

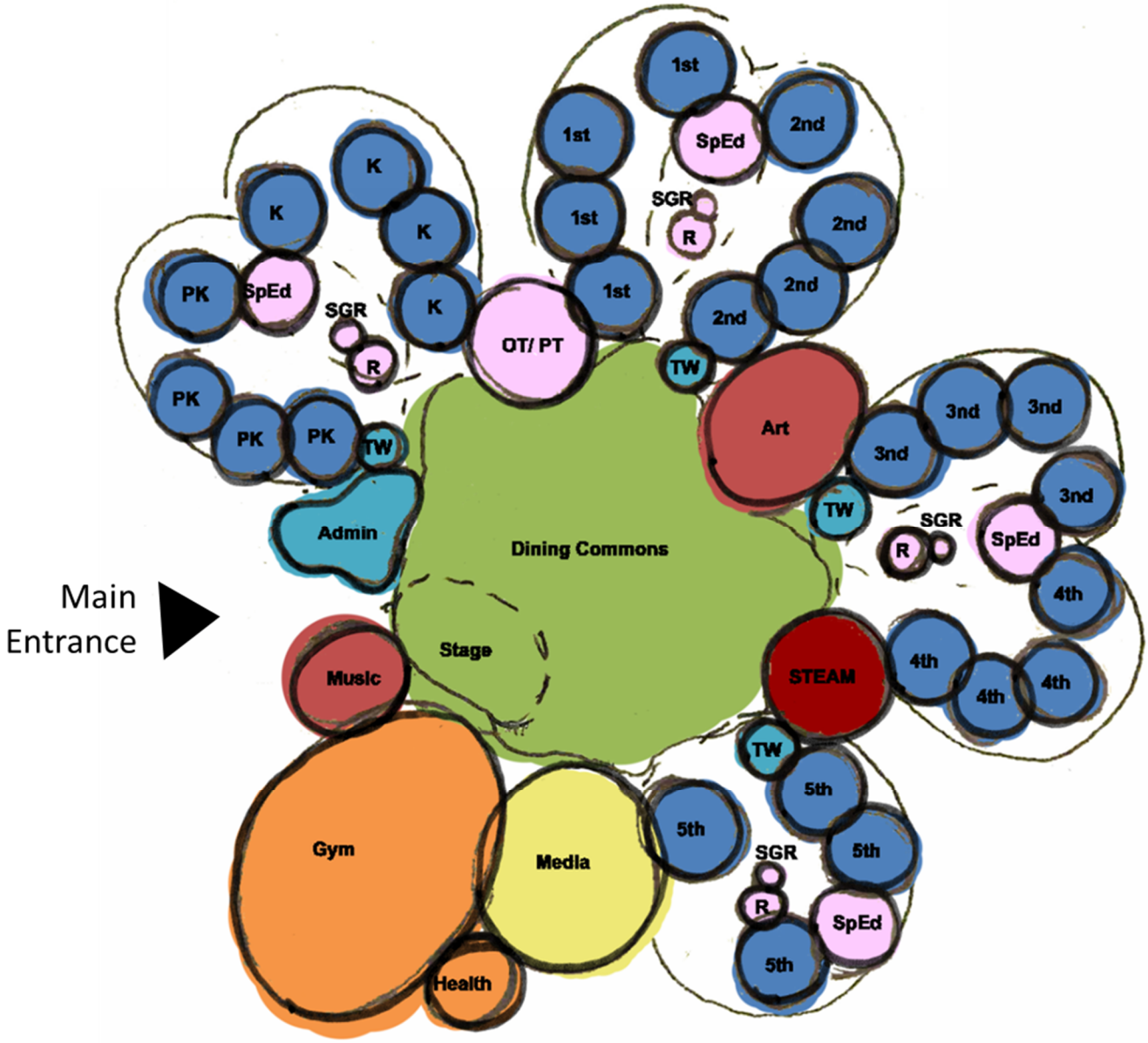
Idealized Elementary School Design Characteristics

Elementary School Principals were invited to share guiding design characteristics for an idealized elementary school in Canton. An ideal elementary school should consider:

- Pre-kindergarten to be included in each elementary school
- Parity across all elementary schools
- Flexibility and agility/ ability to adapt to program changes over time
- Separate public and private space
- Grade level team organization adjacent to:
    - Small group rooms
    - Pull out space
    - Special education classrooms
- Universal access to technology
- Access to outdoor learning
- Thermal comfort
- Access to natural daylight
- Dedicated special educator space at all grade levels

Overall Building Diagramming Exercise

Attendees were asked to express key adjacencies to help diagram an idealized elementary school in Canton. The group generated the following diagram:



Principals in Canton communicated that all three elementary schools work to offer the same programs, curriculum, and opportunities for students. When discussing an ideal school facility, all principals agreed that the diagram generated during this session would work for all three schools.

Key Take-aways

At the conclusion of the workshop, principals were asked to share their general impressions of topics presented and discussed as a group. The list below summarizes the key take-aways of the session:

- Desire for flexible learning spaces
- Hub and spoke building organization: grade level teams centered around a common space such as the cafeteria provide common learning spaces shared between grade level teams
- Special education to have intentional, dedicated space sprinkled throughout the building. Special education classrooms and pull out spaces should be located in each grade level team.

Middle School Principal's Workshop #1

The first Middle School Principal's Workshop was held April 14th at the Rodman Building. The design team led the workshop attended by the middle school principal. The intent was to better understand the middle school's educational goals, instructional strategies, content organization, and ideal facility characteristics. Through discussion and interactive exercises, the middle school principal provided direction on how an ideal middle school should be organized to support teaching and learning.

Presentation of Analysis to Date

Dore & Whittier presented the educational adequacy analysis that had been performed to date. These analyses included capacity by gross square footage and classroom count, comparative analysis of individual instructional space size, and utilization analysis by minutes per day and students per classroom. The design team highlighted undersized science classrooms, windowless science classrooms, and the gesture toward interdisciplinary grade-level organization. For a full description of the space needs analyses, see the Space Needs Analysis portion of this report.

Key Issues to Consider

The design team and middle school principal engaged in discussion to uncover the key issues that pose challenges for the middle school and should be considered as part of a long-term facilities plan. Principal Conard identified the school's dated and inflexible furnishings as an obstacle to educational delivery. Several classrooms lack access to natural daylight which has the potential to negatively impact student performance and engagement. The administration and teaching staff has expressed interest in using more hands-on, inquiry-based, and interdisciplinary educational delivery models; however, inertia has been difficult to overcome. Currently, leaders in the middle school are exploring schedule variations including dynamic scheduling to understand the impact on teaching and learning. Any long-term plan should consider the expressed interest in more authentic student-led learning experiences at the middle school.

Presentation of Space Typologies

Dore & Whittier presented examples of next generation educational facilities that embody flexibility, variety of spaces, efficient building organization, ubiquitous technology, opportunities for movement, and opportunities to put teaching and learning on display. See Appendix X-1 for the full presentation.

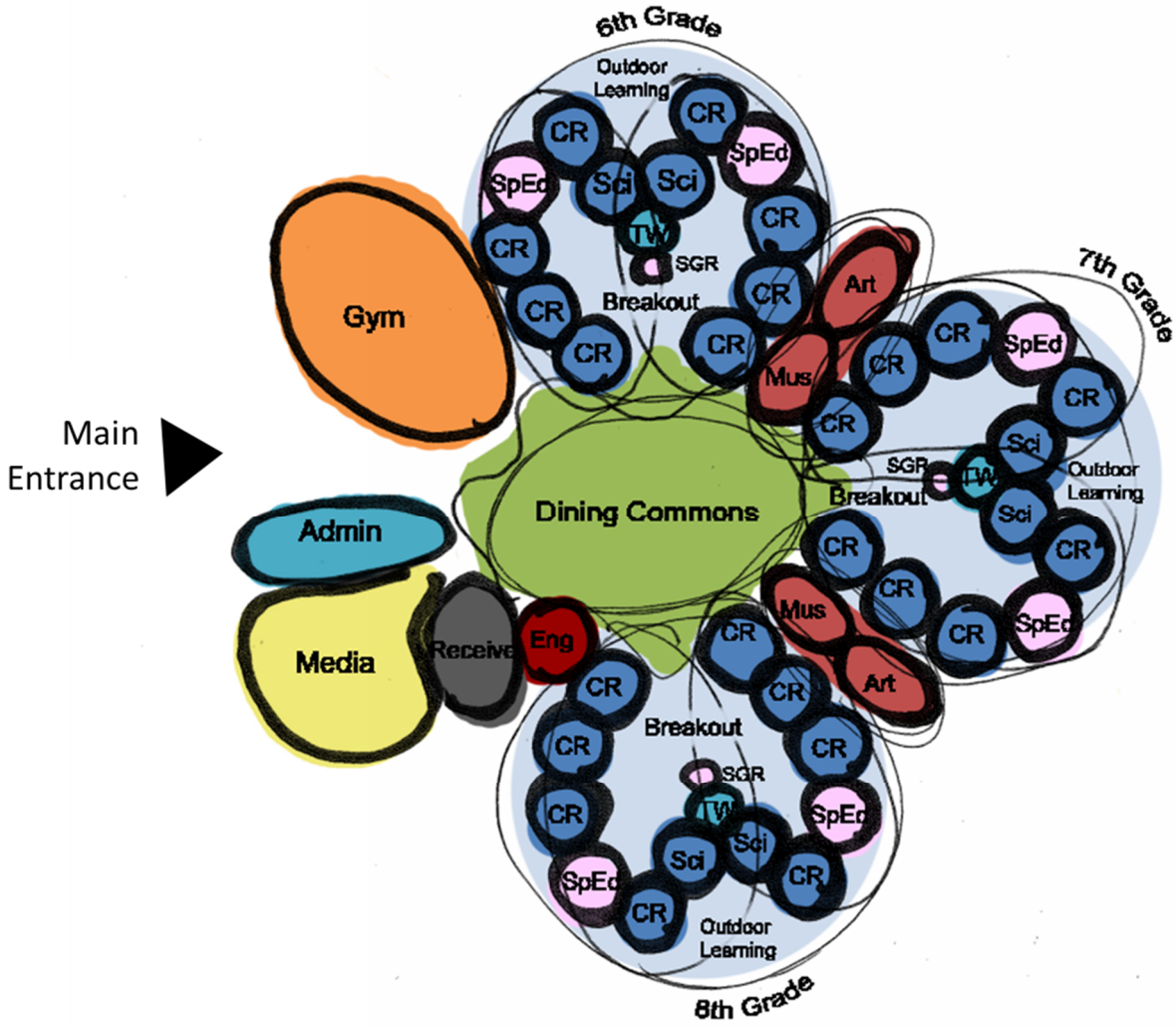
Overall Building Diagramming

Principal Conard shared guiding design characteristics for an idealized middle school in Canton. An ideal middle school should consider:

- A unifying, large multipurpose dining common with access to technology and sound system
- Ubiquitous access to technology

- Make learning visible
  - Building as a teaching tool
  - Visible sustainable design
  - Emphasis on displaying student work
  - Visual connection between spaces
- Access to outdoor learning
- Separate public and private functions
- Access to global learning resources

Principal Conard was asked to imagine an ideal middle school that optimized spatial adjacencies and functional use of the building. He expressed that the building should be thought of as more than a school and should serve as the hub for the entire middle school community. The exercise assumed new construction, maintaining the current grade configuration, and a team based organizational structure. A team would include math, English, social studies, science, world language (grades 7-8), reading (grade 6) and special education. Specials including art, music, and engineering should be partially embedded in teams. The design team and middle school principal generated the following diagram:



Key Take-aways

The list below summarizes the key take-aways of the session:

- Flexible furniture could hugely impact the delivery of education at the middle school
- An ideal middle school spans at least three grade levels
- The middle school would benefit from shared common spaces
- A hub and spoke planning diagram allows academic functions to be connected through a shared common space such as a dining common
- A school should be more than a school in that a school should be a community hub and learning laboratory

High School Principal's Workshop #1

The first High School Principal's Workshop was held February 14th at the Rodman Building. The High School had an extensive renovation/addition completed in 2007. At the time of the first High School Principal's Workshop, the high school was not likely to experience a major construction project in the 10-year time horizon of this master planning study. With that reality, the focus of this workshop was on the identification of specific space needs and the possibility of small scale interventions.

The high school principal, athletic director, media specialist, special education teacher, and English department head participated in the workshop. Participants discussed existing space needs, key master plan issues and considerations, exemplar facilities, and potential areas for targeted intervention. See Appendix X-1 for the full workshop presentation.

Presentation of Analysis to Date

Dore & Whittier presented the educational adequacy analysis that had been performed to date. These analyses included capacity by gross square footage and classroom count, comparative analysis of individual instructional space size, and utilization analysis by minutes per day and students per classroom. For a full description of the space needs analyses, see the Space Needs Analysis portion of this report.

Presentation of Space Typologies

Dore & Whittier presented examples of next generation educational spaces that could be implemented as a small-scale intervention at the high school, if appropriate. Spaces included classroom typologies, science labs, teacher planning spaces, break-out spaces, maker spaces, and alternative student dining solutions. See Appendix X-1 for the full presentation. A summary of elements that participants were drawn to is listed below:

- Impromptu opportunities for collaboration
- Flexible, collaborative furniture
- Maker spaces accessible to all students
- Opportunities for food outside of the cafeteria

Key Issues and Possible Targeted Interventions

Participants were asked to identify areas of the high school that may be hindering educators' abilities to meet educational goals and/ or areas of the building and grounds that could be improved. Participants highlighted three areas including the lower athletic fields, media center, and performing arts wing.

Reorganizing the lower fields, parking, and pedestrian access was identified as a priority for the athletic department and a safety concern on campus. The current field types do not align with the athletic programs being offered. Currently, the school has two softball, one baseball, and one grid field. The athletic department would benefit from an additional grid field. The relationship between the parking

lot and fields is not conducive. While there seems to be enough parking, the lots are not close to the playfields and cars park along the access road, narrowing the road and making an unsafe condition for pedestrians. Dore and Whittier suggested that there may be opportunities to increase the efficiency of the field layout while improving the parking condition.

High school staff identified the library as an area that could be improved. The library is a valued space that is underused by the student body. The space could benefit from more flexibility. Mobile furniture would allow students and staff to reconfigure the room as needed to serve the many functions of a 21st century education. There is a desire to enliven the library to become the destination student collaboration space. The library could better support groups of various sizes to meet for all kinds of activities from direct instruction, independent study, rehearsal for group presentations, and a space for making.

The performing arts wing does not represent the robust performing arts program. Music spaces are overcrowded and could benefit from risers. The spaces are not acoustically tuned for performance. There is no scene shop or space for set design and storage.

Other issues were identified as areas that could be improved upon. The general organization of the building is not conducive to securing classroom areas during after school use of the facility. Courtyards are an asset that are underutilized by the school community. Finally, computer labs are not used for dedicated instruction and remain unused for many periods of the school day. Should the district move toward a bring-your-own-device model, these classrooms could be repurposed for other instructional purposes. Finally, there is interest and excitement around the possibilities that mobile and flexible furniture introduce. An array of furniture types that are highly mobile help give students choice when defining their learning environment and choice helps promote student ownership of the school and learning.

Key Take-aways

- There is a desire to incorporate a wide variety of highly flexible furniture. This could include lightweight tables of different heights, different seating options from stools, a variety of chair types, and soft seating.
- Dore & Whittier will explore possible design solutions for small scaled interventions at the lower fields and media center
- Canton High School is mostly supporting the educational mission with few areas that could be modified to reflect the changing nature of education.

VISIONING SESSION #2

Introduction

Canton Public Schools held the second visioning session of this study on March 13, 2017. Dore & Whittier facilitated the workshop. The same 50 stakeholders who were invited to participate in Visioning Session #1 were invited to return for Visioning Session #2. Stakeholders included district administration, teachers of various grade levels, parents, high school students, town committee members, and community members. During Visioning Session #2 the design team invited reactions from school tours, presented the findings of the educational adequacy analysis, and explored district-wide global master planning issues; including ideal school size, school building count, school locations, and grade configuration. Through a series of large-group and small-group discussion based exercises, participants were invited to share their reactions and insights to help steer further explorations of key issues during the master planning process. See Appendix X-1 for a complete agenda and presentation.

Reactions to School Tours

Members of the working group and school administration toured Estabrook Elementary School in Lexington, Ma, Hanscom Middle School in Lincoln, MA, and Scituate Middle School in Scituate, MA. The design team shared plans of each school and discussed embodied design principles. After a short presentation, participants were asked to share their reactions, listed below, through a series of prompts beginning with “I like…”, “I wish…”, and “I wonder…”.

<u>I like…</u>

- separation of public and private spaces
- outdoor learning
- access to natural daylight
- flexible spaces – classrooms that open to each other, operable walls, spaces that can be used for more than one function
- feeling of airiness, space, and height
- texture, color, and different materials
- separate bus drop-off, student drop off, and parking
- hub and spoke organization
- variety and versatility of furniture
- sustainable building features
- physical building connection between middle school and high school

I wish…

- there was more technology in classrooms
- we had common areas for each grade level and teachers
- we had small breakout rooms for special education and group projects
- we had outdoor learning space/ used outdoor space more often
- we could understand what it might be like without a centralized media center/ library
- we could move to more interdisciplinary instruction and have the facilities to support it
- we had more flexible furniture
- we had more seating options for students at lunch

I wonder…

- how much open spaces is too much? When does it become distracting?
- how are the acoustics in breakout spaces?
- how do students with sensory challenges work with "see through" learning areas?
- how often breakout spaces would actually get used
- how can existing building be retrofitted to what we want?
- how do you equitably address all the schools in the district?
- philosophy or building… which comes first?
- how do you get the public involved?
- what types of professional development would be needed to implement changes to grade configuration, interdisciplinary learning, etc.
- if there are any sites in the district that could house several schools in one location

Educational Adequacy Assessments

The design team reviewed the educational adequacy assessments which can be found in section E of this report. Findings highlighted significant needs at the middle school and elementary schools. The middle school has undersized classrooms, windowless classrooms, and the organization of the building does not support the educational vision. Elementary schools, especially the JFK, are experiencing overcrowding, have undersized classrooms, and some program areas that serve special education or student services do not have dedicated space.

Key Issues & Considerations

The majority of the second visioning session focused on key master planning issues including grade configuration, school size, school count, and the location of pre-kindergarten. These four factors affect how the district plans to use, renovate, or replace space in their building inventory going forward.

Participants were asked to respond to questions related to these key issues in a café style discussion. Participants discussed each topic with their group and recorded key considerations on flip charts posted around the room. After 5-10 minutes, groups were asked to move to the next station and add to the

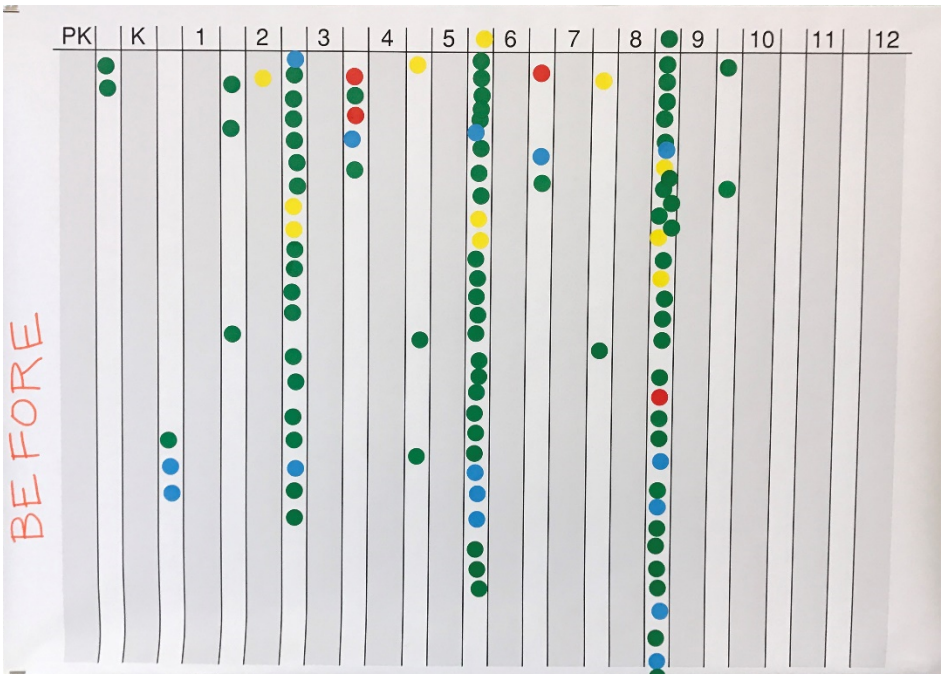
comments recorded by the group previously discussing the given topic. The process repeated until each group had the opportunity to discuss and record their thoughts on each master planning issue.

Grade Configuration

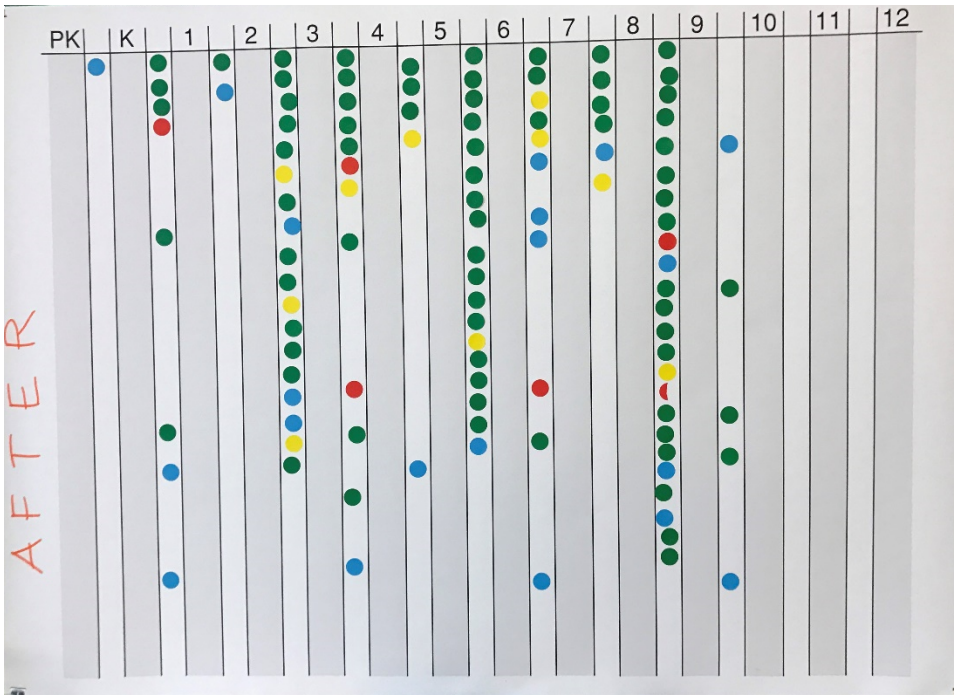
The visioning group discussed the ideal grade configuration as it relates to developmental stages, curriculum, academic opportunities, the impact of transitions, and available space in the District. The research around grade configuration is inconclusive but some articles that were discussed cite that higher achievement is linked to longer spans of grades within the same building, fewer transitions, and a sense of belonging and acceptance at the school.

The design team asked participants to place dots between the grades where they felt natural developmental breaks occurred. Participants were given a sticker whose color corresponded to the stakeholder group he or she represented. Colors and results are indicated below.

- Parent
- School District Employee
- Community Member
- Student



Participants discussed their reasoning behind their dot placements as a large group. Personal experience, childhood development, curriculum and learning objectives, opportunities for teacher collaboration, and educator licensure were factors in dot placement. Following the discussion, participants were asked to repeat the same exercise. Results appear on the following page.



The results from the second exercise were less definitive than the first, but show that most participants felt that natural developmental breaks occur between 2nd or 3rd grade, 5th and 6th grade, and 8th and 9th grade. As a large group, participants chose 4 grade configurations to further discuss the advantages and disadvantages. Participants chose to discuss the following grade configurations:

- PK/ K-5/ 6-8/ 9-12 (current configuration)
- PK-K/ 1-4/ 5-7/ 8-12
- PK-2/3-5/ 6-8/ 9-12
- PK-2/ 3-6/ 7-12

Participants discussed the advantages and disadvantages of each option in a café style discussion with their tables. Highlights of the discussion are listed below.

<u>PK/ K-5/6-8/9-12</u>

ADVANTAGES	DISADVANTAGES
• Emotional attachment to k-5 schools • 3-grade middle school is manageable • Have the buildings to support this • Maintain neighborhood schools • All pre-k remains together • The community is comfortable with this configuration	• Grades 7-8 have limited academic opportunities/ academics are not as challenging • Pre-k is on an island • No possible expansion for pre-k • Limited district-wide collaboration • K-5 is a large developmental span • Does not address space needs

PK-K/ 1-4/ 5-7/ 8-12

ADVANTAGES	DISADVANTAGES
• Opportunity for 8th grade academy/ curriculum/ partnerships with high school • 5th grade is ready for transition • Appropriate levels for professional development • Appropriate developmental groupings • Possibility of keeping neighborhood schools	• Isolated pre-k/ k • Lose neighborhood schools • Educator licenses limitations • MIAA impact on athletics • 8-12 is a varied developmental span

PK-2/ 3-5/ 6-8/ 9-12

ADVANTAGES	DISADVANTAGES
• Appropriate developmental separation • Early childhood curriculum • Aligns with curriculum • Aligns with educator licensure	• No advantage for upper grades • Possible decline in achievement because students spend less time in each school • Does not work with existing space • Lose neighborhood schools

PK-2/ 3-6/ 7-12

ADVANTAGES	DISADVANTAGES
• Fewer transitions • Aligns with licensure & curriculum • More academic rigor for grades 7-8 • Fewer specialists/ shared teachers across grades • More sports & extracurricular opportunities for 7-8	• 7-12 is a long developmental span, concerns with this age group • Lose neighborhood schools • Size of 7-12 school • 6th grade aligns with middle school curriculum, not elementary

School Size/ School Count

Next participants were asked to discuss ideal school sizes, the value of enrollment parity with schools across the district, and the ideal number of schools within the District. Members of the visioning committee chose to comment on elementary, middle, or high school sizes based on their area of expertise. Results are listed below:

Elementary = 300-400 students
Middle School = 600-800 students
High School = 900-1200

Most people agreed that schools of the same grade configuration should be comparable in enrollment, should have similar class sizes, and should offer the same programs and opportunities to all students in Canton.

Location of Pre-kindergarten

When discussing the location of pre-kindergarten with their tables, participants did not express a strong preference toward a centralized or decentralized pre-kindergarten program. A centralized program would mean that all pre-k students in Canton attend one school. This pre-k school could be stand-alone or attached to a different elementary school in the District. There is critical mass of students and specialists in a centralized model; however, this adds another transition, prevents pre-k teachers from collaborating with older grades, creates a feeling that pre-k is not integrated with the school system, and does not give pre-k students older peer models. With a decentralized model, pre-k students would attend their neighborhood school. Moving pre-k into the elementary schools encourages collaboration across grade levels, provides peer mentors, eliminates an additional transition, but would spread students with special needs across all schools making it more difficult to provide services.

Key Take-aways

At the conclusion of the visioning session, participants were asked to share their general impressions of topics presented and discussed as a large group. The list below summarizes the key take-aways of the session:

- Advancing academic rigor through longer grade spans
- There are tensions at play between longer grade spans, critical mass, and small schools
- There are so many solutions and perspectives and no single correct answer
- The District is not afraid to consider change
- The process contributes to finding the best solution

Principals' Workshops #2

Introduction

This section will cover the second set of elementary, junior high school, and high school principals' workshops. The intent of the second workshops was to confirm information gathered during the first principals' workshop and to prioritize space needs.

Elementary School Principals' Workshop #2

The second Elementary School Principals' Workshop was held February 28th at the Rodman building. During the first elementary school principals' workshop, participants identified guiding principles and key spatial relationships for an idealized elementary school that would support the elementary programs in Canton. During the second principals' workshop, principals reviewed specific space typologies and explored what these spaces could look like in Canton.

Space Typologies

Dore & Whittier presented specific space typologies and design elements that can transform a room into a next generation learning environment. Classrooms, break-out spaces, STEAM/ maker spaces, student dining, and media centers were discussed. For a complete presentation see Appendix X-1.

What is a Classroom?

Elementary school principals and key staff members were asked to explore specific space types and how they might manifest in Canton to best support educational goals. Participants were most interested in delving deeper into the possibilities of a maker space, media center, and the student dining experience. The larger group separated into three smaller groups to discuss each program area.

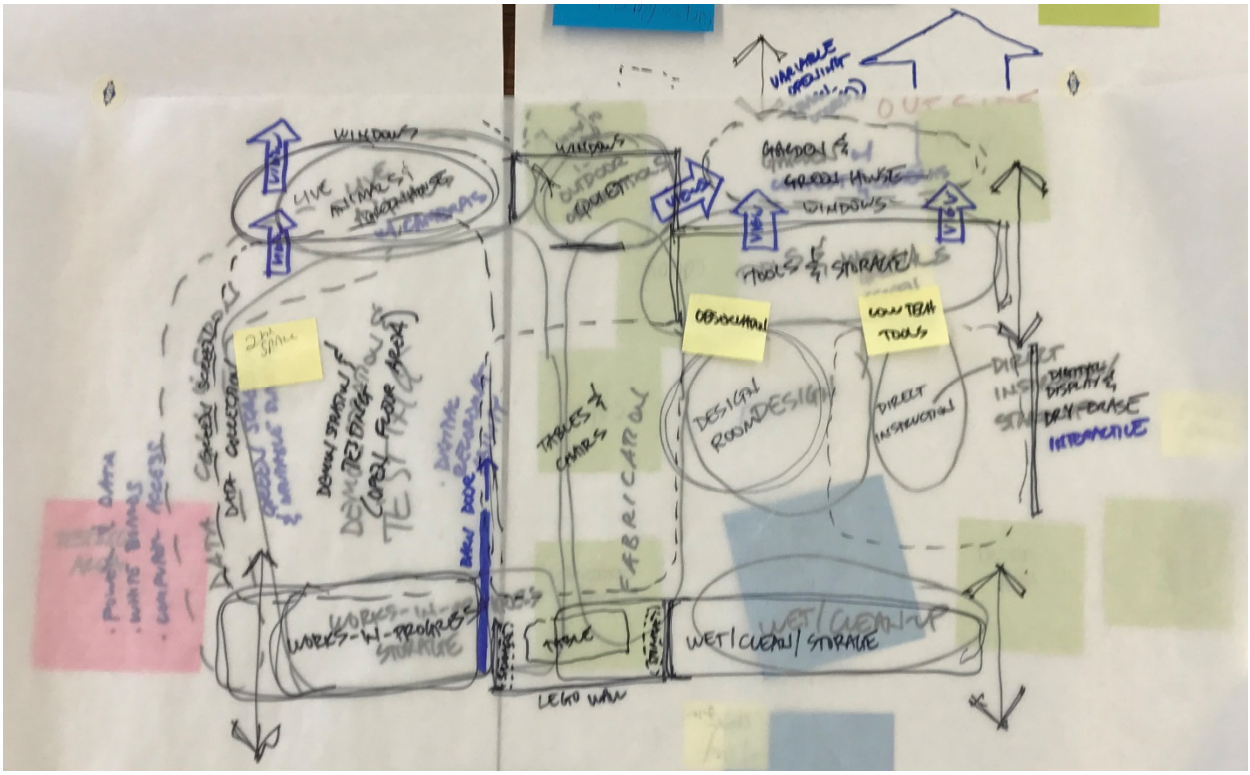
Maker Space

A group of 4-5 administrators and educators discussed the possibilities of a STEAM/ maker space in Canton elementary schools. Participants discussed the function of STEAM, types of equipment that would be needed to support STEAM curriculum, and design principles for a space dedicated to STEAM. The following list reflects ideas discussed pertaining to STEAM:

- Activities: filming, building, physics, Rube Goldberg Machines, biology, agriculture
- Design area – laptop/ PC design and research stations
- Fabrication area – large open building area
- Highly mobile & flexible furnishings
- Quality daylight

- Greenhouse
- Access to outdoors/ outdoor gardens
- Sustainability on display
- Wet area, appropriate flooring
- Rug area
- Vertical display surfaces
- Legos
- Accessible data & electricity - power outlets at different heights
- Digital display screens
- Ability to support multiple ages
- Low tech tools & materials

Participants generated the following diagram to help articulate how this type of space might be organized:



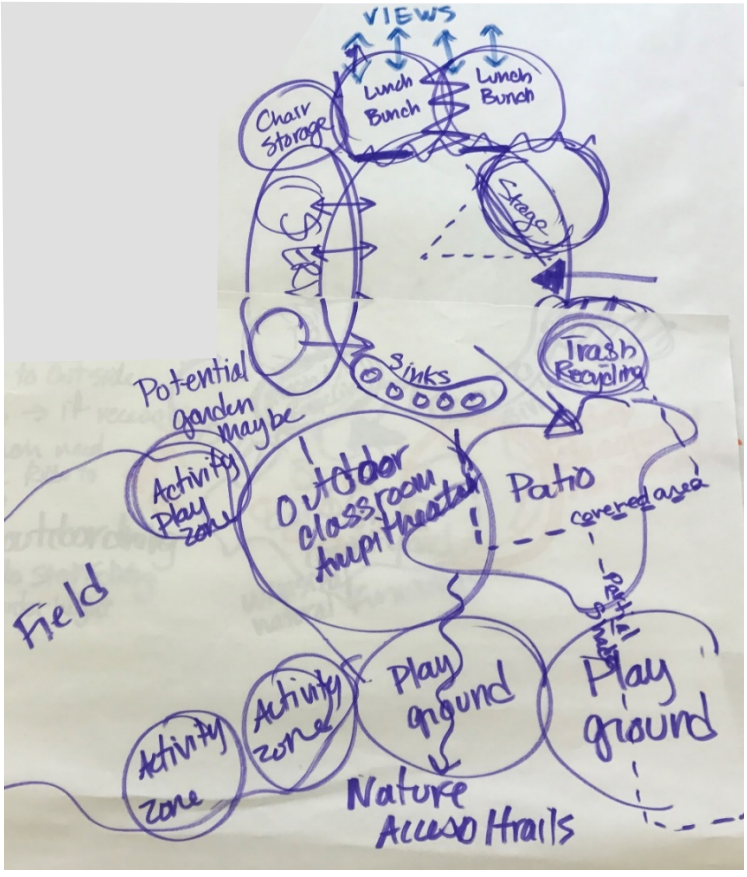
Cafeteria/ Student Dining Experience

A group of 4-5 administrators and educators discussed the possibilities of reimagining the student dining experience in Canton elementary schools. Participants discussed the rising need for a variety of spaces for all learning activities and recognized that this need also extends to the cafeteria. An increased number of students have sensory sensitivities and could benefit from quieter, more intimate dining settings. Other students thrive in the open atmosphere of a traditional cafeteria. Certain amenities including access to a handwashing sink, outdoor dining, and technology for presentations and

assemblies would increase the flexibility and usability of this space. Participants brainstormed design principles and amenities for a next generation cafeteria and generated the following list:

- Multipurpose
- Performance space
- Built-in risers
- Easy to clean
- Flexible
- Space to accommodate fewer lunch seatings during the school day
- Multiple POS stations in the lunch line to avoid bottlenecks and move students through the line quickly
- Smaller rooms adjacent to the main cafeteria for quiet zones and lunch bunches
- Variety of table sizes and heights
- Natural light and views to the outdoors
- Direct access to outdoors/ outdoor dining
- Handwashing sinks so that all students could wash their hands providing flexibility to change the schedule and have recess before lunch
- Disconnected from staff dining
- Age-appropriate counter height in serving line

Participants generated the following diagram to help articulate how this type of space might be organized:

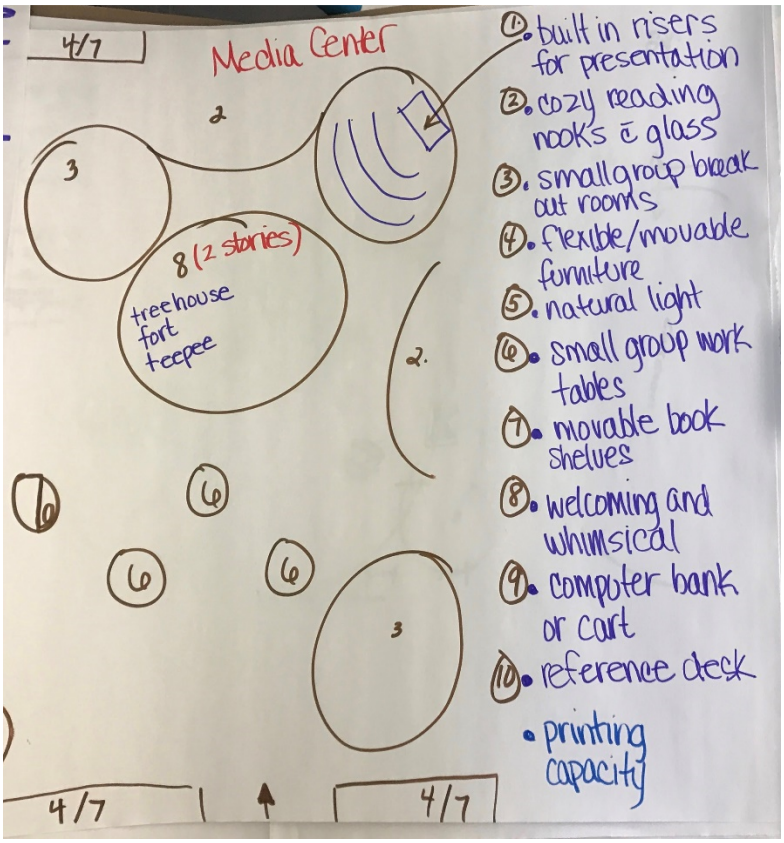


Library/ Media Center

A group of 3 administrators and educators discussed the possibilities of reimagining the library in Canton elementary schools. Participants discussed how the function of libraries are changing in schools and beyond. The term media center may be more appropriate than library as the media center is meant to be a place where students foster a love of reading, learn to interact with technology and research materials in a responsible way, collaborate with teachers and peers, and do project work. Participants brainstormed the following list of design principles to be incorporated into a possible media center in Canton elementary schools:

- Built-in risers for presentation
- Cozy reading nooks
- Small group break out rooms
- Flexible/ movable furniture
- Access to natural daylight
- Small group work tables
- Movable book shelves
- Welcoming and whimsical feel
- Access to technology: laptops/ reference catalog/ printing capacity/ digital display

Participants generated the following diagram to help articulate how this type of space might be organized:



Key Take-aways

- Participants recognized that there are many possibilities for individual spaces and changes in education are quickly changing the way individual spaces could support education. All participants noted a desire for more time to explore the many possibilities.
- Participants highlighted the importance of flexible space and furniture
- Individual spaces need to support a variety of activities and student needs

Middle School Principal's Workshop #2

The second middle school principal's workshop was held February 28th at the Rodman building. During the first middle school principal's workshop, Principal Conard identified guiding principles and key spatial relationships for an idealized middle school that would support the educational goals in Canton. During the second principal's workshop, the principal and staff leaders reviewed specific space typologies and explored what these spaces could look like in Canton.

Space Typologies

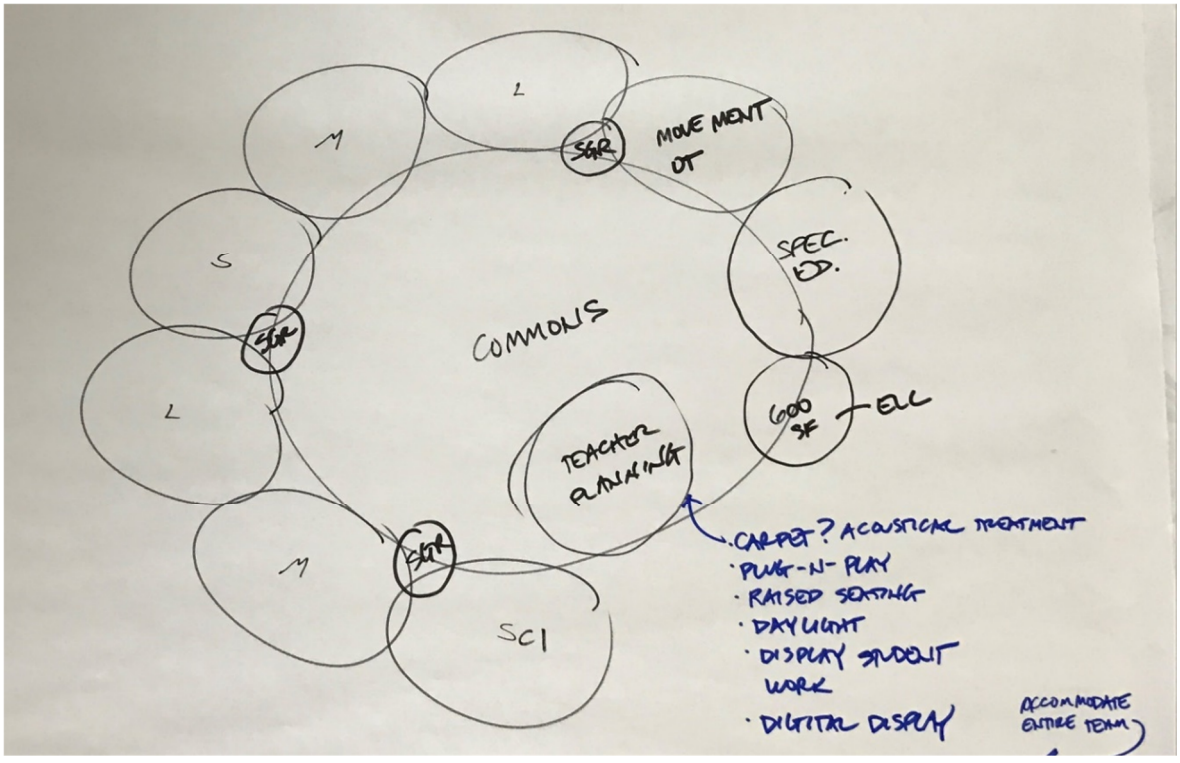
Dore & Whittier presented specific space typologies and design elements that can transform a room into a next generation learning environment. Classrooms, teacher planning suites, break-out spaces, STEAM/ maker spaces, and student dining were discussed. For a complete presentation see Appendix X-1.

What is a Classroom?

The middle school principal and key staff members were asked to explore specific space types and how they might manifest in Canton to best support educational goals. Participants were most interested in delving deeper into understanding a grade level team cluster, the classroom experience, and the possibilities of a more efficient administration suite that could better serve the student body. The larger group separated into three smaller groups to discuss each program area.

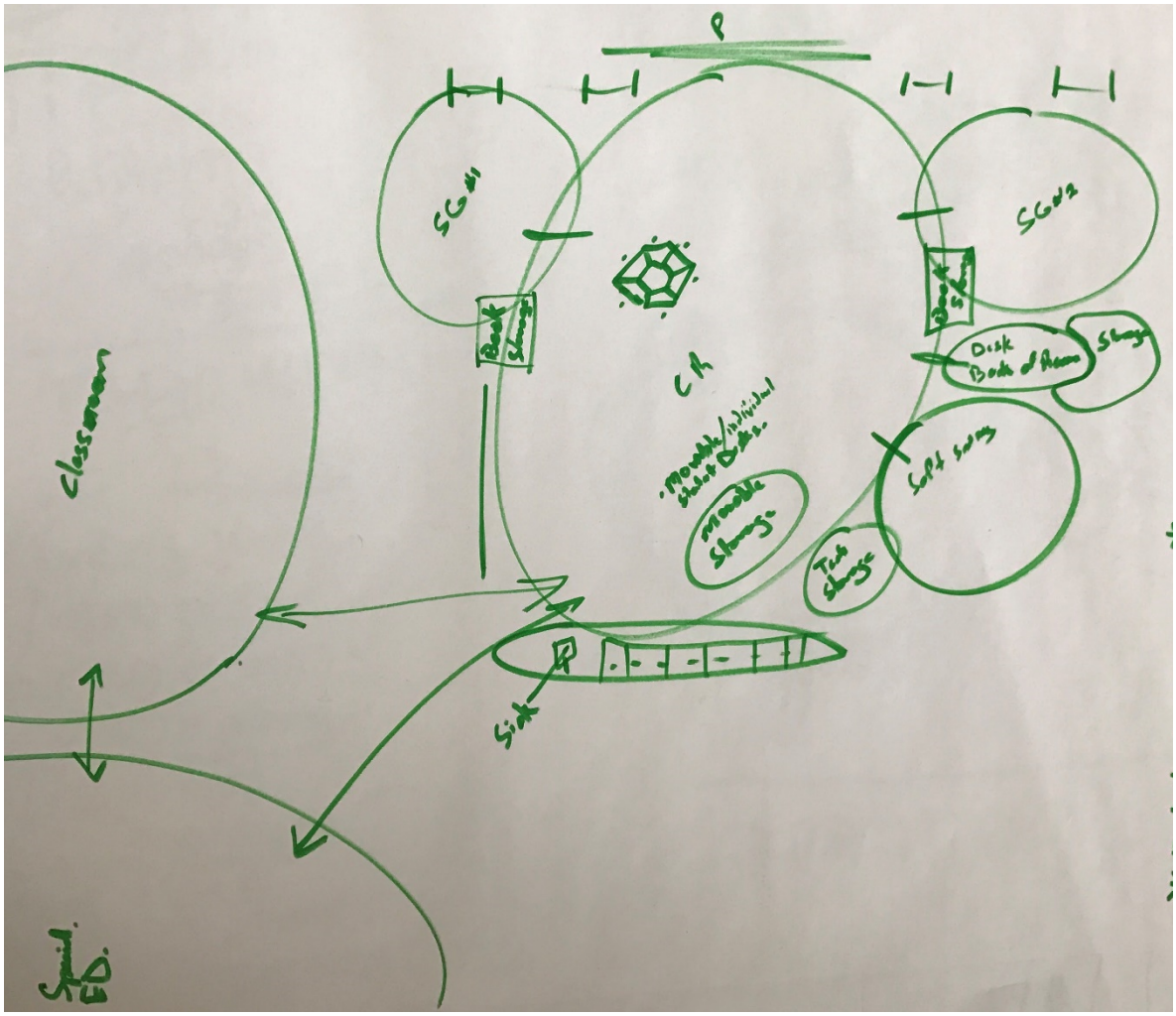
Grade Level Team Cluster

Participants discussed how spaces might be organized to support a team of students at Galvin Middle School. Participants expressed a desire to organize the overall building into team suites where one team would be able to take most of their classes in a centralized area of the building. Clusters of classrooms would be interdisciplinary and include classroom space for science, math, English language arts, social studies, special education, and movement. Classrooms could encircle a shared learning commons for breakout activities that spill beyond the classroom, a place for collaboration, project work, presentations, and more. In addition to shared learning commons, teams would also include shared small group rooms for pull-out instruction, small group collaboration, testing, and a place for individual learning. Team classrooms may be different sizes to support a wide variety of learning activities. All teams would include a teacher planning suite for collaboration between educators. Participants generated the following diagram to represent a team cluster of classrooms:



Classroom

Participants discussed how next generation classrooms need to be able to support a multitude of learning activities at the same time. In addition to access to quality daylight, thermal comfort, and appropriate acoustical treatment, a classroom needs to have flexible space and furnishings, a variety of furniture types, and a variety of activity zones. Classrooms should accommodate full-class instruction, multiple locations for small groups to collaborate, space for individual study, space for presentation, vertical display for student work, and adequate storage within the classroom. Classrooms should also be located near special education services and resource rooms. Participants generated the following diagram outlining the needs of a next generation classroom:

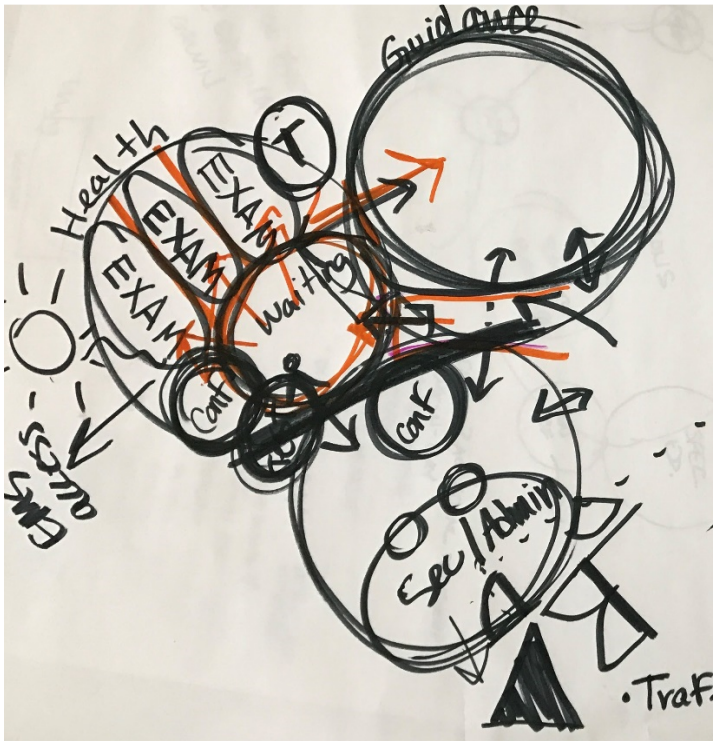


Administration Suite

Participants brainstormed the possibilities of an administration suite that could better support the wide range of student services offered as part of a next generation educational experience. The administration suite should be located at the front main entrance to regulate visitors to the school. Administration and educators felt that the main administration office, nurse/ health office, and guidance offices should all be located in the same area of the building, be independent suites, but have physical connections to each other. The connection between health and guidance should be more fluid than the connection to the main administration office. The following lists summarizes ideas to be considered when designing an administration suite:

- Main office, nurse, and guidance connection
- Parent/ visitor access/ close to front door
- Administration suite is the command center of the school
- Nurse's suite needs to be able to be passively supervised should the nurse need to step out of the office
- Health office to include ADA toilet room & shower, changing table
- Guidance should provide dedicated space for counselors, psychologist, and home-school interventionist
- Home for school resource officer
- Traffic should funnel through the administration suite. Administration has a more public presence while the health office and guidance suite are more private

Participants generated the following diagram to represent the organization of an administration suite that best supports students:



Key Take-aways

- Access to quality daylight has an impact on student engagement and performance and should be considered in all spaces
- Flexible space and flexible furniture can have a huge impact on learning
- Connection between program spaces can add opportunities for collaboration among teachers and students

High School Principal's Workshop #2

The second High School Principal's Workshop was held Feb 28th at the Rodman building. The discussion at the first workshop led the Design Team to develop options for targeted interventions at the lower fields to improve safety, traffic patterns, and the number of fields available for use at the media center to create a collegiate-type space that can serve many different types of learning activities and provide a space for collaboration. The purpose of this meeting was to review possible interventions, confirm and prioritize the space needs discussed during the first workshop.

Targeted Design Interventions

Lower Fields

The Design team shared four options showing different ways to reorganize the lower fields. Options show varying levels of intervention and success in achieving the goals of adding another grid field, retaining the same number of existing fields, and relocating parking to avoid cars parking along the access road. While exploring these options, it was assumed that the VFW could not be relocated. Any option shared would require additional site explorations and testing.

Option 1


J.V. FIELD OVERLAY
REGRADE AREA
VARSITY FIELD OVERLAY
200'-0"
375'-0"
275'-0"
225'-0"

Option 2


WETLAND
LEGEND
1. PROPOSED NEW VARSITY SOCCER FIELD
2. EXISTING VARSITY BASEBALL FIELD
3. PROPOSED VARSITY SOCCER FIELD OVERLAY - REQUIRES FENCE REMOVAL
4. PROPOSED VARSITY SOCCER FIELD
5. PROPOSED NEW VARSITY SOFTBALL FIELD
6. PROPOSED NEW LITTLE LEAGUE SOFTBALL FIELD
7. EXISTING FOOTBALL STADIUM
8. PROPOSED NEW FENCED PLAYGROUND
P PROPOSED PARKING LOTS
VFW
RODMAN BUILDING
HIGH SCHOOL

Option 3

Option 4


WETLAND
LEGEND
1. PROPOSED NEW VARSITY SOCCER FIELD
2. EXISTING VARSITY BASEBALL FIELD
3. PROPOSED VARSITY SOCCER FIELD
4. PROPOSED NEW VARSITY SOFTBALL FIELD
5. PROPOSED NEW LITTLE LEAGUE SOFTBALL FIELD
6. EXISTING FOOTBALL STADIUM
7. PROPOSED NEW FENCED PLAYGROUND
P PROPOSED PARKING LOTS
VFW
RODMAN BUILDING
HIGH SCHOOL

Media Center

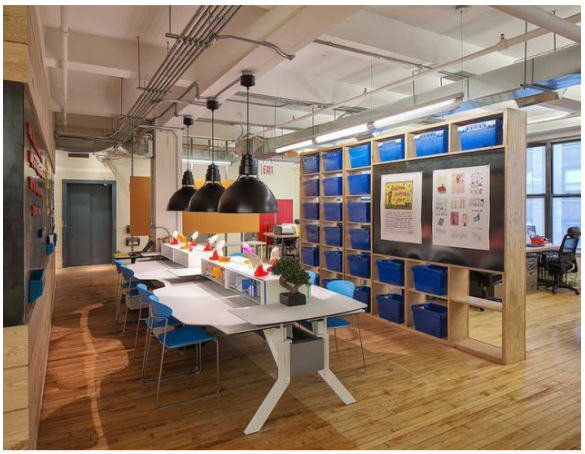
Dore & Whittier presented their explorations of possible opportunities to enhance the student experience of the media center. By intentionally zoning the media center into zones for group work, collaboration, independent study, project/ work zone, and a shared resource area, the design team articulated the possibility of multiple distinct functions in the media center. It was important that the media center accommodate multiple teaching zones for large group presentations and professional development, small group collaboration, independent work zones, comfortable spaces for recreational reading, touch down work stations, access to technology, clear sight lines for supervision, and possible access to snacks and refreshments. These different zones can be achieved by using a wide variety of highly flexible furniture. The diagram below represents a possible intervention to transform the existing media center into a space capable of supporting many educational activities.

1 Collaborative Area/ Touchdown
2 Technology – Genius Bar & Cafe
3 Café/ Juice Bar
4 Maker Space
5 Heads Down – Quiet Study Area
6 Resource Area/ Soft Seating
7 Group Study Area
8 Group Teaching Area

Furniture selection can have a significant impact on how a space functions. The design team shared suggestions of flexible and functional furniture that could enhance the media center experience. The following images represent a variety of furniture types that support different student functions.


Touch Down Work Zone/ Access to Food


Small Group Discussion



Project Work Zone

Independent Reading

Independent Study/ Private Small Group

Small Group Collaboration

Key Take-aways

- Targeted interventions could be a low-cost opportunity to enhance student-centered culture
- Participants showed the most interest in Option 2 when considering the Lower Fields Intervention
- Enhancements to the media center could be mostly furniture-based

Public Meeting #1

Introduction

The District and Design Team held two public meetings to present study findings to date and solicit feedback from the wider community. The first meeting was held April 5, 2017 in the high school cafeteria. The meeting was published on the District's website, communicated to parents, and advertised in the local newspaper. Approximately 50 community members attended. Community members were invited to listen to a presentation from the design team explaining the master plan development process, study findings to date, and information and examples of global best practices in education and educational facilities. The design team shared the findings of the building assessments, enrollment projections, and visioning sessions. Attendees were then asked to participate in activities to comment on the ideas presented to help communicate community values and provide valuable input that could influence the outcome of the master plan. For the full presentation, please refer to Appendix X-1.

Public Responses to Master Planning Process

At the start of the meeting, participants were asked to discuss and document what they felt were the key issues in the District that should be addressed by the master plan. Participants worked with their tabletop to generate the following responses:

- Provide classroom space to accommodate children in their neighborhood school zone
- Provide space for manipulatives and instructional materials that are easily accessible to staff and students
- Provide space conducive for interdisciplinary learning
- Provide appropriate program space for science, intervention, pullout instruction, movement activities
- Address overcrowding conditions
- Provide access to natural daylight in all learning environments
- Integrate technology
- Provide appropriate special education space
- Incorporate STEAM curriculum and provide space for STEAM and the arts
- Provide flexible learning spaces
- Consider relocating pre-kindergarten to be connected to other elementary grades
- Minimize transitions for students
- Grade reconfiguration benefits/ concerns
- Building infrastructure needs
- Cost effective and efficient solutions
- Equity across schools in the District
- Improved safety and security

Those in attendance at the first public meeting were asked to document which elements of the master plan process they found exciting, and which elements gave them pause. Boards were provided with graphic prompts of sections of the design team's presentation and participants placed color coded sticky notes over sections that were either exciting or deterring. The following summarizes participants reactions to the key issues discussed at the first public meeting.

Ideas sparking excitement:

- Next Generation educational practices
  - Student-centered learning
  - Interdisciplinary curriculum
  - Emphasis on understanding and application
  - Emphasis on creativity, critical thinking, collaboration, communication
  - Project-based learning
- Next generation facility design characteristics
  - Increased variety and flexibility of instructional spaces
  - More collaboration spaces
  - Increased visibility/ connection/ learning on display
  - Quality day lighting
  - Improved safety and security
- Relocating pre-kindergarten to be part of an early childhood model
- Action in addressing school facility needs
- Some interest in exploring grade reconfiguration

Ideas that lend pause:

- Grade reconfiguration
- Some hesitation to changing educational practices
- Some hesitation to changing school building organization
- Facility needs
- Overcrowding and additional space needs at the elementary schools and middle school
- Visual connection within the school – does this cause distraction?

The design team and Working Group listened and responded to participants' reactions, questions, concerns, and excitement about the possible outcomes of the master plan. Reactions were generally positive and participants expressed excitement in continuing to be involved in the process.

VISIONING SESSION #3

Introduction

Canton Public Schools held the third Visioning Session of this study on May 25, 2017, which was facilitated by Dore & Whittier. The same 50 stakeholders who were invited to participate in Visioning Session #1 and #2 were invited to return for Visioning Session #3. Stakeholders included district administration, teachers of various grade levels, parents, high school students, town committee members, and community members. During Visioning Session #3, the design team shared the options that were developed and vetted through the Working Group. Through a series of large-group and small-group discussion based exercises, participants were invited to share their reactions to shortlisted options. The outcomes of this Visioning Session helped steer the Working Group's final evaluation leading to a preferred option that will be presented to the school committee for consideration. See Appendix X-1 for a complete agenda and presentation.

Options Development, Evaluation, and Short List

D&W presented key elements of the options development process, the broad range of options developed, the options evaluation process, and the generation of the short-list. D&W presented the short-listed options in detail and shared conceptual site explorations of building solutions. For a complete description of the options developed and evaluation process, see the *IV – Conceptual Options* section of this report.

Options Evaluation

The design team explained the process that the Working Group used to evaluate the options. The evaluation led to a short-list of four options:

- Option 1C
- Option 2C
- Option 5A
- Option 5B

For a full explanation of the options evaluation process see section *IV-C-2 Options Evaluation* section of this report.

Exercise: Advantages & Disadvantages of the Short-Listed Options

In a café-style discussion, participants were invited to record the advantages and disadvantages of each short-listed master plan option. Participants discussed each option with their group and recorded key considerations on flip charts posted around the room. After 5-10 minutes, groups were asked to move

to the next station and add to the comments recorded by the group previously discussing that particular option. The process was repeated until each group had the opportunity to discuss and record their thoughts on each short-listed master planning option. Summaries of participants' responses are listed below.

Option 1C ($291.1 M)

ADVANTAGES	DISADVANTAGES
• Keep neighborhood schools	• No Pre-K at Hansen or Luce – PK students would not be attending their neighborhood school
• Pre-k is not isolated; attached to school	• Not all elementary schools can be reached by walking so would not be neighborhood schools
• Easier transition and less of a change because the grade configuration and district lines are similar to what they are now.	• Difficult to sell to the community as Pre-K and Administration renovations would be first
• Community excitement of a JFK renovation	• Traffic on Dedham Street
• $20 million capital savings upfront	• Delays Galvin Middle School renovations to begin in 2024 or beyond
• Not all potential students attend PK	• Time rotation with Pre-K all in one place
• JFK & Galvin are first to be renovated: 2 "new" buildings	• 40% of PK students will have to change schools for K-5
• 8th Grade Not Secluded	• Has more transitions than other options
	• Potential issues for Pre-K thru 5th if not separated or set up wisely
	• Buses with Pre-K thru 5th students may not be a good situation

Option 2C ($292.3 M)

ADVANTAGES	DISADVANTAGES
• Pre-k thru 2nd and 3rd thru 5th: similar grades are together which supports collaboration • Early childhood models have developmental advantages • Elementary space needs are addressed early on • 3 "new" buildings • Positive social impact as students move through four transitions with friends • 6-8 model works • 9-12 model works • 3rd grade is a transition even without a building change. Moving 3rd graders to a new building could build excitement for grade 3.	• Hansen no longer has a neighborhood school/ the neighborhood school districts would likely have to change • A big change for 3rd graders due to many transitions • Going from 80 students (2nd Grade) to almost double that in 3rd - 5th is potentially uncomfortable for students • Galvin renovation would be delayed • 800 students in an elementary school is **a large population.** Administration and staff accommodations would also be affected • Staff displacement in the Rodman building • Traffic in GMS/Hanson area would be of concern • Pre-K thru 2nd schools completed after district offices • Greater travel distances, potential traffic for families from East Canton • Preschool and elementary students will be affected by renovations for several years • Can playgrounds accommodate grades 3rd thru 5th? • Teacher certification • Large cost for District Office early in the overall project timeline

OPTION 5A ($286.4 M)

ADVANTAGES	DISADVANTAGES
• Addresses GMS needs immediately	• Combining 5th thru 8th can be intimidating. Consider 5/6 and 7/8 "schools" or having grades separated by floor
• Potential for 18-22 program within Rodman	• Some town project capital is not reimbursable
• Neighborhood model and pre-k is included in all elementary schools	• District offices are prioritized over educational facilities (unless district/Rodman renovation is for CHS needs)
• Most cost effective and takes advantage of MSBA	• District office would be high cost ($22 M) early in overall project
• Savings capital over $30 million	• Students transition from smaller elementary to large middle school
• One less transition	• May need more staff
• Potential local field disruption (one field)	• Impacts nursing staff
• Logical progression of school improvements; starting with the most needed and progressing to items of lesser need (in order of importance)	• Portables necessary for many years
• Building up while not taking anything away	• Traffic impacts, especially for Galvin without renovations
• Brand new middle school building early on	
• Students in the same school for longer spans – supports SEL and increased achievement	
• High school would be able to expand into Rodman	
• 5th thru 8th can be designed for our needs	
• Frees up space in elementary schools	
• Potentially less licensure issues	

OPTION 5B ($315.2 M)

ADVANTAGES	DISADVANTAGES
• Pre-k thru 4th at all the schools considered to be neighborhood schools • 5th thru 7th grades together • Galvin gets a new school sooner / problems and renovation resolved early/ 4 "new" buildings • Many renovations early on in the master plan timeline - changes will happen quickly • 5th grade gets foreign language opportunities earlier • 8th grade academy potential / flex space/ stem • Save over $30 million in 10-year capital plan • Quick start up (within 4-5 years) for multiple projects (Galvin Middle School, district office, Rodman, JFK) • Resolves issue of pre-k isolation more quickly	• 8-12 is a long developmental span, concerns with this age group • Size of 8-12 school • 6th grade aligns with middle school curriculum, not elementary • Lunch? Rodman would NOT have a cafeteria. What impact does this have? Add a lunch? 8th thru 12th grades eat together? • Most expensive • Additional administration/clerical costs for 8th grade • Specific populations of students may be affected by renovations more than others • Currently there is a dean, special education director, vice-principal, and principal for Galvin Middle School – all of these functions would need to be duplicated • Would sports need to change? Because football is 6th thru 8th, would a league change be required? • New building

Following the advantages-disadvantages exercise, participants gathered as a large group to review and discuss all the questions, comments, and concerns generated during the small group discussions. Participants noted that evaluating the impact of the options on the future of the district was incredibly complex. Some characteristics of an option were see as an advantage while other participants perceived the same issue to be a disadvantage.

Straw Poll Exercise

After evaluating and discussing the options, the District called for a non-binding straw poll of those in the room to vote for their preferred option. Option 5A received 21 votes and Option 5B received 15 votes. None of the participants voted for Options 1A or 1C.

Following the vote, some participants opted to share why they chose to vote for Option 5A or Option 5B. Everyone present agreed that they preferred these options because they prioritized the needs of the middle school. Participants' opinions diverged based on where they felt that 8th grade should be housed. Some participants preferred the idea of a purpose-built 5-8 middle school where grades 5-6 could have a unique but connected experience from grades 7-8. Others gravitated to the possibilities afforded by an

8th grade center that could take advantage of opportunities at the high school. There were four high school students in attendance that advocated for Option 5B. All four students commented on how they felt more like high school students when they were in 8th grade than middle school students and would have been excited to be able to take advantage of the opportunities and responsibilities that come with advancing to the next set of grade levels. The administration spoke to the exciting possibilities of designing an 8th grade academy that celebrates students during a year that can be particularly challenging developmentally, academically, and socially. As the discussion continued, excitement grew around the idea of moving the 8th grade to the high school campus.

Key Take-aways

At the conclusion of the visioning session, participants were asked to share their general impressions of the final visioning session. The list below summarizes the key take-aways of the session:

- Galvin Middle School is in the most need and should be prioritized in the master plan
- District offices should not be prioritized over schools
- Many residents are attached to their neighborhood school; however, if the District's building organization were to change, parents would likely have the same devotion to their new school
- The District is not afraid to consider change
- A unique 8th grade experience could be exciting if executed properly
- A new 5-8 middle school could be a school within a school and create an exciting learning environment for grades 5-6 and grades 7-8

Public Meeting #2

Introduction

The District and Design Team held two public meetings to present study findings to date and solicit feedback from the wider community. The second meeting was held June 15, 2017 in the high school cafeteria. The meeting was published on the District's website, communicated to parents, and advertised in the local newspaper. Approximately 50 community members attended. Community members were invited to listen to a presentation from the design team explaining the master plan development and evaluation process, the evolution of options, feedback from the visioning committee, and the resulting shortlisted master plan options.

Public Responses to Short Listed Options

Attendees were invited to ask questions and discuss the short-listed options presented to the visioning committee (Options 1A, 2A, 5A, and 5B) as well as Option 5B.1 to fully digest the complexities the district is facing as it charts a pathway forward. Option 5B.1 was presented as an evolution to Option 5B, addressing comments from the visioning group. The Working Group and design team shared the visioning committee's reactions to each option and asked community members to continue the dialog. Participants discussed each option and the visioning committee's reactions. Participants were also asked to generate their own list of pros and cons of Option 5B.1. The list below articulates attendees' responses to option 5B.1:

ADVANTAGES	DISADVANTAGES
• 8th grade academy potential – 8th grade gets unique educational experience	• 8th grade on an island
• Addresses Galvin first	• 8th grade mixing with high school students
• 8th grade gets to take advantage of high school offerings	• 15 years of portables at JFK
• Collaboration among 8th grade and high school	• 8th grade sharing cafeteria with high school
• Cost effective	• Increased operational costs (additional administration/ specialists) for 8th grade only model?
• Quick start up time and completion for more schools	• A lot of projects to fund up front

At the end of the evening participants were asked in a show of hands to vote for their preferred option. The straw poll did not determine any decision but would be considered by the Working Group when recommending an option to the school committee after the master planning process. Participants voted in favor of options 5B.1 and 5A with 15 and 5 votes respectfully.