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Phase 3—Master Plan Options

Lexington Public Schools Master Plan

Lexington, Massachusetts

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SMMA

Executive Report for:

Lexington Public Schools Master Plan
Phase 3—Master Plan Options

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Executive Summary

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Executive Summary

1.1

Acknowledgements

Symmes Maini & McKee Associates (SMMA) would like to acknowledge the participation and guidance provided by the district administration, Master Plan Committee, and the teachers and staff of the District.

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Bill Hurley, School Committee

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Patrick Goddard, Director, Department of Public Facilities (DPF)

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1.2

Introduction

This report, Phase 3, is the third and final component of the Master Plan for the Lexington Public Schools. The Phase 1 Report—Capacity Analysis, and Phase 2 Report—Elementary Schools Short and Long Term Options Study, are included in this document. Phases 1 and 2 were completed in the fall of 2014 and accepted by the Ad Hoc committee.

Goals

Phase 3 of this Master Plan sets out to develop strategies for accommodating unanticipated student population growth, both experienced and projected. The growth is expected at all grade levels, PreK through grade 12.

We identify Lexington's overcrowding issue as a “town problem” that requires a town wide solution. As you will see throughout this report, each school has unique opportunities and constraints that suggest a range of solutions. We encourage the town to not try to reduce the solutions to a school by school solution. School by school solutions run the risk of “forcing” construction where it may not be easily accomplished or may lead to higher costs that maybe unwarranted.

The strategies include solutions for short term (5 years), and to the extent possible, long term (10 years), as well as “getting to 5 years”. To do this, we have developed “component options” that propose varying locations for additions and or new construction. These component options are not intended as “designs” for the potential solution but rather a strategy for how and where construction might occur; how many students they might serve and conceptual estimates for each approach.

This Master Plan is not an implementation plan. The ideas will require detailed programming with administration, school staff and special program directors that lead to schematic design. These next steps will provide more detailed information to help the town make decisions on what, where and when to build. Multiple schedule options are provided to assist in developing “what if” timing strategies.

Next Steps following the study:

- Appropriate funds for further study at least through schematic design
- Hire a design team or teams for further study
- Based on conclusions of programming and schematic design alternatives (as described above), proceed with design and construction documents of priority projects
- Appropriate funds and construct priority projects
- Resubmit Hastings School SOI to the MSBA
- Conduct annual enrollment projections updates

1.3

Background / Enrollment

For Master Plans such as this one, most often the school district develops or has an outside consultant develop ten year population projections for the school district. The significant and varied enrollment growth experienced over the past several years suggested the need for an alternate approach. The following paragraphs (*in blue*) were written by a member of the Enrollment Working Group (EWG).

Over the past several years, Lexington schools have experienced growth in enrollment, which was not forecast by the Cohort Survival Method (CSM), the traditional approach. The Enrollment Working Group (EWG), assembled to review the issue and to advise on a solution, found that the CSM actually leads to credible five-year forecasts for the middle-school and high-school enrollment. However, it concluded that the CSM, as applied in Lexington, had a major shortcoming in forecasting Kindergarten enrollment. As a result, the CSM had consistently underestimated elementary-school enrollment.

Detailed historical analyses of Lexington's housing stock and the school population led the EWG to develop the Housing Demographic Method (HDM) to forecast K – 5 enrollment. The method, described in the December 2014 report of the EWG, Five-year Enrollment Forecasts for the Lexington Public Schools, includes a means for calculating confidence intervals for forecasts based on the HDM. The EWG also introduced a method for estimating confidence intervals for forecasts based on the CSM.

The table below, reproduced from the EWG's December 2014 report, summarizes the expected enrollments for FY2020 and their associated 90th percentile confidence limits based on a five-year forecast from FY2016 to FY2020. To put the enrollment forecasts in perspective, the table also displays the projected growth relative to FY2014. In its December 2014 report, the EWG cautions that the large confidence band for the fifth year of the elementary school forecasts supports its decision to limit the horizon such forecasts to five years.

Grade Group	Method	Enrollment in FY2020	Growth over FY2014
Elementary (K–5)	HDM	3188 ± 267	260 ± 267
Middle School (6–8)	CSM	1830 ± 70	171 ± 70
High School (9–12)	CSM	2290 ± 120	269 ± 120
Total System	HDM	7279 ± 410	671 ± 410

Since the growth of K – 5 enrollment is linear in time, the expected growth rate is 43 students per year, while the growth rate corresponding to the upper confidence limit is 83 students per year.

The EWG has restricted its forecasts to grade groups: It did not forecast enrollment by elementary school because it believed that such forecasts would have unacceptably large confidence intervals.

The above recommendations identifies a wide range of possible enrollments by way of the “confidence limits”. This suggests the need for flexibility in any “plan”. It also recommends the need for ongoing monitoring of enrollment projections. This suggests annual review using the Cohort Survival Method for one year projections and Housing Demographic Method (HDM) to forecast K–5 enrollment for five year increments.

In addition to the recommendations above, the Enrollment Working Group (EWG) has recommended the following:

1. The Cohort Survival Method as represented by the 8/26/14 enrollment report, be the enrollments used for all grades for the 2014–2016 school years.
2. The Cohort Survival Method as represented by the 8/26/14 enrollment report, be the enrollments used for grades 6–8 (middle schools) for the next 5 years (through school year 2019 - 2020) (EWG report para. 7.1, pg 16)
3. The Cohort Survival Method as represented by the 8/26/14 enrollment report, be the enrollments used for grades 9–12 (high school) for the next 5 years (through school year 2019–2020) (EWG report para. 7.1, pg 16)

The EWG report does not include a chart by grade by year as the survival cohort method typically would. It also does not attempt to determine where, (school district boundaries) within the town, where the increases may occur. A review of recent enrollment increases shows that increases have occurred throughout the town with only modestly higher numbers at the Bowman, Bridge and Fiske schools. These slightly higher numbers were not consistent and determined to not represent a trend.

Since this Master Plan needs to conclude with recommendations for construction of buildings and or building additions, certain assumptions need to be established. For purposes of the Master Plan, there has been an assumption that the elementary grade enrollments are anticipated to increase at an even rate of growth (52 students per year) and be distributed evenly across the six existing schools. This is the basis on which the Option Components and Options have been developed. What is key to accommodating the potential range of student enrollment growth is the need for flexibility. This pertains to the option components selected; the timing of implementing the option components and the flexibility for growth within a selected option component to the extent possible.

Population Increase Targets:

as agreed to by the AhSMPC

- Elementary Grades: 5 year: 166 +/-; (total 3,188 in 2019 - 2020) ten year: no recommendation from the EWG
- Middle schools: 5 year: 202 +/-; ten year: 255 students
- High School: 5 year: 158 +/-; ten year: 397 students

1.4

Grade Configuration Discussion

Lexington has had the current grade configuration (PreK, K–5, 6–8, 9–12) for some time. Many people may think that maintaining the current structure is a given, but a review and discussion of this issue is a good exercise to explore as part of the master planning process. The grade structure must be first and foremost educationally sound. All or most of the grade structures discussed below can be found in school districts across the Commonwealth and elsewhere.

Pros and Cons of different grade structures can include:

- Transitions to another school as part of a different Grade structure can be viewed as disruptive for certain students.
- Adding transitions can in some cases complicate bussing and increase bussing costs.
- Aggregating certain grades together can improve communication between age related teachers, e.g. PreK and K.
- Regrouping grades such as adding grade 5 to middle school can provide more opportunities for students in areas such as technology education and team teaching.
- Changing grade structures can in some cases make building use more efficient.

Grade Configuration Options

In addition to the current grade configuration (PreK; K–5; 6–8; 9–12), six additional grade configurations were initially explored. These were discussed at the 11/20/14 ad Hoc committee meeting. The options are graphically expressed on Exhibit 1.1.

- Option 1: PreK; K–8; 9–12 - was deleted. K–8 system schools require teams for the middle school grades (6–8) science rooms and specialty rooms for technology, engineering and or other elective courses. A K–8 based system is not viable with the current 6 elementary school buildings which lack those specialty rooms. This would assume Clarke and Diamond would also become K–8's. Since they do have science and specialty rooms, there could be a loss of parity across the system. It was also noted as most often used in urban systems.

- Option 2: PreK; K–2; 3–5: 6–8; 9–12 - was deleted. This option added a student transition which is felt to be adverse to the districts goals. It also would significantly change school district boundaries creating three K–2 districts and three 3–5 districts. This option would likely have considerable political opposition.
- Option 4: PreK–K; 1–5; 6–7; 8–2—was deleted. A two grade school is felt to be adverse to the districts goals. A PreK–K school would remove kindergartens from each of the six elementary schools and centralize them. The resulting new school would be approximately 527 students, 96,500 square feet. At this time, there is no available, publicly owned site that could support that size new school building. An 8 - 12 would result in a large high school that would approach 3,000 students. It would also make a high school enlargement or replacement a priority project in addition to the PreK–K project.
- Option 5: K–4; 5–7; 8–12—was deleted. An 8 - 12 would result in a large high school that would approach 3,000 students. A high school enlargement or replacement would likely need to become the priority project.
- Option 6: PreK–K; 1–5; 7–8; 9–12—was deleted. A two grade school is felt to be adverse to the districts goals. See Option 4 for similar comments.
- Option 7: PreK–4 and K–4; 5–8; 9–12—was added for additional exploration and discussion. The modified options are graphically expressed on Exhibit 1.2.

Current													Comments
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
Status Quo, Most people are likely comfortable with this configuration													
Option 1	K	1	2	3	4	5	6	7	8	9	10	11	12
PreK	K-8 is inefficient in small elementary schools, likely require more classrooms												
Option 2	K	1	2	3	4	5	6	7	8	9	10	11	12
PreK	Adds a transition in within the elementary grades which can be disruptive; but likely reduces the number of classrooms needed												
Option 3	K	1	2	3	4	5	6	7	8	9	10	11	12
PreK	Relieves elementary schools only; requires early childhood school and MS additions												
Option 4	K	1	2	3	4	5	6	7	8	9	10	11	12
PreK	All elementary and both MS are relieved, Early Childhood and High School become the priority												
Option 5													

Exhibit 1.1

Current													Comments				
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12				
Status Quo, Most people are likely comfortable with this configuration																	
Option 1: PreK; K - 8; 9 - 12: DELETED																	
Option 2: PreK; K - 2; 3 - 5: 6 - 8; 9 - 12: DELETED																	
Option 3	K	1	2	3	4	5	6	7	8	9	10	11	12				
PreK	Relieves elementary schools only; requires early childhood school and MS additions																
Option 4: PreK - H; 1 - 5; 6 - 7; 8 - 12: DELETED																	
Option 5: K - 4; 5 - 8; 8 - 12: DELETED																	
Option 6: PreK - K; 1 - 6; 7 - 8; 9 - 12: DELETED																	
Option 7	K	1	2	3	4	5	6	7	8	9	10	11	12				
PreK	K	1	2	3	4	3 Middle Schools at 624 students each											

Exhibit 1.2

After discussing the opportunities and constraints of alternate grade configurations, the AhSMPC voted to recommend retention of, and advancing the Master Plan with the current grade configuration.

The three preferred grade configuration options (Exhibit 1.2) were discussed in the context of Lexington's school buildings and sites, including how buildings might be reconfigured or new buildings added.

- **Option 3:** A PreK–K school would remove kindergartens from each of the six elementary schools and centralize them. The resulting new school would be approximately 527 students, 96,500 square feet. At this time, there is no available, publicly owned site that could support that size new school building.
- **Option 7:** Reducing the populations in the elementary schools would relieve all six schools. The existing two middle school sites do not have the ability to accommodate additions to accept all 5th grades. Creating three grade 5–8 middle schools would: retain the two existing middle schools at similar sizes as current and require construction of a third 5–8 middle school. Each school would be approximately 820 students. The new middle school would be approximately 131,000 square feet. Only the Central Administration building site could be considered for that new school, the site of which is likely too small to support it.

After discussing the opportunities and constraints of alternate grade configurations, the AhSMPC voted to recommend retention of, and advancing the Master Plan with the current grade configuration.

1.5

Options Development

At each school, a series of "option components" were developed. These components took into account the educational program of each school; school committee's policies for class size and programs; building age and condition, site availability and opportunities; size of building core spaces (library, cafeteria, gym, etc.) and their ability to support current and or anticipated populations; building configurations and the ability to support building additions; twenty first century teaching and learning needs.

Component options were developed into a series of eight possible Master Plan options. This was done to group "components" that together would deliver the space needed to satisfy population goals for five or ten years in educationally sound and cost effective ways. Since most components can stand on their own, it is possible to assemble the components into other configurations.

At the 1/8/15 AhSMPC meeting which included multiple town boards, the AhSMPC voted to explore an Option 9.

Following the completion of this report, the ad hoc committee is expected to make a recommendation on a proposed Master Plan Option.

School Buildings / Sites included in this report:

- Bowman Elementary School
- Bridge Elementary School
- Estabrook Elementary School
- Fiske Elementary School
- Harrington Elementary School, (including the PreK program)
- Hastings Elementary School
- Clarke Middle School
- Diamond Elementary School
- Lexington High School
- Central Administration Building (old Harrington)
- Laconia Street Site

1.6

Right Sizing of Schools

SMMA has described the "right sizing" of schools as a recommended outcome of this Master Plan. The intent of this is to match the number of classrooms and resulting student populations with the capacity of the core spaces and non-core academic spaces, such as: Gym, cafeteria, library, music and art, as well as properly provide for special education. Right sizing may have slightly different implications at different schools.

Right sizing is defined within this study in a few ways:

Undersized spaces:

Some of the schools were designed with core spaces that do not meet current space standards. In some cases, the schools can get by as they are. If student populations are slightly reduced, pressure of undersized spaces is reduced. In other cases, enlarging certain core spaces may be advised. At Bridge and Bowman, consideration should be given to both reduce student populations and increase core program areas.

Music and Art:

The recent School Committee policy of dedicated spaces for Kindergarten music and art requires additional spaces that were never assumed in original designs of the schools due to the advent of all-day kindergartens.

Classroom size or configuration:

The conditions in this category vary widely across the schools. Some examples include:

- **Bowman and Bridge gyms:** are undersized but are reported as tight but workable
- **Fiske and Harrington cafeterias:** are undersized and as such put a strain in the scheduling of lunches.
- **Clark Middle School:** many of the classrooms on the third floor are triangular and undersized. The triangular classroom configuration is inefficient, further exacerbating their small size. A goal is to make them rectilinear and at or close to middle school classroom standards.
- **Lexington High School:** many of the classrooms throughout the school are undersized. In some cases significantly undersized. Right sizing would reconfigure the most undersized classrooms into appropriate sized and configured rooms for contemporary educational delivery.

1.7

Short-Term and Long-Term Building Options

Terms:

- Standard modular classrooms
- Pre-fabricated classrooms (construction)
- Permanent Construction (bricks and mortar)
- Comprehensive Renovations

Standard Modular Classrooms

Typically a short term solution, standard modular classrooms are often used to provide temporary classrooms during construction or when permanent construction is not feasible for whatever reason. Standard modular classrooms can be leased or purchased. When leased, they may be new construction or previously used. Typically of wood frame construction, they must be installed on concrete foundations, usually piers. When leased, they typically are heated and cooled by electricity. When purchased, other options are available. Life safety and technology systems are tied into the main building systems providing equal performance. The industry anticipates a useful life of approximately 10 years. Older versions of standard modular classrooms can be seen at the rear of the Bowman and Hastings schools.

Pre-Fabricated Classrooms (construction)

There is a range of options available within this category that vary quality, materials and longevity and accordingly price. These can be wood or steel construction, most often with concrete floors. Interior and exterior materials can be specified to meet aesthetic desires (to an extent). Life safety and technology systems are tied into the main building systems providing equal performance. Depending on the quality selected, the industry anticipates a useful life range of approximately 20 - 50 years. The new classrooms installed at Lexington High School during the summer of 2014 are a version of pre-fabricated construction. (Also see "Right Sizing" discussion)

Note: Discussion with the ad hoc committee lead them to select the pre-fab construction approach over the standard modular approach. The committees' feeling is the pre-fab, where proposed offers space solutions that are comparable to the age of the existing buildings.

Permanent Construction (bricks and mortar)

A long term solution, permanent construction would consist of conventional construction usually paired with some degree of renovations to the existing building. Additions are considered when the building is relatively new where the building infrastructure, core and site can accommodate the additional building area.

Comprehensive Renovations

There is a range of options available within this category, but most often include changes to most interior finishes, building engineering replacement, and upgrading of all building code requirements.

1.8

Getting to Five Years

SMMA is developing both 5 year and 10 year options for the schools.

With the long term goals defined, a path for getting to five years is necessary (phasing). Redistricting, to take advantage of unused spaces in the district is part of the solution, but it is recognized that some combination of swing space will be necessary to both relieve the pressure the schools are feeling as well as accommodate enrollment growth. This will vary with each school. For example, Bowman growth cannot be relieved by redistricting to Estabrook. The school district will likely not want to redistrict every year.

Swing space is normally provided with "standard modular classrooms", either leased or purchased. Some options describe the school to eventually be "right sized". In some cases, this will likely require modest additional square footage. Some options include using pre-fabricated construction to serve both as swing space during the first five years and as permanent, right sizing" space in the following years.

Other "Relief Valves" that were identified and presented to the School Committee at a meeting in September included:

- Populations Come In Lower than Forecast
- Dependent on Population Projections
- Slight Increase in Class Sizes
- Redistrict Adjustments
- Out of District for Pre-K
- Use Art and Music as Classrooms
- Divide the Gym into: Gym, Art and Music spaces

1.9

Options Under Consideration

As discussed above, component options were developed for each school. These were then assembled into Options 1 through 8 for further discussion. The AhSMPC then selected 11 components to be estimated. Many of the selected component options became the foundation for Option 9, which has been identified by the AhSMPC as the most likely components to advance to the next level of design. Since each component can be stand alone, additional options can be assembled. See Section 5 of this report for additional information.

1.10

Other Master Plan Programs and Considerations

PreKindergarten (PreK)

PreKindergarten, hereafter referred to as PreK, is centralized in one program and is currently located the Harrington School building. The options for this program are in the Section 2 of this Phase 3 Report.

Lextended Day

Lextended Day is a private after school program that serves Lexington students and families. It operates out of 5 of the 6 elementary schools. The majority of the spaces used by the program are gyms, cafeteria or other spaces that are unoccupied after hours. Modest storage areas that vary in size are in each of the buildings. At the next level of programming and design, the dedicated areas should be reviewed. A meeting report that records the meeting that took place between the Lextended Day director and SMMA is located in Section 3.2 of the Phase 1 Capacity Analysis Report.

LABBB

The LABBB Collaborative helps students with special needs reach their full potential through high quality programs that integrate academic, social, recreational and vocational services and enable participation in the least restrictive environment. The program serves students from Lexington, Arlington, Burlington, Bedford, and Belmont and Minuteman Vocational Technical School with a variety of special needs including students on the autism spectrum, students with multi-handicaps, pervasive development disorders, developmental delays, language deficits and social/emotional challenges. Students from outside the collaborative also attend the program.

The long standing relationship between the Lexington School Department and the LABBB Collaborative is expected to continue into the foreseeable future. This includes use of classrooms in the math building and others at Lexington High School.

A meeting report that records the meeting that took place between the LABBB staff and SMMA is located in Section 3.2 of the Phase 1 Capacity Analysis Report

District Wide Special Education Programs

In addition to the customary Special Education programs located in each of the nine schools in the district. Each of the schools also contains one or more district wide programs. These programs are defined below. The options included in this report include some additional classrooms and areas to serve special education students. At the next level of programming and design, all special education requirements should be reviewed in detail, including all of the special programs discussed below.

- DLP: Students who have significant developmental delays or intellectual/neurological impairments.
- Substantially Separate ILP: Students with autism spectrum disorder who require highly individualized services and have social/emotional, language and behavioral needs. These students may also have physical need and are typically spending most of their time substantially separate. Housed at Fiske Elementary and Diamond Middle Schools. Program to begin fall 2015-2016 with 4 classrooms at LHS. Ratio is 7:1.
- Integrated ILP: Students with autism spectrum disorder and other related disabilities. These students are typically receiving pull-out and push-in services but are mainstreamed as much as possible in their general education classrooms. Housed at Hastings Elementary and Clarke Middle Schools. Program at LHS began in the fall of 2014-2015 with 3 classrooms at LHS.
- TLP: Students with significant emotional and other needs that require therapeutic and academic support. These students are typically receiving pull-out and push-in services but are mainstreamed as much as possible in their general education classrooms. Housed at Estabrook Elementary, Bridge Elementary, Clarke Middle, Diamond Middle, and LHS.

- LLP: Students with significant language-based learning disabilities. Program typically begins in grade 3 when students increasingly apply their reading and writing skills. Students typically receive pull-out and push-in services -mainly focused on reading, writing, and English language arts - but are mainstreamed as much as possible in their general education classrooms. Program is located at Bowman Elementary, Clarke Middle, Diamond Middle, and LHS.
- MST – Multidisciplinary Support Team. Provides integrated academic and social/emotional supports for students. These students are mainstreamed as much as possible but have pull-out classroom support and counseling as needed.

Meeting report that records the meeting that took place between the SPED program director and SMMA is located in Section 3.2 of the Phase 1 Capacity Analysis Report.

Redistricting

The current and future elementary and middle schools vary on population capacity. This is a function of building sizes; ability of the sites to accommodate additional educational space and the placement of district wide special programs at the schools.

With an anticipated building program growing out of this Master Plan and an uncertainty of where student enrollment growth may occur within the town, changing of elementary school and middle school district lines will become a necessity.

Short term redistricting

Some redistricting is assumed necessary in the near term to accommodate the enrollment growth balanced with bringing on-line additional classroom spaces through the building program.

Long term redistricting

Long term redistricting will be an important part of implementing the Master Plan. Since redistricting is often a controversial subject with parents and impact on some students, it is best to do this infrequently. It is assumed that a comprehensive redistricting will take place once a new and enlarged Hasting School is completed.

Feeder Schools

Currently, each of the two middle schools are fed by three elementary schools. They are:

Clarke Middle School fed by Bridge, Bowman, and Harrington Elementary Schools

Diamond Middle School fed by Estabrook, Fiske, and Hastings Elementary Schools

With an anticipation that future Diamond MS will have a larger capacity than Clarke Middle School, the School Committee may need to consider a realignment of feeder schools or a creation of Middle School district lines that may not reflect current or even future elementary school district lines. This reconsideration will likely not occur until new middle school construction is in place.

Master Plan Updates

The Enrollment Working Group report includes a wide deviation in their enrollment forecasts. They also acknowledge that the Survival Cohort Method is reasonably reliable for one and two year projections. This suggests a need to monitor enrollment projections using this method on an annual basis.

Since Master Plans are by nature, dynamic, it is recommended that the School Department review and update this Master Plan accordingly. We recommend a three to five year cycle for review and update. These updates should be coordinated between the school administration, School Committee and facilities department.

1.11

AhsMPC Committee Meetings

The Ad hoc Schools master Planning Committee (AhSMPC) has held approximately 17 meetings since May 2014. These meetings have covered a wide range of issues including: Hearing from the Enrollment Working Group (EWG) on issues of enrollment; hearing from SMMA on findings and possible option and development of recommendations to the Lexington School Committee. Meeting reports are available for reading and or downloading from the Lexington Public Schools website by visiting <http://lps.lexingtonma.org/> and then navigating to **School Overcrowding Issues**. From there, multiple paths can be followed for additional information:

- School Assignment/District Boundaries
- Enrollment Working Group Reports
- Ad Hoc School Master Planning Committee Reports and Minutes or
- Reports to the School Committee on School Overcrowding

Options Discussion by School 2 Elementary Schools

2.1 *Introduction*

2.2 *Elementary School Options Explored*

- *Bowman Elementary School*
- *Bridge Elementary School*
- *Estabrook Elementary School*
- *Fiske Elementary School*
- *Harrington Elementary School*
- *Hastings Elementary School*
- *Central Administration Building (Old Harrington)*

2.3 *Related Options Explored*

- *Laconia Street Site*
- *PreKindergarten*

Options Discussed by School Elementary Schools

2.1

Introduction

The Elementary School Buildings and Sites included in this section:

- Bowman Elementary School
- Bridge Elementary School
- Estabrook Elementary School
- Fiske Elementary School
- Harrington Elementary School
- Hastings Elementary School
- Central Administration Building (old Harrington)
- Laconia Street Site

The school sites were reviewed for opportunities and constraints.

Opportunities include land adjacent to the school that can be built upon; building infrastructure and core that can accept building additions and / or increasing core spaces that allow for building expansions.

Constraints include wetlands and wetland setbacks; topography that may preclude additions; floor plans that are difficult to expand or other difficult conditions.

Included in this section are site plans that show existing conditions including; wetlands and setbacks and vehicular circulation patterns. Also included are site and floor plans of Options explored.

2.2

Elementary School Options Explored / Recommended By The AhSMPC

Bowman Elementary School

Constructed in 1967, the school has recently undergone a renovation to address deferred maintenance issues and modest room modifications. The renovations included the creation of four (4) new classrooms: two by “space mining” (reconfiguring existing spaces) and two by modest additions.

The school contains 4 kindergarten classrooms and 22 general education classrooms. In general, most of the typical classrooms are slightly smaller than the MSBA guidelines but within acceptable standards. Some core spaces are undersized as compared to the MSBA guidelines for a building that supports a classroom capacity of 578 students. These spaces include: gymnasium, cafeteria, library, health office (nurse), special education classrooms, tutorial spaces, and others. The undersized core is a reason to consider the school be eventually “right sized”.

Two modular classrooms have been constructed up to accommodate the District’s LLP SPED program. This program serves students with students with language and communication based learning disabilities.

Master Plan Approach to Bowman

An even distribution of enrollment growth across the six elementary schools suggests 8 to 9 student increase annually for the next 5 years. This growth suggests a five year growth of 40–45 students. It is unlikely that many of these students could or should be redistricted out of Bowman. Growth can occur at any grade level, so the school will need to be flexible in where and how students are placed year to year until the school system has additional permanent space to redistribute students.

Short Term

The addition of standard modular classrooms or pre-fab classrooms were explored and discussed.

Standard Modular classrooms could be added to the school to address short term growth and phasing for the elementary schools. The anticipated time frame is three years, though getting approval for other permanent elementary facilities in-place could extend that period. If three years is likely, leasing the standard modulars would be the most cost effective option. If the duration were longer, the town might consider purchasing them. The intent would be to remove the standard modulars after the permanent construction were put in place elsewhere in town. The history in Lexington has been the standard modular classrooms are constructed for short term needs but then remain in place for extended periods of time, often well beyond their useful life. The standard modular classrooms at Hastings and Diamond are examples of this practice.

The added classrooms will put additional pressure on the core spaces for their duration. Once removed, the core spaces will still be undersized for the reduced populations.

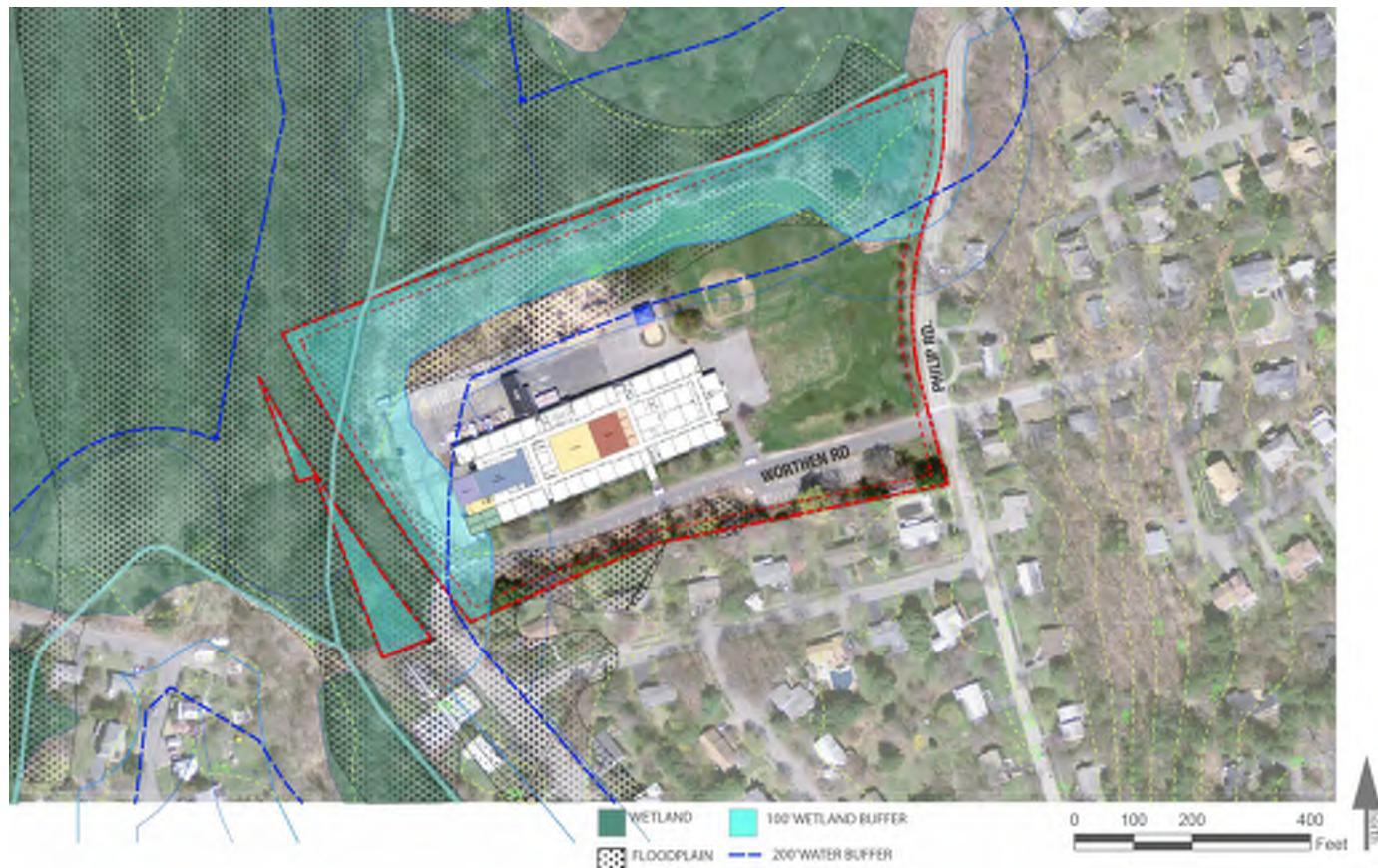
Pre-Fab construction, as an alternative to standard modulars was explored. Although more expensive than standard modulars, the prefab have a significantly longer life span and in the process, provide better quality interior environments. They can also include better insulation and heating and cooling systems providing some operating efficiencies.

The largest benefit is once they are not needed for enrollment purposes, they can provide long term space towards “right sizing” some spaces for use by special education; music and / or art or other academic uses.

Site permitting allowed, the goal is to add two classrooms to the southwest corner of the building. An addition of another larger space is proposed at the southwest side of the gymnasium. This would be at a slightly higher floor level that would enable the space to be used as a music room that can double as a stage-like platform with a breakthrough of a portion of the gym wall. As part of the future interior renovations, the existing stage would be removed to increase the size of the gym. This larger (music) space would be the equivalent of two classrooms that provides flexibility in scheduling for the short term. See Exhibit 2.2.

Exhibit 2.1

Bowman Elementary School – Site Plan (Component A1 & B1)



The Bowman and Bridge schools were design as similar schools and for the most part have had similar histories. That said, the schools have different sites that yield different opportunities and constraints. The schools have variny populations and host different special needs programs that result in different uses of classrooms

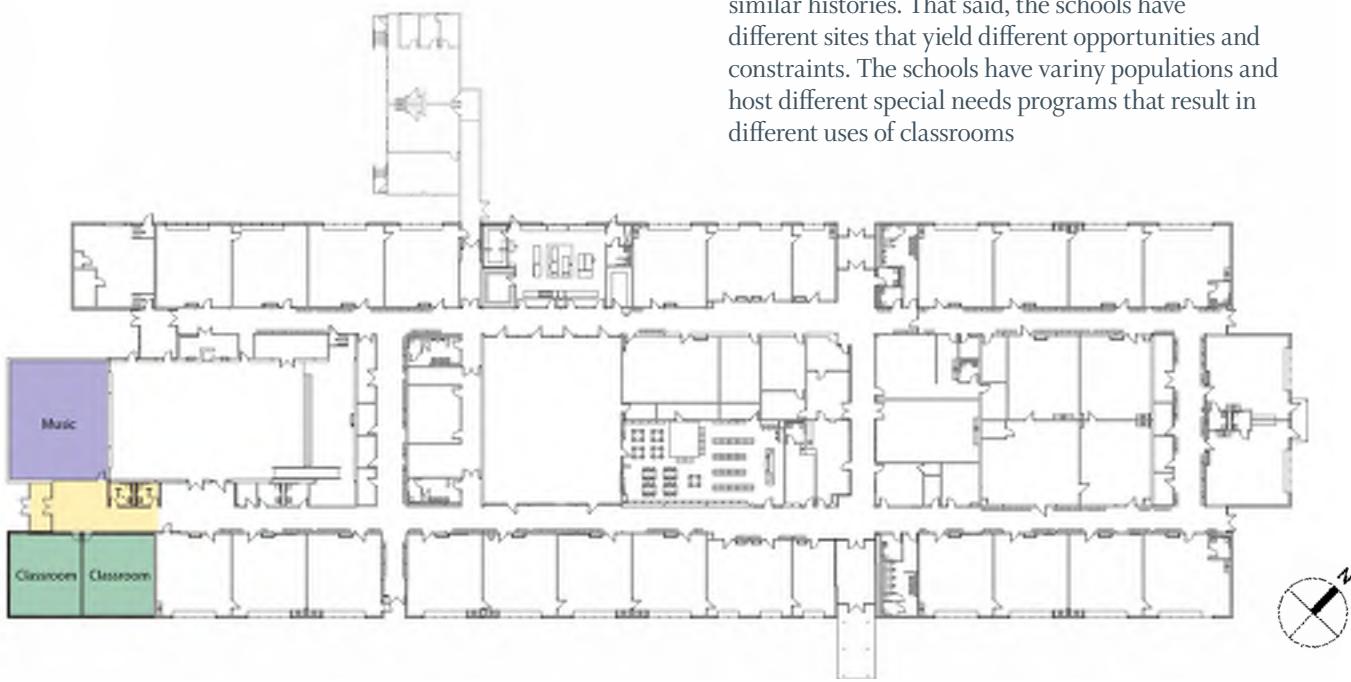


Exhibit 2.2
Bowman Elementary School —Floor Plan –
Prefabricated Addition (Component A1)

Long Term—Right sizing is a long term goal for Bridge. The goal is to reduce the total enrollment to 520 students. The pre-fab classrooms as described above are a part of the right sizing. In addition, an interior renovation project is proposed that would increase the sizes of the gym; cafeteria; library / media center; health offices and other spaces.

It is recommended that these renovations be coupled with a further reduction of 46 students (2 general education classrooms). See Exhibit 2.3.

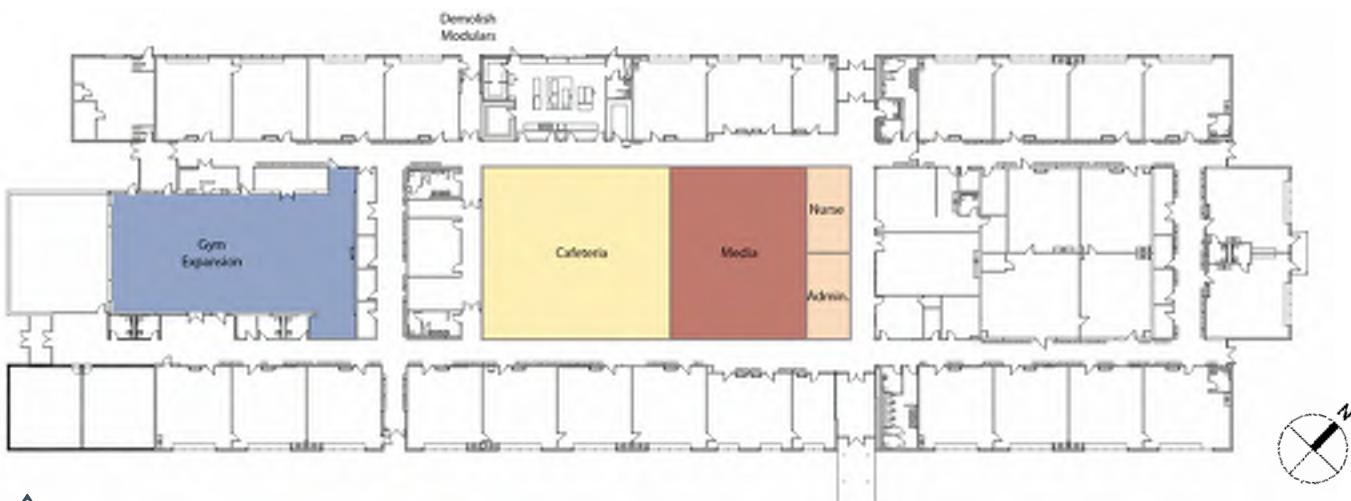


Exhibit 2.3
Bowman Elementary School—Floor Plan
“Right-size” (Component B1)

Bridge Elementary School

Constructed in 1966, the school has recently undergone a renovation to address deferred maintenance issues and modest room modifications. The renovations included the creation of four (4) new classrooms: two by “space mining” (reconfiguring existing spaces) and two by modest additions.

The school contains 5 kindergarten classrooms (one without a toilet) and 21 general education classrooms. In general, most of the typical classrooms are slightly smaller than the MSBA guidelines but within acceptable standards.

Some core spaces are undersized as compared to the MSBA guidelines for a building that supports a classroom capacity of 578 students. These spaces include: gymnasium, cafeteria, library, health office (nurse), special education classrooms and tutorial spaces and others. The undersized core is a reason to “right size” this school.

Master Plan approach to Bridge

An even distribution of enrollment growth across the six elementary schools suggests 8 to 9 student increase annually for the next 5 years. This growth suggests a five year growth of 40–45 students. It is unlikely that many of these students could or should be redistricted out of Bridge. Growth can occur at any grade level, so the school will need to be flexible in where and how students are placed year to year until the school system has additional permanent space to redistribute students.

Short Term

The addition of standard modular classrooms or pre-fab classrooms were explored and discussed.

Standard Modular classrooms could be added to the school to address short term growth and phasing for the elementary schools. The anticipated time frame is three years, though getting approval for other permanent elementary facilities in-place could extend that period. If three years is likely, leasing the standard modulars would be the most cost effective option. If the duration were longer, the town might consider purchasing them. The intent would be to remove the standard modulars after the permanent construction were put in place elsewhere in town. The

history in Lexington has been the standard modular classrooms are constructed for short term needs but then remain in place for extended periods of time, often well beyond their useful life. The standard modular classrooms at Hastings and Diamond are examples of this practice.

The added classrooms will put additional pressure on the core spaces for their duration. Once removed, the core spaces will still be undersized for the reduced populations.

Pre-Fab construction, as an alternative to standard modulars was explored. Although more expensive than standard modulars, the prefab have a significantly longer life span and in the process, provide better quality interior environments. They can also include better insulation and heating and cooling systems providing some operating efficiencies.

The largest benefit is once they are not needed for enrollment purposes, they can provide long term space towards “right sizing” some spaces for use by special education; music and / or art or other academic uses.

Similar to the description at Bowman, the goal is to add two classrooms. These would be at the west corner of the building which the site better accommodates. An addition of an additional larger space is proposed at the east side of the gymnasium. This would be at a slightly higher floor level that would enable the space to be used as a music room that can double as a stage like platform with a breakthrough of a portion of the gym wall. As part of the future interior renovations, the existing stage would be removed to increase the size of the gym. This larger (music) space would be the equivalent of two classrooms that provides flexibility in scheduling for the short term. See Exhibit 2.5

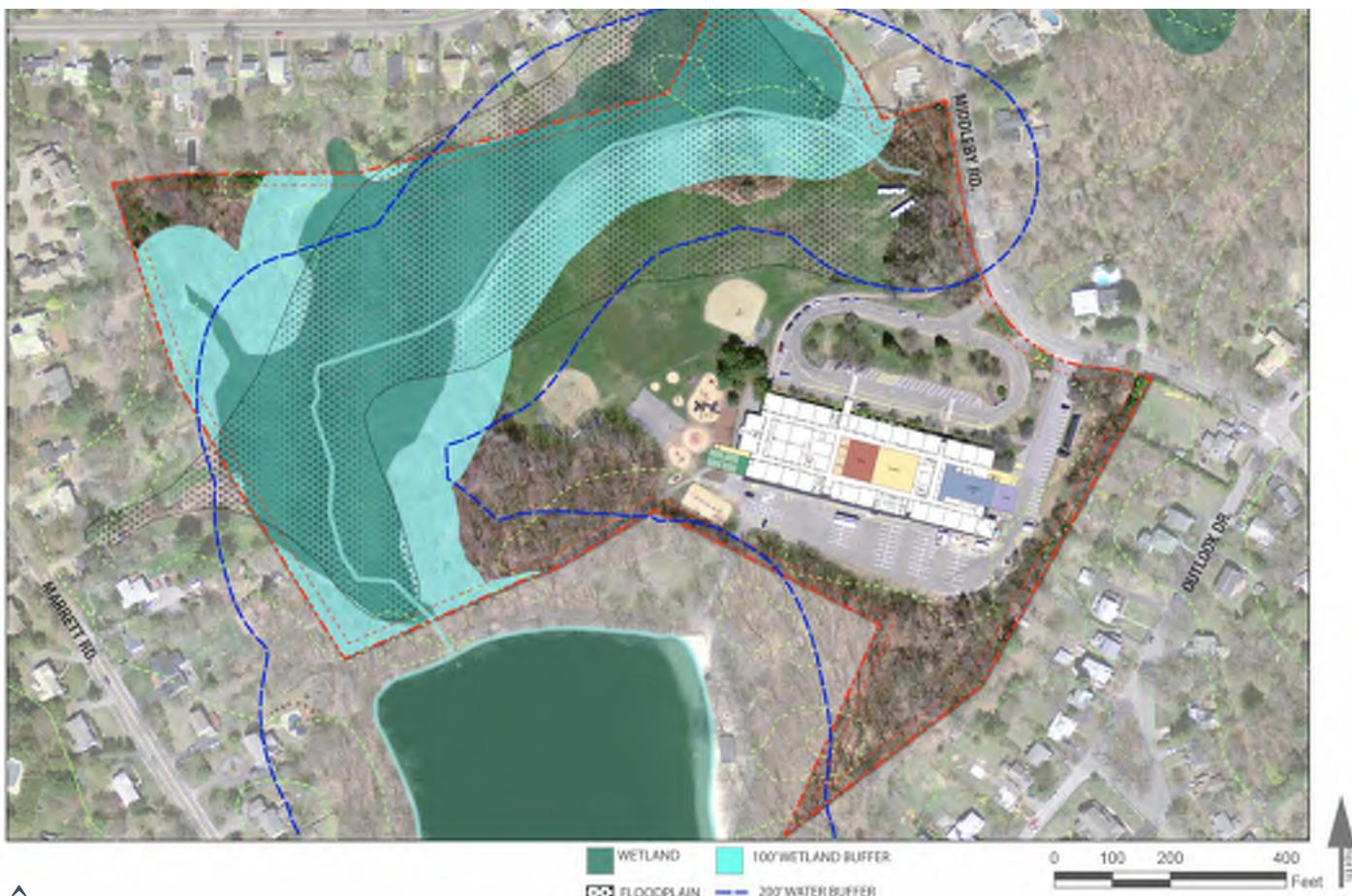


Exhibit 2.4

Bridge Elementary School—
Site Plan (Component A2 & B2)

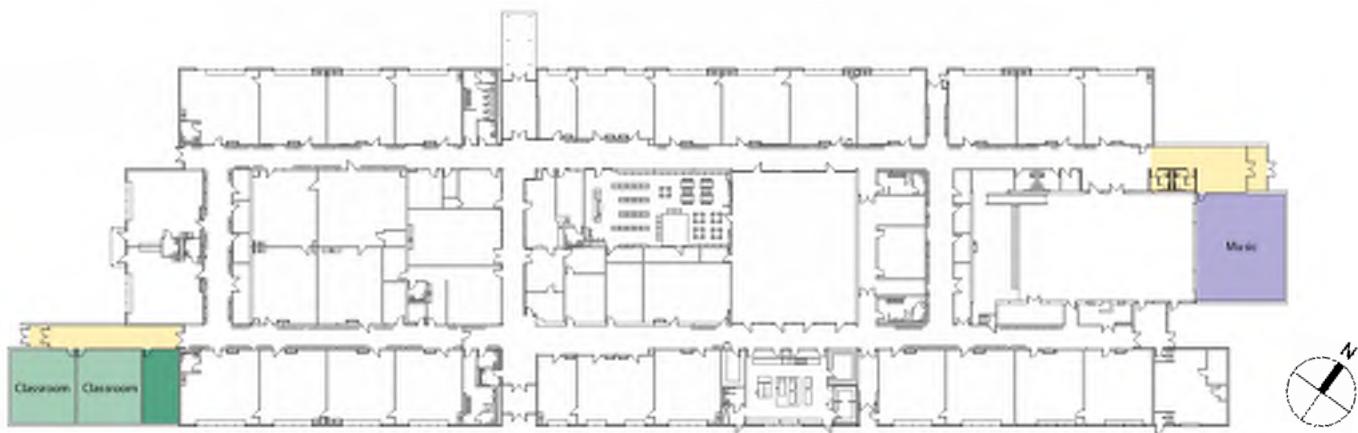


Exhibit 2.5

Bridge Elementary School—
Prefabricated Additions (Component A2)

The Bowman and Bridge schools were design as similar schools and for the most part have had similar histories. That said, the schools have different sites that yield different opportunities and constraints. The schools have variny populations and host different special needs programs that result in different uses of classrooms.

Long Term

Right sizing is a long term goal for Bridge. The goal is to reduce the total enrollment to 520 students. The pre-fab classrooms as described above are a part of the right sizing. In addition, an interior renovation project is proposed that would increase the sizes of the gym; cafeteria; library / media center; health offices and other spaces.

It is recommended that these renovations be coupled with a further reduction of 46 students (2 general education classrooms). See Exhibit 2.6.

Exhibit 2.6

Bridge Elementary School—Floor Plan “Right Size” (Component B2)



Estabrook Elementary School

Constructed in 2014, The Estabrook Elementary School is a new school building which opened to students in the spring of 2014. Demolition of the old Estabrook School and completion of the site development work was completed prior to the start of the 2014–2015 academic year. The facility is also an excellent example of how schools have evolved in recent years to better serve both students and faculty for 21st Century educational pedagogy.

The building meets the MSBA Guidelines. The school contains 5 kindergarten classrooms and 22 general education classrooms.

Short Term

The school currently has remaining capacity for approximately 96 students. Using these student spaces by short term redistricting is an important part of the 5 year solution.

Long Term

Following the construction of additional classroom space across the town, the final re-districting would reduce the schools' population allowing for the school district natural growth.

Exhibit 2.7
Estabrook Elementary School —
Site Plan





Exhibit 2.8
Estabrook Elementary School—
First Floor Plan



Exhibit 2.9
Estabrook Elementary School—
Second Floor Plan



Exhibit 2.10
Estabrook Elementary School—
Third Floor Plan

Fiske Elementary School

Fiske Elementary School is a relatively new building, completed in 2007. It was designed prior to the current MSBA space standards. There are a few spaces that are under the current space standards.

The school contains 4 kindergarten classrooms and 18 general education classrooms. The typical classrooms meet the MSBA guidelines.

The school fits snugly on the site. The foreground portion of the site off Adams Street, contains two well used baseball / softball fields. This main entrance side of the school has the bus drop off / pick up area and a modest parking lot. The parent drop off / pick up area and the majority of the parking is on the (south) side off Colony Road. The site can be characterized as tight, not designed to readily accept additions.

Multiple options to expand the Fiske School were explored by the study team. Two options were presented to the AhSMPC and estimated.

Option C consists of: (see Exhibits 2.11 – 2.13)

- Removal of a small one story portion of the building on the south side between the gymnasium and a classroom wing. This area currently houses special education and other special program offices.
- Construction of a larger two story wing in the same location including:
 - 3 general education classrooms
 - 1 special education classroom
 - Special education area to replace those removed
 - Stair
- Renovations at both levels where the addition connects with the main building
- Cafeteria enlargement via an addition
- Reconfiguration of the fire lane

Exhibit 2.11
Fiske Elementary School—
Site Plan (Component C)



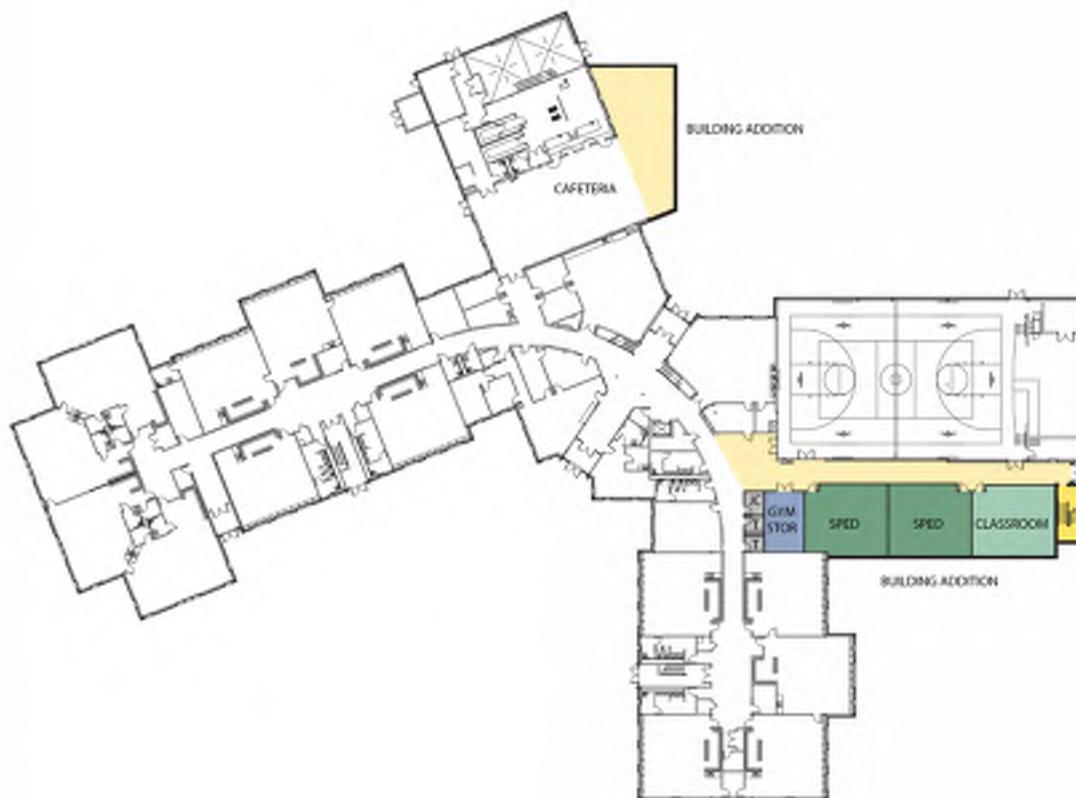


Exhibit 2.12
Fiske Elementary School—
First Floor Plan (Component C)



Exhibit 2.13
Fiske Elementary School—
Second Floor Plan (Component C)

Option D consists of:

- Construction of a two story classroom wing at the south side of the building at the location of the Colony Road, secondary entrance, including:
 - 6 general education classrooms
 - 1 special education classroom
 - Small group rooms and offices
 - Music room displaced by the enlarge cafeteria
 - Stair
 - Renovations at both levels where the addition connects with the main building
 - Reconfiguration of the fire lane
- Reconstruction of the parent drop-off area displaced by the building addition
- Reconstruction of 45 parking spaces displaced by the addition

Exhibit 2.14
Fiske Elementary School—
Site Plan (Component D)



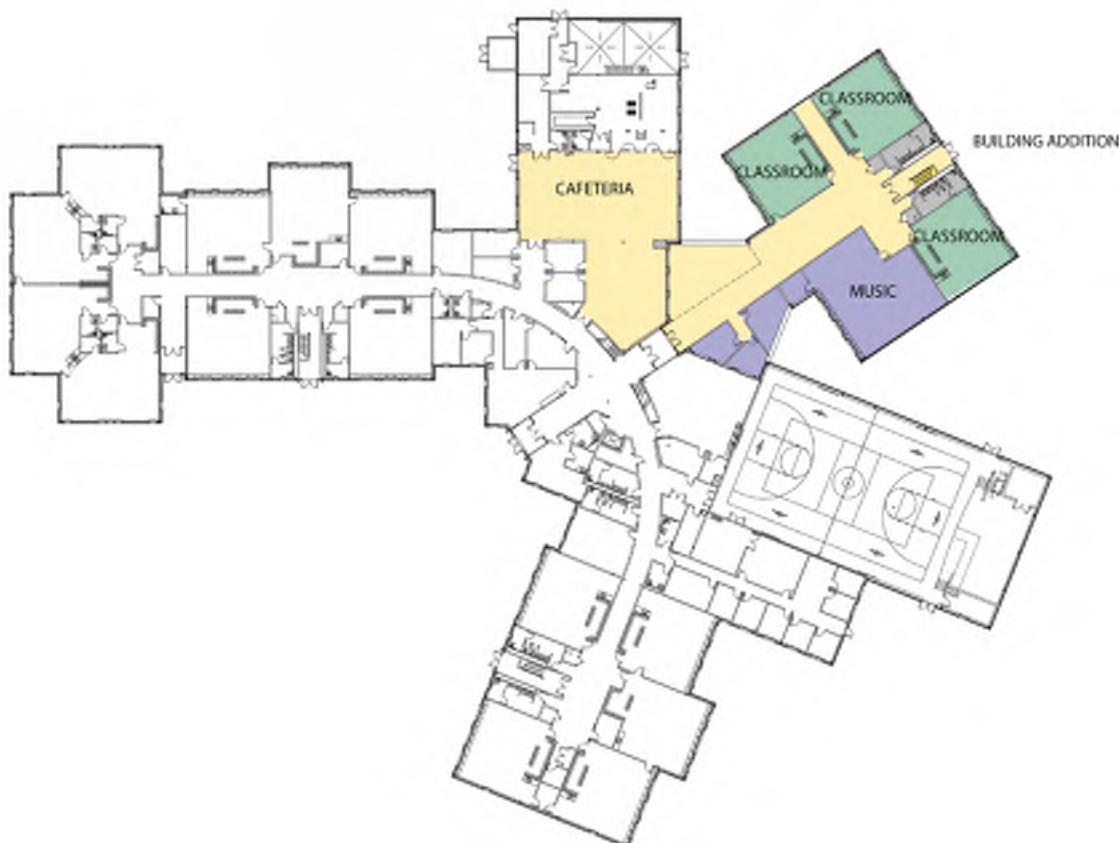


Exhibit 2.15
Fiske Elementary School—
First Floor Plan (Component D)

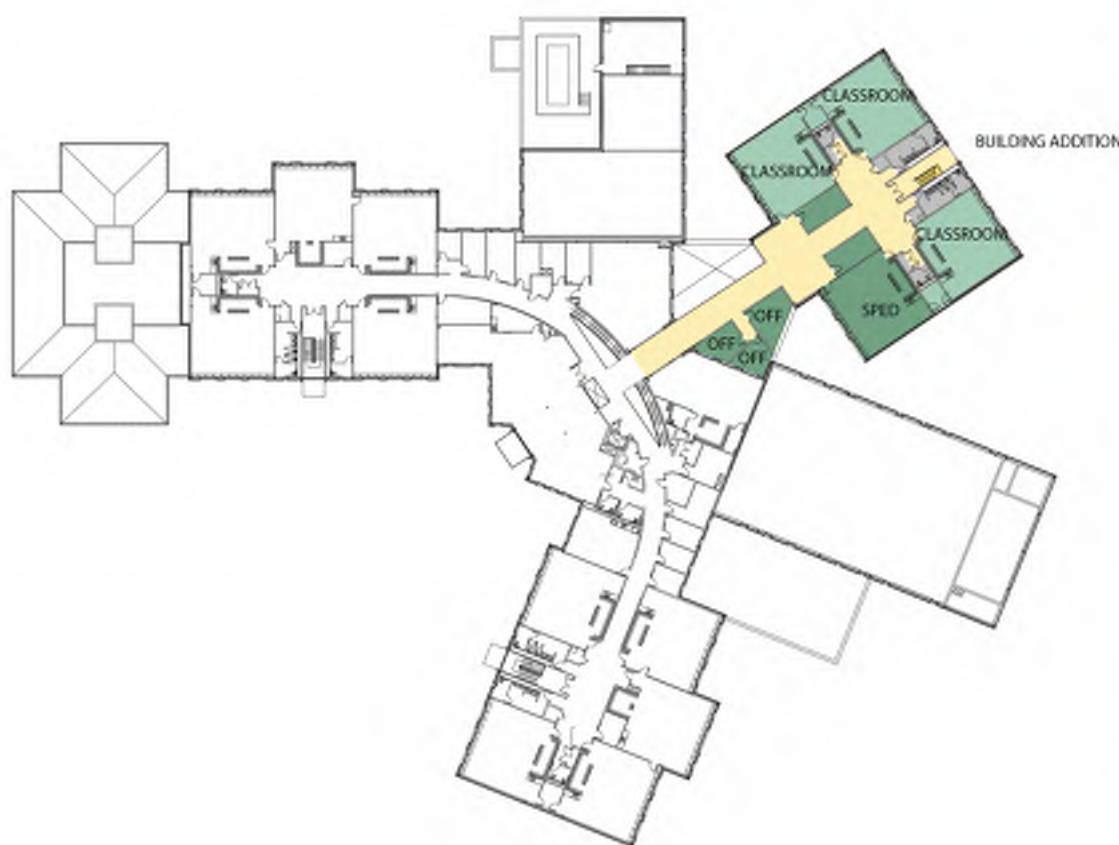


Exhibit 2.16
Fiske Elementary School—
Second Floor Plan (Component D)

Harrington Elementary School

Constructed in 2005, Harrington Elementary School is a relatively new building. It was designed prior to the current MSBA space standards. There are a few spaces that are under the current standards.

The school contains 3 kindergarten classrooms (one of the 4 Kindergarten classrooms is currently being used by the SPED DLP Program) and 18 general education classrooms. The school is also home of the district's Pre-Kindergarten Program. PreK has three full size classrooms; a fourth smaller classroom for students on the autism spectrum; a physical therapy room and office and support areas. The program has also taken over a small classroom in Harrington for additional physical therapy needs. The typical classrooms meet the MSBA guidelines.

The school, shares its site with the old Harrington School building, now known as the Central Administration building. The two

buildings share one vehicular entrance off of Lowell Street and one vehicular exit onto Maple Street. The site, which contains ball fields and play areas, is the one elementary school (except Hastings) with "buildable" land area.

The single largest obstacle to increasing the enrollment capacity of the school is the current size and location of the cafeteria. Internally landlocked and lacking the ability to add on, the proposed solution is to take over approximately 1/2 of the gymnasium. The other half of the gym would be used for needed music and art rooms. The current gym and cafeteria share a common room height and are separated by a large operable partition.

Permanent construction is proposed for new classrooms and a replacement gymnasium.

Multiple options to expand the Harrington School were explored by the study team. One option was selected by the AhSMPC and estimated.

Exhibit 2.17
Harrington Elementary School—
Site Plan (Component E)



Component E consists of:
 (see Exhibits 2.17 – 2.19)

- Construction of a two story classroom wing at the north side of the building, near the playing fields, including:
 - First floor—Expansion of the PreK program area for three additional classrooms and support areas
 - 1 kindergarten classroom
 - Second floor—5 general education classrooms (this wing can be larger if necessary to accommodate additional population)
 - 1 ½ special education classrooms
 - A bridge / corridor connecting the second floor addition to the main portion of the school
 - 2 stairs

- Enlargement of the cafeteria by taking over ½ of the gymnasium
- New music room in a portion of the old gym
- New art room in a portion of the old gym
- New, larger gymnasium, 6,000 sf to match MSBA guidelines
- 1 kindergarten classroom
- Reconstruction of the fire lane
- Reconstruction of student play areas and structures

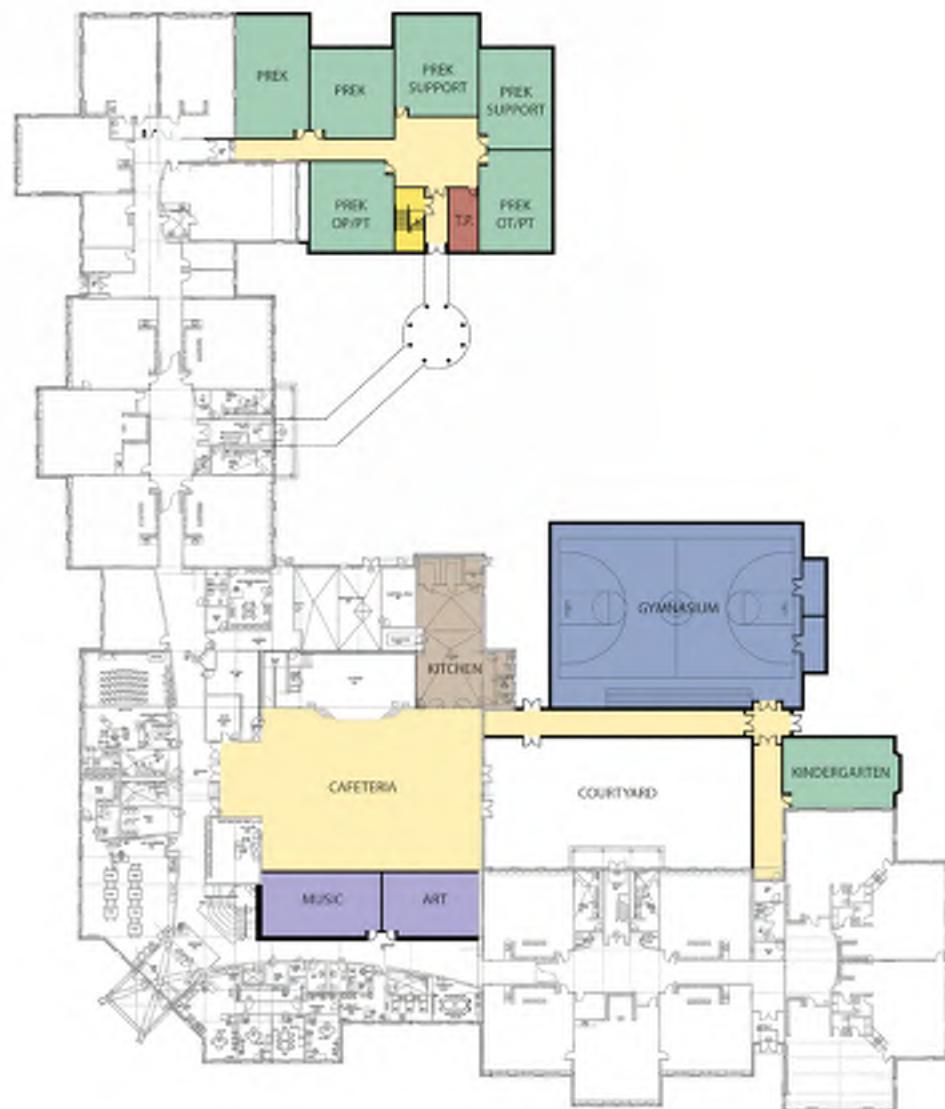


Exhibit 2.18
 Harrington Elementary School—
 First Floor Plan (Component E)

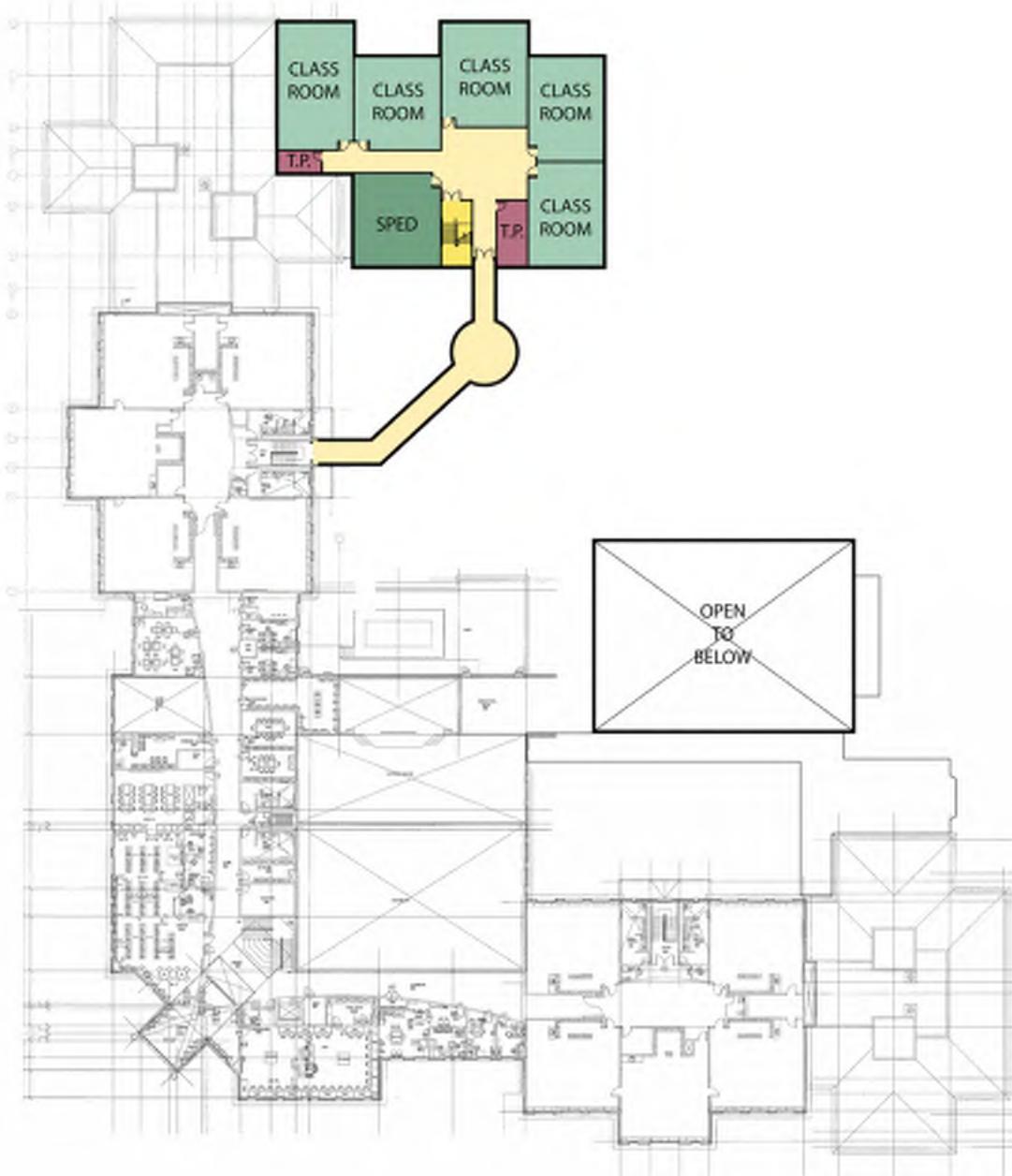


Exhibit 2.19
Harrington Elementary School—
Second Floor Plan (Component E)

Hastings Elementary School

Constructed in 1955 and 1959, Hasting is the one elementary school that has not been renovated or replaced in recent years. The original portion of the school is 59 years old. The building has eight modular classrooms that serve general education grade level classes; SPED programs and art.

In 2014, the Town submitted a Statement of Interest (SOI) to the Massachusetts School Building Authority (MSBA). In December, 2014, the town was informed by the MSBA that the Hastings SOI was not advanced into the 2015 eligibility period. It is anticipated that the Town will resubmit a Hasting SOI for 2015. This submission period opens January 9 and closes on April 10, 2015.

It is SMMA's opinion that a capital project at the Hastings site, whether it is comprehensive renovation and addition or a new school, should remain central to the Towns' Master Plan for the school system. Reasons include:

- Hastings is the only elementary school in the town that is original, meaning has not been replaced or a recipient of renovations(or replacement)
- With the information made available to SMMA, the Hastings site is large enough to accept a new or expanded building
- Although the school is located on the southwest side of the town, the district borders on three other elementary school districts. This proximity can allow for shifting of district lines to accommodate varying population changes.
- If the capital project is accomplished through the MSBA grant program, the student capacity and building size will be heavily influenced by the MSBA. If the project is undertaken by the Town of Lexington only, the student capacity and building size will be controlled by Lexington.

It is SMMA's opinion that a capital project at the Hastings site, whether it is comprehensive renovation and addition or a new school, should remain central to the Towns' Master Plan for the school system.



Exhibit 2.20—Shows the floor plan of the new Estabrook Elementary School superimposed on the Hastings site. If the Hastings project were a new building, it appears to be possible to construct a new multi-story Hastings school on the rear portion of the site with the existing school remains in operation. The phasing and sequence could be similar to that of the Estabrook project.

It may be possible to leave the eight portable classrooms in place though early removal would provide for more flexibility in design of the new school.

An additional option discussed is to locate the PreK program (currently at Harrington) at the Hastings site in conjunction with a new school. The site would need to be tested to see if it could be accommodated.

Options discussed included:

- Size of the Hastings project: 4 sections (532 students)
- 4 ½ sections (600 students)
- 5 sections (665 students)
- Inclusion of the PreK program along with any of the three school sizes
- MSBA's participation in the sizing and study of all discussed above

All would need to be tested during Feasibility study and schematic design for the Hastings school.

Exhibit 2.20
Hastings Elementary School—
Site Plan (Component F)



Central Administration Building (Old Harrington)

The current Central Administration building is the former "old" Harrington School. The building was used as swing space while the new Fiske School was being constructed (until February 2007). The building then underwent minor renovations to accommodate the Central Administration staff and functions. Much of the school districts' teacher Professional Development (PD) program takes place in rooms in the lower level of this building. Although it has been used by Central Administration for approximately seven years, as we understand it, it was never formally reclassified for business use.

If the building were to be converted back to elementary school use, a number of code upgrades would be required including: an automatic fire protection system (sprinklers); handicapped accessibility and life safety. Additionally, a seismic review would need to be conducted.

Given the options explored and opportunities available, it is unlikely that the central administration building will be used for anything other than the status quo for the foreseeable future. The exception is possible short term use of certain lower level classrooms for expansion of the PreK program. The towns' Building Commissioner has acknowledged that up to 7,000 square feet of the building can be used, short term, for school use without triggering substantial building code upgrades. Limited school use already takes place in the lower level of the school.

The Central Administration site should remain under the control of the school department for potential future school use needs or development that cannot be anticipated at this time. These could include: a small 7th elementary school; universal PreK; a specialty school of other.

Exhibit 2.21
Central Administration Building
(Old Harrington Elementary School) —
Ground Floor Plan

Exhibit 2.22
Central Administration Building
(Old Harrington Elementary School)—
First Floor Plan

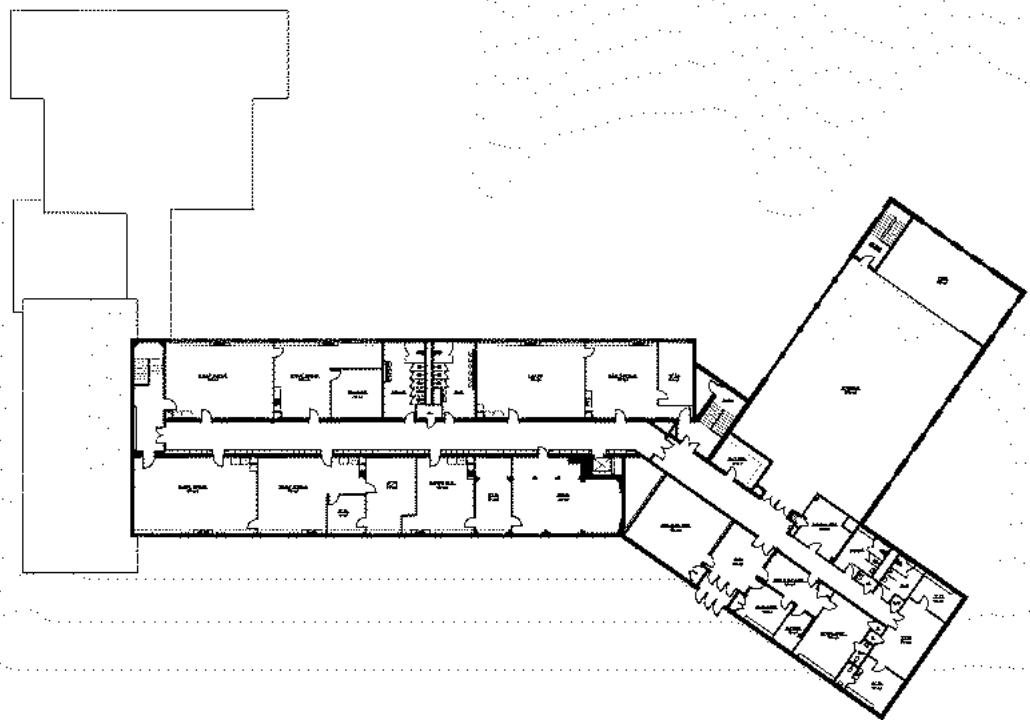
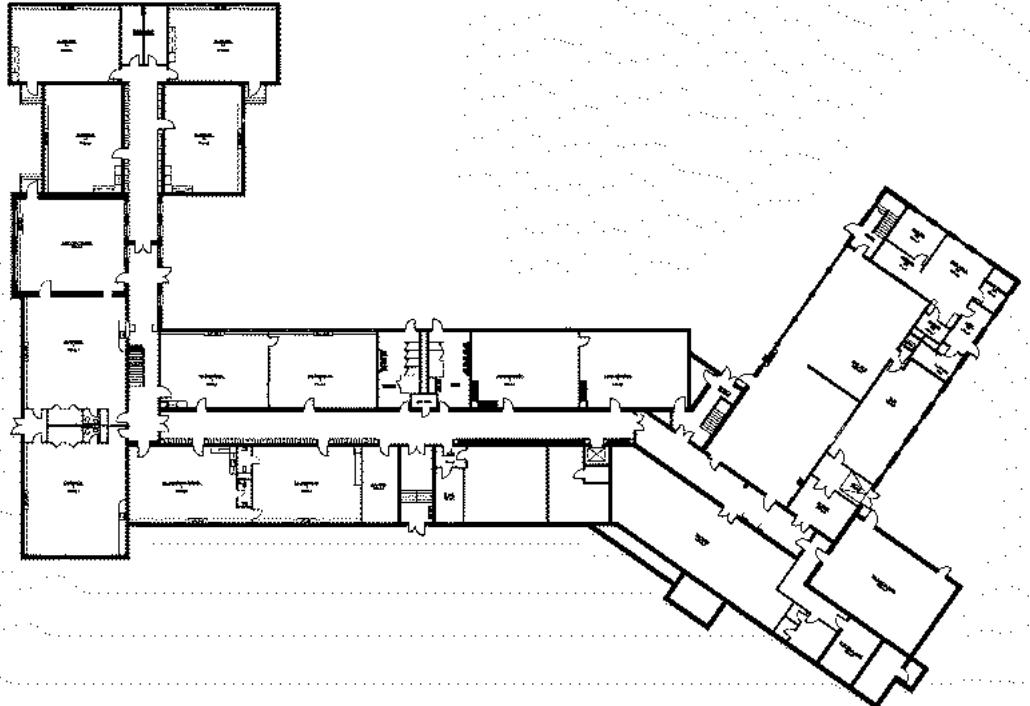


Exhibit 2.23
Central Administration Building
(Old Harrington Elementary School)—
Second Floor Plan



2.3

Related Options Explored

Laconia Street Site

The Laconia Street site is a parcel owned by the town which could be considered for some type of development as part of the Master Plan. The site is in a residential neighborhood with residential scaled streets. It has very limited street frontage and access is limited to:

- a 40' easement from Solly's Way (off Laconia Street)
- a modest connection on Rumford Road
- approximately 30' of frontage near the west end of Young Street

The site, which is approximately 12.5 acres, has an in-holding of privately held parcels totaling approximately 4.5 acres within the boundaries of the town site. Acquisition of this privately held site is likely important to development of the site for most any development purpose. The right of way to this private parcel is accessible from Webb St.

The site is generally wooded. There is approximately 30' of vertical grade change across the site (all up). The grading includes a number of plateaus. The grading presents some challenges but does not preclude the site from development. Portions of the site have stony/rocky soil, but a majority of the site is loamy sand per the Natural Resources Conservations Service soil survey.

Options Explored: Note, based on discussions with the AhSMP, none of the below options were explored in depth with either program, graphics or estimates.

1. *Capital Project (new K-5):* A new elementary school would likely be on the scale of the new Estabrook School, approximately 90,000 square feet. Assuming the acquisition of the privately held property, the site could support a building of that scale, though because of the topography change, the building would likely configure significantly differently than Estabrook. As described above, the site access is very limited. Bus, parent and staff vehicular traffic would be difficult and terraced parking likely required.

The Laconia Street site is not recommended for development of a new K-5 school at this time.

2. *New PreK Building:* A new PreK building can be accommodated on this site. Its size would be approximately 15,000 square feet. With a school capacity of approximately 150 FTE students, the vehicular traffic of special needs vans, parents and staff would be accommodated. Site access for this small volume and size of vehicles is also realistic.

At this time, the school administration prefers to keep the PreK program attached to one of the elementary schools.

3. *Capital Project (new Early Childhood – PreK / K):* A new PreK–K school would likely be larger than the new Estabrook School, approximately 96,500 square feet. Assuming the acquisition of the privately held property, the site could support a building of that scale, though because of the topography change, the building would likely configure significantly differently than Estabrook. As described above, the site access is very limited. Bus, parent and staff vehicular traffic would be difficult and terraced parking likely required.

The Laconia Street site is not recommended for development of a new PreK–K school at this time.

4. *Develop for Recreation Fields (swap for ES fields):* Recreational fields could be a very good development use for this site. The usage and resulting vehicular traffic would be significantly less than any school building. The limited site access is likely sufficient for recreational field use. The fields and parking would obviously need to be terraced on the site to deal with the topography.

Acquisition of the privately held property within the boundaries of the town owned property should be considered.

The development of school building additions as part of this Master Plan will put pressure on existing school play and recreational fields. Use of this site for additional recreational fields may relieve some of this pressure.



Exhibit 2.24
Laconia Street Site

PreK Options

PreK was reviewed differently than other grades. Since the program is self-contained and needing to be at a single site, options were developed uniquely for this grade level.

Pre-Kindergarten, here after referred to as PreK, is offered in Lexington as "comprehensive PreK", which by definition consists of: 7 special education students and 8 general education peers. Special education students take either morning or morning and afternoon sessions. General education students typically only attend one session. One session is considered one FTE, full time equivalent. Currently, the Lexington program has the capacity for 100 FTE's.

If more special education students enroll than the system has capacity, program space needs to be found out of district for those students. It is not unusual for out of district placement to cost significantly more than in-district if space is available. For this reason and that most parents of students who qualify for SPED PreK prefer they be educated locally, that the School Committee and School Administration strongly prefer that PreK capacity be increased to 150 FTE's. Per the recommendation of the school administration, universal PreK was not explored.

Options for PreK were explored independently as well as within the district grade configuration options.

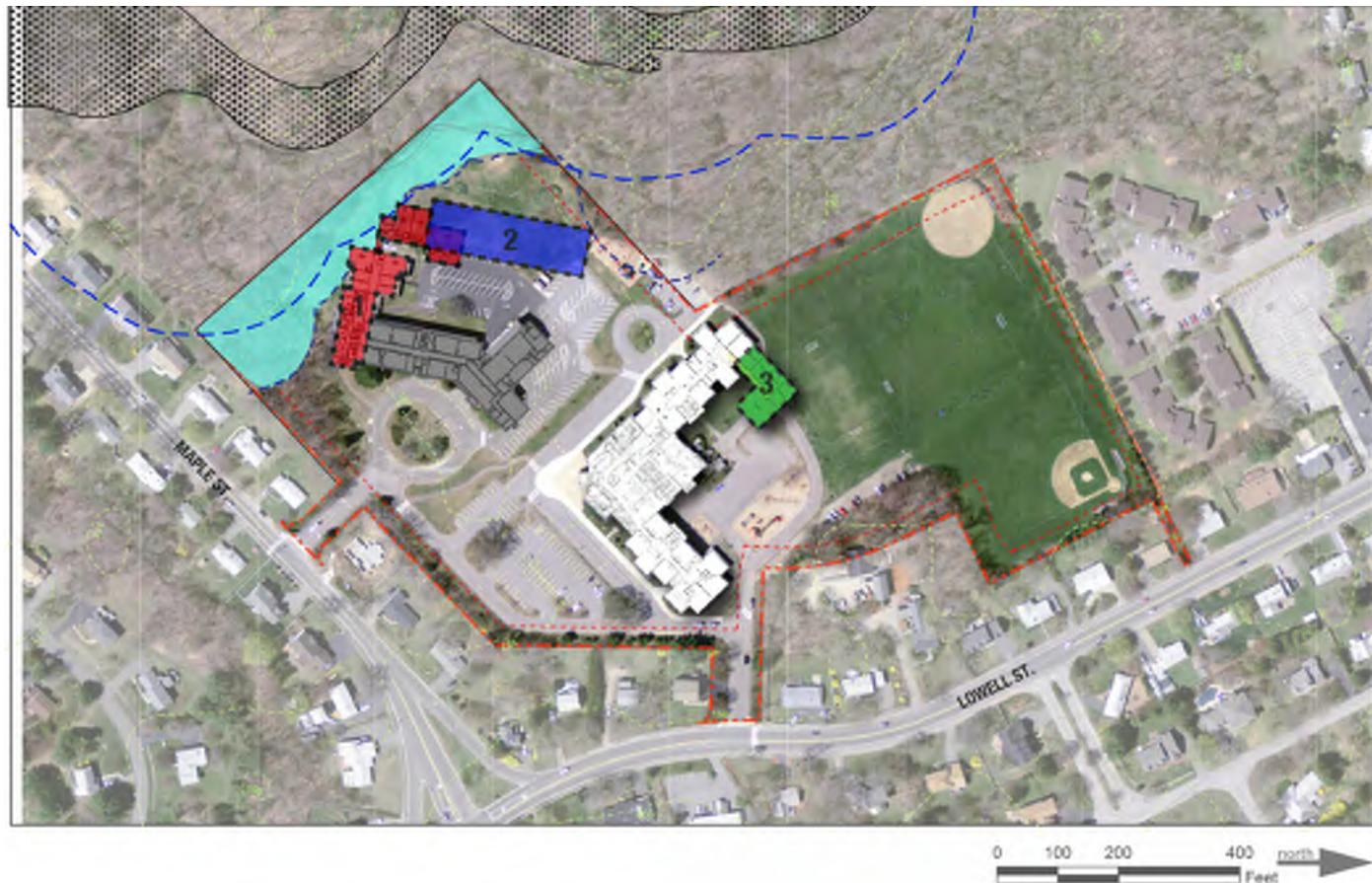
Options Explored:

1. PreK within the current central administration lower level (Phase 2, options 1 & 2). An expanded PreK program in its current location. An expanded PreK program in a "stand alone" location behind the current central administration building.
2. A stand-alone building behind the Central Administration Building. This component options was proposed as a Pre-fab building. This was done because of the short time frame to put in place.

3. Building addition at Harrington Elementary to accommodate the growth of the PreK Program and other programmatic needs.
4. A stand-alone program at the Laconia Street site. A new school building at the current central administration building location to house PreK and a town wide Kindergarten program. This option would remove all K classrooms from all six elementary schools.
5. Including the PreK program in a new project at the Hastings School. This would need to be developed in design for the Hastings School to determine if the site could house that additional program.

Following a thorough discussion, the school committee expressed a preference for an expanded PreK program on the Harrington site. See Options for additional detail on the preferred ideas.

Exhibit 2.25
Central Administration Building
and Harrington Elementary Schools—
Site Plan



Options Discussion by School: **3** Middle Schools

3.1 *Introduction*

3.2 *Middle School Options Explored*

- *Clarke Middle School*
- *Diamond Middle School*

Options Discussed by School: Middle Schools

3.1

Introduction—Middle Schools

The traditional organization of middle schools are Teams set up around core subjects of English Language Arts, Social Studies, Math and Science. Four teachers, each with a dedicated classroom would make up each team. In an ideal world, the classrooms would be clustered together along with project areas and SPED classrooms / support.

Both of Lexington's middle schools were designed as junior high schools that had a departmental organization rather than a team organization. The building additions in the early 2000's largely maintained the double loaded corridor / departmental organization because of the existing building configurations and site limitations.

The schools have organized the classrooms by teams to the extent possible, typically with science class / labs remote from the team.

The proposed projects included in this section will result in two middle schools with different student populations. This is a result of the constraints of the sites and building opportunities. This will trigger the need for redistricting of the middle school populations. Currently the districting is by "feeder" elementary schools to each. New district line for middle schools will likely differ from elementary school district lines.

Diamond Middle school currently operates as described above as a "traditional model" with each teacher having a dedicated classroom. In this case, common teacher planning rooms do not exist in Diamond.

Clarke Middle school operates differently. Teachers do not have dedicated rooms. Teachers share rooms but have a centralized planning room. This is more like how high schools are scheduled. The differences between there operational models include:

- Classrooms have a higher utilization rate at Clarke than at Diamond. This results in slightly fewer classrooms needed.
- Centralized teacher planning bring teachers together during non-class periods. This is better for creating opportunities for interdisciplinary teaching

The administration has expressed an interest in changing Diamond MS to operate similar to the Clarke. Diamond School administration recognizes the need to change the use of space, given future enrollment and resulting space needs. In the future, classrooms will need to be used to capacity, meaning that each classroom space will need to be used by more than one teacher. This will require that quality teacher work/planning space be created, separate from classroom space.

Diamond Middle School administration needs to develop a new "master schedule" around the revised model. Only then can you make determination of the number of classrooms that might be saved.

3.2

Middle School Options Explored

Clarke Middle School (Current Population 824)

Constructed in 1972 and renovated in 2000, Clarke Middle School is organized with three teams for each grade level of grades 6, 7 and 8 = 9 teams. Each team consists of approximately 95–100 students, slightly larger than an ideal size of 80–90 students per team.

- 29 total General Education classrooms serve 9 teams (3 teams / grade) and Foreign Language. Foreign Language shares 4 classrooms
- According to the MSBA Summary of Spaces form, 29 classrooms is the correct number for the current population.
- The average class size is slightly over 21 students / class. With a student class size of 23 students/ class, we estimate the school capacity to be approximately 884 students.
- The site, though large in area, is constrained by site conditions including topography and environmental conditions. The building area is very limited.

Options Explored

Since Clarke is at capacity and enrollment is increasing, a relatively rapid solution is needed to provide for the expected population increase.

1. Component “G” proposes a pre-fab building addition at the top floor level. This level is at grade along this side of the building. The addition would include four general education classrooms (one team); one special education room and toilet rooms. This proposal will require removal and replication of an underground storm water detention system. See Exhibit 3.1 and 3.2
2. The majority of the classrooms are on the top floor. Most of the classrooms are triangular in shape and are undersized by today’s standards (approximately 700 sq. ft.). A goal is to reconfigure the floor “right sized and configured classrooms”. This would reduce the number of classrooms, requiring replacement. This could be accomplished with the combination of two projects.
 - Compact three story addition at the south side of the school. This is referred to as Component H, phase 2. The addition would replace those classrooms lost by the reconfiguration of the top floor. This would require construction of a new main entrance to the school that would be located on the west side where the addition joins the original building. See Exhibits: 3.3, 3.4, and 3.5.
 - Following the completion of the building addition, the reconfiguration of the top floor could be accomplished. This project is referred to as Component H, Phase 3. See Exhibits 3.6



Exhibit 3.1
Clarke Middle School—
Site Plan with Prefabricated Addition

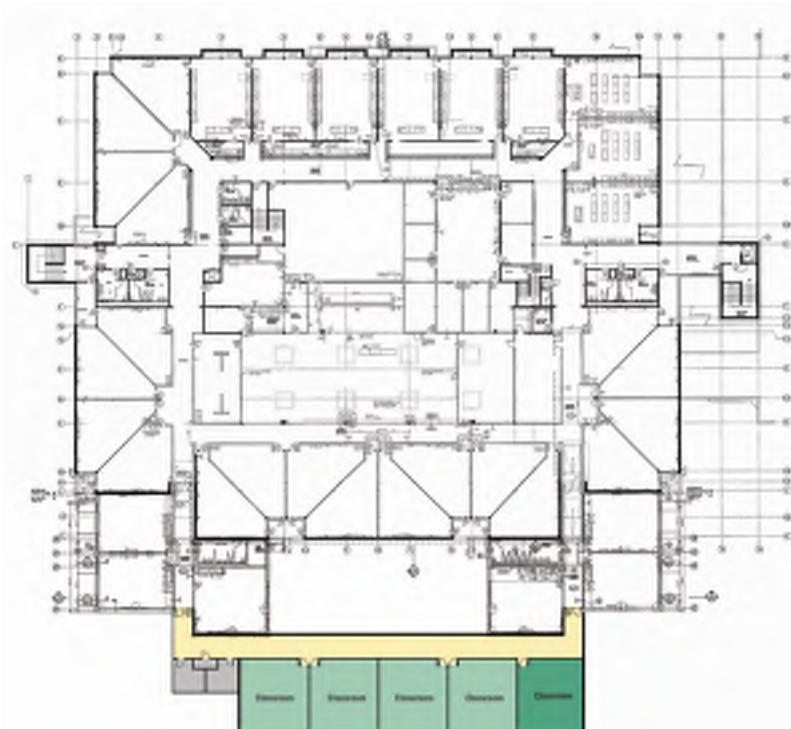


Exhibit 3.2
Clarke Middle School—
Third Floor Plan with Prefabricated
Additions (Component G)



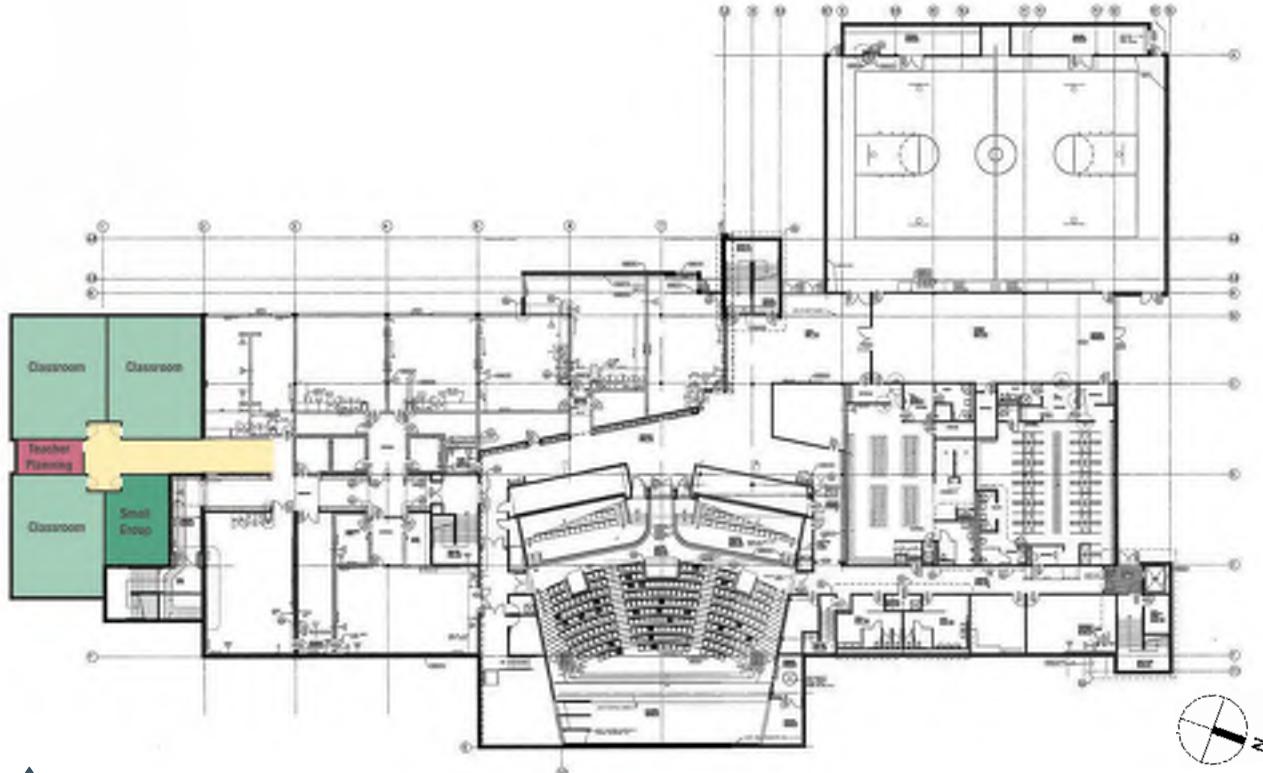


Exhibit 3.3

Clarke Middle School First Floor Plan with
Addition (Component H) Phase 2

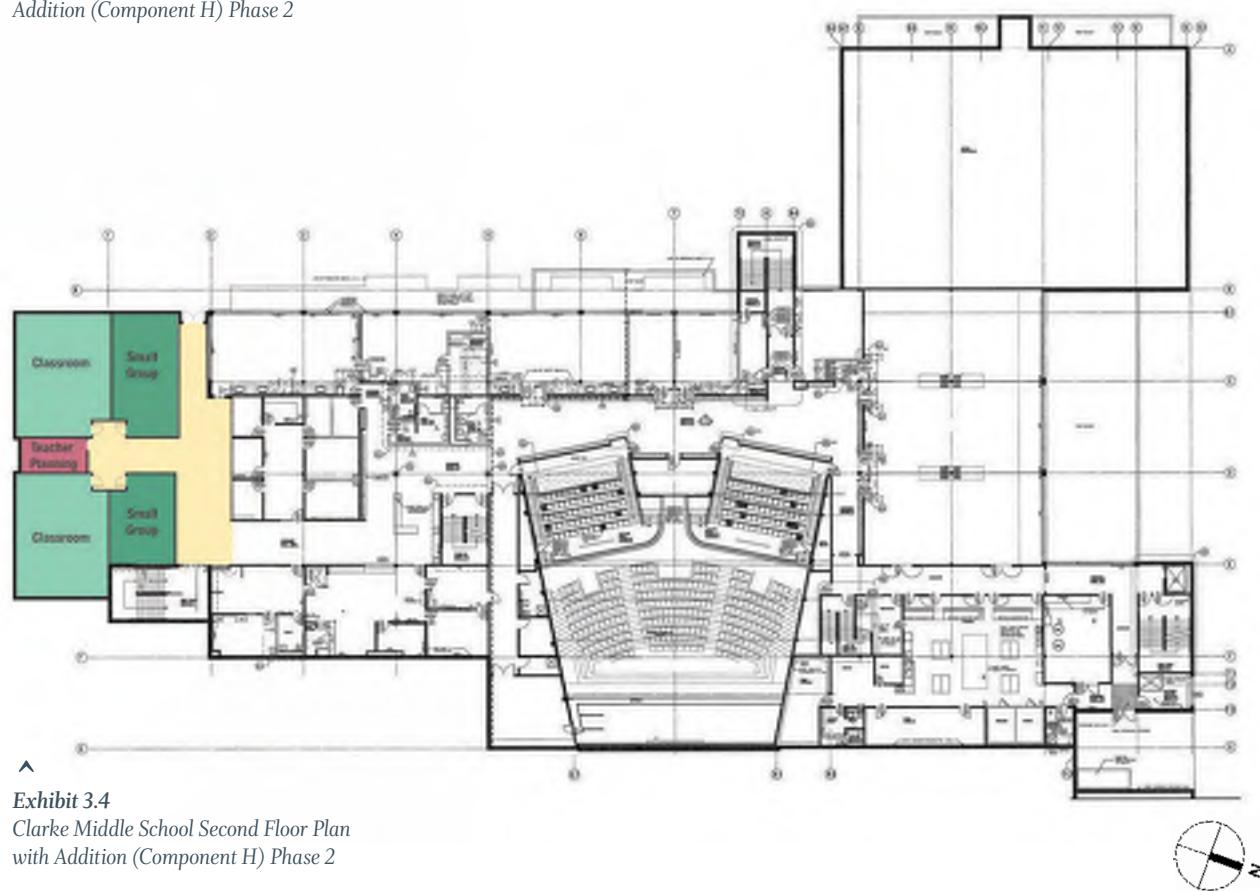


Exhibit 3.4

Clarke Middle School Second Floor Plan
with Addition (Component H) Phase 2

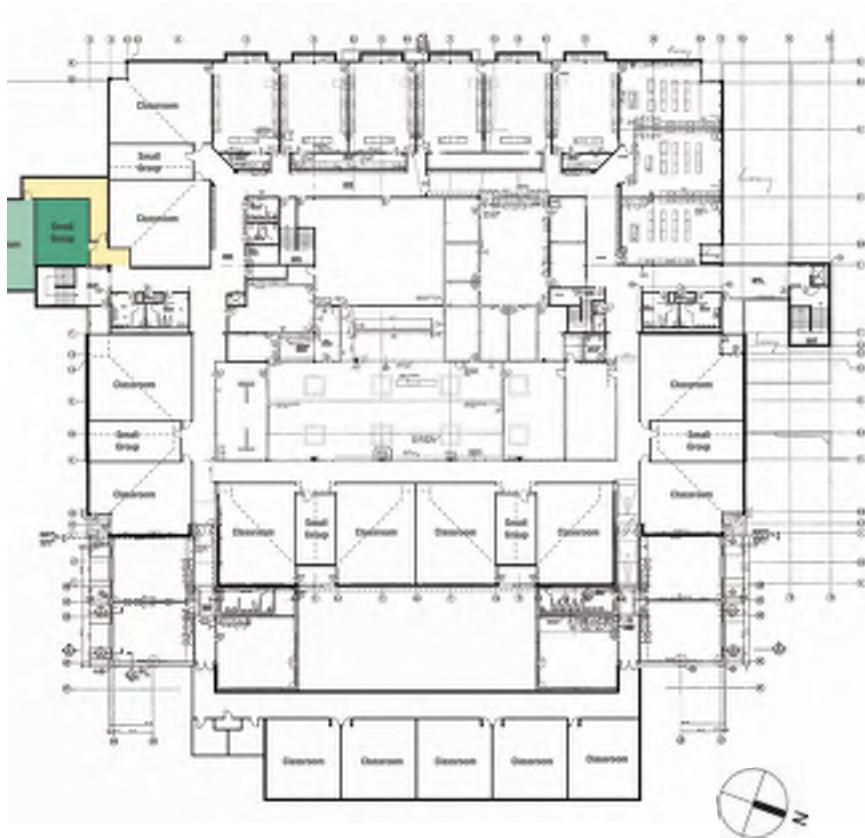


Exhibit 3.5

Clarke Middle School Third Floor Plan with
Addition (Component H) Phase 2



Exhibit 3.6

Clarke Middle School Third Floor Plan—
Interior “Right Sizing” (Component H) Phase 3

Diamond Middle School (Current Population 793)

Constructed in 1958 and renovated in 2000, Diamond Middle School is organized with three teams for each grade level of grades 6, 7 and 8 = 9 teams. Each team consists of approximately 86–93 students, slightly smaller than those at Clarke.

- 36 total General Education classrooms, including the 6 portable classrooms, serve 9 teams (3 teams / grade) and Foreign Language. Unlike Clarke, team teachers own their own classrooms because of the larger number available. There are 7 Foreign Language classrooms at Diamond compared to 4 at Clarke (less sharing).
- The portables can be counted for current capacity but should not be counted for long term capacity.
- According to the MSBA Summary of Spaces form, 36 classrooms will serve a population of 850–860 MS students or 10 teams. In order to accomplish this, the school schedule must run similar to a high school with an 85% utilization rate, not typical for middle schools.
- 30 classrooms will serve a population of approximately 870 students with class sizes of 23 students / class. The average class size is slightly over 21 students / class. With a student class size of 23 students/ class, we estimate the school capacity to be approximately 850 students.

Options Explored

One component option with multiple sequential phases has been developed for Diamond. This is identified as Component I. See Exhibit 3.7

Phase 1—is the construction of additional classrooms that provide swing space for the removal of the six portable classrooms installed as part of the 2000 renovation and addition project. Two+ rooms would also be added for teacher planning areas. This would allow for the re-programming of classroom use to ensure more efficient use of space. The location of the teacher planning rooms will be determined as part of the design process.

Phase 2—six (6) existing portable classrooms are identified to be removed and replaced with eight classrooms for swing space. The additional two classrooms are for teacher planning areas that will allow for the change of operational model previously discussed.

Phase 3—construction of a two story "L" shaped building that connects to the existing building in two locations. This configuration could significantly improve the student circulation and flow through the building. This addition would include approximately 15 classroom sized spaces that would serve: general education classrooms, special education classrooms and support spaces; teacher planning, storage and toilet rooms. The design phase for this project will determine the exact number and types of spaces required.

The addition is intended to accommodate 3 ½ teams, (6 classrooms—the equivalent of 1 ½ teams) which will replace space lost by the removal of the portable classrooms and two teams to accommodate the increased population.

Expansion of the cafeteria and kitchen would also be part of this phase. This is needed to accommodate the increased population. See Exhibits 3.8 & 3.9

Phase 4—Follow completion of the new classroom addition, selected renovations of the original building would be undertaken. This could include reconfiguration of selected areas to improve educational environments. Included in the cost estimate is 7,000 square feet to be renovated. At this stage, no particular area or areas of the school have been identified. The programming and schematic design phase of the project will determine the scope of renovation.

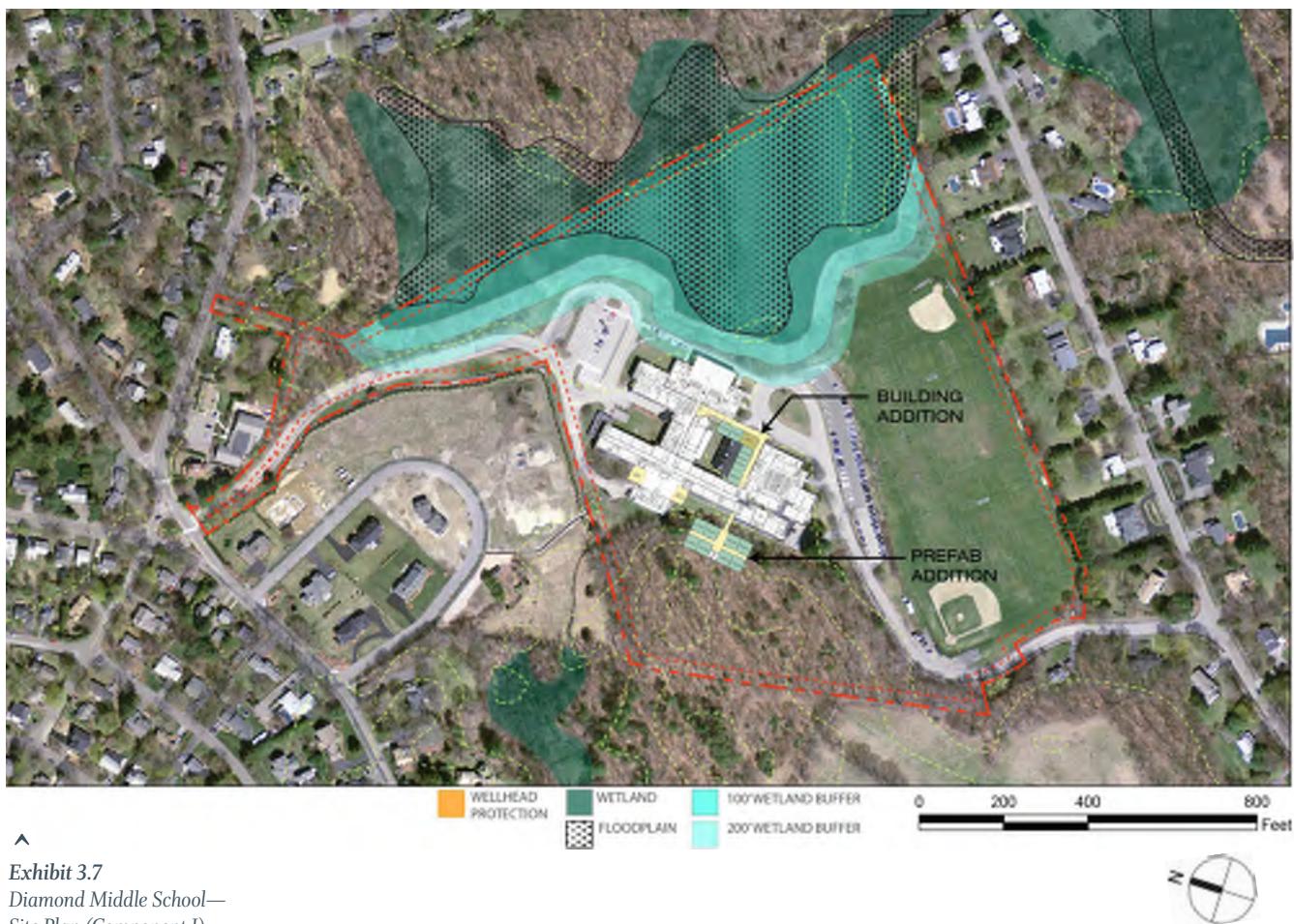


Exhibit 3.7
Diamond Middle School—
Site Plan (Component I)

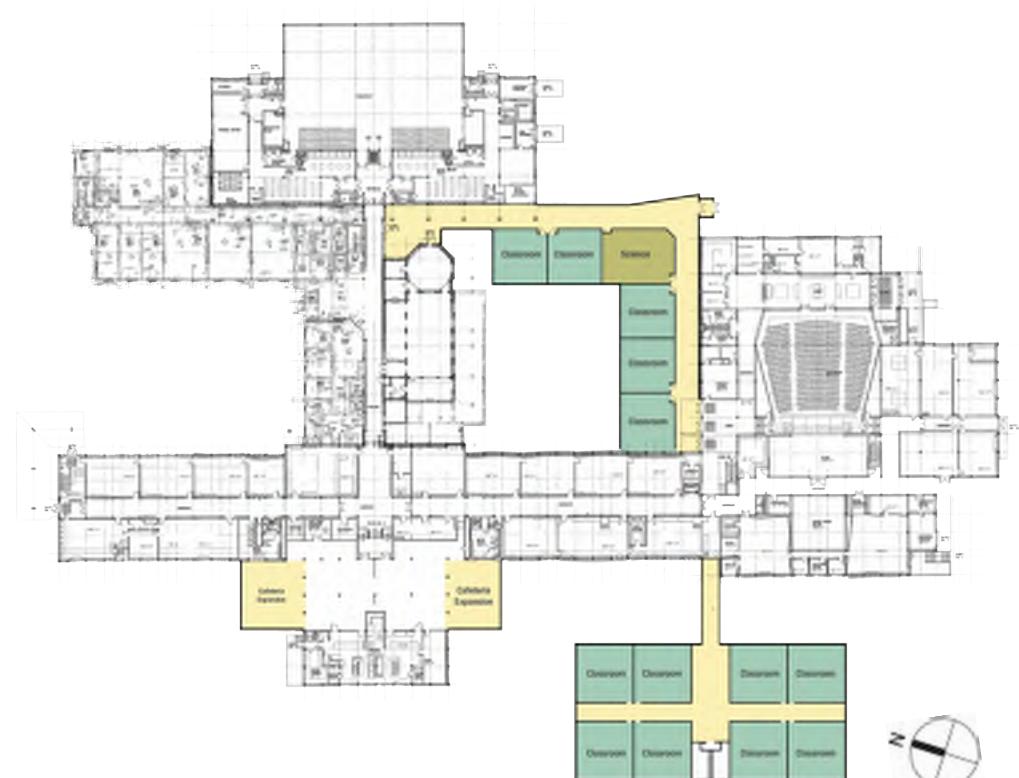


Exhibit 3.8
Diamond Middle School—
First Floor Plan (Component I)

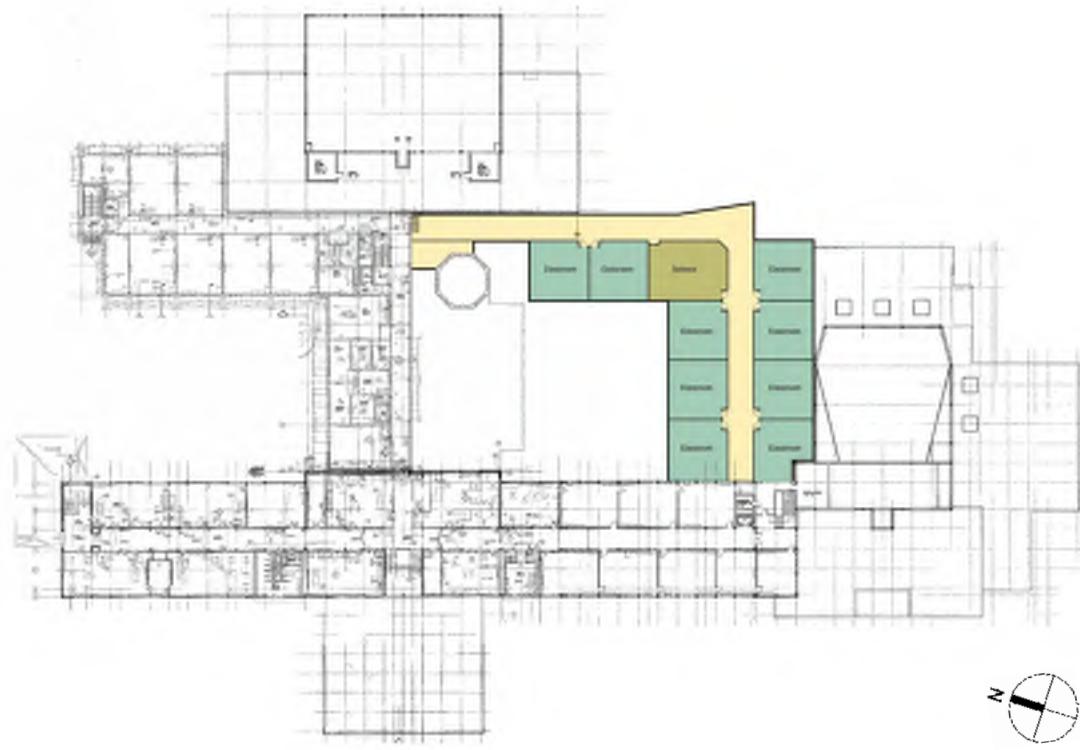


Exhibit 3.9
Diamond Middle School—
Second Floor Plan (Component I)

Options Discussion by School: **4** High School

4.1 *Introduction*

4.2 *High School Options Explored*

Options Discussed by School: High Schools

4.1

Introduction—High School

Two discussions need to be addressed as part of the Master Plan study:

1. The quantity of spaces, contributes to the determination of capacity—are there enough classrooms and other teaching spaces to serve the current population; 5 years from now and 10 years from now?
2. Quality of spaces —most of the classrooms, SPED rooms, science lecture / labs and other teaching spaces across the school are undersized when compared to the MSBA space guidelines for new construction. Can significant changes be made to the floor plan

The high school has been increasing in size since the original building was constructed in 1953 with additions in 1955, 1962, 2000, and 2014. The approach to the site has been to construct additions wherever possible on a site constrained by proximity to wetlands. The site as it stands currently is largely built out. New additions would be best accomplished by removing a portion or portions of the existing building to build new to accommodate growth and additional area needed for reconfiguration of undersized spaces.

Core academic space is the conventional gage for population capacity. The pre-fabricated addition of 10 general education classrooms constructed during the summer of 2014 and the additional 2 general education classrooms scheduled to be constructed during the summer of 2015 are expected to accommodate a student population of approximately 2,325 students. This was calculated using the MSBA Summary of Spaces process.

As indicated in the Phase 1 Capacity Report, the existing classrooms at the high school as compared with MSBA standards are almost all undersized. 30% of the classrooms are 25% or more smaller than the MSBA standard of 850 SF for a classroom. Additionally, all of the science classrooms are undersized. Any large scale project at the high school should address the undersized classrooms. A detailed review should determine which are too small for educational delivery regardless of MSBA standards. Note, the MSBA does not require all spaces meet their guidelines in the context of a Capital Project.

Using the current population projections (Survival Cohort Method), it is anticipated that this population will match available classrooms in the 2021–2022 school year, approximately 7 years.

Variables for population and capacity:

- The above calculations are based on an assumption of an average of 23 students per class and a classroom utilization rate of 85%
- Modest increases in class size can allow for increased capacity
- An increased utilization rate can allow for increased capacity. The higher the utilization rate, the more difficulty to schedule classes though many schools do operate with utilization rates higher than 85%.

Since High School projects take approximately 5–6 years to advance through the MSBA process, it is recommended that the SOI process begin in approximately 2 years.

The increased population will also put pressure on other areas of the school facilities, some of which are also undersized. These include:

Library / media center; cafeteria; some SPED programs; science rooms - enough in number but most undersized.

Because any high school capital project would likely be expensive, it is anticipated that the Town will approach the project as an MSBA Capital project. The MSBA process will require a Feasibility Study to explore multiple options ranging from: no work to comprehensive renovations to new construction. Therefore, the nature of a high school project cannot be determined at this time. For planning purposes, we put forward a ballpark project cost for new construction in 2015 dollars.

2,500 students (projected) using the MSBA Summary of Spaces format yields building size of approximately 392,500 gross square feet. At a project cost rate of \$500 per square foot, \$196,000,000 (2015 cost) could be used for long term planning purposes.

Discussions with the AhSMPC have indicated the town might approach the high school from a phased, non-MSBA funding approach. With the time for decisions being a number of years in the future, no recommendations have come out of the committee.

4.2

High School Options explored include:

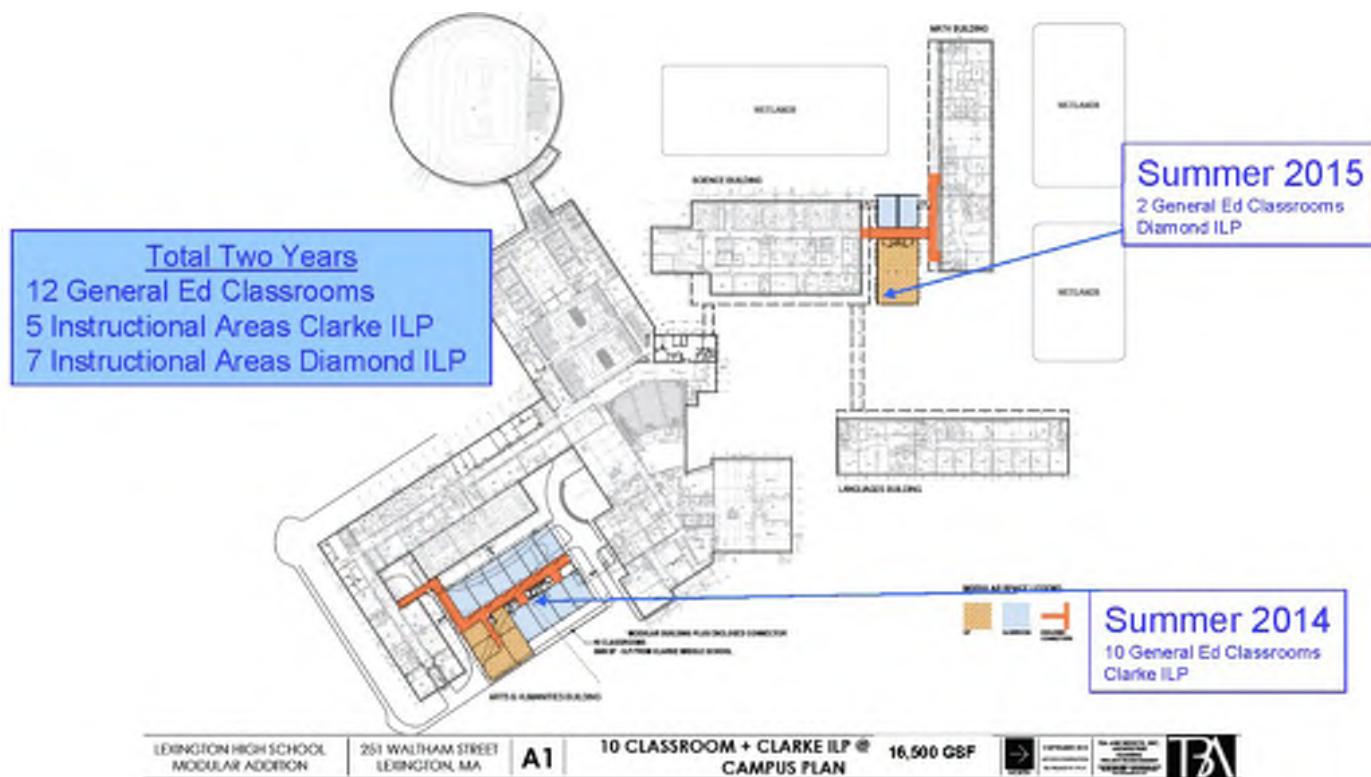
Option 1—Includes (Phase 1) the construction of pre-fabricated classrooms north of A building and east of B building, constructed in the summer of 2014. This building addition includes 10 general education classrooms and a 5 classroom suite serving the ILP, special education program recently started at the high school.

(Phase 2) includes the construction of 2 general education classrooms and an ILP suite located between the science building and math building. This phase is planned to be constructed during the summer of 2015.

The addition of these classrooms is anticipated to satisfy the general education classroom needs until approximately 2021–2022 school year. (Exhibit 4.1)

Exhibit 4.1

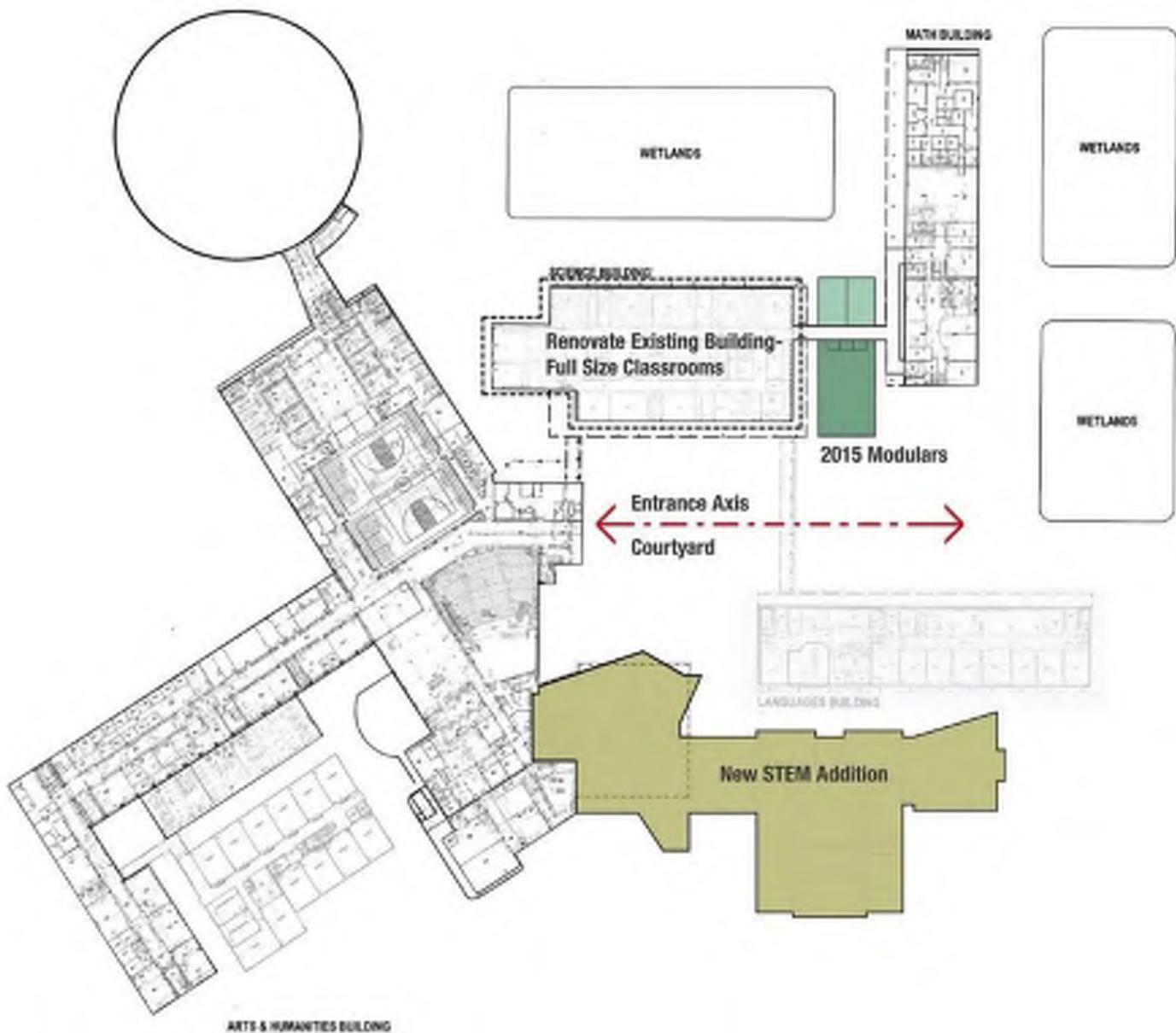
Lexington High School—
Site Plan with modular additions



Option 2A —3 story STEAM Academy (Exhibit 4.2)

- Build new STEAM wing east of language building
- Renovate science building labs to full size classrooms
- Renovate math building
- Tear down languages building
 - Languages building includes 33 classrooms, administration, and teacher workroom spaces

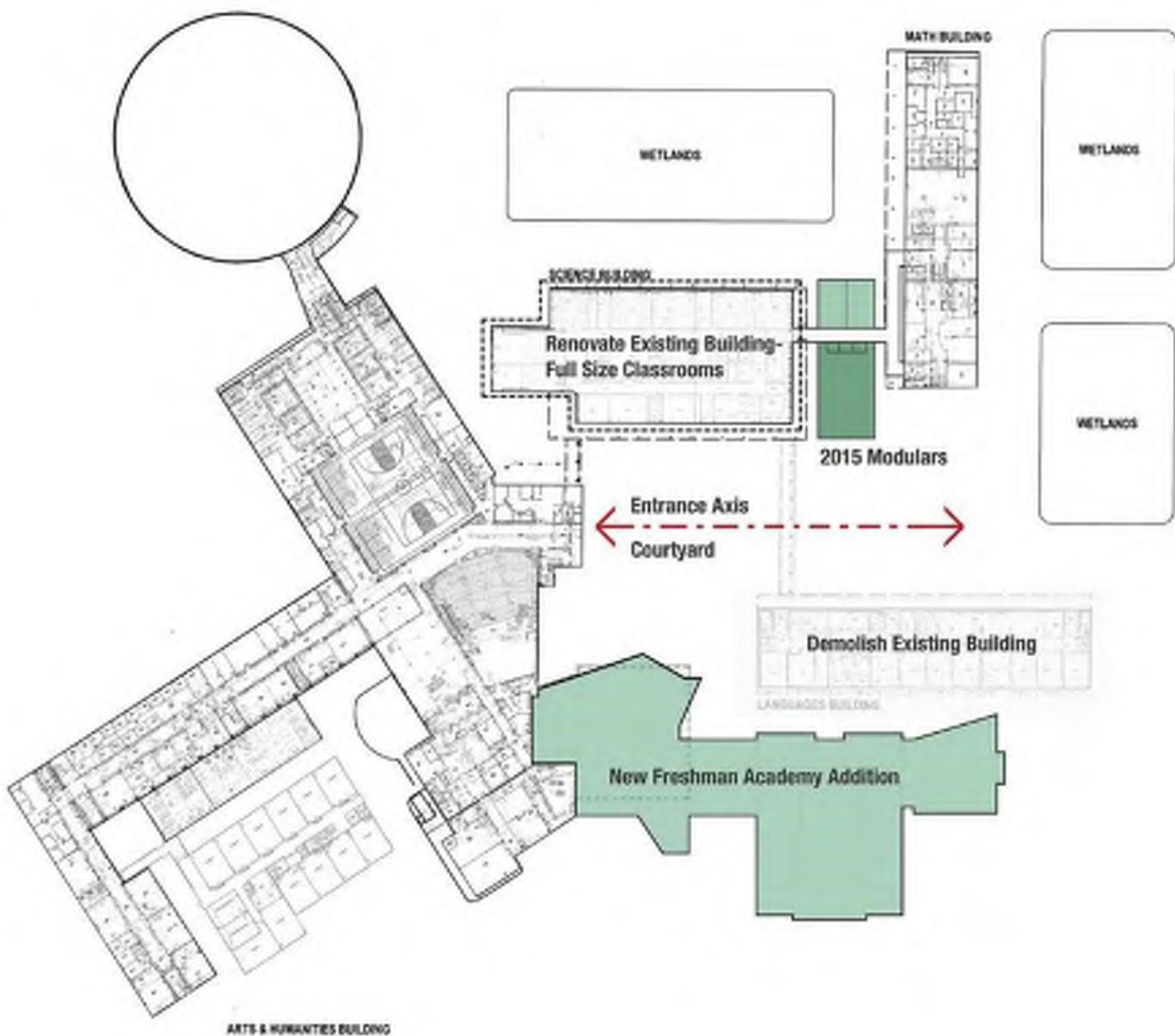
Exhibit 4.2
Lexington High School—
Site Plan with STEM additions
▼



Option 2B — Freshman Academy classroom building (3 story) (Exhibit 4.3)

- Option 2B—Freshman Academy classroom building (3 story) (Exhibit 4.3)
- Build new Freshman wing east of Language building – frees up upperclassman space throughout
- Renovate science building
- Renovate math building
 - Tear down Languages building
 - Languages building includes 33 classrooms, administration, and teacher workroom spaces

Exhibit 4.3
Lexington High School—
Site Plan with Freshman Academy

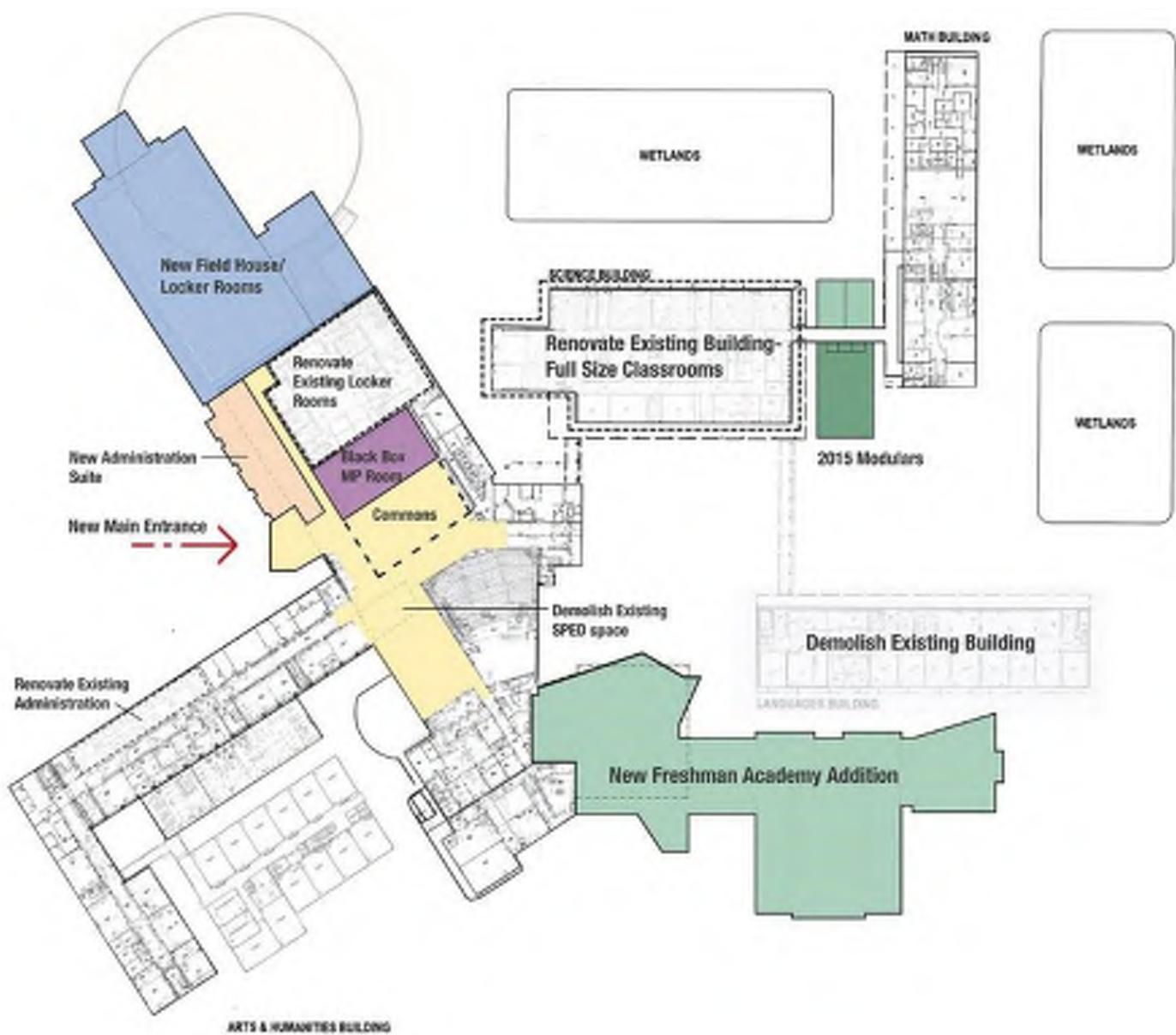


Option 2 / 3—STEAM Academy & Field House (Exhibit 4.4)

- Renovate science building labs to full size classrooms
- New Entrance
- New administration
- Reconfiguration of the gymnasium into an enlarged student commons / student dining
- Tear down Languages building
 - Languages building includes 33 classrooms, administration, and teacher workroom spaces

Exhibit 4.4

Lexington High School—
Additions with Academy and Field House

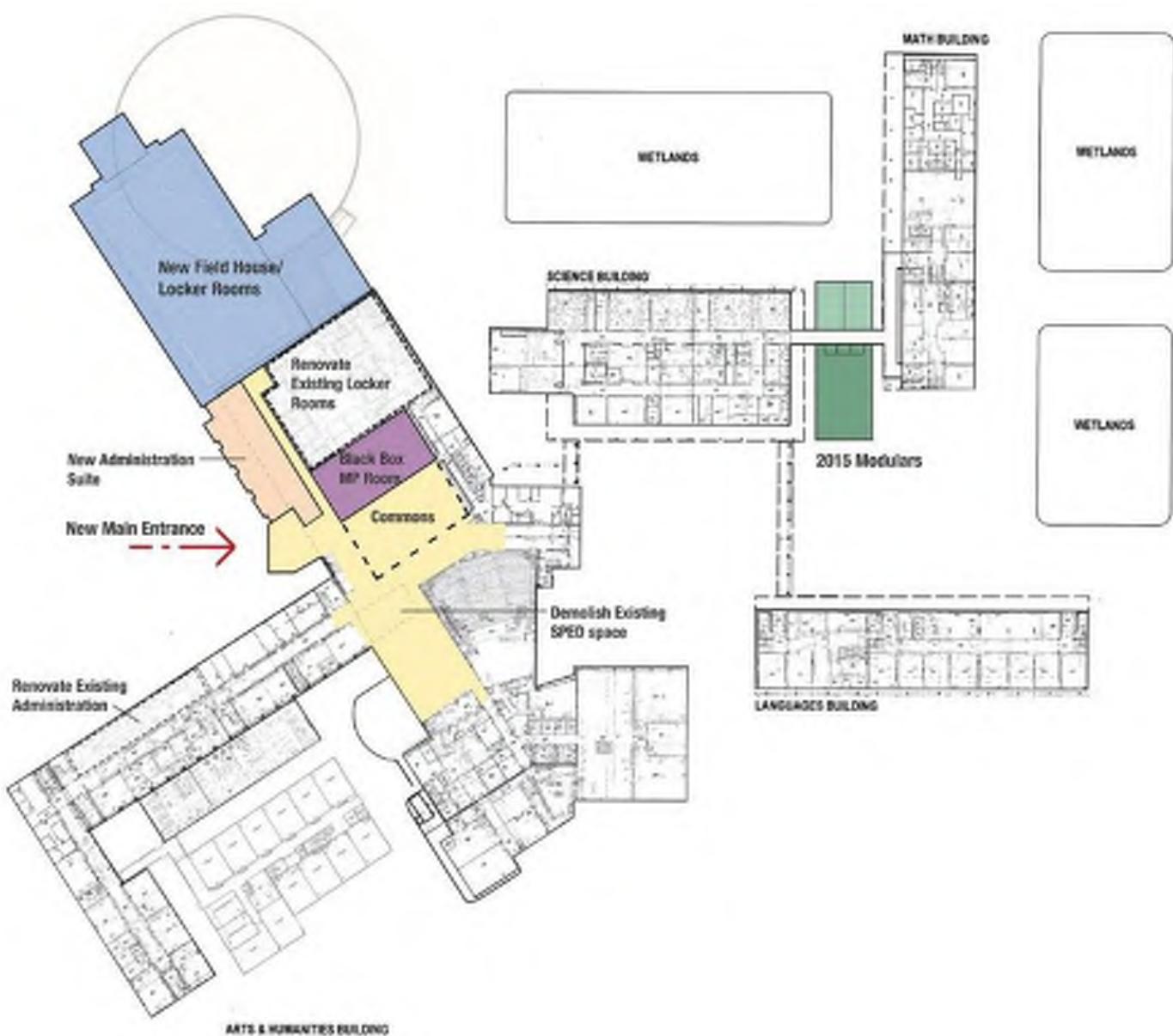


Option 3—Field House Commons / Maker space (Exhibit 4.5)

- Tear down old field house and build new field house and lockers to west
- Renovate old gym as expanded commons (remove SPED room to link to existing café)
- Renovate old gym as black box and multipurpose space
- Renovate old cafeteria by music as additional classrooms and maker space
- Move administration to supervise new secure main entrance
- Renovate old administration spaces
- Tear down Languages building
 - Languages building includes 33 classrooms, administration, and teacher workroom spaces

Exhibit 4.5

*Lexington High School—
Additions with Field House Commons / Maker Space*



Option 4—New (9–12) high school for 2,500 students (Exhibit 4.6) could be located on some of the sports fields: baseball, softball, track and soccer field between the tennis courts and Worthen Road. Following demolition of the existing school, the site would be developed for replacement fields and parking.

Exhibit 4.6
Lexington High School—
Site Plan with New Building
▼



Options/Timelines/Costs

5

- 5.1 Option Components
- 5.2 Master Plan Schedule
- 5.3 Cost Model

Options Matrix/Timelines/ Cost Model

5.1

Option Components

Multiple options were developed for most schools and sites for consideration by the Master Plan committee. We have referred to them as “component options”. This has allowed the committee to consider the best option for each school and site including criteria such as:

- Educationally appropriateness for the grades served
- The ability of the building and site to accept the proposed changes
- The number of additional students accommodated
- The time frame to get the additional areas to match or better the anticipated population increase
- The cost and cost effectiveness of construction type and construction delivery model

The AhSMPC identified the component options that they feel meet the above criteria as well as the criteria set by the School Committee. SMMA engaged a professional estimator to develop “conceptual estimates of probable costs” at the master Plan level of detail.

Exhibit 5.1, following, shows the various component options arranged in Master Plan Options 1 through 8.

Exhibit 5.2, following, shows the component options selected by the AhSMPC for further estimating (Option 9).

Exhibit 5.3, following shows the characteristics of Option 9 as identified as preferred option components. Included in the chart are: number of “added general education classrooms” and the resulting “added students” and resulting total populations by school for all elementary and middle schools. Note that in addition to general education, all proposed component options include classrooms and other specialty rooms for Special Education; toilet rooms and other support areas that are normal to most schools.

MASTER PLAN COMPARISON OPTIONS

Option	Bowman ES	Bridge ES	Estabrook	Fiske ES	Harrington ES	Hastings ES	Central Administration Site (Old Harrington)	Added Capacity Elementary	Short Term Standard Modulars	Elementary Schools Option Total	Clarke Middle School	Diamond Middle School	Middle Schools Total	Lexington High School	Full Option Total	
1	Status Quo for Long term Population, includes short term capacity increase & potential for long term right sizing	Status Quo for Long term Population, includes short term capacity increase & potential for long term right sizing	Growth + Redistricting +96 Students	Status Quo for population, may require some short term portables	Expand Pre-K in current location	MSBA Capital Project 5 Sections / Grade, +239 students	-	335 Students 5 Year Solution	modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/- and Renovations, Bricks and Mortar, remove portables, 8 new portables				
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ -	\$ 3,800,000	\$ 57,600,000			\$ 2,400,000	\$ 67,500,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 91,000,000	
2	Status Quo for Long Term Population, includes short term capacity increase & potential for long term right sizing	Status Quo for Long Term Population, includes short term capacity increase & potential for long term right sizing	Growth + Redistricting +96 Students	Status Quo for population, may require some short term portables	Expand Pre-K in current location; add 5 classrooms (3 GenEd + new gym (+69 students))	MSBA Capital Project 5 Sections / Grade, +239 students	-	404 Students 5 or 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/- and Renovations, Bricks and Mortar, remove portables, 8 new portables				
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ -	\$ 12,600,000	\$ 57,600,000			\$ 2,400,000	\$ 76,300,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 99,800,000	
3	Status Quo for Long Term Population, includes short term capacity increase & potential for long term right sizing	Status Quo for Long Term Population, includes short term capacity increase & potential for long term right sizing	Growth + Redistricting +96 Students	Status Quo for population, may require some short term portables	Reno Pre-K in current location for GenEd; add 5 classrooms (3 GenEd + new gym (+129 students))	MSBA Capital Project 5 Sections / Grade, +239 students	Pre-K Pre-Fabricated Building	464 Students 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/- and Renovations, Bricks and Mortar, remove portables, 8 new portables				
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ -	\$ 9,200,000	\$ 57,600,000	\$ 7,000,000		\$ 2,400,000	\$ 79,900,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 103,400,000	
4	Right Size, includes short term capacity increase & potential for long term right sizing (4 sections) -46	Right Size, includes short term capacity increase & potential for long term right sizing (4 sections) -46	Growth + Redistricting +96 Students	Add 6 classrooms (3 Gen Ed) add to café (+69 students)	Reno Pre-K in current location for GenEd; add 5 classrooms (3 GenEd + new gym (+69 students))	MSBA Capital Project 5 Sections / Grade, +239 students	Pre-K Pre-Fabricated Building	381 Students 10 Year Solution	modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/- and Renovations, Bricks and Mortar, remove portables, 8 new portables				
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ -	\$ 7,000,000	\$ 9,200,000	\$ 57,600,000	\$ 7,000,000		\$ 2,400,000	\$ 86,900,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 110,400,000
5	Right Size, includes short term capacity & potential for long term right sizing (4 sections) -46	Right Size, includes short term capacity & potential for long term right sizing (4 sections) -46	Growth + Redistricting +96 Students	Status Quo for population, may require some short term portables	Remove Pre-K, rero for GenEd (+3 cr) (+69 students)	MSBA Capital Project 4 Sections / Grade (+106 Students)	New PreK-K building to replace Old Harrington +529 students + PreK	708 Students 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/- and Renovations, Bricks and Mortar, remove portables, 8 new portables				
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ -	\$ 330,000	\$ 48,700,000	\$ 42,300,000		\$ 2,400,000	\$ 97,430,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 120,930,000	
6	Add / Reno, Bricks and Mortar, 6 CR (4 GenEd) + core, site permitting 5 Sections / +92 Students	Add / Reno, Bricks and Mortar, 6 CR (4 GenEd) + core, site permitting 5 Sections / +92 Students	Growth + Redistricting +96 Students	Add 6 classrooms (3 Gen Ed) add to café	Reno Pre-K in current location for GenEd; add 5 classrooms (3 GenEd + new gym (+69 students))	MSBA Capital Project 4 Sections / Grade (+106 Students)	-	524 Students 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/- and Renovations, Bricks and Mortar, remove portables, 8 new portables				
	\$ 16,000,000	\$ 16,000,000	\$ -	\$ -	\$ 7,000,000	\$ 9,200,000	\$ 48,700,000	\$ -	\$ 2,400,000	\$ 99,300,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 122,800,000	
7	Right Size, includes additional short term capacity & potential for long term right sizing (4 sections) -46	Right Size, includes additional short term capacity & potential for long term right sizing (4 sections) -46	Growth + Redistricting +96 Students	Status Quo for population, may require some short term portables	Expand Pre-K in current location	MSBA Capital Project 4 Sections/Grade (+106 Students)	Lexington Capital Project - New K-5 3 Sections/Grade (+399 Students)	509 Students 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/- and Renovations, Bricks and Mortar, remove portables, 8 new portables				
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ -	\$ 3,800,000	\$ 48,700,000	\$ 38,400,000		\$ 2,400,000	\$ 97,000,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 120,500,000	
8	Status Quo for Long term Population, includes short term capacity increase & potential for long term right sizing	Status Quo for Long term Population, includes short term capacity increase & potential for long term right sizing	Growth + Redistricting +96 Students	Add: 4 grade level Gen Ed CR; 1 Kindergarten, 1 SPED, 1 Music, 1 Art = total 8, enlarge café + 110 Students	Expand Pre-K in current location; add:6 grade level Gen Ed; 1 SPED; 1 Art; 1 Music; Gym, Enlarge café 138 Students	MSBA Capital Project capable of growth 4 1/2 Sections/Grade (+175 Students)		423 Students 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/- and Renovations, Bricks and Mortar, remove portables, 8 new pre-fabs				
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ -	\$ 8,800,000	\$ 16,000,000	\$ 53,200,000		\$ 2,400,000	\$ 84,100,000	\$ 3,500,000	\$ 21,000,000	\$ 24,500,000	not included	\$ 108,600,000	
Future Work	Phase 2, interior renovations to Right Size (4 sections) -46	Phase 2, interior renovations to Right Size (4 sections) -46										Phases 2, Building Addition and Phase 3, reconfigure triangular classrooms				
	\$ -	\$ -									\$ -					
Notes:	1 The following unit costs are provided for purposes of comparison between options only. It is possible that the numbers can have wide deviations.															
1	These are not estimates or budget numbers															
3	Numbers shown should be considered "Ball Park" pricing. Once the options are prioritized, the estimator develop preliminary costs estimates															
4	Inflation costs are included for the Hastings School only (3 years) Other school projects need to be escalated based on their construction schedules															
5	Hastings School cost does not reflect any grant reimbursement from the MSBA															

EXHIBIT 5.1

MASTER PLAN COMPARISON OPTIONS

Option	Bowman ES	Bridge ES	Estabrook	Fiske ES	Harrington ES	Hastings ES	Central Administration Site (Old Harrington)	Added Capacity Elementary	Short Term Standard Modulars	Elementary Schools Option Total	Clarke Middle School	Diamond Middle School	Middle Schools Total	Lexington High School	Full Option Total
1	Status Quo for Long Term Population, includes short term capacity increase & potential for long term right sizing	Status Quo for Long Term Population, includes short term capacity increase & potential for long term right sizing	Growth + Redistricting +96 Students	Status Quo for population, may require some short term portables	Expand Pre-K in current location	MSBA Capital Project 5 Sections / Grade, +239 Students	-	335 Students 5 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/-) and Renovations, Bricks and Mortar, remove portables, 8 new portables			
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ -	\$ 3,800,000	\$ 57,600,000			\$ 2,400,000	\$ 67,500,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 91,000,000
2	Status Quo for Long Term Population, includes short term capacity increase & potential for long term right sizing	Status Quo for Long Term Population, includes short term capacity increase & potential for long term right sizing	Growth + Redistricting +96 Students	Status Quo for population, may require some short term portables	Expand Pre-K in current location; add 5 classrooms (3 GenEd + new gym (+69 students))	MSBA Capital Project 5 Sections / Grade, +239 Students	-	404 Students 5 or 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/-) and Renovations, Bricks and Mortar, remove portables, 8 new portables 3 teams added			
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ -	\$ 12,600,000	\$ 57,600,000			\$ 2,400,000	\$ 76,300,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 99,800,000
3	Status Quo for Long Term Population, includes short term capacity increase & potential for long term right sizing	Status Quo for Long Term Population, includes short term capacity increase & potential for long term right sizing	Growth + Redistricting +96 Students	Status Quo for population, may require some short term portables	Reno Pre-K in current location for GenEd; add 5 classrooms (3 GenEd + new gym (+129 students))	MSBA Capital Project 5 Sections / Grade, +239 Students	Pre-K Pre-Fabricated Building	464 Students 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/-) and Renovations, Bricks and Mortar, remove portables, 8 new portables 3 teams added			
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ -	\$ 9,200,000	\$ 57,600,000	\$ 7,000,000		\$ 2,400,000	\$ 79,900,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 103,400,000
4	Right Size, includes short term capacity increase & potential for long term right sizing (4 sections) -46	Right Size, includes short term capacity increase & potential for long term right sizing (4 sections) -46	Growth + Redistricting +96 Students	Add 6 classrooms (3 Gen Ed) add to café (+69 students)	Reno Pre-K in current location for GenEd; add 5 classrooms (3 GenEd + new gym (+69 students))	MSBA Capital Project 5 Sections / Grade, +239 Students	Pre-K Pre-Fabricated Building	381 Students 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/-) and Renovations, Bricks and Mortar, remove portables, 8 new portables 3 teams added			
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ 7,000,000	\$ 9,200,000	\$ 57,600,000	\$ 7,000,000		\$ 2,400,000	\$ 86,900,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 110,400,000
5	Right Size, includes short term capacity & potential for long term right sizing (4 sections) -46	Right Size, includes short term capacity & potential for long term right sizing (4 sections) -46	Growth + Redistricting +96 Students	Status Quo for population, may require some short term portables	Remove Pre-K, rero for GenEd (+3 cr) (+69 students)	MSBA Capital Project 5 Sections / Grade, +106 Students	New PreK -K building to replace Old Harrington +529 students + PreK	708 Students 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/-) and Renovations, Bricks and Mortar, remove portables, 8 new portables 3 teams added			
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ -	\$ 330,000	\$ 48,700,000	\$ 42,300,000		\$ 2,400,000	\$ 97,430,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 120,930,000
6	Add / Reno, Bricks and Mortar, 6 CR (4 GenEd) + core, site permitting 5 Sections / +92 Students	Add / Reno, Bricks and Mortar, 6 CR (4 GenEd) + core, site permitting 5 Sections / +92 Students	Growth + Redistricting +96 Students	Add 6 classrooms (3 Gen Ed) add to café 4 Sections / +69 students	Reno Pre-K in current location for GenEd; add 5 classrooms (3 GenEd + new gym (+69 students)) 4 Sections/Grade (+106 Students)	MSBA Capital Project	-	524 Students 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/-) and Renovations, Bricks and Mortar, remove portables, 8 new portables 3 teams added			
	\$ 16,000,000	\$ 16,000,000	\$ -	\$ 7,000,000	\$ 9,200,000	\$ 48,700,000	\$ -		\$ 2,400,000	\$ 99,300,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 122,800,000
7	Right Size, includes additional short term capacity & potential for long term right sizing (4 sections) -46	Right Size, includes additional short term capacity & potential for long term right sizing (4 sections) -46	Growth + Redistricting +96 Students	Status Quo for population, may require some short term portables	Expand Pre-K in current location	MSBA Capital Project Lexington Capital Project - New K-5 4 Sections/Grade (+399 Students)	509 Students 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/-) and Renovations, Bricks and Mortar, remove portables, 8 new portables 3 teams added				
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ -	\$ 3,800,000	\$ 48,700,000	\$ 38,400,000		\$ 2,400,000	\$ 97,000,000	\$ 3,500,000	\$ 20,000,000	\$ 23,500,000	not included	\$ 120,500,000
8	Status Quo for Long Term Population, includes short term capacity increase & potential for long term right sizing	Status Quo for Long Term Population, includes short term capacity increase & potential for long term right sizing	Growth + Redistricting +96 Students	Add: 4 grade level Gen Ed CR; 1 Kindergarten, 1 SPED, 1 Music, 1 Art = total 8, enlarge café + 110 Students	Expand Pre-K in current location; add:6 grade level Gen Ed; 1 SPED; 1 Art; 1 Music; Gym, Enlarge café 138 Students	MSBA Capital Project capable of growth 4 1/2 Sections/Grade (+175 Students)		423 Students 10 Year Solution	Lease 2 standard modulars at each of Bowman, Bridge and Fiske		Pre-fab Addition one team added	Additions (15 classrooms +/-) and Renovations, Bricks and Mortar, remove portables, 8 new pre-fabs 3 teams added			
	\$ 1,850,000	\$ 1,850,000	\$ -	\$ 8,800,000	\$ 16,000,000	\$ 53,200,000			\$ 2,400,000	\$ 84,100,000	\$ 3,500,000	\$ 21,000,000	\$ 24,500,000	not included	\$ 108,600,000
Future Work	Phase 2, interior renovations to Right Size (4 sections) -46	Phase 2, interior renovations to Right Size (4 sections) -46									Phases 2, Building Addition and Phase 3, reconfigure triangular classrooms				
	\$ -	\$ -									\$ -				
Notes:	<p>1 The following unit costs are provided for purposes of comparison between options only. It is possible that the numbers can have wide deviations.</p> <p>2 These are not estimates or budget numbers</p> <p>3 Numbers shown should be considered "Ball Park" pricing. Once the options are prioritized, the estimator develop preliminary costs estimates</p> <p>4 Inflation costs are included for the Hastings School only (3 years) Other school projects need to be escalated based on their construction schedules</p> <p>5 Hastings School cost does not reflect any grant reimbursement from the MSBA</p>														

EXHIBIT 5.2

Elementary Middle Schools
Lexington Public Schools Master Plan

			Gen Ed Available Classrooms - Lexington				Existing Buildings Capacity	Option 9 Characteristics				
	2013 - 2014 Population (End of 2014 School Year)	2014 - 2015 Population**	# of Kindergarten CR as used	# of Gen Ed CR's (1 - 5) as used Permanent	Total Classrooms (K + Grade Level)	# of Gen Ed CR's (1 - 5) as used Modular	Current Capacity w/o Modulars	Proposed Gen Ed Classrooms Added	Added Students	Resulting Population	Comments	
Bowman	563	576	4	22	26	0	578	2	46	624		
Bowman right sized										532		
Bridge	543	585	5*	21	26	0	573	2	46	619		
Bridge right sized										532		
Estabrook	477	500	5	22	27	0	596	-	-	596	no work	
Fiske	480	489	4	18	22	0	486	-	-	486	No additions proposed	
Harrington	432	446	3	18	21	0	417	6	133	550	addition size and capacity to be determined, this chart assumes 5 gen ed cr + 1 K + PreK addition	
New Hastings	423	426	3	14	17	4	376	10	175	600	Building size and capacity to be determined, this chart assumes a 4 1/2 section school	
	2918	3022	19	115	139	139	3026					
Option 9 Capacity										3475		
Option 9 Capacity w/right size										3296		
PreK at Harrington	98 FTE						100 FTE	3	50 FTE	150 FTE	Location to be determined, this chart assumes at Harrington	
Clarke MS		824			29		828	4	92	920		
Diamond MS		793			30		828	8	184	1012	support	
MS Total									276	1932		
K assumes 18 students / class												
Gr 1 - 5 assume 23 students / class												
** 8-26-2014 Enrollment Report												

5.2

Master Plan Schedule

Exhibit 5.4, following, is intended to plan out certain school design and construction schedules and include “What If” schedules for some schools.

Proposed

- **Bowman:** Design and construct proposed pre-fab components as soon as possible.
- **Bridge:** Design and construct proposed pre-fab components as soon as possible.
- **Estabrook:** Use excess capacity through selected redistricting.
- **Fiske¹:** Two component options are advance, though either selected would advance on a similar schedule. Fiske² shows an alternate, later start schedule. Design would start as soon as possible.
- **Harrington:** One option presented, design would start as soon as possible.
- **Hastings:** The town was recently informed that the Hastings SOI was not advanced for the 2015 MSBA program. The intent is for the School Department to refine and resubmit a new SOI for the MSBA program that is open from January 1015 to the first week of April 2015. That schedule is shown with a MSBA1 superscript
 - MSBA² shows a re-submittal in 2016 if the 2015 submission is not advanced
 - Lex only¹—Identifies a schedule, starting in January 2016, if the Town were to proceed outside the MSBA Grant Program. This would mean that the town would be responsible for all project costs.
 - Lex only²—Identifies a schedule, starting in January 2017, if the Town were to proceed outside the MSBA Grant Program. This would mean that the town would be responsible for all project costs.
 - Lex only³—Identifies a schedule, starting in January 2018, if the Town were to proceed outside the MSBA Grant Program. This would mean that the town would be responsible for all project costs.

- **Clarke MS:** Design and construct proposed pre-fab components as soon as possible.
- **Diamond MS:** Involves multiple phases:
 - Phase 1—Design and construct proposed pre-fab components as soon as possible. Design would start as soon as possible on Phase 2
 - Phase 2—Remove existing portable classrooms (6); Construct permanent addition and interior renovations
- **Lexington High School:** Is too far in the future to chart at this point
- Exhibit 5.5, following, similar to the previous schedule (5.4) is a simplified schedule, specific to the option components of Option 9
 - Fiske is eliminated as there is no work proposed
 - Only two options for Hastings are identified
 - The high school is added

What if's	Funding / Design / Construction Schedule																Lexington Schools Master Plan								
	2015				2016				2017				2018				2019				2020				
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Bowman		2	4 & 5		6		7																		
	\$ 3.10							46																	
Right Size																	1	4	5	6	7		-46		
Bridge		2	4 & 5		6		7										\$ 6.14								
	\$ 3.68							46										1	4	5	6	7		-46	
Right Size																	\$ 5.95								
Estabrook	no work				no work				no work				no work				no work								
					96																				
Fiske ¹ Scheme D	1		4		3	5		6		7															
	\$ 12.98				\$ -												110								
Fiske ²									1	4		3	5				6		7						
									\$ -			\$ -													
Harrington	1		4		3	5		6		7															
	\$ 24.30				\$ -												138								
Hastings / MSBA ¹	8				9	10		11		3	4	5					6		7				175		
					\$ -					\$ -															
Hastings / MSBA ²					8			9	10		11		3	4	5		6		7				6		7
									\$ -																
Hastings / Lex only ¹					1	4		3	5								6		7						
					\$ -																				
Hastings / Lex only ²								1	4		3	5					6		7						
								\$ -																	
Hastings / Lex only ³													1	4	3	5		6		7					
Clarke	1 & 2	4 & 5			6		7																		
	\$ 4.61																92								
Clarke Phases 2 & 3																	1	4	3	5	6	7		0	
																	\$ 13.47								
Diamond, Phase 1, PreFab	1 & 2	4 & 5			6		7																		
	\$ -																138								
Diamond, Phase 2 & 3, Permanent Const	1		4		3	5		6		7															
	\$ -				\$ -													184							
High School	TBD																								
Increased Capacity (Elementary) Temporary																								92	
Increased Capacity (Elementary) Permanent					96																			175	427
Increased Capacity (Middle) Temporary																								128	
Increased Capacity (Middle) Permanent																								276	
	Key																								
1	Design Funding																								
2	Design and Construction Funding																								
3	Construction Funding																								
4	Design / Permitting																								
5	Bidding																								
6	Fabrication / Construction																								
7	Occupancy																								
8	Submit SOI																								
9	SOI Accepted / MSBA Mod 1 Elegibility Period / Funding																								
10	MSBA Mod 2 Building Project Team																								
11	Mod 3 - Feasibility Study																								

EXHIBIT 5.4

	2015				2016				2017				2018				2019				2020				2021				
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Bowman		2	4 & 5		6		7																						
	\$ 3.10							46																					
Bridge		2	4 & 5		6		7																						
	\$ 3.68							46																					
Harrington		1	4		3	5		6		7																			
	\$ 24.30				\$ -																								
Hastings / MSBA ¹	8				9	10		11		3		4		5		6		7											
					\$ -					\$ -																		175	
Hastings / Lex Only	1	4			3	5		6		7																			
Clarke	1 & 2	4 & 5			6		7																						
	\$ 4.61							92																					
Diamond, Phase 1, PreFab	1 & 2	4 & 5			6		7																						
	\$ -							138																					
Diamond, Phase 2 & 3, Permanent Const	1	4			3	5		6		7																			
	\$ -				\$ -																								
High School									8		9		10		11		3		4		3								
Increased Capacity (Elementary) Temporary								92																					92
Increased Capacity (Elementary) Permanent		96																											317
Increased Capacity (Middle) Temporary								128																				128	
Increased Capacity (Middle) Permanent								92																				276	
	Key																												
1	Design Funding																												
2	Design and Construction Funding																												
3	Construction Funding																												
4	Design / Permitting																												
5	Bidding																												
6	Fabrication / Construction																												
7	Occupancy																												
8	Submit SOI																												
9	SOI Accepted / MSBA Mod 1 Eligibility Period / Funding																												
10	MSBA Mod 2 Building Project Team																												
11	Mod 3 - Feasibility Study																												

EXHIBIT 5.5

5.3

Cost Model

Once Preferred Options were identified, Daedalus Projects developed conceptual estimates based on the conceptual diagrams contained in Sections 2 and 3 of this report. The Daedalus estimate report is in the Appendix, Section 6.1.

SMMA developed “Project Cost” sheets for each of the component options estimated. Project costs include: construction contingency; design fees; furnishings and equipment (FFE); educational technology; permitting; hazardous materials monitoring; commissioning; materials testing; miscellaneous expenses and owner’s contingency. These pages precede the estimate report in the appendix.

The Project Costs for the components are:

Bowman: Phase 1—Pre-Fabricated Addition	\$3,100,000
Bowman: Phase 2—Renovation	\$6,140,000
Bridge: Pre-Fabricated Addition	\$3,680,000
Bridge: Phase 2—Renovation	\$5,950,000
Fiske: Option C—Renovation and Addition	\$8,850,000
Fiske: Option D Addition	\$12,980,000
Harrington: Renovation and Addition	\$24,300,000
New Hastings Elementary School	\$59,000,000
Clarke Middle School: Phase 1—Pre-Fabricated Addition	\$4,610,000
Clarke Phases 2 & 3—Building Addition and 3rd Floor reconfiguration and renovation	\$13,470,000
Diamond Middle School: Phase 1—Pre-Fabricated Addition	\$7,700,000
Diamond Middle School: Renovation and Addition	\$16,290,000

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

High School—It is anticipated that the Town will address the needs of the high school. It is also assumed that it will be developed as an MSBA Capital project. The MSBA process will require a Feasibility Study to explore multiple option ranging from: no work to comprehensive renovations to new construction. Therefore, the nature of a high school project cannot be determined at this time. For planning purposes, we put forward a ballpark project cost for new construction in 2015 dollars.

2,500 students (projected) using the MSBA Summary of Spaces format yield s building size of approximately 392,500 gross square feet. At a project cost rate of \$500 per square feet, \$196,000,000 (2015 cost) could be used for long term planning purposes.

Cost Model Exclusions

Hazardous Materials: This study assumes that accessible asbestos containing materials have been removed through previous renovation projects at all schools with the exception of Hastings which has not undergone any significant renovations

Seismic Upgrades: Existing buildings where additions and or renovations are proposed need to have structural analyses undertaken as part of schematic design. Seismic upgrades, if required could add (significant) additional costs.

Appendix

6

- 6.1 Project Costs Summaries—SMMA
Estimate of Probable Costs—Daedalus Projects
- 6.2 School Committee—Option 9 Discussion, 1/13/2014
(also used at 1/15/15 Ad hoc Committee Meeting)
Ad hoc Schools Master Planning Committee with
Town Boards— Options 8 Graphics, 1/8/2014
Ad hoc Schools Master Planning Committee —
Options 8 Graphics, 12/18/2014
Ad hoc Schools Master Planning Committee —
High School, 12/11/2014
Ad hoc Schools Master Planning Committee —
Middle and Elementary Schools, 12/4/2014
Ad hoc Schools Master Planning Committee —
Middle and Elementary Schools, 11/20/2014
- 6.3 Summary of Spaces Charts
These charts follow the MSBA format for developing proposed Summary of Spaces. Some of the typical MSBA columns have been hidden since they have no bearing on this discussion. Included are a detailed breakdown of existing conditions including their size and number, all based on current use. The MSBA columns are populated by using the proposed populations based on Option 9 Component Options as recommended by the AsSMPC.

Estabrook Elementary School, as a new school has not been included in this section.

Bowman Elementary School - Phase 1 - Pre-Fabricated Addition

Construction Cost (includes 20% estimating contingency)		\$2,430,000
Construction Contingency	8.00%	\$194,400
Design Fee		
Basic Services	8.00%	\$194,400
Wetlands		\$6,000
Survey		\$12,000
Geotechnical		\$8,000
Hazardous Material Investigation		\$5,000
Detailed Cost Estimating		\$10,000
FFE		
Purchase and Install		\$30,000
Design	7.00%	\$2,100
Educational Technology		
Purchase and Install		\$20,000
Design	7.00%	\$1,400
Permitting		\$0
Hazardous Material Monitoring		\$20,000
Commissioning		\$12,000
Materials Testing		\$10,000
Miscellaneous Expenses (moving, printing, legal)		\$15,000
Owner's Contingency	5.00%	\$121,500
	Total	\$3,091,800
		\$3,100,000 say

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

Bowman Elementary School - Phase 2 - Renovation

Construction Cost (includes 20% estimating contingency)		\$4,725,000
Construction Contingency	10.00%	\$472,500
Design Fee		
Basic Services	12.00%	\$567,000
Wetlands		\$0
Survey		\$0
Geotechnical		\$0
Hazardous Material Investigation		\$8,000
Detailed Cost Estimating		\$14,000
FFE		
Purchase and Install		\$40,000
Design	7.00%	\$2,800
Educational Technology		
Purchase and Install		\$20,000
Design	7.00%	\$1,400
Permitting		\$0
Hazardous Material Monitoring		\$20,000
Commissioning		\$18,000
Miscellaneous Expenses (moving, printing, legal)		\$20,000
Owner's Contingency	5.00%	\$236,250
	Total	\$6,144,950
		\$6,140,000 say

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

Bridge Elementary School - Phase 1 - Pre-Fabricated Addition

Construction Cost (includes 20% estimating contingency)		\$2,910,000
Construction Contingency	8.00%	\$232,800
Design Fee		
Basic Services	8.00%	\$232,800
Wetlands		\$6,000
Survey		\$14,000
Geotechnical		\$10,000
Hazardous Material Investigation		\$5,000
Detailed Cost Estimating		\$10,000
FFE		
Purchase and Install		\$30,000
Design	7.00%	\$2,100
Educational Technology		
Purchase and Install		\$20,000
Design	7.00%	\$1,400
Permitting		\$0
Hazardous Material Monitoring		\$20,000
Commissioning		\$12,000
Materials Testing		\$14,000
Miscellaneous Expenses (moving, printing, legal)		\$15,000
Owner's Contingency	5.00%	\$145,500
	Total	\$3,680,600
		\$3,680,000 say

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

Bridge Elementary School - Phase 2 - Renovation

Construction Cost (includes 20% estimating contingency)		\$4,570,000
Construction Contingency	10.00%	\$457,000
Design Fee		
Basic Services	12.00%	\$548,400
Wetlands		\$0
Survey		\$0
Geotechnical		\$0
Hazardous Material Investigation		\$8,000
Detailed Cost Estimating		\$14,000
FFE		
Purchase and Install		\$40,000
Design	7.00%	\$2,800
Educational Technology		
Purchase and Install		\$20,000
Design	7.00%	\$1,400
Permitting		\$0
Hazardous Material Monitoring		\$20,000
Commissioning		\$18,000
Miscellaneous Expenses (moving, printing, legal)		\$20,000
Owner's Contingency	5.00%	\$228,500
	Total	\$5,948,100
		\$5,950,000 say

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

Fiske Elementary School - Option C - Renovation and Addition

Construction Cost (includes 20% estimating contingency)		\$6,880,000
Construction Contingency	10.00%	\$688,000
Design Fee		
Basic Services	10.00%	\$688,000
Wetlands		\$0
Survey		\$16,000
Geotechnical		\$14,000
Hazardous Material Investigation		\$0
Detailed Cost Estimating		\$16,000
FFE		
Purchase and Install		\$80,000
Design	7.00%	\$5,600
Educational Technology		
Purchase and Install		\$50,000
Design	7.00%	\$3,500
Permitting		\$0
Hazardous Material Monitoring		\$0
Commissioning		\$20,000
Materials Testing		\$20,000
Miscellaneous Expenses (moving, printing, legal)		\$25,000
Owner's Contingency	5.00%	\$344,000
	Total	\$8,850,100
		\$8,850,000 say

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

Fiske Elementary School - Option D - Addition

Construction Cost (includes 20% estimating contingency)		\$10,084,000
Construction Contingency	10.00%	\$1,008,400
Design Fee		
Basic Services	10.00%	\$1,008,400
Wetlands		\$0
Survey		\$18,000
Geotechnical		\$16,000
Hazardous Material Investigation		\$0
Detailed Cost Estimating		\$20,000
FFE		
Purchase and Install		\$120,000
Design	7.00%	\$8,400
Educational Technology		
Purchase and Install		\$80,000
Design	7.00%	\$5,600
Permitting		\$0
Hazardous Material Monitoring		\$0
Commissioning		\$40,000
Materials Testing		\$20,000
Miscellaneous Expenses (moving, printing, legal)		\$50,000
Owner's Contingency	5.00%	\$504,200
	Total	\$12,983,000
		\$12,980,000 say

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

Harrington Elementary School - Renovation and Addition

Construction Cost (includes 20% estimating contingency)		\$19,030,000
Construction Contingency	10.00%	\$1,903,000
Design Fee		
Basic Services	10.00%	\$1,903,000
Food Service		\$20,000
Wetlands		\$0
Survey		\$24,000
Geotechnical		\$20,000
Hazardous Material Investigation		\$0
Detailed Cost Estimating		\$28,000
FFE		
Purchase and Install		\$150,000
Design	7.00%	\$10,500
Educational Technology		
Purchase and Install		\$100,000
Design	7.00%	\$7,000
Permitting		\$0
Hazardous Material Monitoring		\$0
Commissioning		\$60,000
Materials Testing		\$26,000
Miscellaneous Expenses (moving, printing, legal)		\$70,000
Owner's Contingency	5.00%	\$951,500
	Total	\$24,303,000
		\$24,300,000 say

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

New Hastings Elementary School

Construction Cost			\$44,609,000
Construction Contingency	7.00%		\$3,122,630
OPM Fee	4.00%		\$1,784,360
Design Fee			
Basic Services	9.00%		\$4,014,810
Additional Consultants Services (Site Permitting, Cost, Food, Acoustical, AV, Code, Hardware)			\$640,000
Wetlands			\$24,000
Survey			\$40,000
Geotechnical			\$60,000
GeoEnvironmenal			\$20,000
Hazardous Material Investigation			\$20,000
Traffic			\$60,000
FFE			
Purchase and Install			\$1,080,000
Design	7.00%		\$75,600
Educational Technology			
Purchase and Install			\$1,080,000
Design	7.00%		\$75,600
Permitting			\$20,000
Hazardous Material Monitoring			\$80,000
Commissioning			\$180,000
Materials Testing			\$80,000
Miscellaneous Expenses (utility, moving, printing, legal)			\$600,000
Owner's Contingency	3.00%		\$1,338,270
	Total		\$59,004,270
			\$59,000,000 say

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

Clarke Middle School - Phase 1 - Pre-Fabricated Addition

Construction Cost (includes 20% estimating contingency)		\$3,649,000
Construction Contingency	8.00%	\$291,920
Design Fee		
Basic Services	8.00%	\$291,920
Wetlands		\$0
Survey		\$12,000
Geotechnical		\$18,000
Hazardous Material Investigation		\$0
Detailed Cost Estimating		\$12,000
FFE		
Purchase and Install		\$60,000
Design	7.00%	\$4,200
Educational Technology		
Purchase and Install		\$40,000
Design	7.00%	\$2,800
Permitting		\$0
Hazardous Material Monitoring		\$0
Commissioning		\$14,000
Materials Testing		\$16,000
Miscellaneous Expenses (moving, printing, legal)		\$15,000
Owner's Contingency	5.00%	\$182,450
	Total	\$4,609,290
		\$4,610,000 say

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

Clarke Middle School - Renovation and Addition

Construction Cost (includes 20% estimating contingency)		\$10,143,000
Construction Contingency	10.00%	\$1,014,300
Design Fee		
Basic Services	10.00%	\$1,014,300
Wetlands		\$12,000
Survey		\$24,000
Geotechnical		\$20,000
Hazardous Material Investigation		\$10,000
Detailed Cost Estimating		\$20,000
FFE		
Purchase and Install		\$300,000
Design	7.00%	\$21,000
Educational Technology		
Purchase and Install		\$200,000
Design	7.00%	\$14,000
Permitting		\$0
Hazardous Material Monitoring		\$20,000
Commissioning		\$60,000
Materials Testing		\$20,000
Miscellaneous Expenses (moving, printing, legal)		\$70,000
Owner's Contingency	5.00%	\$507,150
	Total	\$13,469,750
		\$13,470,000 say

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

Diamond Middle School - Phase 1 - Pre-Fabricated Addition

Construction Cost (includes 20% estimating contingency)		\$5,200,000
Construction Contingency	8.00%	\$416,000
Design Fee		
Basic Services	8.00%	\$416,000
Wetlands		\$0
Survey		\$12,000
Geotechnical		\$18,000
Hazardous Material Investigation		\$0
Detailed Cost Estimating		\$12,000
OPM Services*		\$1,200,000
FFE		
Purchase and Install		\$60,000
Design	7.00%	\$4,200
Educational Technology		
Purchase and Install		\$40,000
Design	7.00%	\$2,800
Permitting		\$0
Hazardous Material Monitoring		\$0
Commissioning		\$14,000
Materials Testing		\$16,000
Miscellaneous Expenses (moving, printing, legal)		\$15,000
Owner's Contingency	5.00%	\$260,000
	Total	\$7,686,000
	say	\$7,700,000

*OPM services listed here are intended to be spread across other other projects

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

Diamond Middle School - Renovation and Addition

Construction Cost (includes 20% estimating contingency)			\$12,400,000
Construction Contingency	10.00%		\$1,240,000
Design Fee			
Basic Services	10.00%		\$1,240,000
Food Service			\$30,000
Wetlands			\$20,000
Survey			\$30,000
Geotechnical			\$30,000
Hazardous Material Investigation			\$10,000
Detailed Cost Estimating			\$30,000
FFE			
Purchase and Install			\$250,000
Design	7.00%		\$17,500
Educational Technology			
Purchase and Install			\$150,000
Design	7.00%		\$10,500
Permitting			\$0
Hazardous Material Monitoring			\$20,000
Commissioning			\$80,000
Materials Testing			\$30,000
Miscellaneous Expenses (moving, printing, legal)			\$80,000
Owner's Contingency	5.00%		\$620,000
	Total		\$16,288,000
	say		\$16,290,000

The estimate has all costs escalated to a construction start of summer 2016. Once the town develops a selection and priority of projects with construction dates, project costs need to be escalated to the construction start date. An escalation rate of 3.5%, compounded annually will be applied where appropriate.

Lexington Public Schools
Master Plan
Phase 3 Options
Short and Long Term Options Study

January 7, 2015

Construction Cost Estimating

Architect:
SMMA
1000 Massachusetts Avenue
Cambridge, MA

Cost Estimator:
Daedalus Projects Incorporated
112 South Street
Boston, MA 02111
(617) 451 2717

INTRODUCTION

Project Description:

- The project consists various studies of the existing schools in Lexington, MA. Those schools are:
 - A1) Bowman
 - A2) Bridge
 - B) Bowman and Bridge Elementary - Renovation
 - C) Fiske Elementary - Addition/Renovation
 - D) Fiske Elementary - Addition/Renovation
 - E) Harrington Elementary School
 - F) Hastings Elementary - New 4.5 Section School
 - G) Clarke Middle School - Pre-Fab Addition
 - H) Clarke Middle School - Addion/Renovation including triangular classroom renovation
 - I) Diamond Middle School - 2 Story Additionj and 8 Pre-fab Classrooms with Toilets

Project Particulars:

- Drawings and information provided by SMMA at a meeting at their office December 18, 2014
- Assumed construction start dates vary
- Daedalus Projects, Inc. experience with similar projects of this nature

Project Assumptions:

- The project will be constructed by a CM
- Our costs assume that there will be at least three subcontractors submitting unrestricted bids in each sub-trade
- The Total Construction Cost reflects the fair construction value of this project in a competitive bidding market
- Unit rates are based on current dollars
- An allowance for escalation to start of construction at a rate of 3.5% per year has been carried
- Subcontractor's markups have been included in each unit rate. Markups cover the cost of field overhead, home office overhead and subcontractor's profit
- General Conditions and Requirements value covers Sub-Contractor's bond, site office overheads, and building permit applications
- Fee markup is calculated on a percentage basis of direct construction costs. The value covers Contractor's bond, insurance and profit
- Design and Pricing Contingency markup is an allowance for unforeseen design issues, design detail development and specification clarifications
- Construction Contingency markup is an allowance for the Construction Manager for unsuspected issues, details that develop more than expected and added value due to clarifications

Project Exclusions:

- **Seismic Upgrades**
- Design fees and other soft costs
- Interest expense
- Owner's project administration
- Construction of temporary facilities
- Relocation expenses
- AV equipment excluded
- Printing and advertising
- Site or existing condition surveys and investigations
- Utility company back charges during construction
- Police details and street/sidewalk permits
- Work beyond the boundary of the site
- Testing & commissioning
- Specialties, loose furnishings, fixtures and equipment beyond those noted

DESCRIPTION	TOTAL	GSF	\$/GSF
<u>Bowman Elementary School</u>			
Bowman Elementary School: Scheme A1 (Phase 1) - Pre Fabricated Addition	\$2,429,397	4,700 GSF	\$516.89
Bowman Elementary School: Scheme B (Phase 2) - Renovation	\$4,724,463	14,000 GSF	\$337.46
<u>Bridge Elementary School</u>			
Bridge Elementary School: Scheme A2 (Phase 1) - Pre Fabricated Addition	\$2,909,756	5,900 GSF	\$493.18
Bridge Elementary School: Scheme B (Phase 2) - Renovation	\$4,570,572	14,000 GSF	\$326.47
<u>Estabrook Elementary School</u>	No Work		
<u>Fiske Elementary School</u>			
Fiske Elementary School: Scheme C - New Wing Addition And Renovation	\$6,879,378	12,200 GSF	\$563.88
Fiske Elementary School: Scheme D - New Wing Addition	\$10,083,788	21,200 GSF	\$475.65
<u>New Harrington Elementary School</u>			
New Harrington School: Phase 1 - New Wing Addition	\$15,159,335	26,250 GSF	\$577.50
New Harrington Elementary: Phase 2 - Renovation for Cafeteria & Art/Music	\$3,871,328	7,000 GSF	\$553.05
<u>New Hasting Elementary School</u>			
Hasting Elementary School: Scheme F - New School	\$44,608,797	86,850 GSF	\$513.63
<u>Clark MS</u>			
Clarke Middle School: Scheme G (Phase 1) - Pre Fabricated Addition	\$3,648,747	7,500 GSF	\$486.50
Clarke Middle School: Scheme H (Phase 2) New Addition Three (3) Stories	\$5,630,277	11,000 GSF	\$511.84
Clarke Middle School: Scheme H (Phase 3) - Renovation	\$4,512,862	13,600 GSF	\$331.83
<u>Diamond MS</u>			
Diamond Middle School: Scheme I - Addition and Prefabricated Classrooms	\$17,594,942	44,100 GSF	\$398.98
TOTAL	\$126,623,642		

Main Summary: Bowman Elementary School

			TOTAL	COST/SF
<u>Bowman Elementary School: Scheme A1 (Phase 1) - Pre Fabricated Addition</u>				
Phase 1 Prefabricated Addition	4,700 SF		\$1,498,375	\$318.80
Direct Trade Cost SubTotal			\$1,498,375	\$318.80
Design and Pricing Contingency	20.00%	\$1,498,375	\$299,675	\$63.76
Trade Cost SubTotal			\$1,798,050	\$382.56
General Conditions and Markups				
General Conditions and Requirements	18.00%	\$1,798,050	\$323,649	\$68.86
Insurance	1.25%	\$2,121,699	\$26,521	\$5.64
GC Bonds	1.00%	\$2,148,220	\$21,482	\$4.57
Building Permit			Waived	
Fee	3.00%	\$2,169,702	\$65,091	\$13.85
Construction Contingency	3.00%	\$2,234,794	\$67,044	\$14.26
Estimated Construction Cost Total			\$2,301,837	\$489.75
Escalation to Summer 2016	5.54%	\$2,301,837	\$127,560	\$27.14
Estimated Construction Cost Total, Including Escalation			\$2,429,397	\$516.89
<u>Bowman Elementary School: Scheme B (Phase 2) - Renovation</u>				
Renovation	14,000 SF		\$2,970,000	\$212.14
Demolish Modulars			\$100,000	
Direct Trade Cost SubTotal		14,000 GSF	\$3,070,000	\$219.29
Design and Pricing Contingency	20.00%	\$3,070,000	\$614,000	\$43.86
Trade Cost SubTotal			\$3,684,000	\$263.14
General Conditions and Markups				
General Conditions and Requirements	12.00%	\$3,684,000	\$442,080	\$31.58
Insurance	1.25%	\$4,126,080	\$51,576	\$3.68
GC Bonds	1.00%	\$4,177,656	\$41,777	\$2.98
Building Permit			Waived	
Fee	3.00%	\$4,219,433	\$126,583	\$9.04
Construction Contingency	3.00%	\$4,346,016	\$130,380	\$9.31
Estimated Construction Cost Total			\$4,476,396	\$319.74
Escalation to Summer 2016	5.54%	\$4,476,396	\$248,067	\$17.72
Estimated Construction Cost Total, Including Escalation			\$4,724,463	\$337.46

Bowman: Scheme A1 and B

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
7	Bowman Elementary School: Scheme A1 (Phase 1) - Pre Fabricated Addition	4,700	GSF		
8					
9	Substructure and Foundation				
10	Sitework	400	CY	\$25.00	\$10,009
11	Concrete	4,700	SF	\$35.00	\$164,500
12	Basement				
13	Basement excavation and walls				NIC
14	Superstructure				
15	Structural steel	4,700	SF	\$200.00	INCLUDED
16	Exterior Enclosure				
17	Exterior walls	2,131	SF	\$58.75	INCLUDED
18	Exterior windows	1,049	SF	\$80.00	INCLUDED
19	Exterior doors	1	PR	\$10,000.00	INCLUDED
20	Roofing				
21	Roofing and associated items (finish)	5,170	SF	\$15.00	\$77,550
22	Interior Construction				
23	Partitions	1,755	SF	\$10.00	INCLUDED
24	Interior Doors	7	LVS	\$1,200.00	INCLUDED
25	Fittings	2	RMS	\$2,000.00	\$4,000
26	Stairs				
27	Stairs				NIC
28	Ramp	1	EA	\$25,000.00	\$25,000
29	Interior Finishes				
30	Wall finishes	5,641	SF	\$1.00	\$5,641
31	Floor finishes	4,465	SF	\$7.50	INCLUDED
32	Ceiling finishes	4,465	SF	\$6.00	INCLUDED
33	Services				
34	Elevator				NIC
35	Plumbing - rough in	4,700	SF	\$5.00	\$23,500
36	Sinks in classrooms (Hook up)	2	EA	\$1,000.00	\$2,000
37	Toilet Rooms (Hook up)	2	RMS	\$8,000.00	\$16,000
38	HVAC extension of existing	4,700	SF	\$5.00	\$23,500
39	Fire Protection	4,700	SF	\$5.50	NIC
40	Fire Protection (Hook up)	4,700			
41	Electrical (Hook up)	4,700	SF	\$15.00	\$70,500
42	MEP upgrade due to addition	4,700	SF	\$75.00	\$352,500
43	Equipment				
44	Equipment	4,700	SF	\$1.00	\$4,700
45	Furnishings				
46	Furnishings for classrooms	2	RMS	\$12,000.00	INCLUDED
47	Special Construction				
48	Prefabricated construction	4,700	SF	\$126.00	\$592,200
49	Selective Building construction				
50	Building demolition	2,355	SF	\$5.00	\$11,775
51	Hazmat abatement	1	LS	\$15,000.00	\$15,000
52	Sitework for reconfiguration	1	LS	\$100,000.00	\$100,000
53					
54	Bowman Elementary School: Scheme A1 (Phase 1) - Pre Fabricated Addition				\$1,498,375
55					

Bowman: Scheme A1 and B

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
56					
57	Bowman Elementary School: Scheme B (Phase 2) - Renovation				
58					
59	Renovation to existing	14,000	GSF	\$210.00	\$2,940,000
60	Hazmat abatement	1	LS	\$30,000.00	\$30,000
61					
62	Bowman Elementary School: Scheme B (Phase 2) - Renovation Total				\$2,970,000
63					
64					

Main Summary: Bridge Elementary School

			TOTAL	COST/SF
<u>Bridge Elementary School: Scheme A2 (Phase 1) - Pre Fabricated Addition</u>				
Phase 1 Prefabricated Addition	5,900 SF		\$1,841,462	\$312.11
Direct Trade Cost SubTotal			\$1,841,462	\$312.11
Design and Pricing Contingency	20.00%	\$1,841,462	\$368,292	\$62.42
Trade Cost SubTotal			\$2,209,754	\$374.53
General Conditions and Markups				
General Conditions and Requirements	15.00%	\$2,209,754	\$331,463	\$56.18
Insurance	1.25%	\$2,541,217	\$31,765	\$5.38
GC Bonds	1.00%	\$2,572,982	\$25,730	\$4.36
Building Permit			Waived	
Fee	3.00%	\$2,598,712	\$77,961	\$13.21
Construction Contingency	3.00%	\$2,676,674	\$80,300	\$13.61
Estimated Construction Cost Total			\$2,756,974	\$467.28
Escalation to Summer 2016	5.54%	\$2,756,974	\$152,782	\$25.90
Estimated Construction Cost Total, Including Escalation			\$2,909,756	\$493.18
<u>Bridge Elementary School: Scheme B (Phase 2) - Renovation</u>				
Renovation	14,000 SF		\$2,970,000	\$212.14
Direct Trade Cost SubTotal		14,000 GSF	\$2,970,000	\$212.14
Design and Pricing Contingency	20.00%	\$2,970,000	\$594,000	\$42.43
Trade Cost SubTotal			\$3,564,000	\$254.57
General Conditions and Markups				
General Conditions and Requirements	12.00%	\$3,564,000	\$427,680	\$30.55
Insurance	1.25%	\$3,991,680	\$49,896	\$3.56
GC Bonds	1.00%	\$4,041,576	\$40,416	\$2.89
Building Permit			Waived	
Fee	3.00%	\$4,081,992	\$122,460	\$8.75
Construction Contingency	3.00%	\$4,204,452	\$126,134	\$9.01
Estimated Construction Cost Total			\$4,330,585	\$309.33
Escalation to Summer 2016	5.54%	\$4,330,585	\$239,987	\$17.14
Estimated Construction Cost Total, Including Escalation			\$4,570,572	\$326.47

Bridge: Scheme A2 and B

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
7	Bridge Elementary School: Scheme A2 (Phase 1) - Pre Fabricated Addition	5,900	GSF		
8					
9	Substructure and Foundation				
10	Sitework	546	CY	\$25.00	\$13,657
11	Concrete	5,900	SF	\$35.00	\$206,500
12	Basement				
13	Basement excavation and walls				NIC
14	Superstructure				
15	Structural steel	5,900	SF	\$200.00	INCLUDED
16	Exterior Enclosure				
17	Exterior walls	2,945	SF	\$58.75	INCLUDED
18	Exterior windows	1,450	SF	\$80.00	INCLUDED
19	Exterior doors	2	PR	\$10,000.00	INCLUDED
20	Roofing				
21	Roofing and associated items (finish)	6,785	SF	\$15.00	\$101,775
22	Interior Construction				
23	Partitions	1,755	SF	\$10.00	INCLUDED
24	Interior Doors	9	LVS	\$1,200.00	INCLUDED
25	Fitiings	2	RMS	\$2,000.00	\$4,000
26	Stairs				
27	Stairs				NIC
28	Ramp	1	EA	\$25,000.00	\$25,000
29	Interior Finishes				
30	Wall finishes	6,455	SF	\$1.00	\$6,455
31	Floor finishes	5,605	SF	\$7.50	INCLUDED
32	Ceiling finishes	5,605	SF	\$6.00	INCLUDED
33	Services				
34	Elevator				NIC
35	Plumbing - rough in	5,900	SF	\$5.00	\$29,500
36	Sinks in classrooms (Hook up)	2	EA	\$1,000.00	\$2,000
37	Toilet Rooms (Hook up)	2	RMS	\$8,000.00	\$16,000
38	HVAC extension of existing	5,900	SF	\$5.00	\$29,500
39	Fire Protection	5,900	SF	\$5.50	NIC
40	Fire Protection (Hook up)	5,900			
41	Electrical (Hook up)	5,900	SF	\$15.00	\$88,500
42	MEP upgrade due to addition	5,900	SF	\$75.00	\$442,500
43	Equipment				
44	Equipment	5,900	SF	\$1.00	\$5,900
45	Furnishings				
46	Furnishings for classrooms	2	RMS	\$12,000.00	INCLUDED
47	Special Construction				
48	Prefabricated construction	5,900	SF	\$126.00	\$743,400
49	Selective Building construction				
50	Building demolition	2,355	SF	\$5.00	\$11,775
51	Hazmat abatement	1	LS	\$15,000.00	\$15,000
52	Sitework for reconfiguration	1	LS	\$100,000.00	\$100,000
53					
54	Bridge Elementary School: Scheme A2 (Phase 1) - Pre Fabricated Addition				\$1,841,462
55					

Bridge: Scheme A2 and B

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
56					
57	Bridge Elementary School: Scheme B (Phase 2) - Renovation				
58					
59	Renovation to existing	14,000	GSF	\$210.00	\$2,940,000
60	Hazmat abatement	1	LS	\$30,000.00	\$30,000
61					
62	Bridge Elementary School: Scheme B (Phase 2) - Renovation Total				\$2,970,000
63					
64					

Main Summary: Fiske Elementary School

Lexington Public Schools
Master Plan

		TOTAL	COST/SF
<u>Fiske Elementary School: Scheme C - New Wing Addition And Renovation</u>			
<u>Fiske Elementary School: Scheme C - New Wing Addition</u>			
Fiske Elementary School: New Wing Addition	8,700 SF	\$3,009,451	\$345.91
Fiske Elementary School: Cafeteria Expansion	2,000 SF	\$833,738	\$416.87
Direct Trade Cost SubTotal	10,700 SF	\$3,843,189	\$359.18
Design and Pricing Contingency	20.00%	\$768,638	\$71.84
Trade Cost SubTotal		\$4,611,827	\$431.01
General Conditions and Markups			
General Conditions and Requirements	15.00%	\$4,611,827	\$64.65
Insurance	1.25%	\$5,303,601	\$66,295
GC Bonds	1.00%	\$5,369,896	\$53,699
Building Permit			Waived
Fee	3.00%	\$5,423,595	\$162,708
Construction Contingency	3.00%	\$5,586,303	\$167,589
Estimated Construction Cost Total		\$5,753,892	\$537.75
Escalation to Summer 2016	5.54%	\$318,862	\$29.80
Estimated Construction Cost Total, Including Escalation		\$6,072,754	\$567.55
<u>Fiske Elementary School: Scheme C - Renovation</u>			
Renovation	1,500 SF	\$497,500	\$331.67
Direct Trade Cost SubTotal	1,500 GSF	\$497,500	\$331.67
Design and Pricing Contingency	20.00%	\$497,500	\$99,500
Trade Cost SubTotal		\$597,000	\$398.00
General Conditions and Markups			
General Conditions and Requirements	18.00%	\$597,000	\$107,460
Insurance	1.25%	\$704,460	\$8,806
GC Bonds	1.00%	\$713,266	\$7,133
Building Permit			Waived
Fee	3.00%	\$720,398	\$21,612
Construction Contingency	3.00%	\$742,010	\$22,260
Estimated Construction Cost Total		\$764,271	\$509.51
Escalation to Summer 2016	5.54%	\$764,271	\$42,353
Estimated Construction Cost Total, Including Escalation		\$806,624	\$537.75
<u>Fiske Elementary School: Scheme C - New Wing Addition And Renovation Total</u>		\$6,879,378	\$563.88

Main Summary: Fiske Elementary SchoolLexington Public Schools
Master Plan

			TOTAL	COST/SF
Fiske Elementary School: Scheme D - New Wing Addition				
Fiske Elementary School: New Wing Addition Including Cafeteria	21,200 SF		\$6,671,676	\$314.70
Direct Trade Cost SubTotal	21,200 GSF		\$6,671,676	\$314.70
Design and Pricing Contingency	20.00%	\$6,671,676	\$1,334,335	\$62.94
Trade Cost SubTotal			\$8,006,011	\$377.64
General Conditions and Markups				
General Conditions and Requirements	10.00%	\$8,006,011	\$800,601	\$37.76
Insurance	1.25%	\$8,806,612	\$110,083	\$5.19
GC Bonds	1.00%	\$8,916,695	\$89,167	\$4.21
Building Permit			Waived	
Fee	3.00%	\$9,005,862	\$270,176	\$12.74
Construction Contingency	3.00%	\$9,276,038	\$278,281	\$13.13
Estimated Construction Cost Total			\$9,554,319	\$450.68
Escalation to Summer 2016	5.54%	\$9,554,319	\$529,469	\$24.97
Estimated Construction Cost Total, Including Escalation			\$10,083,788	\$475.65

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
7	Fiske Elementary School: New Wing Addition	8,700	GSF		
8					
9	Substructure and Foundation				
10	Sitework	741	CY	\$25.00	\$18,528
11	Concrete	4,350	SF	\$35.00	\$152,250
12	Basement				
13	Basement excavation and walls				NIC
14	Superstructure				
15	Structural steel	57	TNS	\$4,500.00	\$256,500
16	Metal deck	4,350	SF	\$4.00	\$17,400
17	Exterior Enclosure	4,309	SF		
18	Exterior walls	2,887	SF	\$58.75	\$169,613
19	Exterior windows & storefront	1,422	SF	\$85.00	\$120,867
20	Exterior doors	1	PR	\$10,000.00	\$10,000
21	Roofing				
22	Roofing and associated items (finish)	4,872	SF	\$16.50	\$80,388
23	Deck	4,872	SF	\$3.75	\$18,270
24	Interior Construction				
25	Partitions	9,660	SF	\$10.00	\$96,600
26	Interior Doors	26	LVS	\$1,200.00	\$31,200
27	Fittings	6	RMS	\$2,000.00	\$12,000
28	Stairs				
29	Stairs	1	FLT	\$25,000.00	\$25,000
30	Interior Finishes				
31	Wall finishes	22,207	SF	\$1.00	\$22,207
32	Floor finishes	8,265	SF	\$7.50	\$61,988
33	Ceiling finishes	8,265	SF	\$6.00	\$49,590
34	Services				
35	Elevator				NIC
36	Plumbing	8,700	SF	\$5.00	\$43,500
37	Sinks in classrooms	6	EA	\$4,000.00	\$24,000
38	Toilet Rooms	2	RMS	\$16,000.00	\$32,000
39	Janitor's Closet	2	RMS	\$7,000.00	\$14,000
40	HVAC extension of existing	8,700	SF	\$35.00	\$304,500
41	Fire Protection	8,700	SF	\$5.50	\$47,850
42	Electrical	8,700	SF	\$35.00	\$304,500
43	MEP upgrade due to addition	8,700	SF	\$75.00	\$652,500
44	Equipment				
45	Equipment	8,700	SF	\$1.00	\$8,700
46	Furnishings				
47	Furnishings for classrooms	6	RMS	\$12,000.00	\$72,000
48	Special Construction				
49	Prefabricated construction	8,700	SF		NIC
50	Selective Building construction				
51	Building demolition	78,000	CF	\$0.75	\$58,500
52	Hazmat abatement	1	LS	\$30,000.00	\$30,000
53	Geo thermal well	1	EA	\$75,000.00	\$75,000
54	Decommission existing geothermal well				NIC
55	Sitework for reconfiguration fire lane	1	LS	\$100,000.00	\$100,000

Fiske Elementary School: Scheme C - New Wing Addition

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
56	Upgrade to utilities	1	LS	\$100,000.00	\$100,000
57					
58	Fiske Elementary School: New Wing Addition Subtotal				\$3,009,451
59					
60					
61	Fiske Elementary School: Cafeteria Expansion	2,000	GSF		
62					
63	Substructure and Foundation				
64	Sitework	170	CY	\$25.00	\$4,259
65	Concrete	2,000	SF	\$35.00	\$70,000
66	Basement				
67	Basement excavation and walls				NIC
68	Superstructure				
69	Structural steel	13	TNS	\$4,500.00	\$58,500
70	Metal deck	0	SF	\$4.00	\$0
71	Exterior Enclosure	2,257	SF		
72	Exterior walls	790	SF	\$58.75	\$46,410
73	Exterior windows & storefront	1,467	SF	\$85.00	\$124,699
74	Exterior doors	1	PR	\$10,000.00	\$10,000
75	Roofing				
76	Roofing and associated items (finish)	1,120	SF	\$16.50	\$18,480
77	Deck	1,120	SF	\$3.75	\$4,200
78	Interior Construction				
79	Partitions	1,800	SF	\$10.00	\$18,000
80	Interior Doors	2	LVS	\$1,200.00	\$2,400
81	Fittings	1	LS	\$10,000.00	\$10,000
82	Stairs				
83	Stairs	1	FLT	\$25,000.00	\$25,000
84	Interior Finishes				
85	Wall finishes	4,390	SF	\$1.00	\$4,390
86	Floor finishes	1,900	SF	\$15.00	\$28,500
87	Floor finishes within existing	2,000	SF	\$17.50	\$35,000
88	Ceiling finishes	1,900	SF	\$6.00	\$11,400
89	Ceiling finishes within existing	2,000	SF	\$8.50	\$17,000
90	Services				
91	Elevator				NIC
92	Plumbing	2,000	SF	\$5.00	\$10,000
93	HVAC extension of existing	2,000	SF	\$35.00	\$70,000
94	Fire Protection	2,000	SF	\$5.50	\$11,000
95	Electrical	2,000	SF	\$35.00	\$70,000
96	MEP upgrade due to addition	2,000	SF	\$75.00	\$150,000
97	Equipment				
98	Equipment	2,000	SF	\$1.00	\$2,000
99	Furnishings				
100	Furnishings for classrooms				NIC
101	Special Construction				
102	Prefabricated construction	2,000	SF		NIC
103	Selective Building construction				
104	Building demolition	15,000	CF	\$1.50	\$22,500

Fiske Elementary School: Scheme C - New Wing Addition

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
105	Hazmat abatement	1	LS	\$10,000.00	\$10,000
106	Geo thermal well	1	EA	\$75,000.00	NIC
107	Decommission existing geothermal well				NIC
108	Sitework for reconfiguration fire lane	1	LS	\$100,000.00	NIC
109					
110	Fiske Elementary School: Cafeteria Expansion Total				\$833,738
111					
112					
113	Fiske Elementary School: Scheme C - Renovation				
114					
115	Renovation to existing	1,500	GSF	\$325.00	\$487,500
116	Hazmat abatement	1	LS	\$10,000.00	\$10,000
117					
118	Fiske Elementary School: Scheme C - Renovation Total				\$497,500
119					
120					
121					
122					

Fiske Elementary School: Scheme D - New Wing Addition

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
7	Fiske Elementary School: New Wing Addition Including Cafeteria	21,200	GSF		
8					
9	Substructure and Foundation				
10	Sitework	799	CY	\$25.00	\$19,976
11	Concrete	9,380	SF	\$35.00	\$328,300
12	Basement				
13	Basement excavation and walls				NIC
14	Superstructure				
15	Structural steel	140	TNS	\$4,500.00	\$630,000
16	Metal deck	10,318	SF	\$4.00	\$41,272
17	Exterior Enclosure	11,749	SF		
18	Exterior walls	7,872	SF	\$58.75	\$462,470
19	Exterior windows & storefront	3,877	SF	\$85.00	\$329,559
20	Exterior doors	2	PR	\$10,000.00	\$20,000
21	Roofing				
22	Roofing and associated items (finish)	10,787	SF	\$16.50	\$177,986
23	Deck	10,787	SF	\$3.75	\$40,451
24	Interior Construction				
25	Partitions	31,800	SF	\$10.00	\$318,000
26	Interior Doors	26	LVS	\$1,200.00	\$31,200
27	Fittings	8	RMS	\$2,000.00	\$16,000
28	Stairs				
29	Stairs	1	FLT	\$25,000.00	\$25,000
30	Interior Finishes				
31	Wall finishes	71,472	SF	\$1.00	\$71,472
32	Floor finishes	17,240	SF	\$7.50	\$129,300
33	Cafeteria	2,900	SF	\$15.00	\$43,500
34	Ceiling finishes	20,140	SF	\$6.00	\$120,840
35	Services				
36	Elevator				NIC
37	Plumbing	21,200	SF	\$5.00	\$106,000
38	Sinks in classrooms	6	EA	\$4,000.00	\$24,000
39	Toilet Rooms	2	RMS	\$16,000.00	\$32,000
40	Janitor's Closet	2	RMS	\$7,000.00	\$14,000
41	HVAC extension of existing	21,200	SF	\$35.00	\$742,000
42	Fire Protection	21,200	SF	\$5.50	\$116,600
43	Electrical	21,200	SF	\$35.00	\$742,000
44	MEP upgrade due to addition	21,200	SF	\$50.00	\$1,060,000
45	Equipment				
46	Equipment	21,200	SF	\$1.00	\$21,200
47	Furnishings				
48	Furnishings for classrooms	6	RMS	\$12,000.00	\$72,000
49	Special Construction				
50	Prefabricated construction	21,200	SF		NIC
51	Selective Building construction				
52	Building demolition	78,000	CF	\$0.75	\$58,500
53	Hazmat abatement	1	LS	\$30,000.00	\$30,000
54	Geo thermal well	2	EA	\$75,000.00	\$150,000
55	Decommission existing geothermal well				NIC

Fiske Elementary School: Scheme D - New Wing Addition

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
56	Remove and recreate parking spaces	45	EA	\$3,000.00	\$135,000
57	Add for parent drop-off zone	1	LS	\$100,000.00	\$100,000
58	Sitework for reconfiguration fire lane	1	LS	\$100,000.00	\$100,000
59	Relocate playground structure	1	AL	\$75,000.00	\$75,000
60	New playground surface	3,250	SF	\$18.00	\$58,500
61	Fence to new playground surface	230	LF	\$35.00	\$8,050
62	Gate to playground area	1	EA	\$3,500.00	\$3,500
63	New ADA walkway to playground	1,000	SF	\$3.00	\$3,000
64	New expanded parking area including utilities, curbs, markings				Included
65	New front plaza entry and walk	5,000	SF	\$20.00	\$100,000
66	Subsurface drainage, paving and markings	1	LS	\$100,000.00	\$100,000
67	Site lighting	1	LS	\$15,000.00	\$15,000
68					
69	Fiske Elementary School: New Wing Addition Including Cafeteria Subtotal				\$6,671,676
70					
71					
72	Fiske Elementary School: Cafeteria Expansion			<i>Included</i>	
73					
74					
75	Fiske Elementary School: Cafeteria Expansion Total				\$0
76					
77					

New Harrington Elementary School: Scheme E - New Wing Addition & Renovation

			TOTAL	COST/SF
<u>New Harrington School: Phase 1 - New Wing Addition</u>				
New Harrington School: Phase 1 - New Wing Addition	26,250 SF		\$10,121,797	\$385.59
Direct Trade Cost SubTotal	26,250 SF		\$10,121,797	\$385.59
Design and Pricing Contingency	20.00%	\$10,121,797	\$2,024,359	\$77.12
Trade Cost SubTotal			\$12,146,156	\$462.71
General Conditions and Markups				
General Conditions and Requirements	9.00%	\$12,146,156	\$1,093,154	\$41.64
Insurance	1.25%	\$13,239,310	\$165,491	\$6.30
GC Bonds	1.00%	\$13,404,801	\$134,048	\$5.11
Building Permit			Waived	
Fee	3.00%	\$13,538,849	\$406,165	\$15.47
Construction Contingency	3.00%	\$13,945,015	\$418,350	\$15.94
Estimated Construction Cost Total			\$14,363,365	\$547.18
Escalation to Summer 2016	5.54%	\$14,363,365	\$795,970	\$30.32
Estimated Construction Cost Total, Including Escalation			\$15,159,335	\$577.50
<u>New Harrington Elementary: Phase 2 - Renovation for Cafeteria & Art/Music</u>				
New Harrington Elementary School: Renovation (Café & Art/Music)	7,000 SF		\$2,450,000	\$350.00
Direct Trade Cost SubTotal	7,000 SF		\$2,450,000	\$350.00
Design and Pricing Contingency	20.00%	\$2,450,000	\$490,000	\$70.00
Trade Cost SubTotal			\$2,940,000	\$420.00
General Conditions and Markups				
General Conditions and Requirements	15.00%	\$2,940,000	\$441,000	\$63.00
Insurance	1.25%	\$3,381,000	\$42,263	\$6.04
GC Bonds	1.00%	\$3,423,263	\$34,233	\$4.89
Building Permit			Waived	
Fee	3.00%	\$3,457,495	\$103,725	\$14.82
Construction Contingency	3.00%	\$3,561,220	\$106,837	\$15.26
Estimated Construction Cost Total			\$3,668,057	\$524.01
Escalation to Summer 2016	5.54%	\$3,668,057	\$203,271	\$29.04
Estimated Construction Cost Total, Including Escalation			\$3,871,328	\$553.05

New Harrington Elementary School: Scheme E - New Wing Addition & Renovation

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
7	New Harrington School: Phase 1 - New Wing Addition	26,250	GSF		
8					
9	Substructure and Foundation				
10	Sitework	1,118	CY	\$25.00	\$27,951
11	Concrete	28,875	SF	\$35.00	\$1,010,625
12	Basement				
13	Basement excavation and walls				NIC
14	Superstructure				
15	Structural steel	173	TNS	\$4,500.00	\$778,500
16	Metal deck	13,125	SF	\$4.00	\$52,500
17	Exterior Enclosure	30,287	SF		
18	Exterior walls	20,292	SF	\$58.75	\$1,192,172
19	Exterior windows & storefront	9,995	SF	\$85.00	\$849,550
20	Exterior doors	2	PR	\$10,000.00	\$20,000
21	Roofing				
22	Roofing and associated items (finish)	14,700	SF	\$16.50	\$242,550
23	Deck	14,700	SF	\$3.75	\$55,125
24	Interior Construction				
25	Partitions	19,688	SF	\$10.00	\$196,875
26	Interior Doors	46	LVS	\$1,200.00	\$55,200
27	Fittings	20	RMS	\$2,000.00	\$40,000
28	Stairs				
29	Stairs	1	FLT	\$25,000.00	\$25,000
30	Interior Finishes				
31	Wall finishes	59,667	SF	\$1.00	\$59,667
32	Floor finishes	24,938	SF	\$7.50	\$187,031
33	Ceiling finishes	24,938	SF	\$6.00	\$149,625
34	Services				
35	Elevator				NIC
36	Plumbing	26,250	SF	\$5.00	\$131,250
37	Sinks in classrooms	20	EA	\$4,000.00	\$80,000
38	Toilet Rooms	4	RMS	\$16,000.00	\$64,000
39	Janitor's Closet	2	RMS	\$7,000.00	\$14,000
40	HVAC extension of existing	26,250	SF	\$35.00	\$918,750
41	Fire Protection	26,250	SF	\$5.50	\$144,375
42	Electrical	26,250	SF	\$35.00	\$918,750
43	MEP upgrade due to addition	26,250	SF	\$50.00	\$1,312,500
44	Equipment				
45	Kichen/Servery rework	1	LS	\$50,000.00	\$50,000
46	Equipment	26,250	SF	\$1.00	\$26,250
47	Furnishings				
48	Furnishings for classrooms	20	RMS	\$12,000.00	\$240,000
49	Special Construction				
50	Prefabricated construction	26,250	SF		NIC
51	Selective Building construction				
52	Geo thermal well	7	EA	\$75,000.00	\$525,000
53	Decommission existing geothermal well	5	EA	\$50,000.00	\$250,000
54	Building demolition	1	LS	\$75,000.00	\$75,000
55	Hazmat abatement	1	LS	\$15,000.00	\$15,000

New Harrington Elementary School: Scheme E - New Wing Addition & Renovation

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
56	Sitework for reconfiguration fire lane	1	LS	\$100,000.00	\$100,000
57	New playground structure	1	AL	\$150,000.00	\$150,000
58	New playground surface	5,000	SF	\$18.00	\$90,000
59	Fence to new playground surface	230	LF	\$35.00	\$8,050
60	Gate to playground area	1	EA	\$3,500.00	\$3,500
61	New ADA walkway to playground	1,000	SF	\$3.00	\$3,000
62	Subsurface drainage	1	LS	\$50,000.00	\$50,000
63	Site lighting	1	LS	\$10,000.00	\$10,000
64					
65					
66	New Harrington School: Phase 1 - New Wing Addition Subtotal				\$10,121,797
67					
68					
69					

Main Summary: Hasting Elementary School

		TOTAL	COST/SF
<u>Hasting Elementary School: Scheme F - New School</u>			
Hastings Elementary School: New School	86,850 SF	\$34,324,433	\$395.22
Demolish existing building		\$341,250	
Hazardous abatement allowance		\$100,000	
Hastings Elementary School: Sitework		Included In \$/SF Provided	
Direct Trade Cost SubTotal	86,850 SF	\$34,765,683	\$400.30
Design and Pricing Contingency	0.00%	\$34,765,683	\$0
Trade Cost SubTotal		\$34,765,683	\$400.30
General Conditions and Markups			
General Conditions and Requirements	9.00%	\$34,765,683	\$3,128,911
Insurance	1.25%	\$37,894,594	\$473,682
GC Bonds	1.00%	\$38,368,277	\$383,683
Building Permit			Waived
Fee	3.00%	\$38,751,960	\$1,162,559
Construction Contingency	3.00%	\$39,914,518	\$1,197,436
Trade Cost SubTotal		\$41,111,954	\$473.37
Hastings Elementary School: Eight (8) Portable Leased Modular Classrooms		\$1,154,573	\$13.29
Estimated Construction Cost Total		\$42,266,527	\$486.66
Escalation to Summer 2016	5.54%	\$42,266,527	\$2,342,270
Estimated Construction Cost Total, Including Escalation		\$44,608,797	\$513.63

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
7	Hastings Elementary School: New School	86,850	GSF		
8					
9	New Construction				
10	New School (Date: 2/2/2012)	86,850	GSF	\$358.61	\$31,145,043
11	Escalation \$ to 1st/2nd Quarter 2014/2015	1	10.21%	\$31,145,043	\$3,179,390
12					
13	New Hasting Elementary School - December 2014 \$	86,850	GSF	\$395.22	\$34,324,433
14					
15	Hastings Elementary School: Eight (8) Portable Leased Modular Classrooms				
16					
17	Modular Classrooms	8	EA	\$44,268.00	\$354,144
18	Add for plumbing fixtures	1	LS	\$20,000.00	\$20,000
19	Foundations - Concrete piers to 4'6" depth				Included
20	Enclosed connectors	750	SF	\$200.00	\$150,000
21	Installation	7,200	SF	\$40.00	\$288,000
22	Exterior ramps and stairs	1	LS	\$35,000.00	\$35,000
23	Tele/Data/Security/FA tie-in	1	LS	\$10,000.00	\$10,000
24	Electrical service	1	LS	\$20,000.00	\$20,000
25	FP Connection	1	LS	\$15,000.00	\$15,000
26	Water Supply	1	LS	\$15,000.00	\$15,000
27	Sewer Connection	1	LS	\$20,000.00	\$20,000
28	Site demolition and improvements	1	LS	\$15,000.00	\$15,000
29	Restore site after lease	1	LS	\$20,000.00	\$20,000
30	Subtotal				\$962,144
31					
32	Design Contingency	20.00%		\$962,144	\$192,429
33	Hastings Elementary School: Eight (8) Portable Leased Modular				\$1,154,573
34					
35					
36	Hastings Elementary School: Sitework	86,850	GSF		
37					
38	Parking spaces	70	SPACES	\$4,000.00	\$280,000
39	Soccer field	1	EA	\$350,000.00	\$350,000
40	Softball field	1	EA	\$125,000.00	\$125,000
41	Playground structure	1	AL	\$150,000.00	\$150,000
42	New playground surface	4,225	SF	\$18.00	\$76,050
43	Fence to new playground surface	260	LF	\$35.00	\$9,100
44	Gate to playground area	1	EA	\$3,500.00	\$3,500
45	New ADA walkway to playground	1,000	SF	\$3.00	\$3,000
46	New front plaza entry and walk	5,000	SF	\$20.00	\$100,000
47	Subsurface drainage, paving and markings	1	LS	\$100,000.00	\$100,000
48	Site lighting	1	LS	\$15,000.00	\$15,000
49					
50	Hastings Elementary School: Sitework Total				Included In \$/SF Provided
51					
52					

Main Summary: Clarke Middle School - Scheme G & H (Phases 1, 2 & 3)

			TOTAL	COST/SF
<u>Clarke Middle School: Scheme G (Phase 1) - Pre Fabricated Addition</u>				
Phase 1 Addition		7,500 SF	\$2,259,138	\$301.22
Replicate Water Detention System			\$50,000	
Direct Trade Cost SubTotal			\$2,309,138	\$307.89
Design and Pricing Contingency	20.00%	\$2,309,138	\$461,828	\$61.58
Trade Cost SubTotal			\$2,770,966	\$369.46
General Conditions and Markups				
General Conditions and Requirements	15.00%	\$2,770,966	\$415,645	\$55.42
Insurance	1.25%	\$3,186,611	\$39,833	\$5.31
GC Bonds	1.00%	\$3,226,444	\$32,264	\$4.30
Building Permit			Waived	
Fee	3.00%	\$3,258,708	\$97,761	\$13.03
Construction Contingency	3.00%	\$3,356,469	\$100,694	\$13.43
Estimated Construction Cost Total			\$3,457,163	\$460.96
Escalation to Summer 2016	5.54%	\$3,457,163	\$191,584	\$25.54
Estimated Construction Cost Total, Including Escalation			\$3,648,747	\$486.50
<u>Clarke Middle School: Scheme H (Phase 2) New Addition Three (3) Stories</u>				
Phase 2 Addition		11,000 SF	\$3,658,607	\$332.60
Direct Trade Cost SubTotal			\$3,658,607	\$332.60
Design and Pricing Contingency	20.00%	\$3,658,607	\$731,721	\$66.52
Trade Cost SubTotal			\$4,390,328	\$399.12
General Conditions and Markups				
General Conditions and Requirements	12.00%	\$4,390,328	\$526,839	\$47.89
Insurance	1.25%	\$4,917,167	\$61,465	\$5.59
GC Bonds	1.00%	\$4,978,632	\$49,786	\$4.53
Building Permit			Waived	
Fee	3.00%	\$5,028,418	\$150,853	\$13.71
Construction Contingency	3.00%	\$5,179,271	\$155,378	\$14.13
Estimated Construction Cost Total			\$5,334,649	\$484.97
Escalation to Summer 2016	5.54%	\$5,334,649	\$295,628	\$26.88
Estimated Construction Cost Total, Including Escalation			\$5,630,277	\$511.84

Main Summary: Clarke Middle School - Scheme G & H (Phases 1, 2 & 3)

			TOTAL	COST/SF
Clarke Middle School: Scheme H (Phase 3) - Renovation				
Renovation	13,600 SF		\$2,856,000	\$210.00
Direct Trade Cost SubTotal	13,600 GSF		\$2,856,000	\$210.00
Design and Pricing Contingency	20.00%	\$2,856,000	\$571,200	\$42.00
Trade Cost SubTotal			\$3,427,200	\$252.00
General Conditions and Markups				
General Conditions and Requirements	15.00%	\$3,427,200	\$514,080	\$37.80
Insurance	1.25%	\$3,941,280	\$49,266	\$3.62
GC Bonds	1.00%	\$3,990,546	\$39,905	\$2.93
Building Permit			Waived	
Fee	3.00%	\$4,030,451	\$120,914	\$8.89
Construction Contingency	3.00%	\$4,151,365	\$124,541	\$9.16
Estimated Construction Cost Total			\$4,275,906	\$314.40
Escalation to Summer 2016	5.54%	\$4,275,906	\$236,956	\$17.42
Estimated Construction Cost Total, Including Escalation			\$4,512,862	\$331.83

Clarke Middle School: Scheme G (Phase 1) & Scheme H (Phase 2 & 3)

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
7	Clarke Middle School: Scheme G (Phase 1) - Pre Fabricated Addition	7,500	GSF		
8					
9	Substructure and Foundation				
10	Sitework	639	CY	\$25.00	\$15,972
11	Concrete	7,500	SF	\$35.00	\$262,500
12	Basement				
13	Basement excavation and walls				NIC
14	Superstructure				
15	Structural steel	7,500	SF	\$200.00	INCLUDED
16	Exterior Enclosure	3,180	SF		
17	Exterior walls	2,131	SF	\$58.75	INCLUDED
18	Exterior windows	1,049	SF	\$80.00	INCLUDED
19	Exterior doors	1	PR	\$10,000.00	INCLUDED
20	Roofing				
21	Roofing and associated items (finish)	8,250	SF	\$15.00	\$123,750
22	Interior Construction				
23	Partitions	1,755	SF	\$10.00	INCLUDED
24	Interior Doors	7	LVS	\$1,200.00	INCLUDED
25	Fittings	2	RMS	\$2,000.00	\$4,000
26	Stairs				
27	Stairs				NIC
28	Interior Finishes				
29	Wall finishes	5,641	SF	\$1.00	\$5,641
30	Floor finishes	7,125	SF	\$7.50	INCLUDED
31	Ceiling finishes	7,125	SF	\$6.00	INCLUDED
32	Services				
33	Elevator				NIC
34	Plumbing - rough in	7,500	SF	\$5.00	\$37,500
35	Sinks in classrooms (Hook up)	2	EA	\$1,000.00	\$2,000
36	Toilet Rooms (Hook up)	2	RMS	\$8,000.00	\$16,000
37	HVAC extension of existing	7,500	SF	\$5.00	\$37,500
38	Fire Protection	7,500	SF	\$5.50	NIC
39	Fire Protection (Hook up)	7,500			
40	Electrical (Hook up)	7,500	SF	\$15.00	\$112,500
41	MEP upgrade due to addition	7,500	SF	\$75.00	\$562,500
42	Equipment				
43	Equipment	7,500	SF	\$1.00	\$7,500
44	Furnishings				
45	Furnishings for classrooms	2	RMS	\$12,000.00	INCLUDED
46	Special Construction				
47	Prefabricated construction	7,500	SF	\$126.00	\$945,000
48	Selective Building construction				
49	Building demolition	2,355	SF	\$5.00	\$11,775
50	Hazmat abatement	1	LS	\$15,000.00	\$15,000
51	Sitework for reconfiguration	1	LS	\$100,000.00	\$100,000
52					
53	Clarke Middle School: Scheme G (Phase 1) - Pre Fabricated Addition Subtotal				\$2,259,138
54					
55					

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
56	Clarke Middle School: Scheme H (Phase 2) New Addition Three (3) Stories	11,000	GSF		
57					
58	Substructure and Foundation				
59	Sitework	937	CY	\$25.00	\$23,426
60	Concrete	4,583	SF	\$35.00	\$160,417
61	Basement				
62	Basement excavation and walls				NIC
63	Superstructure				
64	Structural steel	73	TNS	\$4,500.00	\$328,500
65	Metal deck	5,500	SF	\$4.00	\$22,000
66	Exterior Enclosure				
67	Exterior walls	17,531	SF	\$58.75	\$900,064
68	Exterior windows & storefront	11,746	SF	\$85.00	\$91,745
69	Exterior doors	5,785	SF	\$10,000.00	\$10,000
70	Roofing				
71	Roofing and associated items (finish)	1	PR	\$16.50	\$67,760
72	Deck	4,107	SF	\$3.75	\$15,400
73	Interior Construction				
74	Partitions	24,750	SF	\$10.00	\$247,500
75	Interior Doors	18	LVS	\$1,200.00	\$21,600
76	Fittings	12	RMS	\$2,000.00	\$24,000
77	Stairs				
78	Stairs	2	FLT	\$25,000.00	\$50,000
79	Interior Finishes				
80	Wall finishes	61,246	SF	\$1.00	\$61,246
81	Floor finishes	10,450	SF	\$7.50	\$78,375
82	Ceiling finishes	10,450	SF	\$6.00	\$62,700
83	Services				
84	Elevator				NIC
85	Plumbing	11,000	SF	\$5.00	\$55,000
86	Sinks in classrooms	12	EA	\$4,000.00	\$48,000
87	Toilet Rooms	2	RMS	\$16,000.00	\$32,000
88	Janitor's Closet	2	RMS	\$7,000.00	\$14,000
89	HVAC extension of existing	11,000	SF	\$35.00	\$385,000
90	Fire Protection	11,000	SF	\$5.50	\$60,500
91	Electrical	11,000	SF	\$35.00	\$385,000
92	Equipment				
93	Equipment	11,000	SF	\$1.00	\$11,000
94	Furnishings				
95	Furnishings for classrooms	12	RMS	\$12,000.00	\$144,000
96	Special Construction				
97	Prefabricated construction	11,000	SF		NIC
98	Selective Building construction				
99	Building demolition	52,500	CF	\$0.75	\$39,375
100	Hazmat abatement	1	LS	\$30,000.00	\$30,000
101	Bulding entry	1	LS	\$100,000.00	\$100,000
102					
103	Clarke Middle School: Scheme H (Phase 2) New Addition Three (3) Stories Total				\$3,658,607
104					

Clarke Middle School: Scheme G (Phase 1) & Scheme H (Phase 2 & 3)

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
105					
106	Clarke Middle School: Scheme H (Phase 3) - Renovation				
107					
108	Renovation to existing	13,600	GSF	\$210.00	\$2,856,000
109	Hazmat abatement	1	LS	\$30,000.00	\$30,000
110					
111	Clarke Middle School: Scheme H (Phase 3) - Renovation Total				\$2,856,000
112					
113					

			TOTAL	COST/SF
Diamond Middle School: Scheme I - Addition and Prefabricated Classrooms				
Diamond Middle School: New "Donut" Shaped Two (2) Story Addition	22,300 SF	\$5,052,943	\$226.59	
Diamond Middle School: Two (2) 1,500 SF Cafeteria Expansions	3,000 SF	\$1,755,709	\$585.24	
Diamond Middle School: Prefabricated Classrooms	11,800 SF	\$3,469,385	\$294.02	
Diamond Middle School: Renovation	7,000 SF	\$1,470,000	\$210.00	
Direct Trade Cost SubTotal	44,100 SF	\$11,748,037	\$266.40	
Design and Pricing Contingency	20.00%	\$11,748,037	\$2,349,607	\$53.28
Trade Cost SubTotal			\$14,097,644	\$319.67
General Conditions and Markups				
General Conditions and Requirements	9.00%	\$14,097,644	\$1,268,788	\$28.77
Insurance	1.25%	\$15,366,432	\$192,080	\$4.36
GC Bonds	1.00%	\$15,558,512	\$155,585	\$3.53
Building Permit			Waived	
Fee	3.00%	\$15,714,097	\$471,423	\$10.69
Construction Contingency	3.00%	\$16,185,520	\$485,566	\$11.01
Estimated Construction Cost Total			\$16,671,086	\$378.03
Escalation to Summer 2016	5.54%	\$16,671,086	\$923,856	\$20.95
Estimated Construction Cost Total, Including Escalation			\$17,594,942	\$398.98

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
7	Diamond Middle School: New "Donut" Shaped Two (2) Story Addition	22,300	GSF		
8					
9	Substructure and Foundation				
10	Sitework	1,900	CY	\$25.00	\$47,491
11	Concrete	11,150	SF	\$35.00	\$390,250
12	Basement				
13	Basement excavation and walls				NIC
14	Superstructure				
15	Structural steel	147	TNS	\$4,500.00	\$661,500
16	Metal deck	11,150	SF	\$4.00	\$44,600
17	Exterior Enclosure	10,137	SF		
18	Exterior walls	6,792	SF	\$58.75	\$399,018
19	Exterior windows & storefront	3,345	SF	\$85.00	\$284,343
20	Exterior doors	1	PR	\$10,000.00	\$10,000
21	Roofing				
22	Roofing and associated items (finish)	12,488	SF	\$16.50	\$206,052
23	Deck	12,488	SF	\$3.75	\$46,830
24	Interior Construction				
25	Partitions	9,660	SF	\$10.00	\$96,600
26	Interior Doors	26	LVS	\$1,200.00	\$31,200
27	Fittings	10	RMS	\$2,000.00	\$20,000
28	Stairs				
29	Stairs	1	FLT	\$25,000.00	\$25,000
30	Interior Finishes				
31	Wall finishes	26,112	SF	\$1.00	\$26,112
32	Floor finishes	21,185	SF	\$7.50	\$158,888
33	Ceiling finishes	21,185	SF	\$6.00	\$127,110
34	Services				
35	Elevator				NIC
36	Plumbing	22,300	SF	\$5.00	\$111,500
37	Sinks in classrooms	10	EA	\$4,000.00	\$40,000
38	Toilet Rooms	4	RMS	\$16,000.00	\$64,000
39	Janitor's Closet	2	RMS	\$7,000.00	\$14,000
40	HVAC extension of existing	22,300	SF	\$35.00	\$780,500
41	Fire Protection	22,300	SF	\$5.50	\$122,650
42	Electrical	22,300	SF	\$35.00	\$780,500
43	Equipment				
44	Equipment	22,300	SF	\$1.00	\$22,300
45	Furnishings				
46	Furnishings for classrooms	10	RMS	\$12,000.00	\$120,000
47	Special Construction				
48	Prefabricated construction	22,300	SF		NIC
49	Selective Building construction				
50	Building demolition	30,000	CF	\$0.75	\$22,500
51	Hazmat abatement				NIC
52	Remove modulars	6	EA	\$50,000.00	\$300,000
53	Sitework for reconfiguration fire lane	1	LS	\$100,000.00	\$100,000
54					
55	Diamond Middle School: New "Donut" Shaped Two (2) Story Addition Total				\$5,052,943

Diamond Middle School: Scheme I - Addition and Prefabricated Classrooms

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
56					
57					
58	Diamond Middle School: Two (2) 1,500 SF Cafeteria Expansions	3,000	GSF		
59					
60	Substructure and Foundation				
61	Sitework	256	CY	\$25.00	\$6,389
62	Concrete	3,000	SF	\$35.00	\$105,000
63	Basement				
64	Basement excavation and walls				NIC
65	Superstructure				
66	Structural steel	20	TNS	\$4,500.00	\$90,000
67	Metal deck	0	SF	\$4.00	\$0
68	Exterior Enclosure				
69	Exterior walls	1,480	SF	\$58.75	\$86,950
70	Exterior windows & storefront	2,220	SF	\$85.00	\$188,700
71	Exterior doors	2	PR	\$10,000.00	\$20,000
72	Roofing				
73	Roofing and associated items (finish)	3,360	SF	\$16.50	\$55,440
74	Deck	3,360	SF	\$3.75	\$12,600
75	Interior Construction				
76	Partitions	900	SF	\$10.00	\$9,000
77	Interior Doors	0	LVS	\$1,200.00	\$0
78	Fittings	1	LS	\$10,000.00	\$10,000
79	Stairs				
80	Stairs				NIC
81	Interior Finishes				
82	Wall finishes	3,280	SF	\$1.00	\$3,280
83	Floor finishes	2,850	SF	\$15.00	\$42,750
84	Floor finishes within existing	2,000	SF	\$17.50	\$35,000
85	Ceiling finishes	2,850	SF	\$6.00	\$17,100
86	Ceiling finishes within existing	2,000	SF	\$8.50	\$17,000
87	Services				
88	Elevator				NIC
89	Plumbing	3,000	SF	\$5.00	\$15,000
90	HVAC extension of existing	3,000	SF	\$35.00	\$105,000
91	Fire Protection	3,000	SF	\$5.50	\$16,500
92	Electrical	3,000	SF	\$35.00	\$105,000
93	Equipment				
94	Kitchen equipment	3,000	SF	\$250.00	\$750,000
95	Equipment	1	LS	\$10,000.00	\$10,000
96	Furnishings				
97	Furnishings for classrooms				NIC
98	Special Construction				
99	Prefabricated construction	3,000	SF		NIC
100	Selective Building construction				
101	Building demolition	1	LS	\$25,000.00	\$25,000
102	Hazmat abatement	1	LS	\$30,000.00	\$30,000
103					
104	Diamond Middle School: Two (2) 1,500 SF Cafeteria Expansions Total				\$1,755,709

Diamond Middle School: Scheme I - Addition and Prefabricated Classrooms

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
105					
106					
107	Diamond Middle School: Prefabricated Classrooms	11,800	GSF		
108					
109	Substructure and Foundation				
110	Sitework	1,005	CY	\$25.00	\$25,130
111	Concrete	11,800	SF	\$35.00	\$413,000
112	Basement				
113	Basement excavation and walls				NIC
114	Superstructure				
115	Structural steel	11,800	SF	\$200.00	INCLUDED
116	Exterior Enclosure				
117	Exterior walls	3,180	SF	\$58.75	INCLUDED
118	Exterior windows	2,131	SF	\$80.00	INCLUDED
119	Exterior doors	1,049	SF	\$10,000.00	INCLUDED
120	Roofing				
121	Roofing and associated items (finish)	13,216	SF	\$15.00	\$198,240
122	Interior Construction				
123	Partitions	1,755	SF	\$10.00	INCLUDED
124	Interior Doors	7	LVS	\$1,200.00	INCLUDED
125	Fitiings	2	RMS	\$2,000.00	\$4,000
126	Stairs				
127	Stairs				NIC
128	Interior Finishes				
129	Wall finishes	5,641	SF	\$1.00	\$5,641
130	Floor finishes	11,210	SF	\$7.50	INCLUDED
131	Ceiling finishes	11,210	SF	\$6.00	INCLUDED
132	Services				
133	Elevator				NIC
134	Plumbing - rough in	11,800	SF	\$5.00	\$59,000
135	Sinks in classrooms (Hook up)	2	EA	\$1,000.00	\$2,000
136	Toilet Rooms (Hook up)	2	RMS	\$8,000.00	\$16,000
137	HVAC extension of existing	11,800	SF	\$5.00	\$59,000
138	Fire Protection	11,800	SF	\$5.50	NIC
139	Fire Protection (Hook up)	11,800	SF		
140	Electrical (Hook up)	11,800	SF	\$15.00	\$177,000
141	MEP upgrade due to addition	11,800	SF	\$75.00	\$885,000
142	Equipment				
143	Equipment	11,800	SF	\$1.00	\$11,800
144	Furnishings				
145	Furnishings for classrooms	2	RMS	\$12,000.00	INCLUDED
146	Special Construction				
147	Prefabricated construction	11,800	SF	\$126.00	\$1,486,800
148	Selective Building construction				
149	Building demolition	2,355	SF	\$5.00	\$11,775
150	Hazmat abatement	1	LS	\$15,000.00	\$15,000
151	Sitework for reconfiguration	1	LS	\$100,000.00	\$100,000
152					
153	Diamond Middle School: Prefabricated Classrooms Total				\$3,469,385

LEXINGTON PUBLIC SCHOOLS

School Committee – Option 9 Discussion

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January 13, 2015

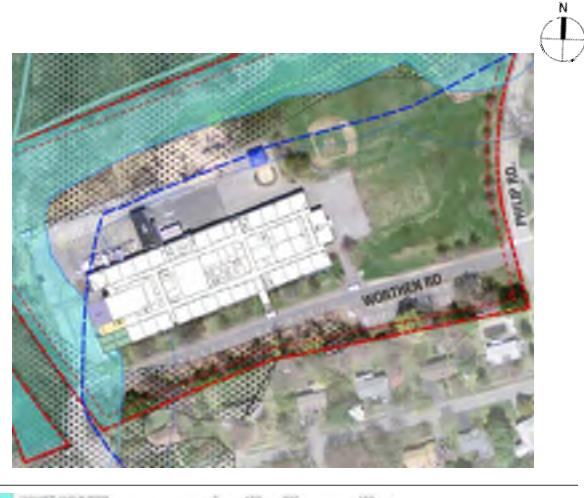
OPTION 9 COMPONENTS

- Bowman Elementary – Pre-Fabricated Addition
- Bridge Elementary – Pre Fabricated Addition
- Harrington Elementary – Additions and Renovations
- Hastings Elementary – New School
- Clarke Middle – Pre-Fabricated Addition
- Diamond Middle - Additions and Renovations

BOWMAN ELEMENTARY SCHOOL – COMPONENT A1

Bowman Elementary – Pre-Fabricated Additions

- 2 Additional Classrooms, 2nd Music room, toilet rooms
- Completed for September 2016
- Long term population reduction after other projects are completed and redistricting occurs
- Project costs include system upgrades, site work, FFE
- Bowman Project Costs \$3.1M



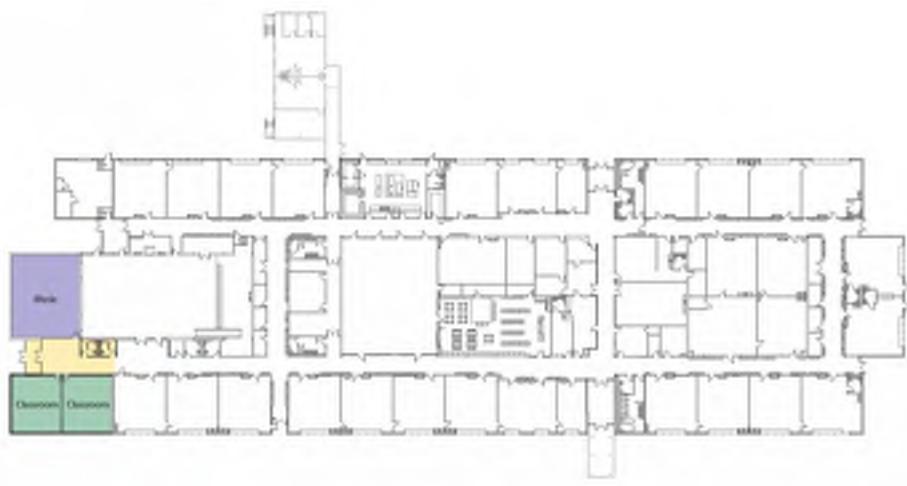
Bowman Elementary School
Lexington Public Schools

WETLAND
FLOODPLAIN
100' WETLAND BUFFER
200' WATER BUFFER

0 100 200 300 400
Feet

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BOWMAN ELEMENTARY – COMPONENT A1



Bowman Elementary School – Component A1
Lexington Public Schools

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BRIDGE ELEMENTARY – COMPONENT A2



Bridge Elementary – Pre-Fabricated Additions

- 2 Additional Classrooms, 1 SPED room, 2nd Music room, toilet rooms
- Completed for September 2016
- Long term population reduction after other projects are completed and redistricting occurs
- Project costs include system upgrades, site work, FFE
- Bridge Project Costs \$3.68M



Bridge Elementary School – Component A2
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BRIDGE ELEMENTARY – COMPONENT A2



Bridge Elementary School – Component A2
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HARRINGTON ELEMENTARY – COMPONENT E

Harrington – Addition and Interior Renovations

- Addition of Expanded PreK program
 - Include 3 classrooms, offices, PT
- 7 Additional Classrooms (6 gen ed + 1 SPED room), New Gym, Expanded Cafeteria and Kitchen, Additional Music and Art rooms
- Project costs include site costs including new playground, systems upgrades, relocation of geothermal wells, FFE
- Harrington Project costs \$24.3M



Harrington Elementary
Lexington Public Schools

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HARRINGTON ELEMENTARY – COMPONENT E



Harrington Elementary – 1st Floor
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HARRINGTON ELEMENTARY – COMPONENT E



Harrington Elementary – 2nd Floor
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HASTINGS ELEMENTARY – COMPONENT F

Hastings – New Building

- MSBA or Town funded – Impacts Schedule
- Design Phase can test site for scope
- Assume 4.5 Sections – (600 total students)
- (Net increase of Classrooms)
- Project costs include 8 temporary construction modulars, parking, site costs
- Hastings project costs \$59M



Hastings Elementary School
Lexington Public Schools

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OPTION 9 COMPONENTS – ELEMENTARY SCHOOLS

Elementary Summary

- Expanded PreK
- Provides 17 Additional Classrooms
- Additional SPED and music rooms
- Redistricting required
- Hastings project town funded or MSBA project?

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CLARKE MIDDLE – COMPONENT G

Clarke – Pre-Fabricated Additions

- 5 Additional Classrooms (1 team + 1 SPED room), New toilets
- Completion by September 2016
- Project costs include site work, relocation of detention system, systems upgrade, FFE
- Clarke Project costs \$4.61M



Clarke Middle School – Third Floor Addition - Component G
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CLARKE MIDDLE – COMPONENT G



Clarke Middle School – Third Floor Addition - Component G
Lexington Public Schools

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DIAMOND MIDDLE – COMPONENT I

Diamond – Prefabricated Addition and Brick and Mortar Addition

- 8 Pre-Fab Classrooms (or modular) - space for general education/ SPED/ teacher planning/ art/ music
- Pre-fab completed September 2016 – creates swing space for Brick and Mortar project
- Brick and Mortar – 16 Additional Classrooms (includes general education/SPED/teacher planning/art/music) and Cafeteria Additions
- Project costs include systems upgrades, site work, removal of existing portable classrooms, 7,000 SF of general renovation, FFE
- Project costs \$24M

Diamond Middle School
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DIAMOND MIDDLE – COMPONENT I



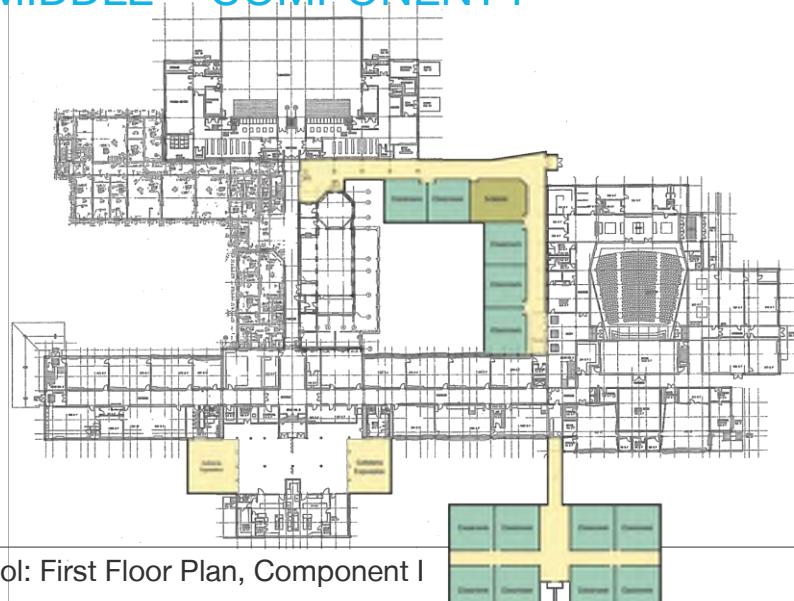
Diamond Middle School: Additions, Component I

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WETLAND
SEWER EASEMENT
FLOODPLAIN
100' WETLAND BUFF
200' WETLAND BUFFS

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DIAMOND MIDDLE - COMPONENT I

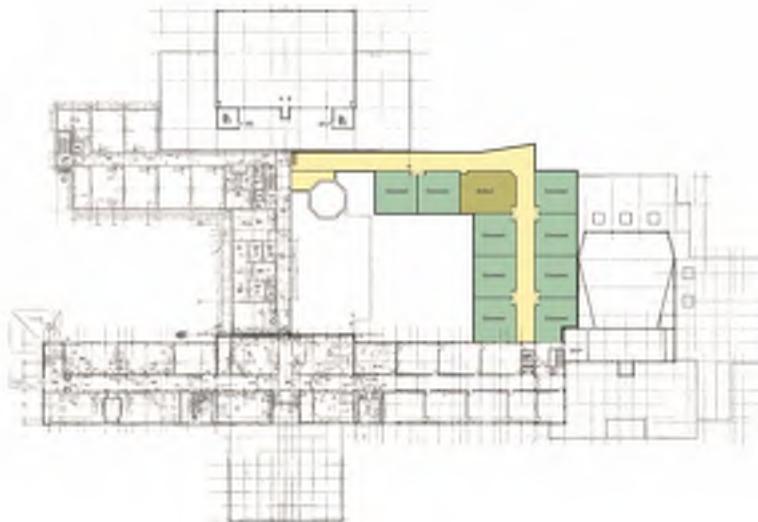


Diamond Middle School: First Floor Plan, Component I

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DIAMOND MIDDLE – COMPONENT I



Diamond Middle School: Second Floor Plan, Component I
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OPTION 9 COMPONENTS – MIDDLE SCHOOLS

Middle School Summary

- Clarke - Net gain of 1 Team and SPED room
- Diamond – Net gain of 2 Teams, teacher planning, Sped rooms
- Redistricting required

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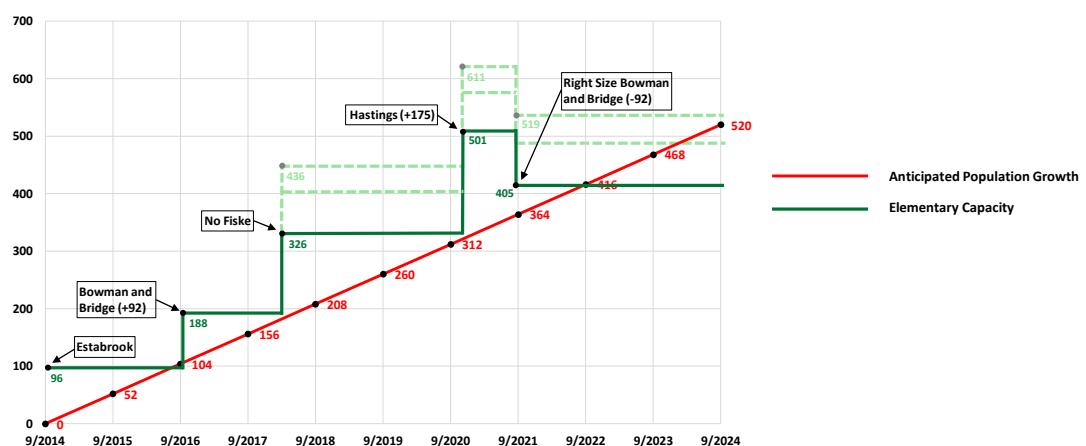
WHAT IF's FUNDING / DESIGN / CONSTRUCTION SCHEDULE

Quarter	2015				2016				2017				2018				2019				2020				2021			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Bowman	2	1	4 & 5		6	7																						
	\$ 3.10																											
Bridge	2	4 & 5	6	7																								
	\$ 3.68																											
Harrington	1	4	3	5	6																							
	\$ 24.30				5	-																						
Hastings / MSBA ²	8		9	10					11		3		4		5		6		7									
Hastings / Lex Only	1	4	3	5	6				7																		175	
Clarke	1	4	6	7																								
	\$ 4.63																											
Diamond, Phase 1, PreFab	1	2	4 & 5	6	7																							
	\$ -																											
Diamond, Phase 2 & 3, Permanent Const	1	4	3	5	6				7																			
	\$ -																											
High School									8		9	10					11	3	4	3					6			
Increased Capacity (Elementary) Temporary									92																		92	
Increased Capacity (Elementary) Permanent									96																		317	
Increased Capacity (Middle) Temporary										128																	128	
Increased Capacity (Middle) Permanent										92																	276	
Key																												
1 Design Funding																												
2 Design and Construction Funding																												
3 Construction Funding																												
4 Design / Permitting																												
5 Bidding																												
6 Fabrication / Construction																												
7 Occupancy																												
8 Submit SOI																												
9 SOI Accepted / MSBA Mod 1 Eligibility Period / Funding																												
10 MSBA Mod 2 Building Project Team																												
11 Mod 3 - Feasibility Study																												

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ELEMENTARY SCHOOLS – GROWTH VS. CAPACITY (NO FISKE INCLUDED)



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OPTION 9 COMPONENTS

• Bowman Elementary	\$ 3,100,000
• Bridge Elementary	\$ 3,680,000
• Harrington Elementary	\$ 24,300,000
• Hastings Elementary	\$ 59,000,000*
• Clarke Middle	\$ 4,610,000
• Diamond Middle	\$ <u>24,000,000</u>
Total	\$118,690,000

*without MSBA reimbursement

Note: all costs are escalated to summer 2016. Projects that start after that date will require addition escalation.

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Discussion

LEXINGTON PUBLIC SCHOOLS

Ad hoc Schools Master Plan Committee
with Town Boards

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SYMMES MAINI & MCKEE ASSOCIATES

January 8, 2015

AGENDA

1. Master Plan Overview
2. Grade Configuration Options
3. Population Growth Goals
4. Master Plan Component Options Explored
5. Preferred Master Plan Components
6. Components by School
7. Timeline
8. Capacity vs. Growth

MASTER PLAN OVERVIEW

Phase 1 – Capacity Analysis

Phase 2 – PreK Options/Harrington; Standard Modular Classrooms at Various School

Phase 3 – Master Plan Options Development w/Costs

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GRADE CONFIGURATION OPTIONS

	Comments											
Current	Status Quo, Most people are likely comfortable with this configuration											
Option 1	K-8 is inefficient in small elementary schools, likely require more classrooms											
Option 2	Adds a transition in within the elementary grades which can be disruptive; but likely reduces the number of classrooms needed											
Option 3	Relieves elementary schools only; requires early childhood school and MS additions											
Option 4	All elementary and both MS are relieved, Early Childhood and High School become the priority											
Option 5	Relieves elementary schools only, High School become the priority											
Option 6												



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POPULATION GROWTH GOALS

	Current Population 2014-2015	Anticipated Population 2015-2016 Next Year	Anticipated Population 2019-2020 5 Years	5 Year Growth	Anticipated Population 2024-2025 10 Years	10 Year Growth
Elementary Schools (6)	3,025	3,049	3,206	268 over 2013 181 over current	3,438	500 over 2013
Middle Schools	1,617	1,658	1,819	202	*1,872	255
Lexington High School	2,107	2,169	2,265	158	2,504	397

Enrollment Working Group – Linear Extrapolation Method

District Projections – Cohort Survival Method

*Middle Schools Progression Rate
2.05 = 1,872 = 255 students

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MASTER PLAN COMPONENT OPTIONS EXPLORED

Project	Project Title	Budget \$M	Phase	Project	Budget \$M	Phase	Delivery date/phase	Deliverables/Outcomes	Initial Risk Register	Stakeholder Register	Requirements Register	Change Management Register	Issue Register
1	Project Alpha - High Priority Project	100	Initiation	Project Beta - Medium Priority Project	50	Initiation	Q3 2024 - Alpha	System A & System B	100 Risks	10 Stakeholders	Alpha Requirements	Alpha Change Requests	Alpha Issues
2	Project Gamma - Long Term Project	200	Initiation	Project Delta - Medium Priority Project	100	Initiation	Q4 2024 - Beta	System C & System D	50 Risks	15 Stakeholders	Beta Requirements	Beta Change Requests	Beta Issues
3	Project Eta - Medium Priority Project	80	Initiation	Project Zeta - High Priority Project	120	Initiation	Q1 2025 - Gamma	System E & System F	70 Risks	12 Stakeholders	Gamma Requirements	Gamma Change Requests	Gamma Issues
4	Project Theta - High Priority Project	150	Initiation	Project Iota - Medium Priority Project	90	Initiation	Q2 2025 - Delta	System G & System H	90 Risks	18 Stakeholders	Delta Requirements	Delta Change Requests	Delta Issues
5	Project Kappa - Medium Priority Project	70	Initiation	Project Lambda - High Priority Project	110	Initiation	Q3 2025 - Epsilon	System I & System J	60 Risks	14 Stakeholders	Epsilon Requirements	Epsilon Change Requests	Epsilon Issues
6	Project Mu - High Priority Project	180	Initiation	Project Nu - Medium Priority Project	100	Initiation	Q4 2025 - Zeta	System K & System L	110 Risks	20 Stakeholders	Zeta Requirements	Zeta Change Requests	Zeta Issues
7	Project Xi - Medium Priority Project	60	Initiation	Project Omicron - High Priority Project	130	Initiation	Q1 2026 - Eta	System M & System N	80 Risks	16 Stakeholders	Eta Requirements	Eta Change Requests	Eta Issues
8	Project Pi - High Priority Project	120	Initiation	Project Rho - Medium Priority Project	80	Initiation	Q2 2026 - Theta	System O & System P	100 Risks	19 Stakeholders	Theta Requirements	Theta Change Requests	Theta Issues
9	Project Sigma - Medium Priority Project	50	Initiation	Project Upsilon - High Priority Project	100	Initiation	Q3 2026 - Iota	System Q & System R	90 Risks	17 Stakeholders	Iota Requirements	Iota Change Requests	Iota Issues
10	Project Phi - Medium Priority Project	90	Initiation	Project Chi - High Priority Project	140	Initiation	Q4 2026 - Kappa	System S & System T	130 Risks	21 Stakeholders	Kappa Requirements	Kappa Change Requests	Kappa Issues
11	Project Psi - High Priority Project	160	Initiation	Project Omega - Medium Priority Project	100	Initiation	Q1 2027 - Lambda	System V & System W	150 Risks	23 Stakeholders	Lambda Requirements	Lambda Change Requests	Lambda Issues
12	Project Gamma - Medium Priority Project	70	Initiation	Project Epsilon - High Priority Project	120	Initiation	Q2 2027 - Mu	System X & System Y	100 Risks	18 Stakeholders	Mu Requirements	Mu Change Requests	Mu Issues
13	Project Zeta - High Priority Project	140	Initiation	Project Delta - Medium Priority Project	90	Initiation	Q3 2027 - Nu	System Z & System A	120 Risks	20 Stakeholders	Nu Requirements	Nu Change Requests	Nu Issues
14	Project Eta - Medium Priority Project	60	Initiation	Project Theta - High Priority Project	110	Initiation	Q4 2027 - Pi	System B & System C	80 Risks	16 Stakeholders	Pi Requirements	Pi Change Requests	Pi Issues
15	Project Iota - High Priority Project	100	Initiation	Project Epsilon - Medium Priority Project	70	Initiation	Q1 2028 - Rho	System D & System E	90 Risks	17 Stakeholders	Rho Requirements	Rho Change Requests	Rho Issues
16	Project Theta - Medium Priority Project	50	Initiation	Project Mu - High Priority Project	130	Initiation	Q2 2028 - Sigma	System F & System G	110 Risks	19 Stakeholders	Sigma Requirements	Sigma Change Requests	Sigma Issues
17	Project Pi - High Priority Project	120	Initiation	Project Nu - Medium Priority Project	80	Initiation	Q3 2028 - Upsilon	System H & System I	100 Risks	18 Stakeholders	Upsilon Requirements	Upsilon Change Requests	Upsilon Issues
18	Project Sigma - Medium Priority Project	70	Initiation	Project Omicron - High Priority Project	100	Initiation	Q4 2028 - Phi	System J & System K	90 Risks	16 Stakeholders	Phi Requirements	Phi Change Requests	Phi Issues
19	Project Psi - High Priority Project	140	Initiation	Project Chi - Medium Priority Project	90	Initiation	Q1 2029 - Psi	System L & System M	130 Risks	21 Stakeholders	Psi Requirements	Psi Change Requests	Psi Issues
20	Project Omega - Medium Priority Project	60	Initiation	Project Omega - High Priority Project	120	Initiation	Q2 2029 - Omega	System N & System O	150 Risks	23 Stakeholders	Omega Requirements	Omega Change Requests	Omega Issues

Ad Hoc School Master Plan Committee

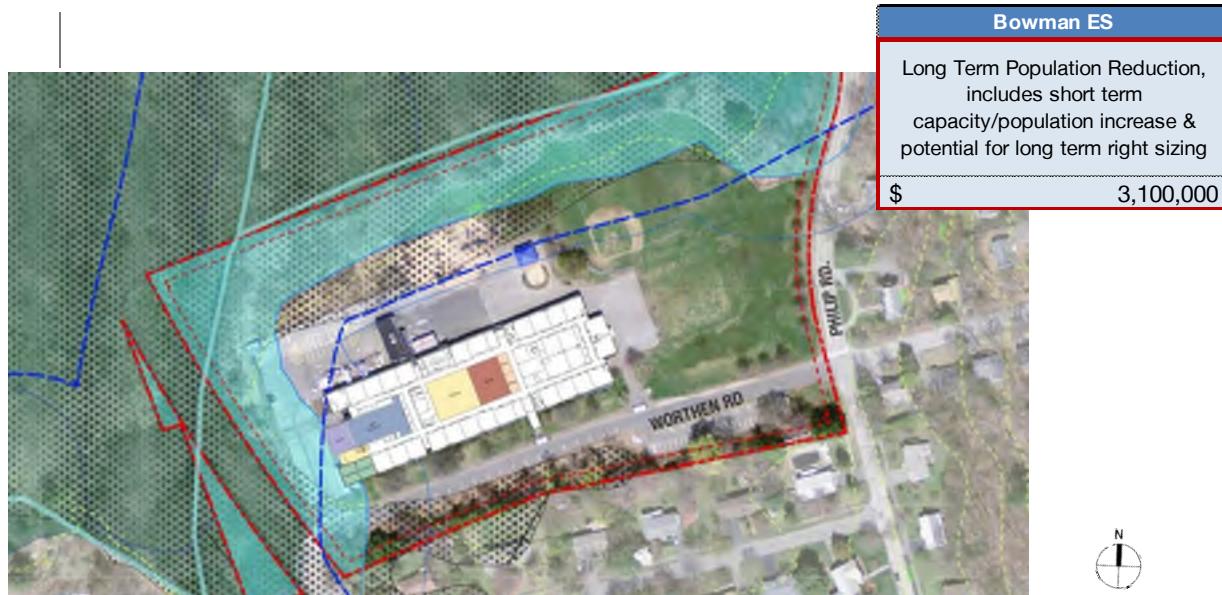
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PREFERRED MASTER PLAN COMPONENTS

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Bowman Elementary School
Lexington Public Schools

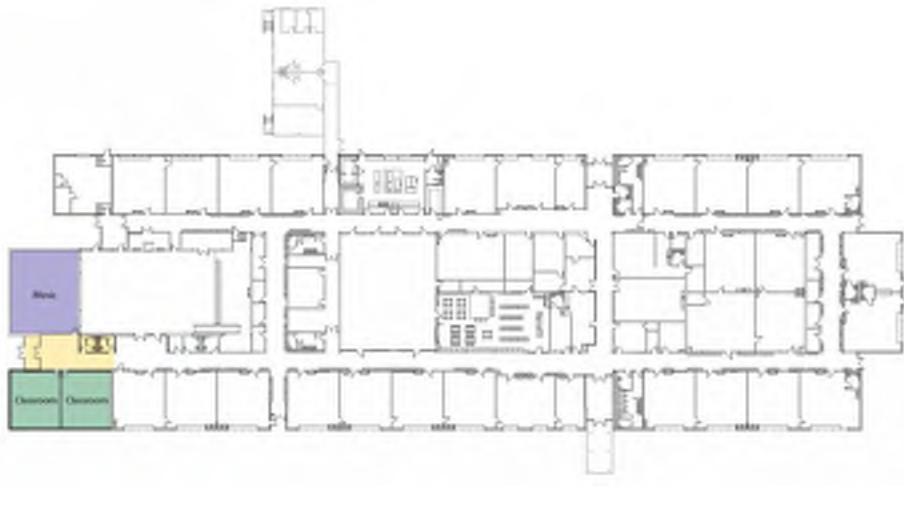


0 100 200 400
 *Fee*

N

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PRE-FAB ADDITION

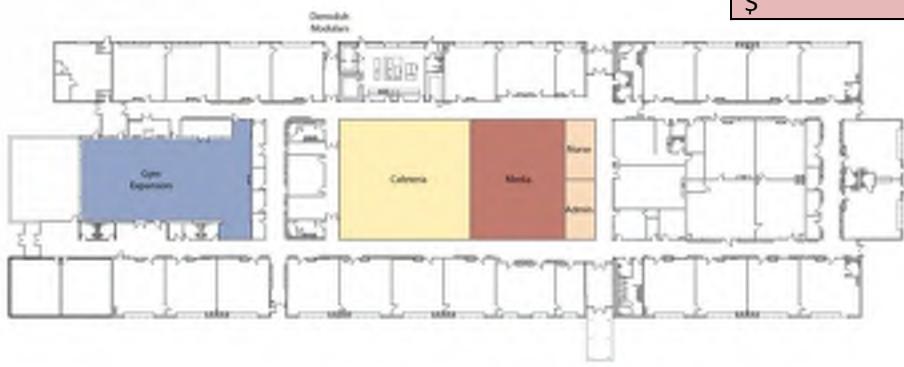


Bowman Elementary School – Component A1
Lexington Public Schools

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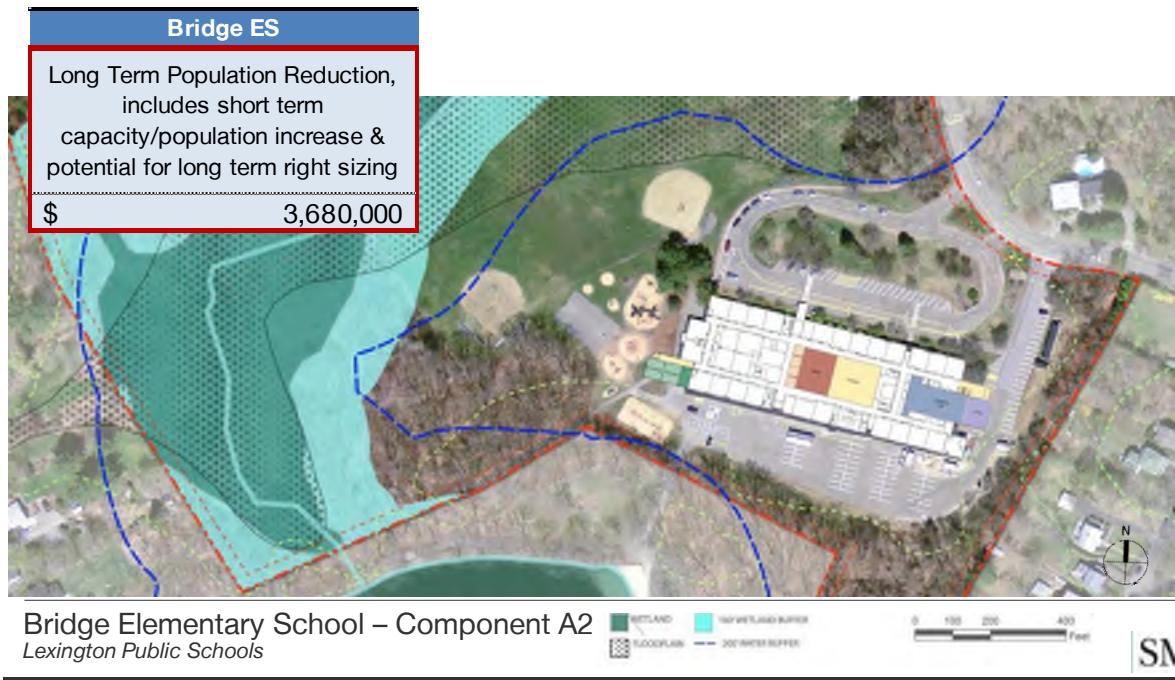
RIGHT SIZE

Bowman ES	
Phase 2, interior renovations to Right Size (4 sections) -46	\$ 6,140,000

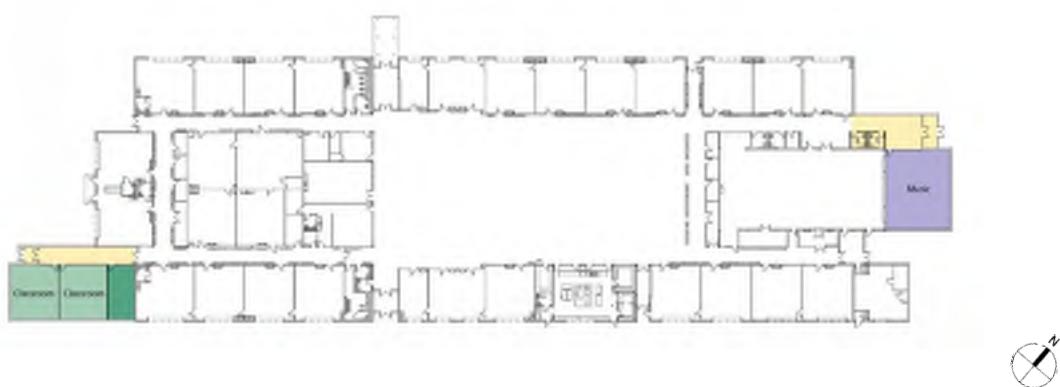


Bowman Elementary School Component B1
Lexington Public Schools

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PRE-FAB ADDITION



Bridge Elementary School – Component A2
Lexington Public Schools

SMMA

RIGHT SIZE

Bridge ES	
Phase 2, interior renovations to Right Size (4 sections) -46	
\$	5,950,000



Bridge Elementary School – Component B2
Lexington Public Schools

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COMPONENT C



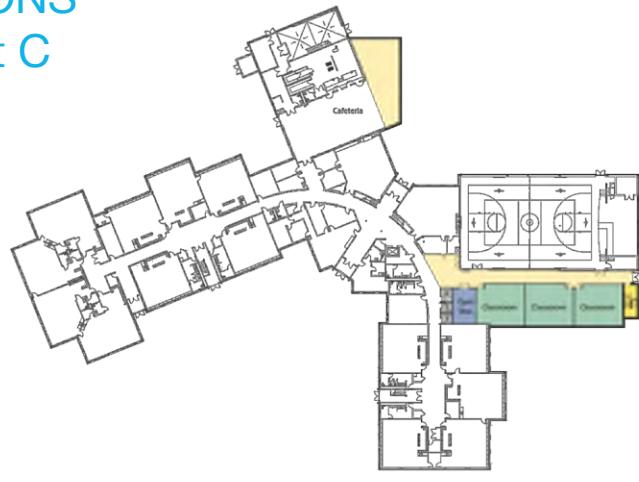
Fiske Elementary School
Lexington Public Schools

WETLAND
FLOODPLAIN
100' WETLAND BUFFER
200' WATER BUFFER

0 100 200 300 400
Feet

| SMMA

**ADDITIONS and
RENOVATIONS
Component C
1ST Floor**



Fiske ES

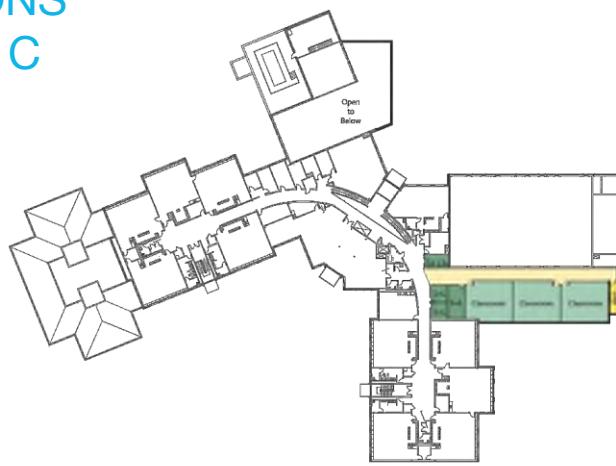
Add 6 classrooms
(3 Gen Ed)
add to café
(+69 students)

\$ 8,850,000

Fiske Elementary School
Lexington Public Schools

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**ADDITIONS and
RENOVATIONS
Component C
2ND Floor**



Fiske Elementary School
Lexington Public Schools

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COMPONENT D



Fiske ES

Add: 4 grade level Gen Ed CR;
1 Kindergarten, 1 SPED, 1
Music, 1 Art = total 8, enlarge
+ 110 Students

\$ 12,980,000



0 100 200 300 400 feet

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Fiske Elementary School
Lexington Public Schools

ADDITIONS and RENOVATIONS Component D 1ST Floor



Fiske Elementary School
Lexington Public Schools

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ADDITIONS and RENOVATIONS Component D 2ND Floor



Fiske Elementary School
Lexington Public Schools

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Harrington ES

Expand Pre-K in current
location; add:6 grade level Gen
Ed; 1 SPED; 1 Art; 1 Music;
138 Students + Enlarged PreK

\$ 24,300,000



Harrington Elementary
Lexington Public Schools

WETLAND
FLOODPLAIN

100 200 400
Feet

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ADDITIONS and RENOVATIONS COMPONENT E



Harrington Elementary – First Floor
Lexington Public Schools

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ADDITIONS and RENOVATIONS COMPONENT E



Harrington Elementary – 2nd Floor
Lexington Public Schools

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COMPONENT OPTIONS - ESTABROOK

1. No Work (Status Quo):
2. Redistrict to take advantage of available space

Ad Hoc School Master Plan Committee
Lexington Public Schools

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POSSIBLE MSBA CAPITAL PROJECT (F)



Hastings Elementary School
Lexington Public Schools

0 150 300 600 Feet

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COMPONENT G

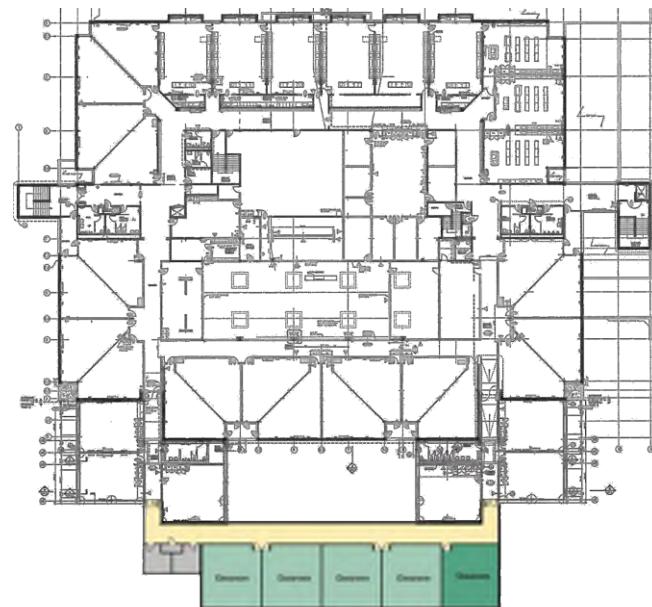


Clarke Middle School
Lexington Public Schools

— 200' WATER RETAIN 0 200 400 600 Feet
■ FLOODPLAIN

SMMA

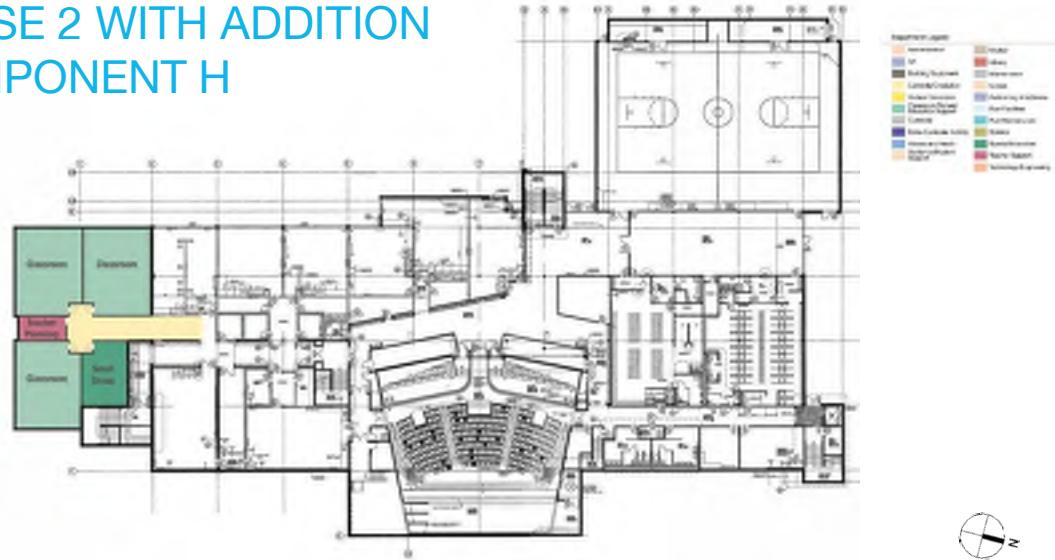
PreFAB ADDITION COMPONENT G



Clarke Middle School – 3rd Floor
Lexington Public Schools

SMMA

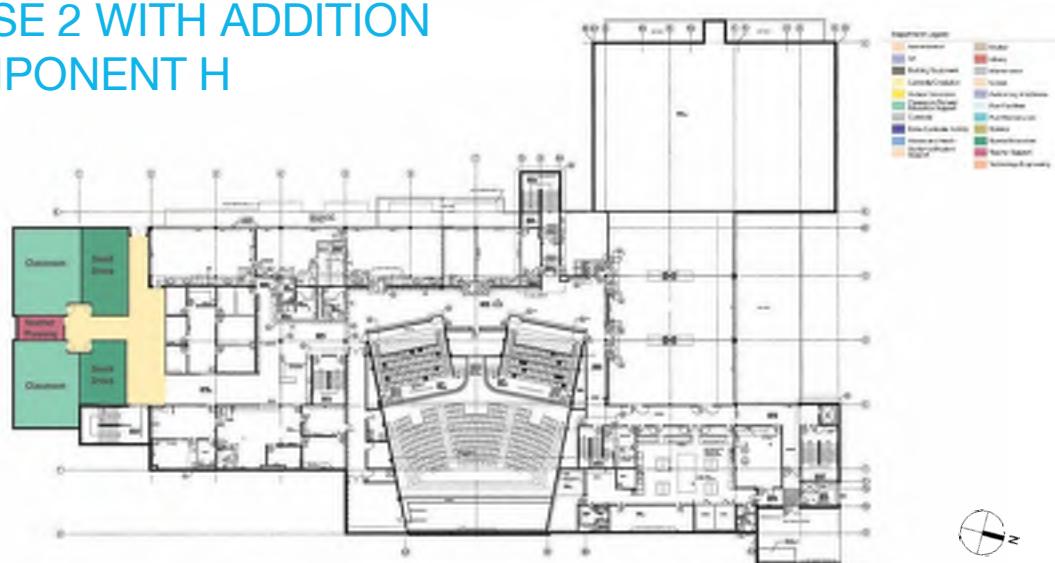
PHASE 2 WITH ADDITION COMPONENT H



Clarke Middle School – 1st Floor
Lexington Public Schools

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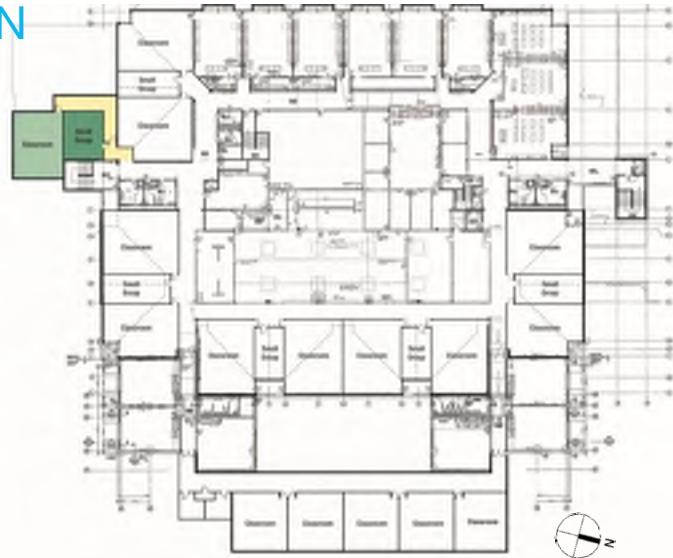
PHASE 2 WITH ADDITION COMPONENT H



Clarke Middle School – 2nd Floor
Lexington Public Schools

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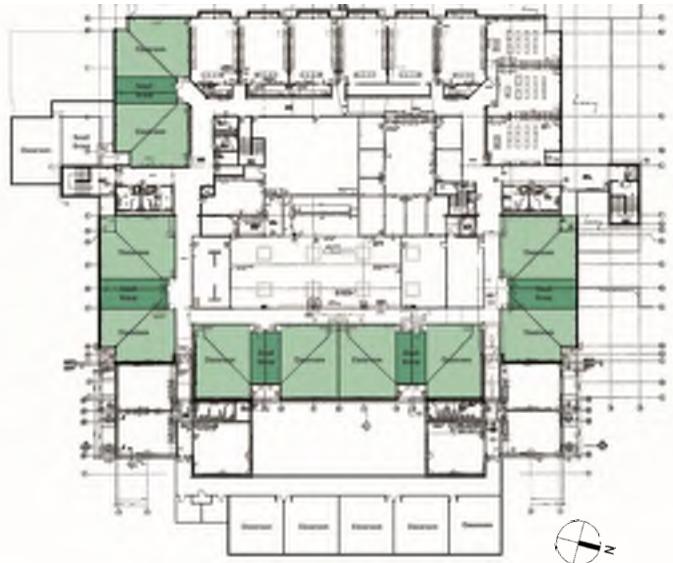
PHASE 2 WITH ADDITION COMPONENT H



Clarke Middle School – 3rd Floor
Lexington Public Schools

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PHASE 3 CORRECTED CR'S Right Size



Clarke Middle School	
Phases 2, Building Addition and Phase 3, reconfigure triangular classrooms	
\$	13,470,000

Clarke Middle School – 3rd Floor
Lexington Public Schools

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ADDITIONS Component I

Diamond Middle School

Additions (15 classrooms +/-) and
Renovations, Bricks and Mortar,
remove portables, 8 new pre-fabs

3 teams added

\$ 22,920,000

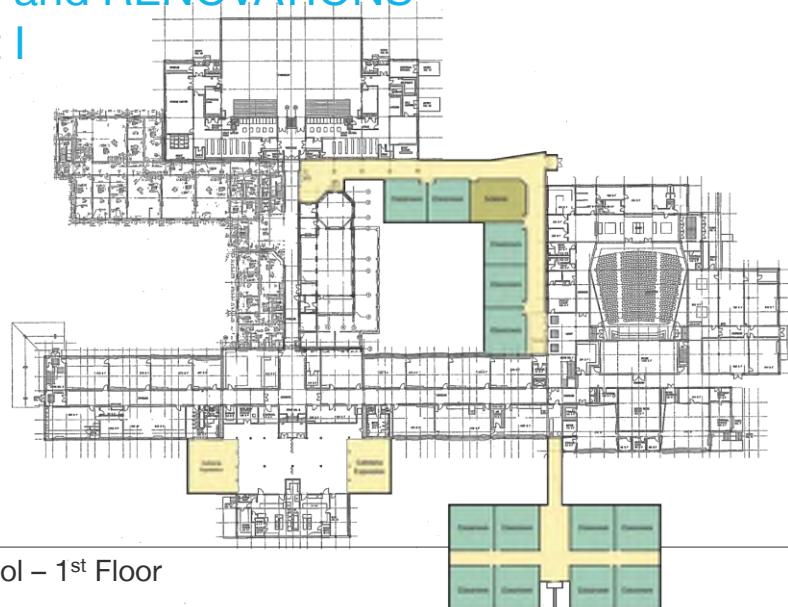


Diamond Middle School
Lexington Public Schools

SEWER EASEMENT WETLAND 100' WETLAND BUFF 0 200' WETLAND BUFFS 400' 600' 800' 1000'

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ADDITIONS and RENOVATIONS Component I

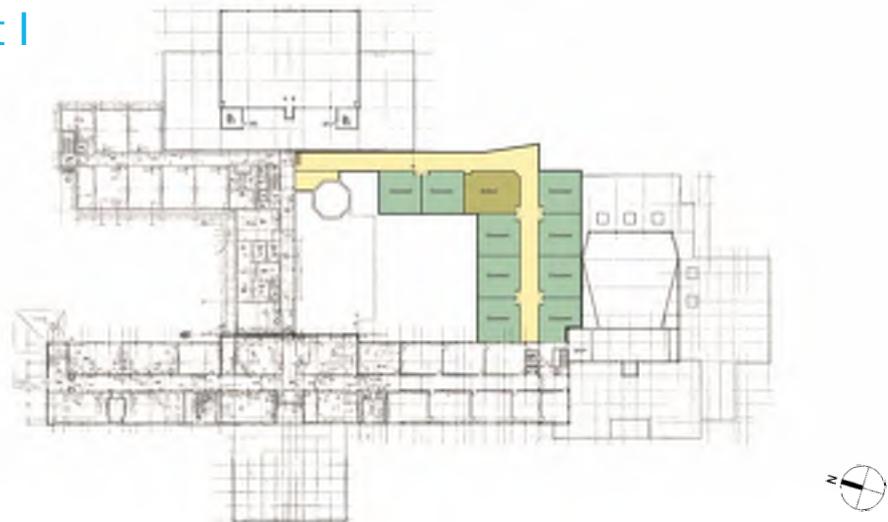


Diamond Middle School – 1st Floor
Lexington Public Schools

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ADDITIONS and RENOVATIONS

Component I



Diamond Middle School – 2nd Floor
Lexington Public Schools

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Quarter	2015				2016				2017				2018				2019				2020				2021			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Bowman	2	4 & 5	6	7																								
Right Size	\$ 3.10																											
Bridge	2	4 & 5	6	7																								
Right Size	\$ 3.68																											
Estabrook	no work				no work				no work				no work				no work											
Fiske ¹ Scheme D	1	4	3	5	6	7																						
Fiske ²	\$ 12.98				\$ -				1	4	3	5	6	7														
Harrington	1	4	3	5	6	7																						
Hastings / MSBA ³	\$ 24.30				\$ -				9	10	11	3	4	5	6	7												
Hastings / MSBA ⁴	8					5	-		8		9	10	11	3	4	5	6	7										
Hastings / Lex only ⁵									1	4	3	5	6	7														
Hastings / Lex only ⁶									1	4	3	5	6	7														
Hastings / Lex only ⁷									1	4	3	5	6	7														
Clarke	1 & 2	4 & 5	6	7																								
Clarke Phases 2 & 3	\$ 4.61																											
Diamond, Phase 1, Prefab	1 & 2	4 & 5	6	7																								
Diamond, Phase 2 & 3, Permanent Const	\$ -																											
High School	TBD																											

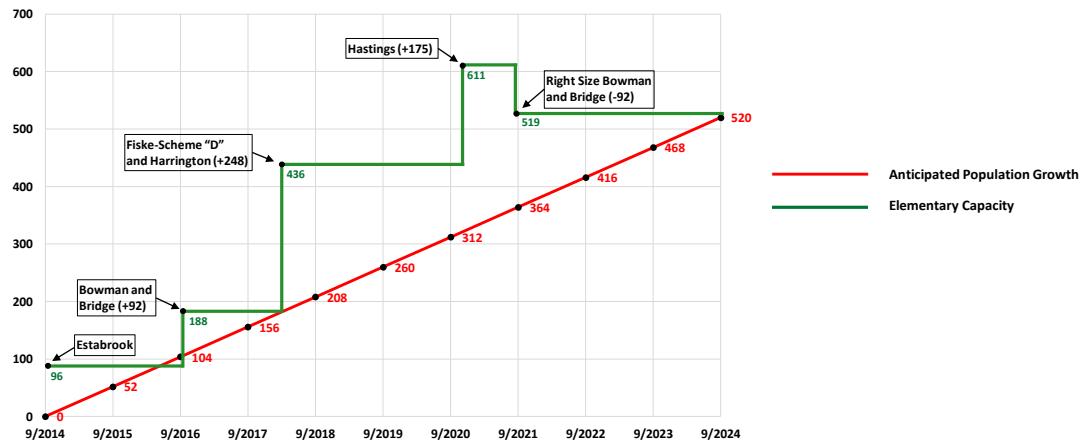
Legend:

- 1 Design Funding
- 2 Design and Construction Funding
- 3 Construction Funding
- 4 Design / Permitting
- 5 Delivery
- 6 Fabrication / Construction
- 7 Occupancy
- 8 Leasehold
- 9 MOI Requested / MSBA Mod 1 Eligibility Period / Funding
- 10 MSBA Mod 2 Building Project Team
- 11 Mod 3 - Feasibility Study

Ad Hoc School Master Plan Committee – What If's: Funding/Design/Construction Schedule
Lexington Public Schools

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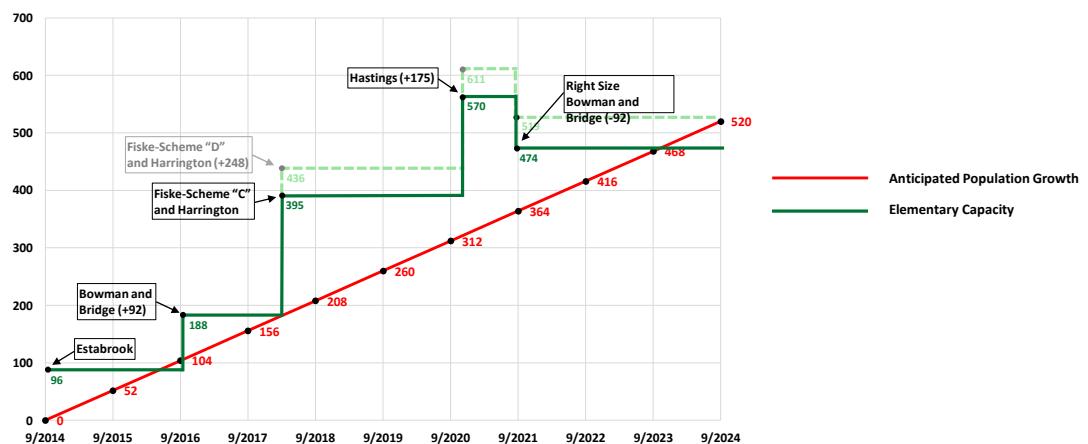
ELEMENTARY SCHOOLS – GROWTH VS. CAPACITY (INCLUDES FISKE, SCHEME “D” [LARGE])



Ad Hoc School Master Plan Committee
Lexington Public Schools

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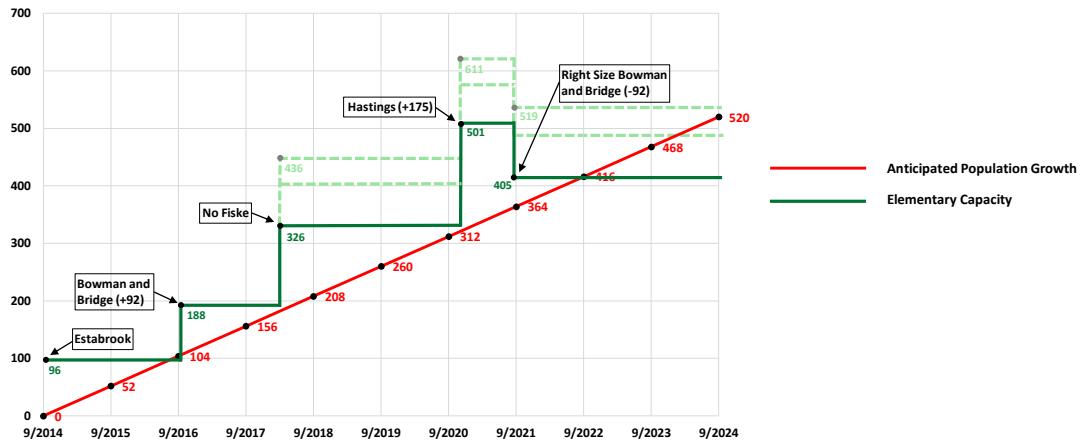
ELEMENTARY SCHOOLS – GROWTH VS. CAPACITY (INCLUDES FISKE, SCHEME “C” [SMALL])



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Lexington Public Schools

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ELEMENTARY SCHOOLS – GROWTH VS. CAPACITY (NO FISKE INCLUDED)



Ad Hoc School Master Plan Committee

Lexington Public Schools

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Discussion

LEXINGTON PUBLIC SCHOOLS

Ad hoc Schools Master Plan Committee
Option 8 Graphics

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SYMMES MAINI & MCKEE ASSOCIATES

December 18, 2014



Fiske Elementary School
Lexington Public Schools

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FIRST FLOOR



Fiske Elementary School
Lexington Public Schools

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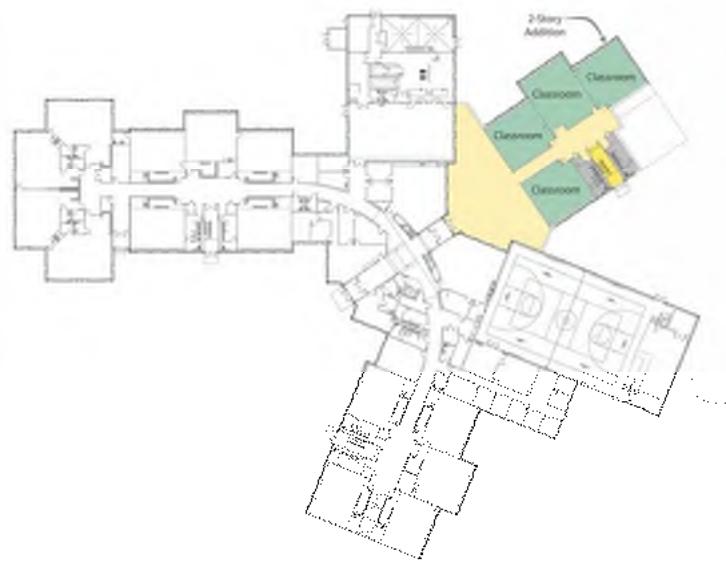
SECOND FLOOR



Fiske Elementary School
Lexington Public Schools

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FIRST FLOOR



Fiske Elementary School – Option 8
Lexington Public Schools

SMMA



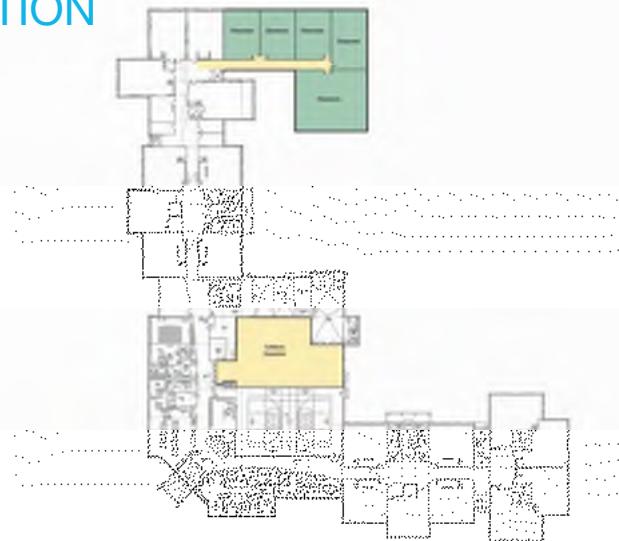
Harrington Elementary
Lexington Public Schools

WETLAND
WATER BUFFER
RODDERMAN
DRAFT

0 100 200 300 400
Feet

SMMA

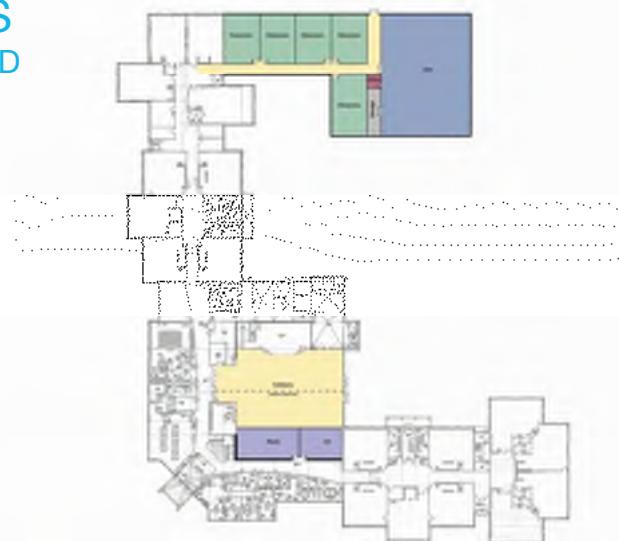
PREK ADDITION



Harrington Elementary
Lexington Public Schools

SMMA

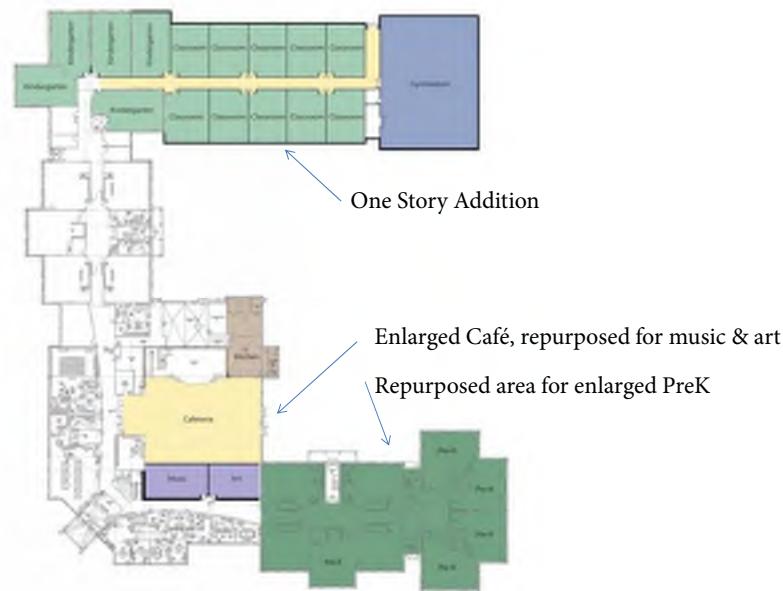
ADDITIONS GYM, ARTS AND CLASSROOMS



Harrington Elementary
Lexington Public Schools

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ADDITIONS GYM, AND CLASSROOMS; REPURPOSED AREAS



Harrington Elementary – Option 8
Lexington Public Schools

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Discussion

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SYMMES MAINI & MCKEE ASSOCIATES

December 18, 2014

LEXINGTON PUBLIC SCHOOLS

Ad hoc Schools Master Plan Committee
Middle & Elementary Schools

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SYMMES MAINI & MCKEE ASSOCIATES

December 11, 2014

AGENDA

1. Population Growth Goals
2. Grade Configuration Options
3. High School Options
4. Middle School Option Components
5. Middle School Options (including New MS at Harrington)
6. Clarke Site Constraints / Options
7. Diamond Site Constraints / Options
8. PreK – K Early Childhood Center
9. Elementary Options Refined
10. Getting to Five Years Out

GRADE CONFIGURATION OPTIONS (11/20/2014 PRESENTATION)

Current													Comments
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
Status Quo, Most people are likely comfortable with this configuration												✓	
Option 1													
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
K-8 is inefficient in small elementary schools, likely require more classrooms													
Option 2													
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
Adds a transition in within the elementary grades which can be disruptive; but likely reduces the number of classrooms needed													
Option 3													
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
Relieves elementary schools only; requires early childhood school and MS additions													
Option 4													
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
All elementary and both MS are relieved, Early Childhood and High School become the priority													
Option 5													
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
Relieves elementary schools only, High School become the priority													
Option 6													
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12

Ad Hoc School Master Plan Committee
Lexington Public Schools

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High School Discussion

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December 11, 2014

POPULATION GROWTH GOALS

	Current Population 2014-2015	Anticipated Population 2015-2016 Next Year	Anticipated Population 2019-2020 5 Years	5 Year Growth	Anticipated Population 2024-2025 10 Years	10 Year Growth
Elementary Schools (6)	3,025	3,049	3,206	268 over 2013 181 over current	3,438	500 over 2013
Middle Schools	1,617	1,658	1,819	202	*1,872	255
Lexington High School	2,107	2,169	2,265	158	2,504	397

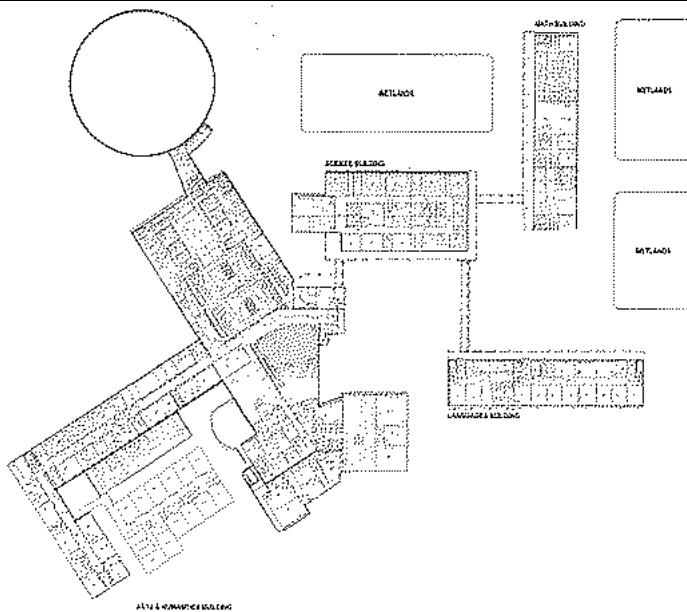
 Enrollment Working Group – Linear Extrapolation Method

 District Projections – Cohort Survival Method

*Middle Schools Progression Rate
 $2.05 = 1,872 = 255$ students

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1ST FLOOR EXISTING



Lexington High School
Lexington Public Schools

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1ST FLOOR EXISTING PROGRAM

Department Legend	
Administration	Kitchen
Art	Library
Building Equipment	Maintenance
Central Circulation	Restrooms
Extra Curricular Activity	Performing Arts/Orchestra
Education Support	Post Facilities
Facilities	Post Maintenance
Fitness and Health	Science
Student and Student Support	Special Education
Sustaining Student Support	Teacher Support
Technology/Electronics	Technology/Engineering



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Lexington High School
Lexington Public Schools

2ND FLOOR EXISTING PROGRAM

Department Legend	
Administration	Kitchen
Art	Library
Building Equipment	Maintenance
Central Circulation	Restrooms
Extra Curricular Activity	Performing Arts/Orchestra
Education Support	Post Facilities
Facilities	Post Maintenance
Fitness and Health	Science
Student and Student Support	Special Education
Sustaining Student Support	Teacher Support
Technology/Electronics	Technology/Engineering



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Lexington High School
Lexington Public Schools

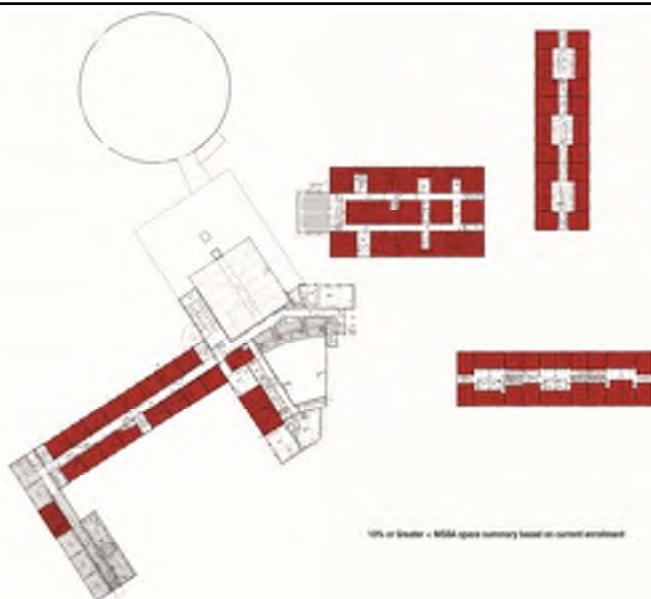
1ST FLOOR EXISTING PROGRAM DEFICIENCIES



Lexington High School
Lexington Public Schools

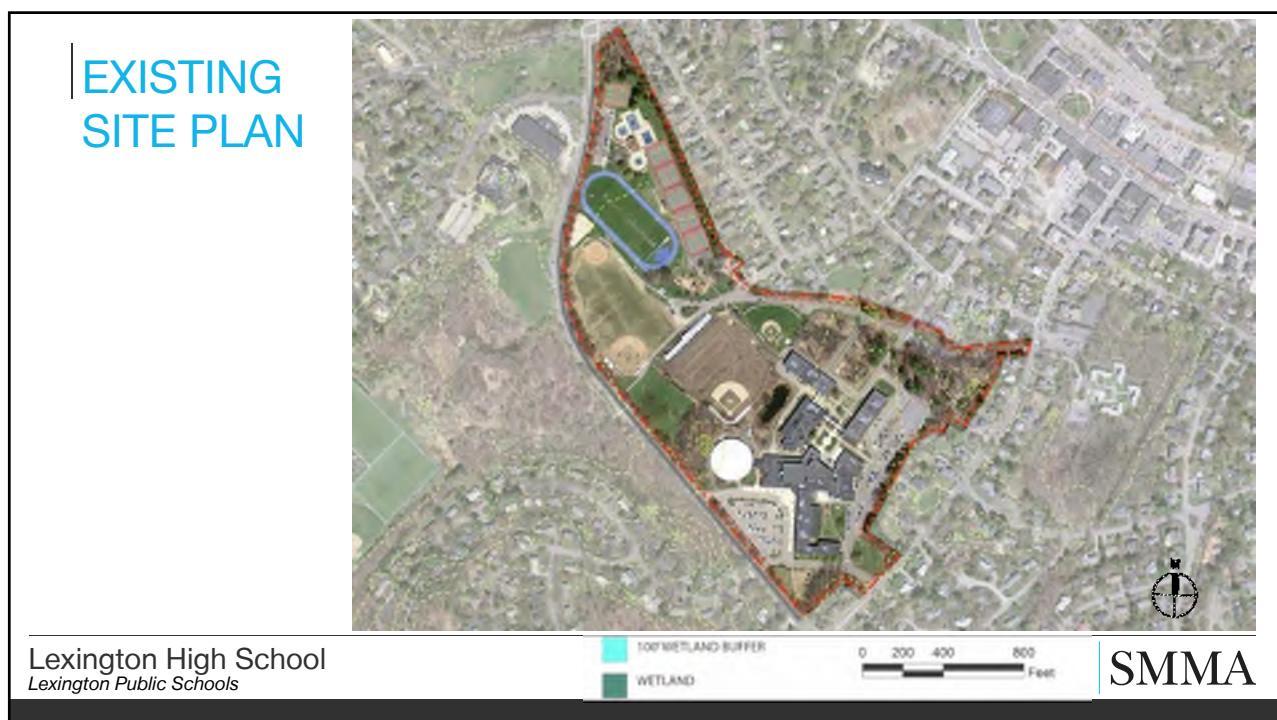
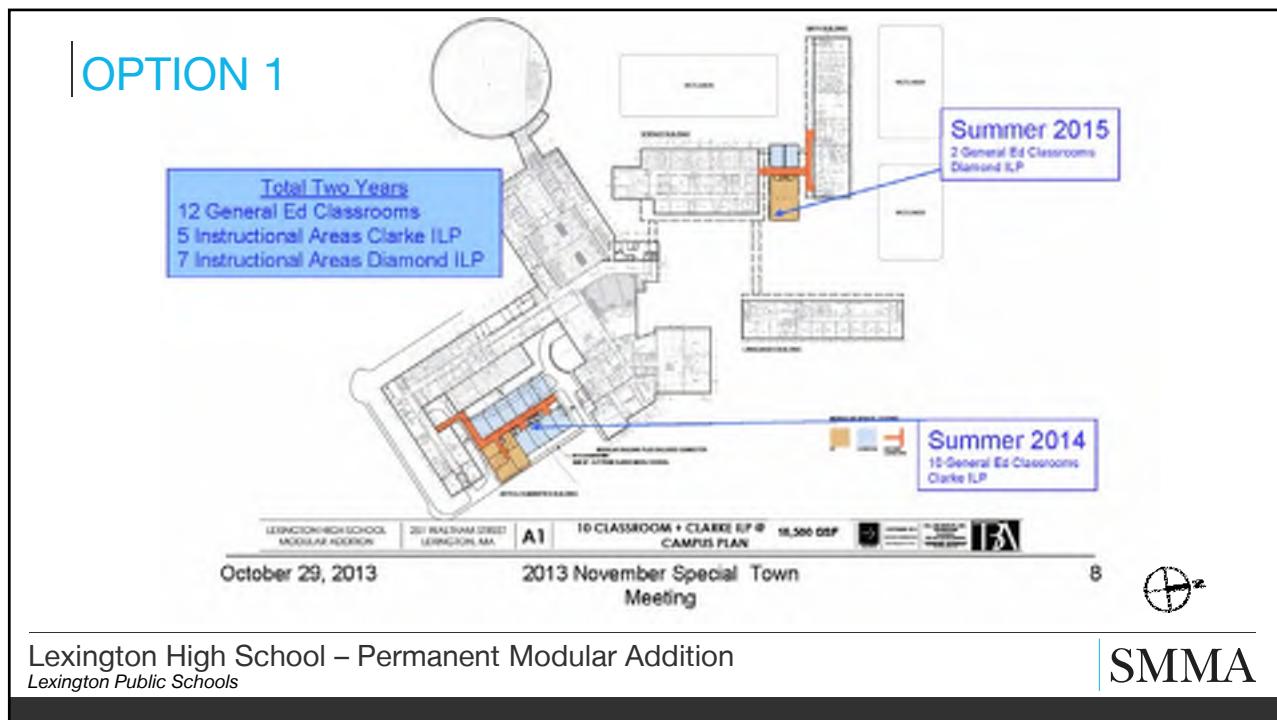
SMMA

2ND FLOOR EXISTING PROGRAM DEFICIENCIES



Lexington High School – Existing Program Deficiencies
Lexington Public Schools

SMMA



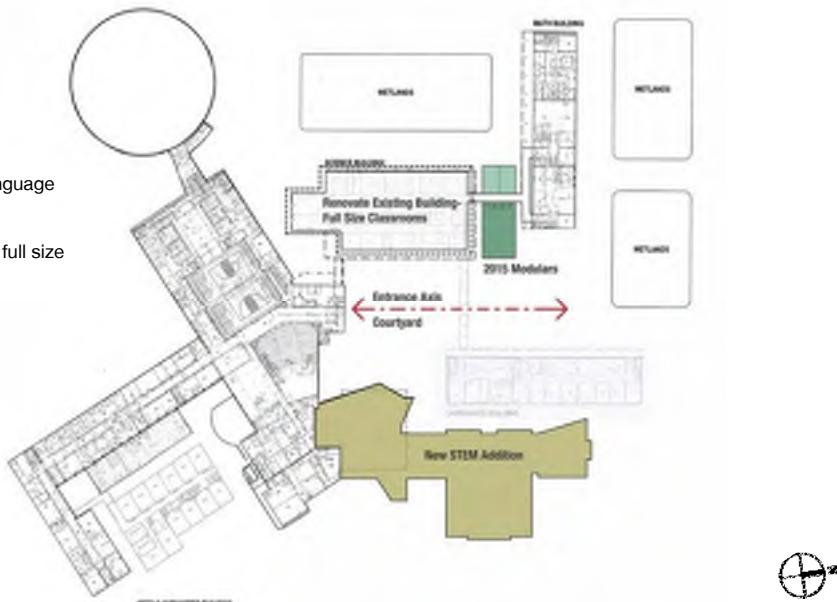
OPTION 2A STEAM ACADEMY (3 STORY)

Build new STEAM wing east of language building

Renovate science building labs to full size classrooms

Renovate math building

Tear down languages building



Lexington High School
Lexington Public Schools

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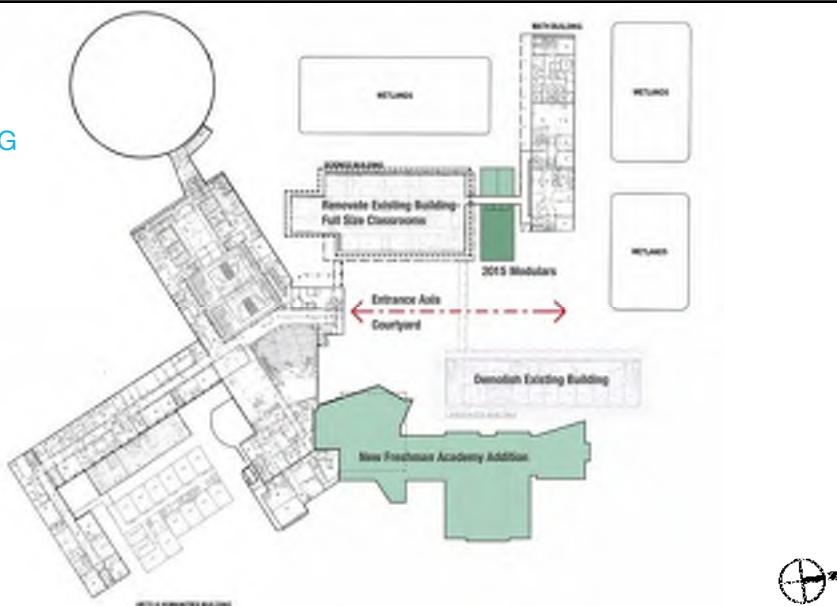
OPTION 2B FRESHMAN ACADEMY CLASSROOM BUILDING (3 STORY)

Build new Freshman wing east of Language building – frees up upperclassman space throughout

Renovate science building

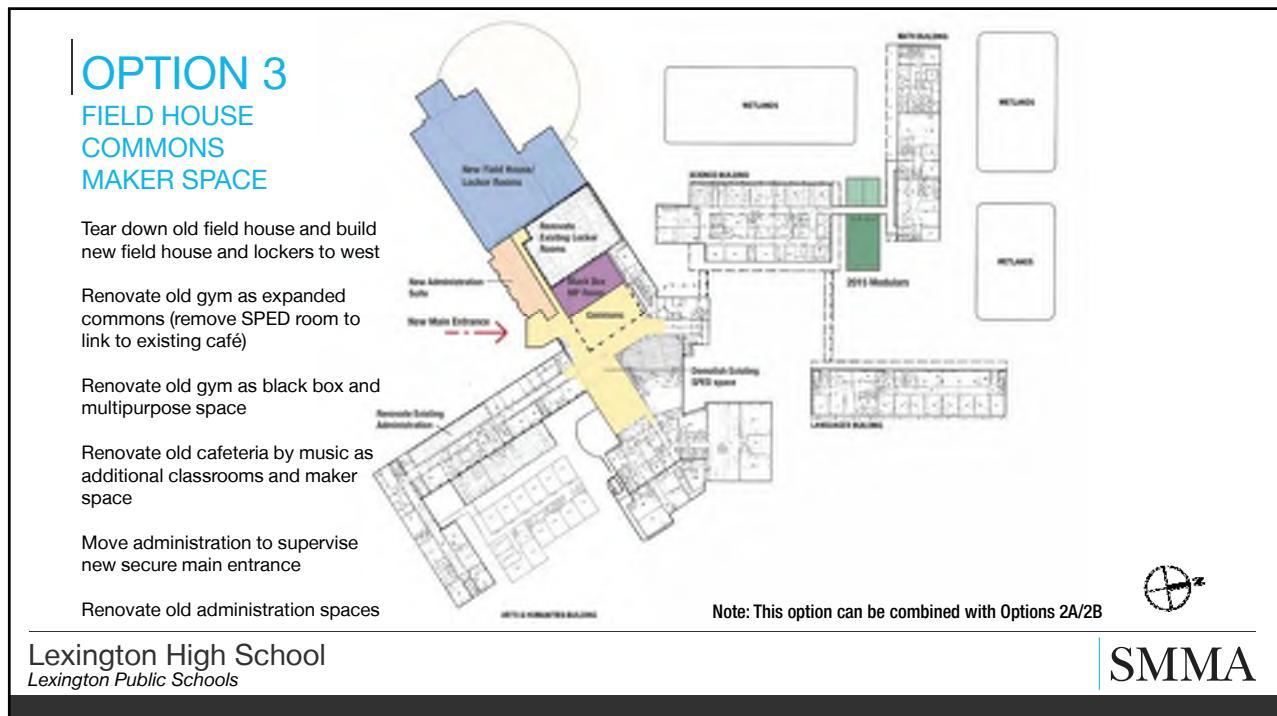
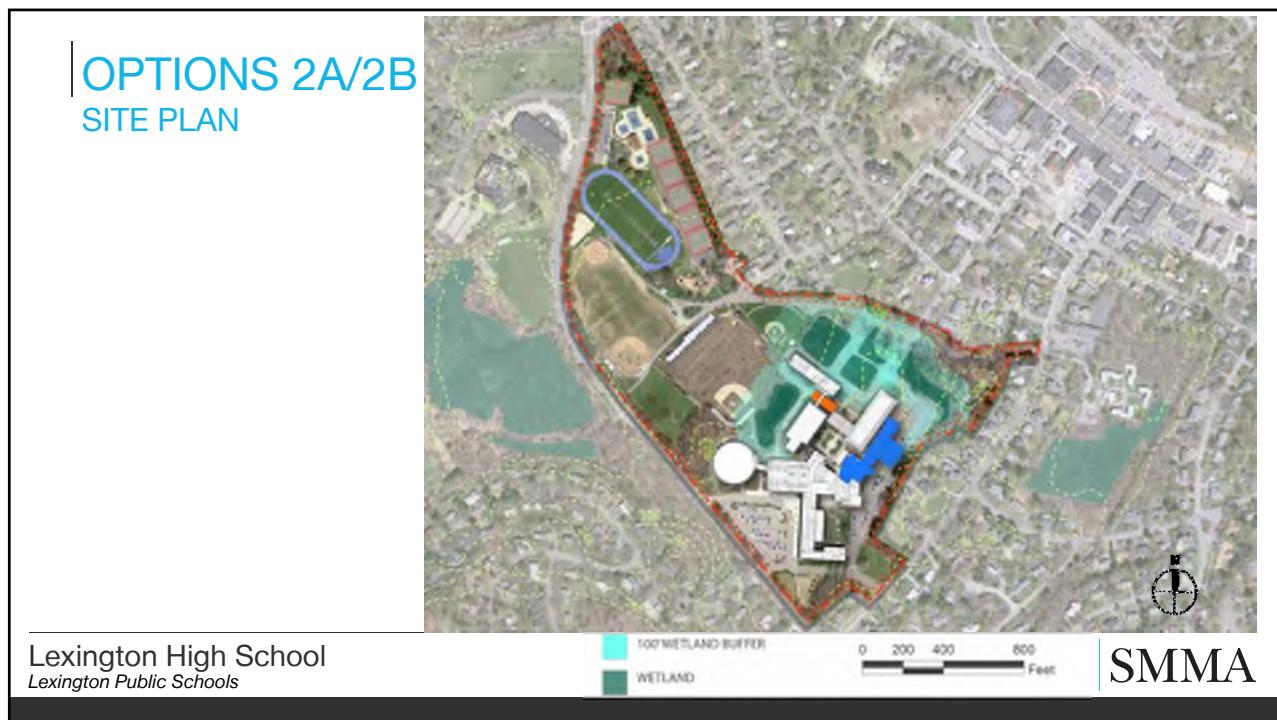
Renovate math building

Tear down Languages building



Lexington High School
Lexington Public Schools

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OPTION 3 SITE PLAN



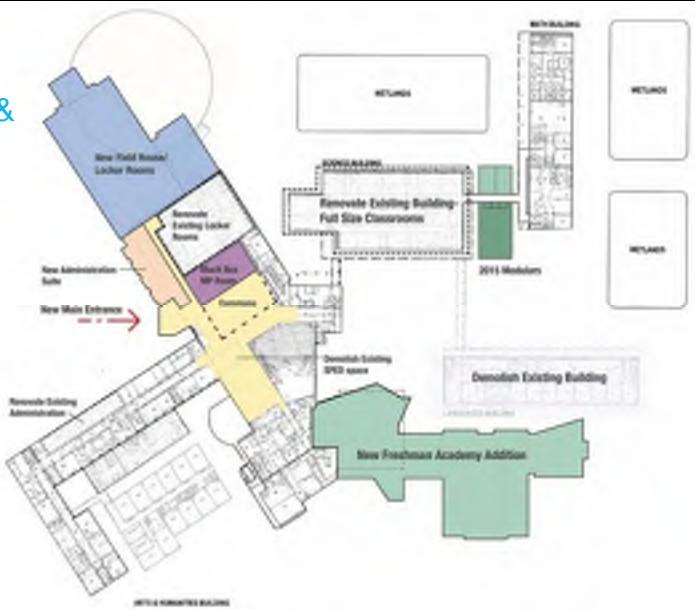
Lexington High School
Lexington Public Schools

100' WETLAND BUFFER
WETLAND

0 200 400 600
Feet

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OPTIONS 2/3 STEAM ACADEMY & FIELD HOUSE



Lexington High School
Lexington Public Schools

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OPTIONS 2/3 SITE PLAN



Lexington High School
Lexington Public Schools

100' WETLAND BUFFER
WETLAND

0 200 400 600 Feet

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EXISTING SITE PLAN



Lexington High School
Lexington Public Schools

100' WETLAND BUFFER
WETLAND

0 200 400 600 Feet

SMMA



HIGH SCHOOL COMPONENT OPTIONS

Option	Area GSF	MSBA "Allowable" (10 year)	Population 2014 – 2015	Population Change		New Population	Comments
				5-year growth	10-year growth		
Existing w/Modulars	236,604 361,195	271,749 393,128	2,107	+158	+397	2,504	With Existing 2014 Mods
Option 1	*						Modular Construction 2015
Option 2A STEAM	*						
Option 2b Classrooms	*						
Option 3 Field House	*						
Option 4 New Construction	*	393,128+ **					

* Requires verification
** Requires input from MSBA

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MIDDLE SCHOOL TEAMS

TEAMS	1	2	3	4	5	6	7	8	9
Team = English, Social Studies, Math, Science (@ 23 students)	92	184	276	368	460	552	644	736	828
Grades 6-8		552	828	1104	1380	1656	1932	2208	2484
Total Students per Grade	NA	NA	276	NA	NA	552	NA	NA	828

Ad Hoc School Master Plan Committee
Lexington Public Schools

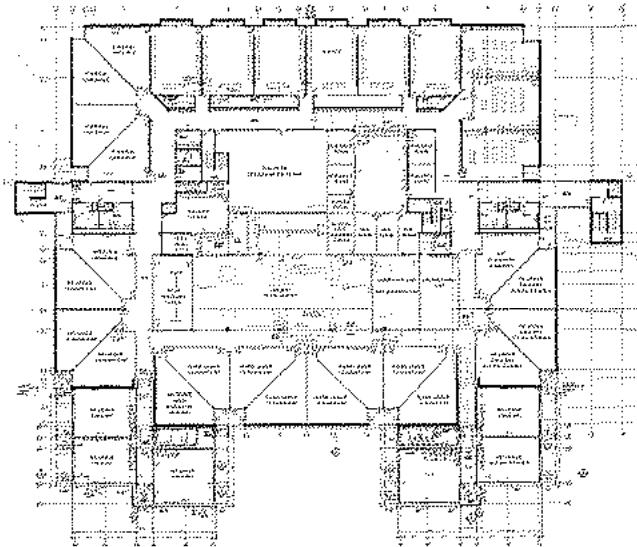
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CLARKE MIDDLE SCHOOL COMPONENT OPTIONS

			Nature of Construction	Population Change	Size	New Population	Comments
Option 1	824 Existing Population	Right Size 6—8	Renovations	-138	NA	686	Reduced population requires Diamond to accommodate all population increases
Option 2	824 Existing Population						
Phase 1		(1) Story building to the north @ 3rd Floor	Pre-fabricated building	(1) Team 92 Students	6,400 gsf	916	Includes relocation of the underground detention system
Phase 2		(3) Story addition to the east (6 – 8)	Bricks & Mortar	138 Students	11,200 gsf	1,054	(6) Classrooms + (2) Sm. Group
Phase 3		Right Size (6 – 8)	Renovations	-138	18,000 gsf Renovation	916	Reconfigure triangular CR's, loss of 6 classrooms

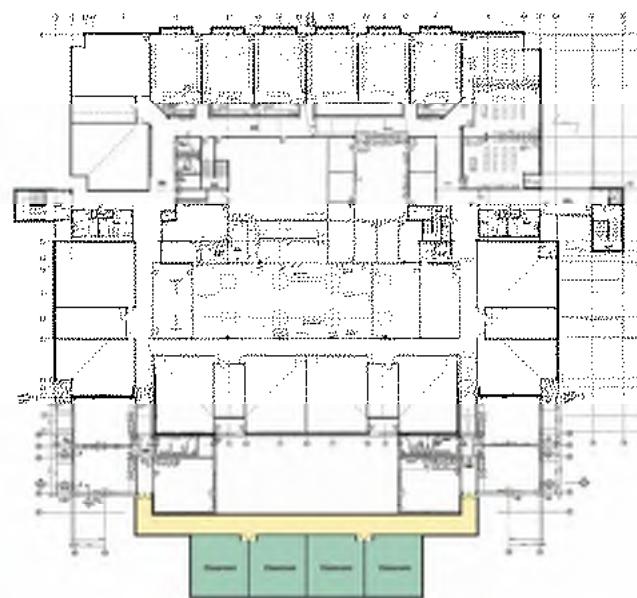
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Lexington Public Schools

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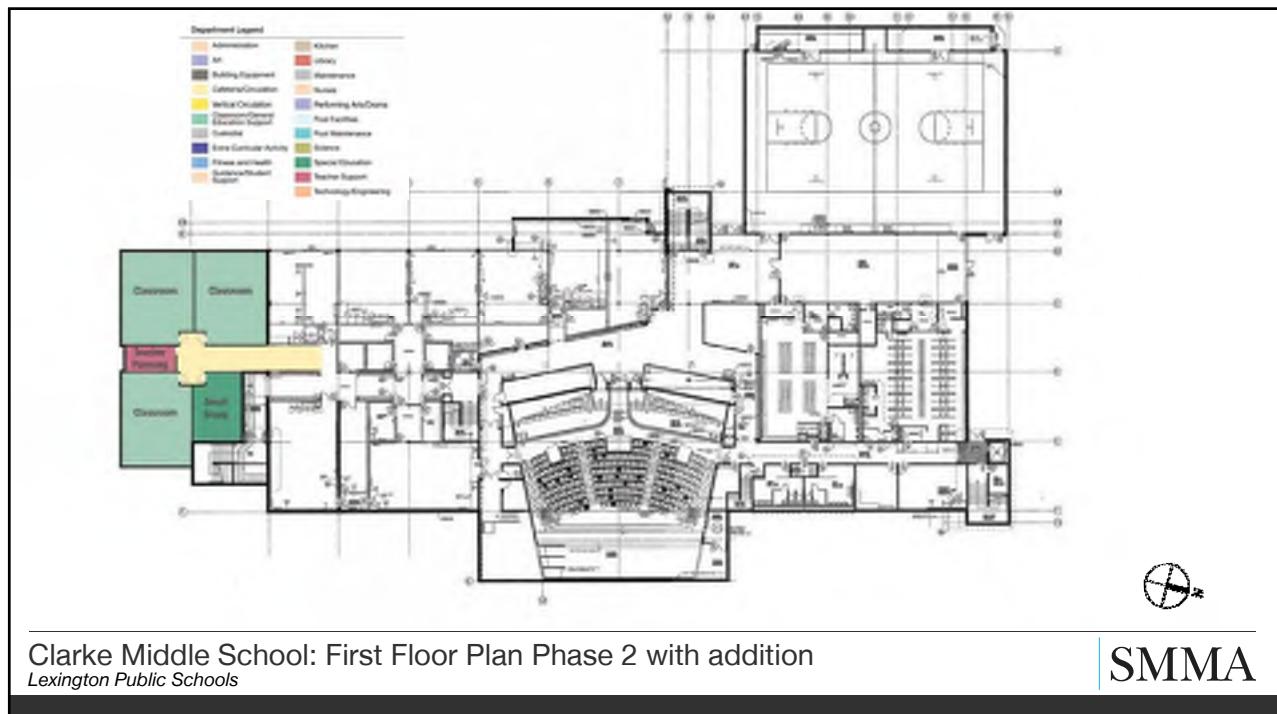
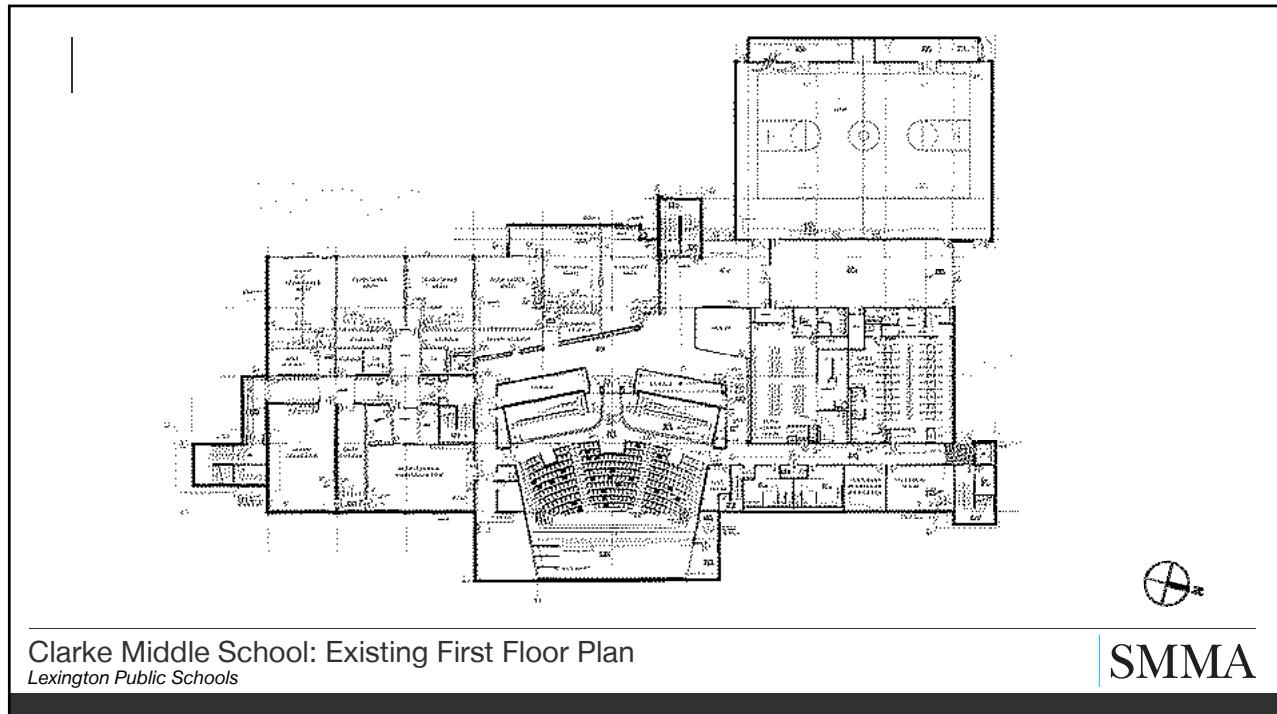
Clarke Middle School: Existing Third Floor Plan
Lexington Public Schools

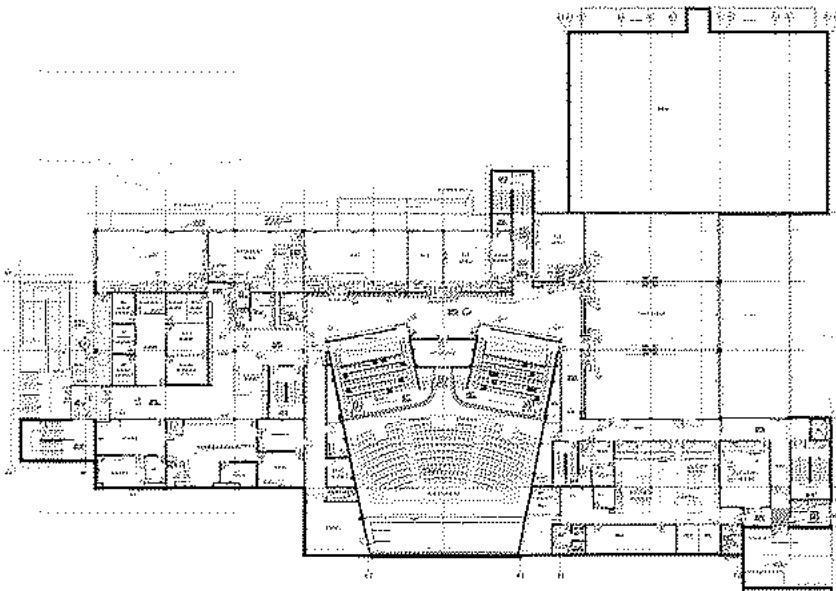
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Clarke Middle School: Third Floor Plan Phase 2 with addition
Lexington Public Schools

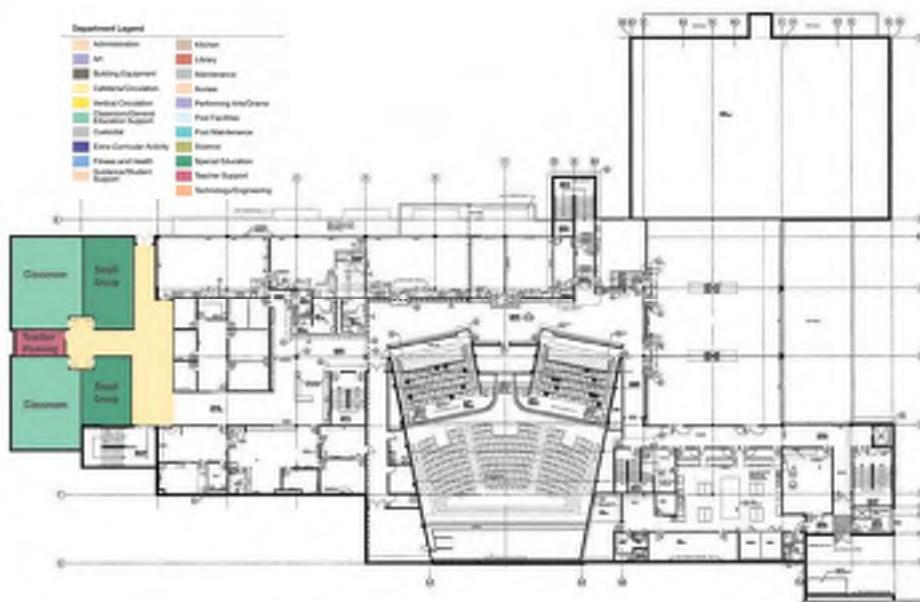
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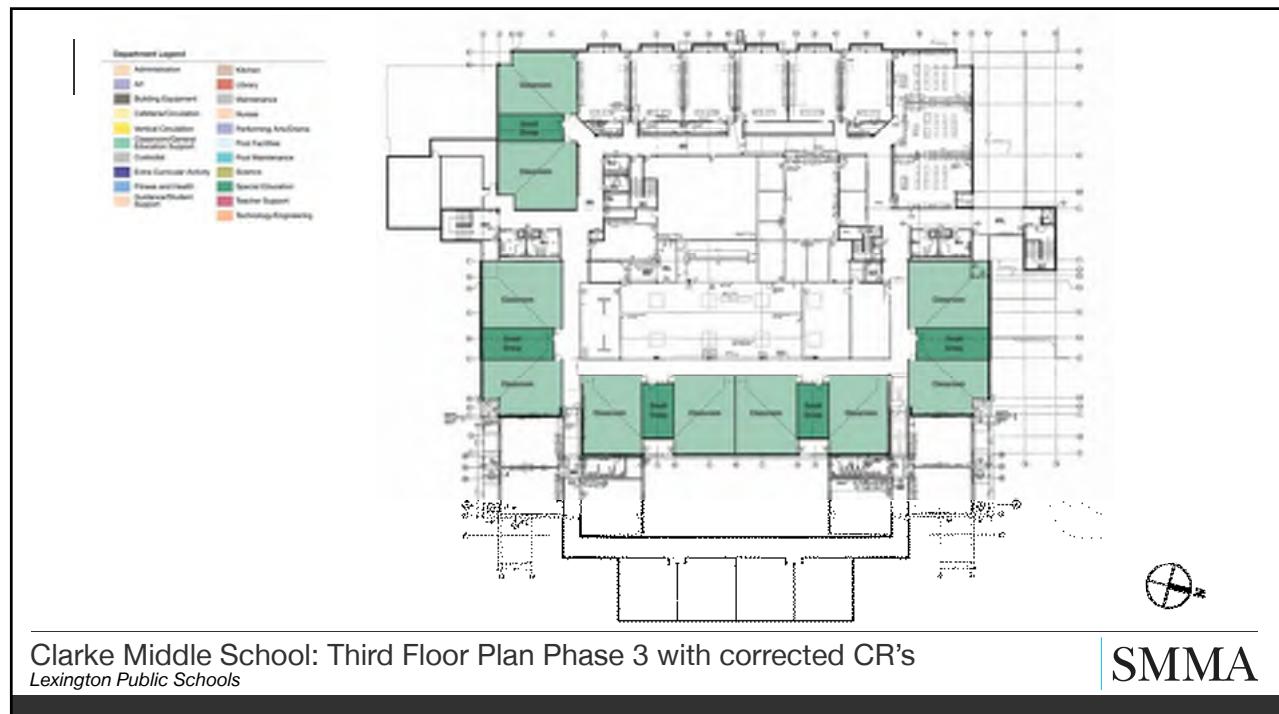
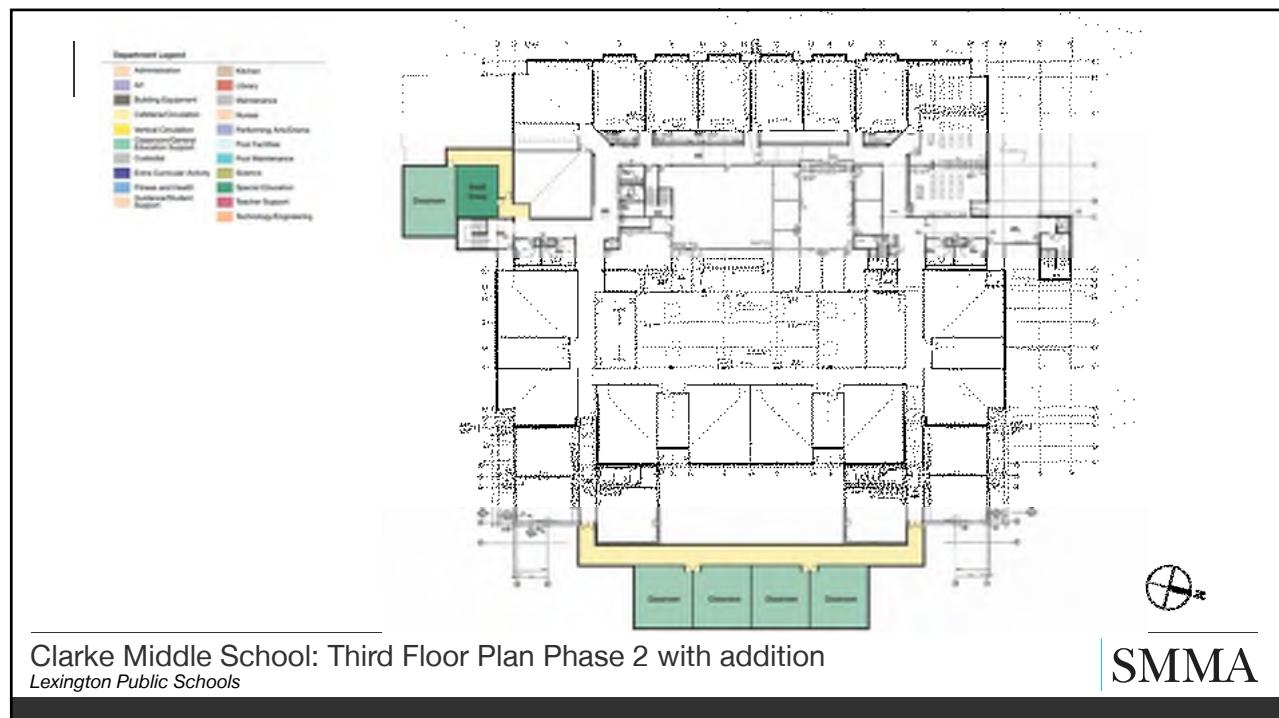
Clarke Middle School: Existing Second Floor Plan
Lexington Public Schools

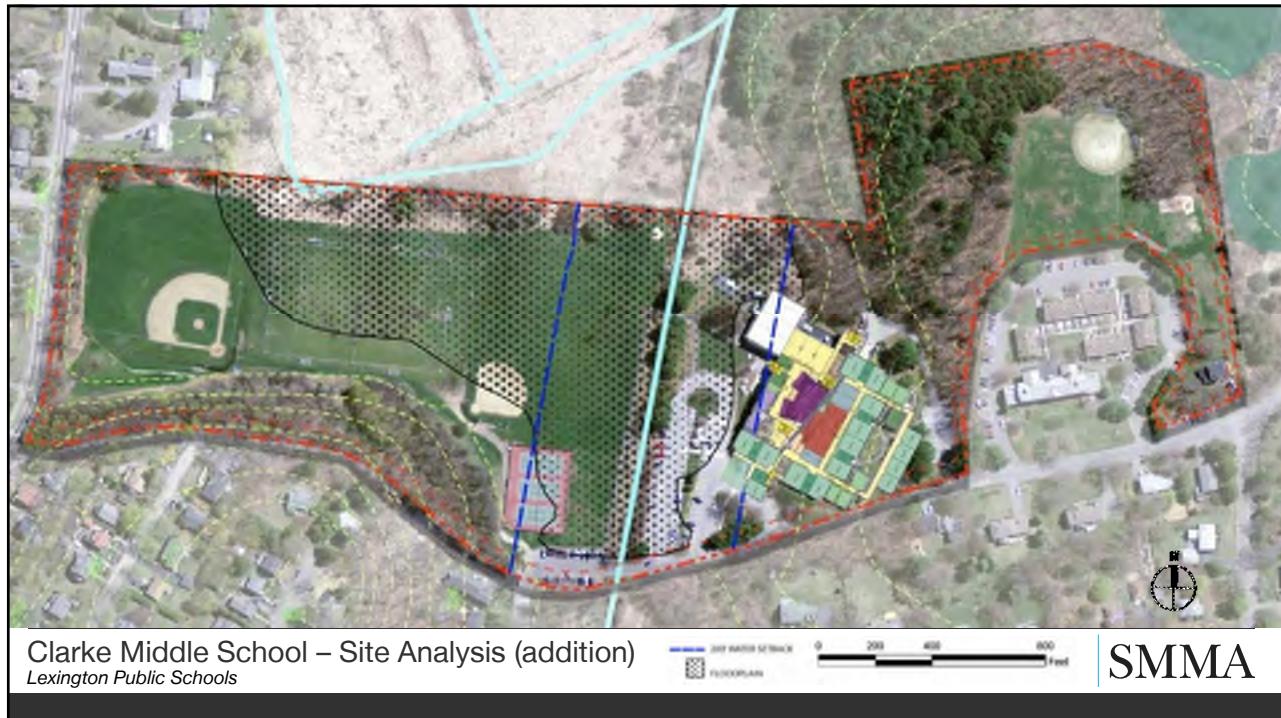
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Clarke Middle School: Second Floor Plan Phase 2 with addition
Lexington Public Schools

SMMA



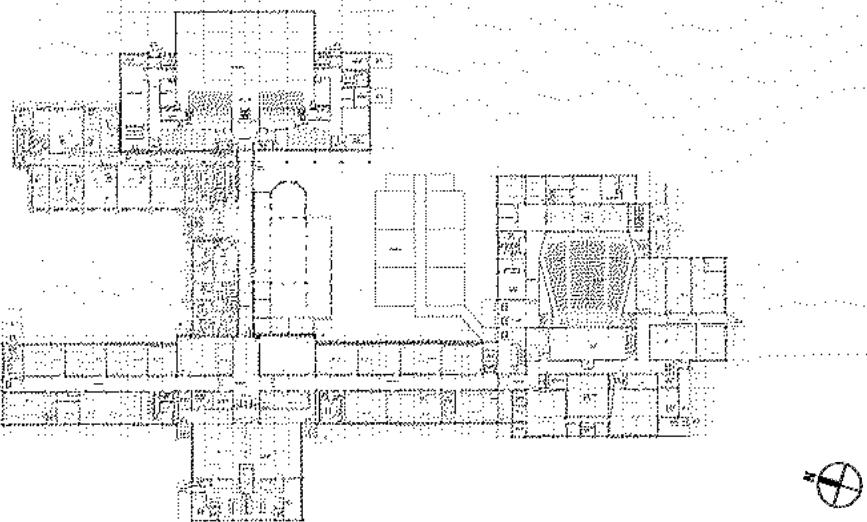


DIAMOND MIDDLE SCHOOL COMPONENT OPTIONS

			Nature of Construction	Population Change	Size	New Population	Comments
Option 4	793 Existing Population	Additions and renovations (6 – 8)	Bricks & Mortar	+184	22,300 GSF + 9,000 GSF Modular	977	(6) Modular CR's removed 8 CR's added (2 teams+)
Option 5	793 Existing Population	Additions and Renovations (6 – 8) for full population increase	Bricks & Mortar	+255	26,000 GSF + 9,000 GSF Modular	1,048	(6) Modular CR's removed 12 CR's added (3 teams)

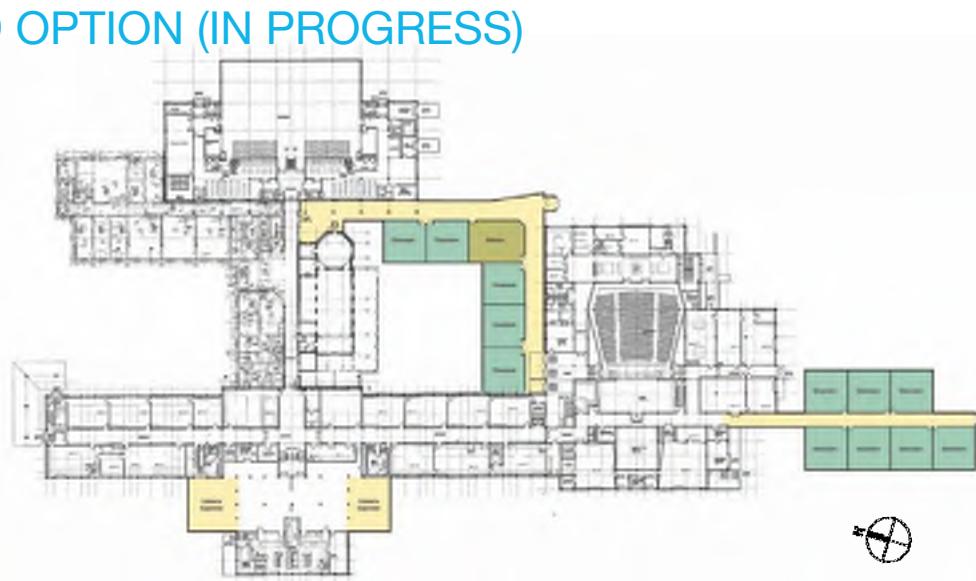
Ad Hoc School Master Plan Committee
Lexington Public Schools

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Diamond Middle School: Existing First Floor Plan
Lexington Public Schools

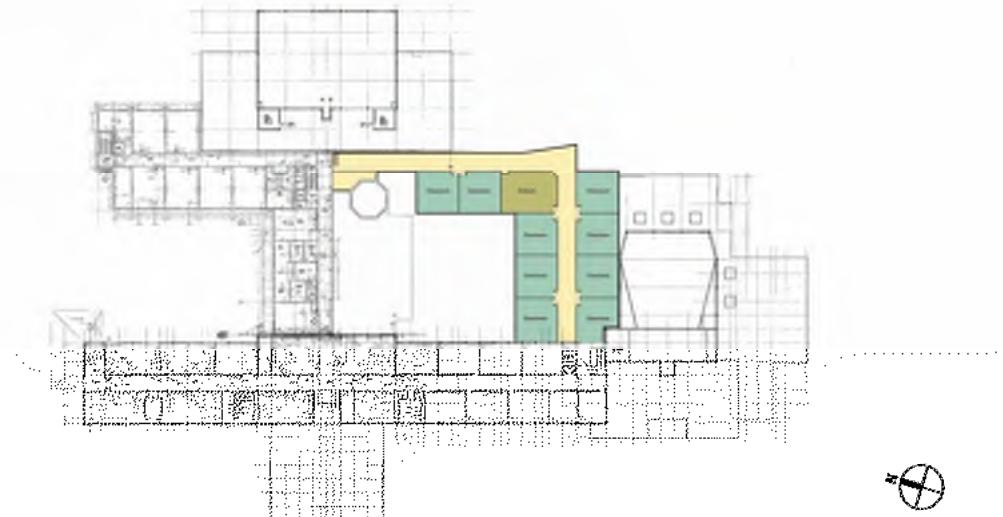
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Diamond Middle School: First Floor Plan
Lexington Public Schools

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DIAMOND OPTION



Diamond Middle School: Second Floor Plan
Lexington Public Schools

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Diamond Middle School – Addition
Lexington Public Schools

Legend:
■ RETAINING WALL
■ LOWER EASEMENT
■ FLOODPLAIN
■ 200' RETAINING WALL
■ 100' FLOODPLAIN BUFFER

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DISTRICT OPTIONS – MIDDLE SCHOOLS

COMBINED CAPACITY - 5 & 10 YEAR ENROLLMENT PROJECTION

SOLVE FOR 202/255 STUDENTS INCLUDING RIGHT SIZING CLARKE MIDDLE SCHOOL

	Grade Range	Clarke	Diamond	3 rd Middle School	Added Capacity	Time Frame	Comments
Phase 1	6 - 8	Prefab Building on North Side, +92, Part A	Bricks & Mortar Addition, +184	NA	+276	5 Year	Exceeds Ten Year Target of 255
Phase 2 & 3	6 - 8	(3) Story Addition to the East Side, +138 Right Size, -138	Complete	NA	+276	10 Year	Exceeds Ten Year Target of 255
Option 2	6-8	Right Size Only, -138 (Total 686)	Larger Bricks & Mortar Addition, +255 (Total 1,048)	NA	+255	10 Year	Equals Target of 255

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COMPONENT OPTIONS – PREK

	Nature of Construction	Size	Prelim Cost (const only)	Comments
Option 1	Phase 2 Option using Central Administration	Additions / Renovations	16,000 gsf	\$9.9 - \$11.2M
Option 2	(1) Story Building North of the Central Administration Building	Pre-Fabricated Building	16,500 gsf	Central offices not upgraded Old Harrington
Option 3	(1) Story Addition to Existing PreK at Harrington	Bricks and Mortar	7,000 gsf	Central Offices not upgraded Old Harrington
Option 4	(1) Story Building on Laconia Street Site	Pre-Fabricated Building	16,500 gsf	Significant Site Costs Increases Administration
Option 5	Incorporated into Hastings Capital Project	Bricks and Mortar	16,500 gsf	Subject to MSBA Approval; 5 Year Solution; Site may not support for a 1 st Floor solution
Option 6	Incorporated into a PreK-4 Harrington Site Building	Bricks and Mortar	16,500 gsf	-
Option 7	PreK addition to High School Site	Bricks and Mortar or Pre-Fabricated Building	16,500 gsf	-
Option 8	PreK-K: New School	Bricks and Mortar	96,500 gsf	Too large for most available Sites

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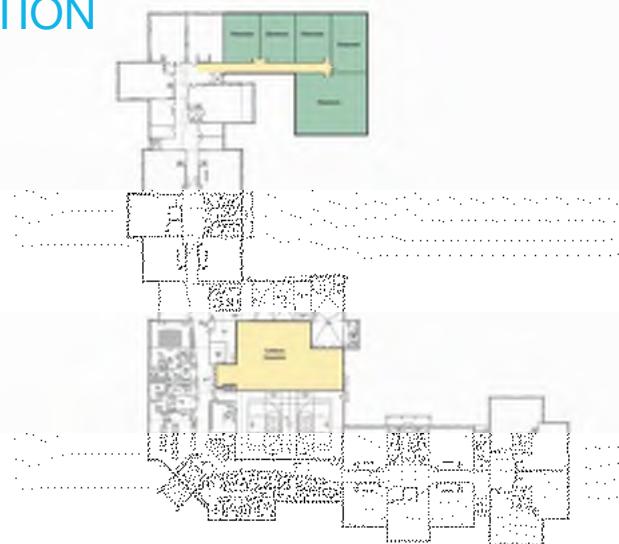
ADDITIONS
GYM, ARTS AND
CLASSROOMS



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PREK ADDITION

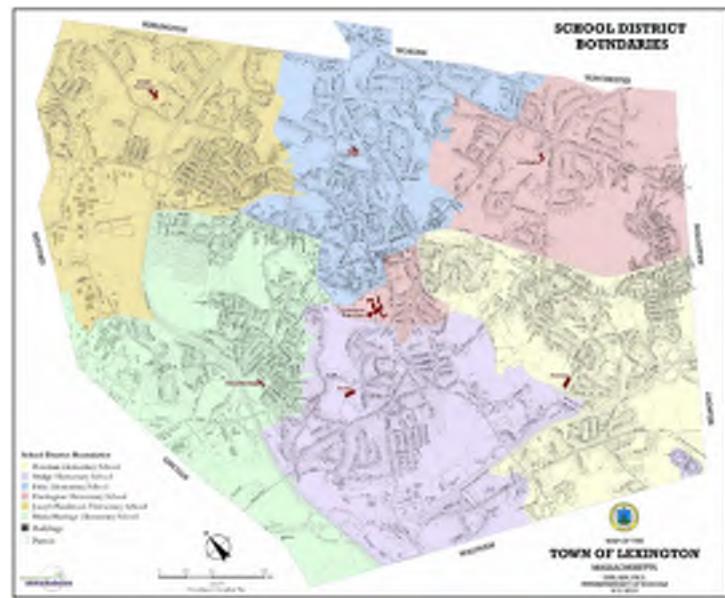


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CURRENT ELEMENTARY BOUNDARIES



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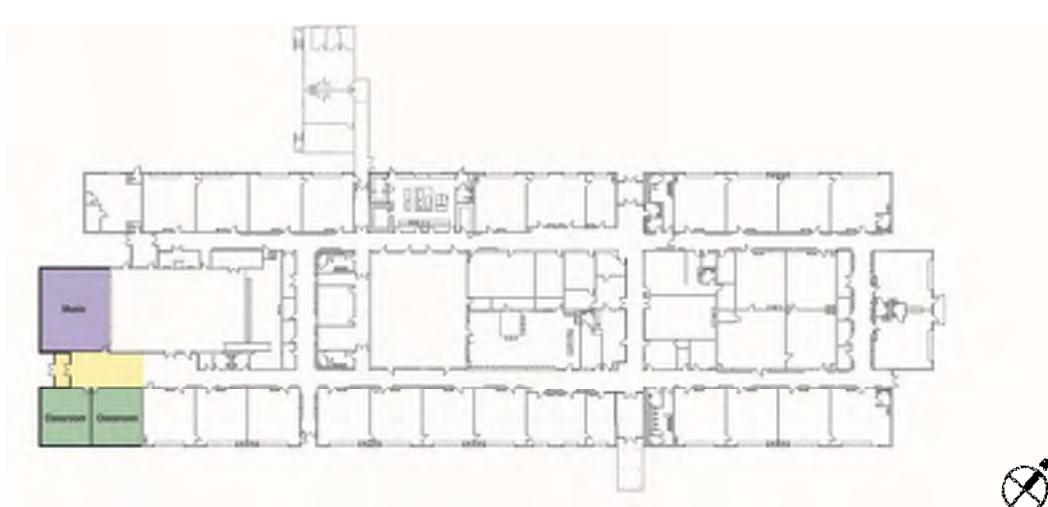
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COMPONENT OPTIONS - BOWMAN

1. ~~No Additions (Status Quo): assumes population increase are accommodated elsewhere~~
2. PreFab Additions for temp capacity; (reduce population): ~~repurpose some spaces to better accommodate SPED, music, art, 21st C enhancements, and modest future growth~~
3. ~~Addition (classrooms only): to accommodate growth~~
4. Addition (classrooms + increase to “core spaces”): ~~growth + cafe, gym, library, SPED, music, art, , 21st C enhancements~~
5. Standard Modulars for temp capacity; (reduce population): ~~does not address core~~

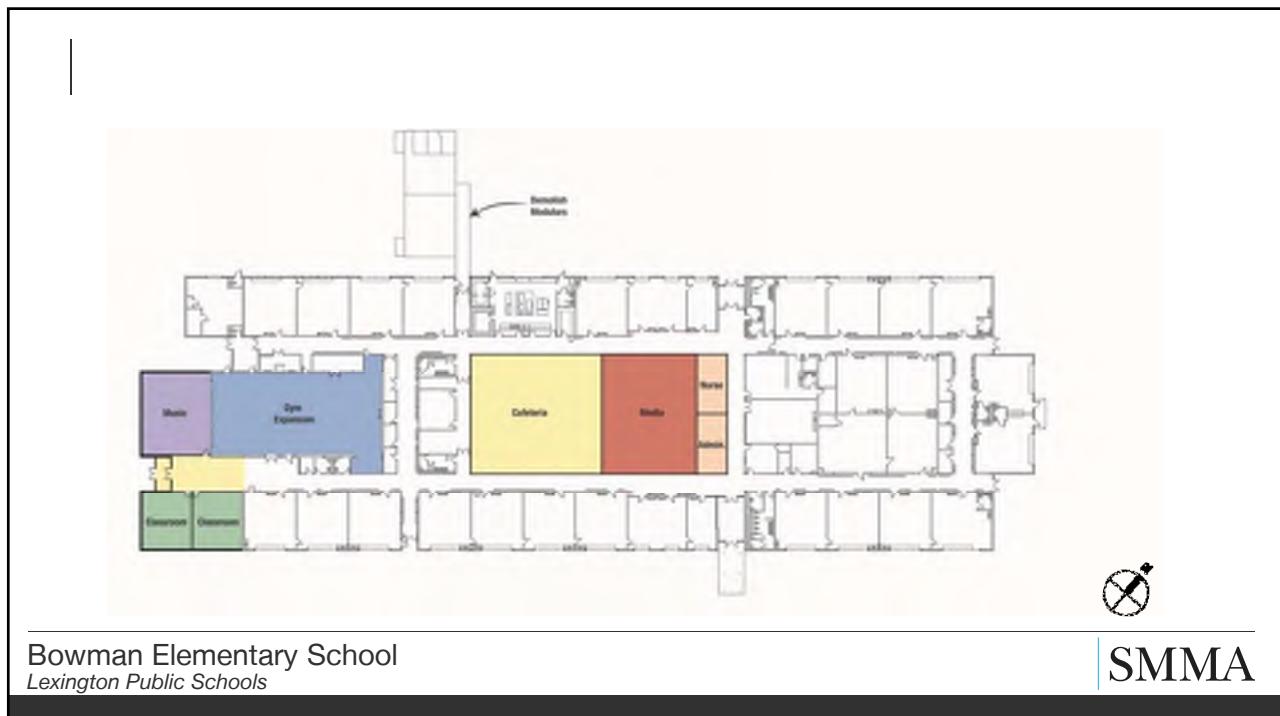
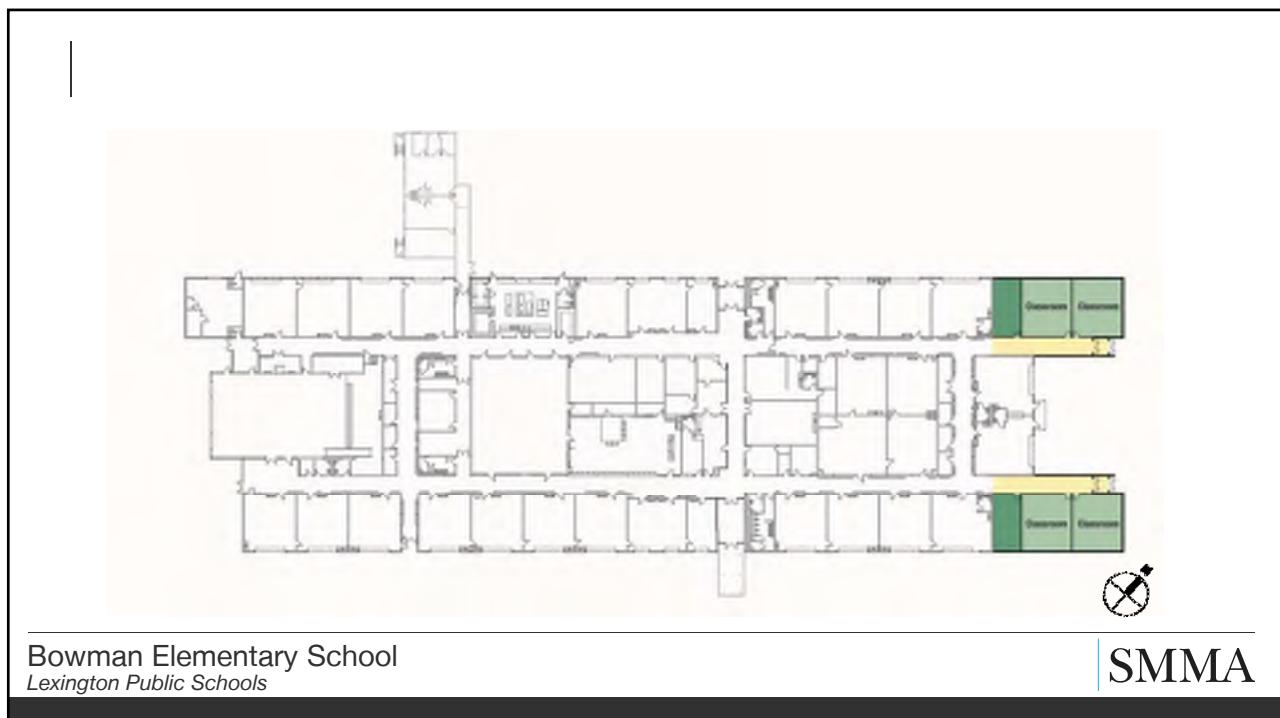
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Bowman Elementary School
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COMPONENT OPTIONS - BRIDGE

1. ~~No Additions (Status Quo): assumes population increase are accommodated elsewhere~~
2. PreFab Additions for temp capacity; ~~repurpose some spaces to better accommodate SPED, music, art, 21st C enhancements, and modest future growth~~
3. ~~Addition (classrooms only): to accommodate growth~~
4. Addition (classrooms + increase to “core spaces”): ~~growth + cafe, gym, library SPED, music, art, , 21st C enhancements~~
5. Standard Modulars for temp capacity; (reduce population): ~~does not address core~~

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COMPONENT OPTIONS - ESTABROOK

1. No Work (Status Quo):
2. Redistrict to take advantage of available space

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Estabrook Elementary
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COMPONENT OPTIONS - FISKE

1. ~~No Additions (Status Quo): assumes population increase are accommodated elsewhere~~
2. No Additions (reduce population): ~~repurpose some spaces to better accommodate SPED, music, art, 21st C enhancements, and modest future growth~~
3. ~~Addition (classrooms only): to accommodate growth~~
4. Addition (classrooms + increase to “core spaces”) ~~growth + cafe, SPED, music, art, 21st C enhancements~~

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Fiske Elementary School
Lexington Public Schools

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FIRST FLOOR



Fiske Elementary School
Lexington Public Schools

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SECOND FLOOR



Fiske Elementary School
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COMPONENT OPTIONS - HARRINGTON

1. ~~No Additions (Status Quo): assumes population increase are accommodated elsewhere~~
2. ~~No Additions (reduce population): repurpose some spaces to better accommodate SPED, music, art, 21st C enhancements, and modest future growth~~
3. Relocate Pre-K Program (convert 3⁺ to ES classrooms)
4. ~~Addition (classrooms only): item 3+ to accommodate growth~~
5. Addition (classrooms + increase to “core spaces”): ~~growth + cafe, gym, SPED, music, art, 21st C enhancements~~

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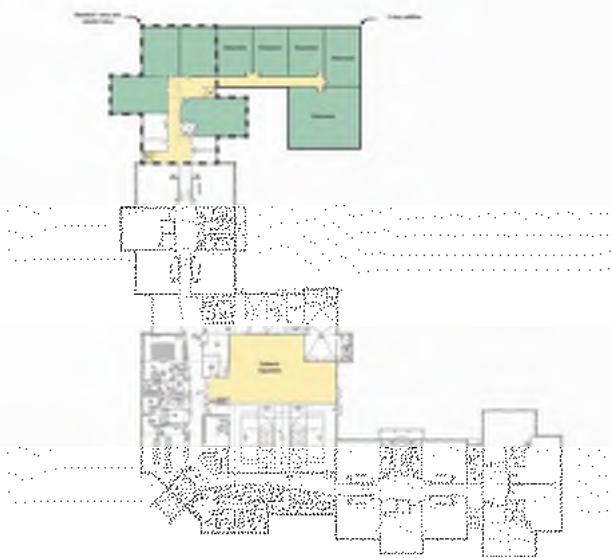
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2 STORY ADDITION



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COMPONENT OPTIONS - HASTINGS

1. Capital Project (for 532 students – 4 sections)
2. Capital Project (for 665 students – 5 sections)

Variables: MSBA Schedule and MSBA approved size

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Hastings Elementary School
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Hastings Elementary School
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COMPONENT OPTIONS – CENTRAL ADMINISTRATION BUILDING SITE

1. Central Admin Leases Space in an Office Building
2. ~~Capital Project (convert to K-5): Renovation~~
3. Capital Project (new K-5): Remove Existing Building
4. Capital Project (new Early Childhood, Pre-K / K)
5. Central Administration Remains, New Pre-K Behind

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COMPONENT OPTIONS – LACONIA STREET SITE

1. ~~Capital Project (new K-5)~~ – limited access to site
2. New Pre-K building – small program and limited traffic makes this site a potential building location; recommend acquisition of private site within the boundaries of the site.
3. ~~Capital Project (new Early Childhood, Pre-K / K)~~ – likely too large for the site
4. Develop for Recreation Fields (swap for ES fields)

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ELEMENTARY SCHOOL SECTIONS

Sections	1	2	3	4	5	6
Kindergarten Classrooms (@18 students)	18	36	54	72	90	108
Grades 1-5 Classrooms (@ 23 students)	115	230	345	460	575	690
Total Students per School	133	266	399	532	665	798

Example: 3 Section School

3 x 18 kindergarten students = 54 students
 5 grades x 3 / grade section = 15 sections 1-5 classrooms
 5 grade 1-5 classrooms x 23 students = 345
 Total Students in 3 section school = 399

Note: 90% Utilization Factor Recommendation

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DISTRICT OPTIONS – ELEMENTARY SCHOOLS

COMBINED CAPACITY - 5 & 10 YEAR ENROLLMENT PROJECTION

SOLVE FOR 500 STUDENTS INCLUDING RIGHT SIZING EXISTING ELEMENTARY SCHOOLS

	Bowman ES	Bridge ES	Estabrook ES	Fiske ES	Harrington ES	Phase 2 Hastings ES	Central Administration Site (Old Harrington)	Added Capacity
1.	Status Quo	Status Quo	Growth + Redistricting +96 Students	Status Quo	Expand Pre-K in current location	MSBA Capital Project (+239 Students) 5 Sections/Grade	-	335 Students 5 Year Solution
2.	Status Quo	Status Quo	Growth + Redistricting +96 Students	Status Quo	Expand Pre-K in current location; Remove 1 Pod, replace w/2 story (+69 students)	MSBA Capital Project (+239 Students) 5 Sections/Grade	-	404 Students 5 Year Solution
3.	Status Quo	Status Quo	Growth + Redistricting +96 Students	Status Quo	Remove Pre-K Pod (replace w/2 story (+129 students))	MSBA Capital Project (+239 Students) 5 Sections/Grade	Pre-K Pre-Fabricated Building	464 Students 10 Year Solution
4.	Right Size (4 sections) -46	Right Size (4 sections) -46	Growth + Redistricting +96 Students	Add 4 classrooms (3 Gen Ed) (+69 students)	Remove Pre-K (+69 students) Remove 1 Pod, replace w/2 story (+69 students)	MSBA Capital Project (+239 Students) 5 Sections/Grade	Pre-K Pre-Fabricated Building	450 Students 10 Year Solution
5.	Right Size (4 sections) -46	Right Size (4 sections) -46	Growth + Redistricting +96 Students	Status Quo	Remove Pre-K (+69 students)	MSBA Capital Project (+239 Students) 5 Sections/Grade	New PreK-K building to replace Old Harrington +529 students + PreK	841 Students 10 Year Solution
6.	Add/Reno (+87 students) 5 Sections/Grade	Add/Reno (+92 students) 5 Sections/Grade	Growth + Redistricting +96 Students	Add/Reno (+43 students) 4 Sections/Grade	Add/Reno (+86 students) 4 Section/Grade	MSBA Capital Project (+239 Students) 5 Sections/Grade	-	643 Students 10 Year Solution

DISTRICT OPTIONS – MIDDLE SCHOOLS

COMBINED CAPACITY - 5 & 10 YEAR ENROLLMENT PROJECTION

SOLVE FOR 202/255 STUDENTS INCLUDING RIGHT SIZING CLARKE MIDDLE SCHOOL

	Grade Range	Clarke	Diamond	3 rd Middle School	Added Capacity	Time Frame	Comments
Phase 1	6 - 8	Prefab Building on North Side, +92, Part A	Bricks & Mortar Addition, +184	NA	+276	5 Year	Exceeds Target of 255
Phase 2 & 3	6 - 8	(3) Story Addition to the East Side, +138 Right Size, -138	Complete	NA	+276	10 Year	Exceeds Target of 255
Option 2	6-8	Right Size Only, -138 (Total 686)	Larger Bricks & Mortar Addition, +255 (Total 1,048)	NA	+255	10 Year	Equals Target of 255

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GETTING TO 5 YEARS – DISTRICT OPTION 1

	2014-15 Enrollment/Population	Appropriations Spring 2015	2015-16 Proj. Enrollment	Capacity	Appropriations Spring 2015	2016-17 Proj. Enrollment	Capacity	Appropriations Spring 2015	2017-18 Proj. Enrollment	Capacity	Appropriations Spring 2015	2018-19 Proj. Enrollment	Capacity	Appropriations Spring 2015	2019-20 Proj. Enrollment	Capacity	2020-21 Projected Population
Overall (Projected Additions since 2010/11)		2 for design			2 for need			230 210									180
Brilliant Elementary School Right Size, No Additions	124	2 Design & Construction	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124
Brilliant Elementary School Right Size, Faculty Right Size	183	2 Design & Construction	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183
Brilliant Elementary School Right Size	188	2 Design & Construction	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188
Brilliant Elementary School Right Size	183		183	183	183	183	183	183	183	183	183	183	183	183	183	183	183
Bellington Elementary School Right Size	466		466	466	466	466	466	466	466	466	466	466	466	466	466	466	466
Bellington Elementary School Right Size, Right sized additions	436	5 for design & student capacity	436	436	436	436	436	436	436	436	436	436	436	436	436	436	436
Bellington Elementary School Right sized additions	436	5 for design & student capacity	436	436	436	436	436	436	436	436	436	436	436	436	436	436	436
Elementary Total Capacity Elementary Enrollment	2,102		2,102 2,102	2,102	2,102 2,102	2,102 2,102	2,102 2,102										
Intermediate School Right Size	307	2 Design & Construction	307	307	307	307	307	307	307	307	307	307	307	307	307	307	307
Diamond Middle School	366	2 for design & student capacity	366	366	366	366	366	366	366	366	366	366	366	366	366	366	366
Middle School Total Right Size, Right sized	1,366		1,366 1,366	1,366	1,366 1,366	1,366 1,366	1,366 1,366										

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GETTING TO 5 YEARS – DISTRICT OPTION 4

	2014-15 Current Population	2015-16 Population Spring 2015)	2016-17 Projected Capacity	Administration Spring 2014	Master Plan Capacity and Schedule Impact - District Option 4				2017-18 Population
					2016-17 Proj. Enroll.	Capacity	Appropriations	Proj. Enroll.	
West Central Administration Unit Central Building	128,410	S for design & construction			128,410		160	160	160
Belmont Elementary School Central, Tracy, Farnam, Right Bank	274	S Design & Construction	274	40	400		400		400
Bridge Elementary School Central, Tracy, Farnam, Right Bank	343	S Design & Construction	343	40	404		404		404
Challenger Elementary School Central	348		348	No effort to capacity	348		348		348
Clare Elementary School/ Middle School	403	S Design	403	5	400		400		400
Dolling Elementary School Middle School	400	S Design	400	No effort to capacity	400		400		400
Fleming Elementary School/Homes for preschool students	424	S No R&B, mobility study	424	No effort to capacity	424		424		424
Elementary Total Capacity Elementary Required	1,107		1,100	2,000	1,200	1,200	1,200	1,200	1,407
Intermediate School Central Building	836	S Design & Construction		40	162		162		162
Intermediate Middle School	300	S for design & construction		5	300		300		300
Middle Total Capacity Middle School Required	1,136		8	1,620	1,200	1,200	1,200	1,200	1,620

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Discussion

LEXINGTON PUBLIC SCHOOLS

Ad hoc Schools Master Plan Committee
Middle & Elementary Schools

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SYMMES MAINI & MCKEE ASSOCIATES

December 4, 2014

AGENDA

1. Population Growth Goals
2. Grade Configuration Options
3. 5 – 8 Middle School
4. PreK – K Early Childhood Center
5. Middle School Option Components
6. Middle School Options
7. Clarke Site Constraints / Options
8. Diamond Site Constraints / Options
9. Elementary Options Refined
10. Getting to Five Years Out

GRADE CONFIGURATION OPTIONS (11/20/2014 PRESENTATION)

Current													Comments
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
Status Quo, Most people are likely comfortable with this configuration													
Option 1													K-8 is inefficient in small elementary schools, likely require more classrooms
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
Option 2												Adds a transition in within the elementary grades which can be disruptive; but likely reduces the number of classrooms needed	
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
Option 3										Relieves elementary schools only; requires early childhood school and MS additions			
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
Option 4									All elementary and both MS are relieved, Early Childhood and High School become the priority				
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
Option 5									Relieves elementary schools only, High School become the priority				
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
Option 6													
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12

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GRADE CONFIGURATION OPTIONS

Current													Comments	
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12	
Status Quo, Most people are likely comfortable with this configuration														
Option 1: PreK; K - 8; 9 - 12: DELETED														
Option 2: PreK; K - 2; 3 - 5: 6 - 8; 9 - 12: DELETED														
Option 3													Relieves elementary schools only; requires early childhood school and MS additions	
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12	
Option 4: PreK - H; 1 - 5; 6 - 7; 8 - 12: DELETED														
Option 5: K - 4; 5 - 8; 8 - 12: DELETED														
Option 6: PreK - K; 1 - 6; 7 - 8; 9 - 12: DELETED														
Option 7							5	6	7	8	9	10	11	12
PreK	K	1	2	3	4		5	6	7	8	9	10	11	12
	K	1	2	3	4									3 Middle Schools

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WHAT IF: 5 – 8 MIDDLE SCHOOLS?

- Current 6 – 8 Population = 1,617 + Projected 10 Year Population 255
Total 10 year Population = 1,872
- If 3 Equal Middle Schools Grades 6 – 8 = 624 students each (30% smaller)
 - Current Grade 5 Population = 555 + Projected 10 Year Population +83
Total 10 year Population = 638 (2,510 total students for grades 5-8)
 - (2) 5-8 middle schools = 1,255 students / school
 - (3) 5-8 middle schools = 836 students / school
 - Clarke: at 836 is similar to today (824), no opportunity to right size triangular classrooms
 - Diamond: at 836 students is larger than current population (793)
 - New Middle School: 836 students = 133,760 GSF, similar in size than Clarke today (133,200 GSF)
(No currently known Town site large enough to support facility of this size)

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WHAT IF: PREK / K EARLY CHILDHOOD CENTER?

- Current K Population = 430 + Projected Population 83 = Total K of 513
- 513 Students at 18 students/class = 29 Kindergarten classrooms = 79,500 GSF
- PreK Projected Requirement = 16,500 GSF
- Total Size = 90,000 to 96,000 GSF (2 stories maximum)
- Central Administration Site: **only known site which might support facility of this size**

Pro's:

- Frees up 26 classrooms throughout system = 598 spaces/students for grades 1 – 5

Con's:

- Adds another transition to elementary grades
- Adds a 7th school administrator/guidance/SPED/nurse
- Requires relocation of Central Office

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COMPONENT OPTIONS – PREK

		Nature of Construction	Size	Prelim Cost (const only)	Comments
Option 1	Phase 2 Option using Central Administration	Additions / Renovations	16,000 gsf	\$9.9 – \$11.2M	Central Offices upgraded
Option 2	(1) Story Building North of the Central Administration Building	Pre-Fabricated Building	16,500 gsf		Central offices not upgraded
Option 3	(1) Story Addition to Existing PreK at Harrington	Bricks and Mortar	7,000 gsf		Central Offices not upgraded
Option 4	(1) Story Building on Laconia Street Site	Pre-Fabricated Building	16,500 gsf		Significant Site Development Costs
Option 5	Incorporated into Hastings Capital Project	Bricks and Mortar	16,500 gsf	-	Subject to MSBA Approval; 5 Year Solution, Site may not support for a 1st Floor solution
Option 6	Incorporated into a PreK-4 Harrington Site Building	Bricks and Mortar	16,500 gsf	-	
Option 7	PreK-addition to High School Site	Bricks and Mortar or Pre-Fabricated Building	16,500 gsf	-	
Option 8	PreK - K- New School	Bricks and Mortar	96,500 gsf	-	Too large for most available Sites

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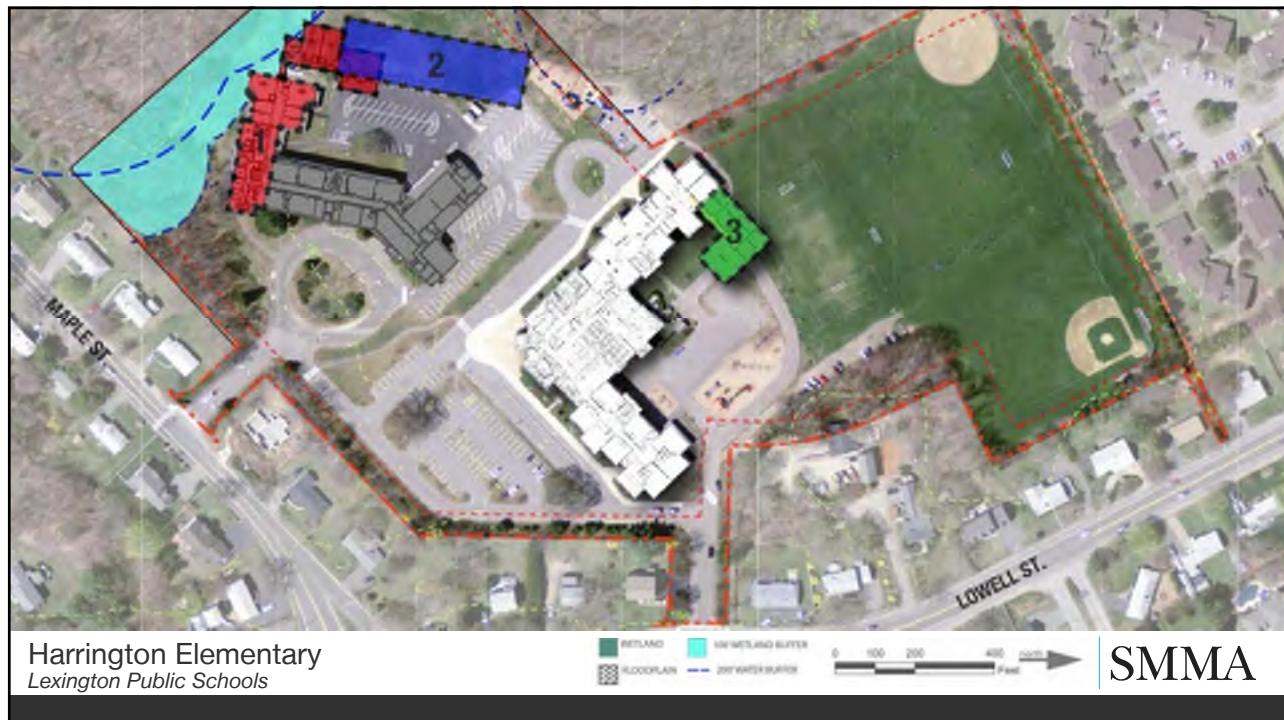
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Harrington Elementary
Lexington Public Schools

WETLAND NONWETLAND BUFFER
FLOODPLAIN 100-YEAR WATER SURFACE

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MIDDLE SCHOOL TEAMS

TEAMS	1	2	3	4	5	6	7	8	9
Team = English, Social Studies, Math, Science (@ 23 students)	92	184	276	368	460	552	644	736	828
Grades 6-8		552	828	1104	1380	1656	1932	2208	2484
Total Students per Grade	NA	NA	276	NA	NA	552	NA	NA	828

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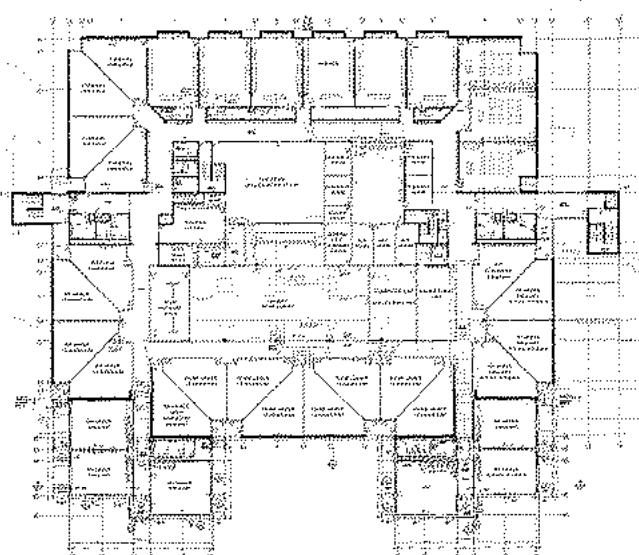
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CLARKE MIDDLE SCHOOL COMPONENT OPTIONS

			Nature of Construction	Population Change	Size	New Population	Comments
Option 1	824 Existing Population	Right Size 6 – 8	Renovations	-138	NA	686	Reduced population requires Diamond to accommodate all population increases
Option 2	824 Existing Population						
Phase 1		(1) Story building to the north	Pre-fabricated building	(1) Team 92 Students	6,400 gsf	916	Includes relocation of the underground detention system
Phase 2		(3) Story addition to the east (6 – 8)	Bricks & Mortar	138 Students	11,200 gsf	1,054	(6) Classrooms + (2) Sm. Group
Phase 3		Right Size (6 – 8)	Renovations	-138	18,000 gsf Renovation	916	Reconfigure triangular CR's, loss of 6 classrooms

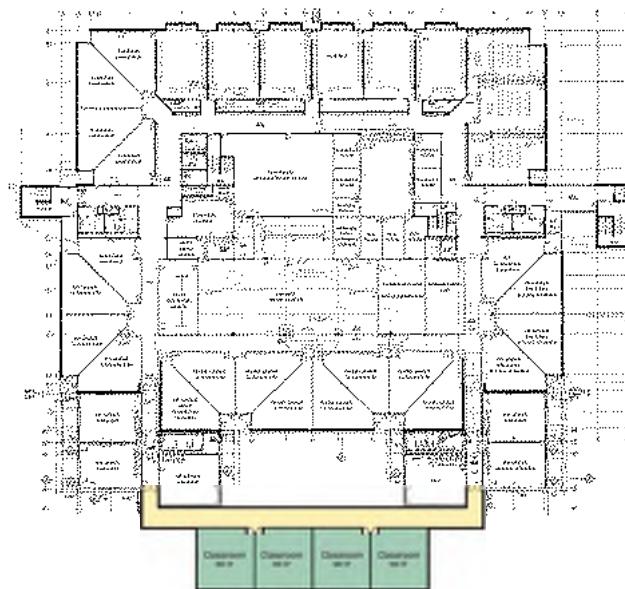
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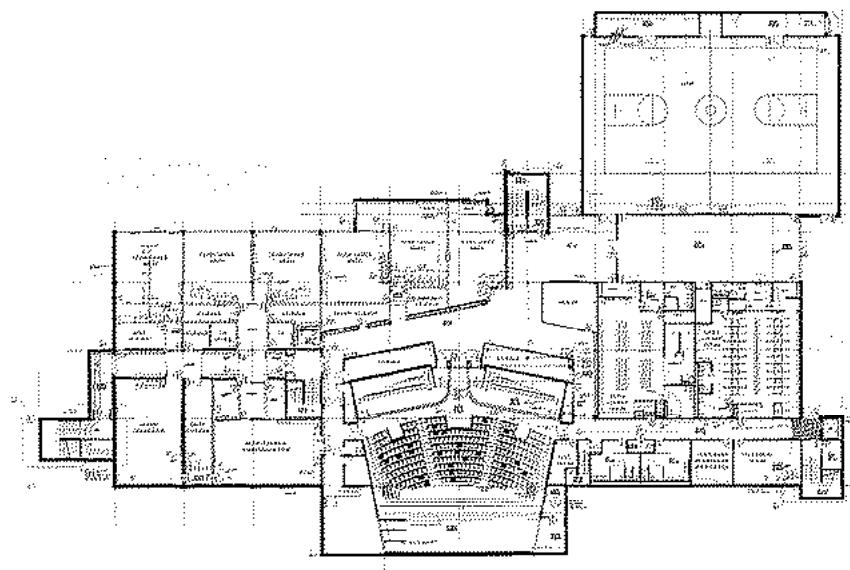
Clarke Middle School: Existing Third Floor Plan
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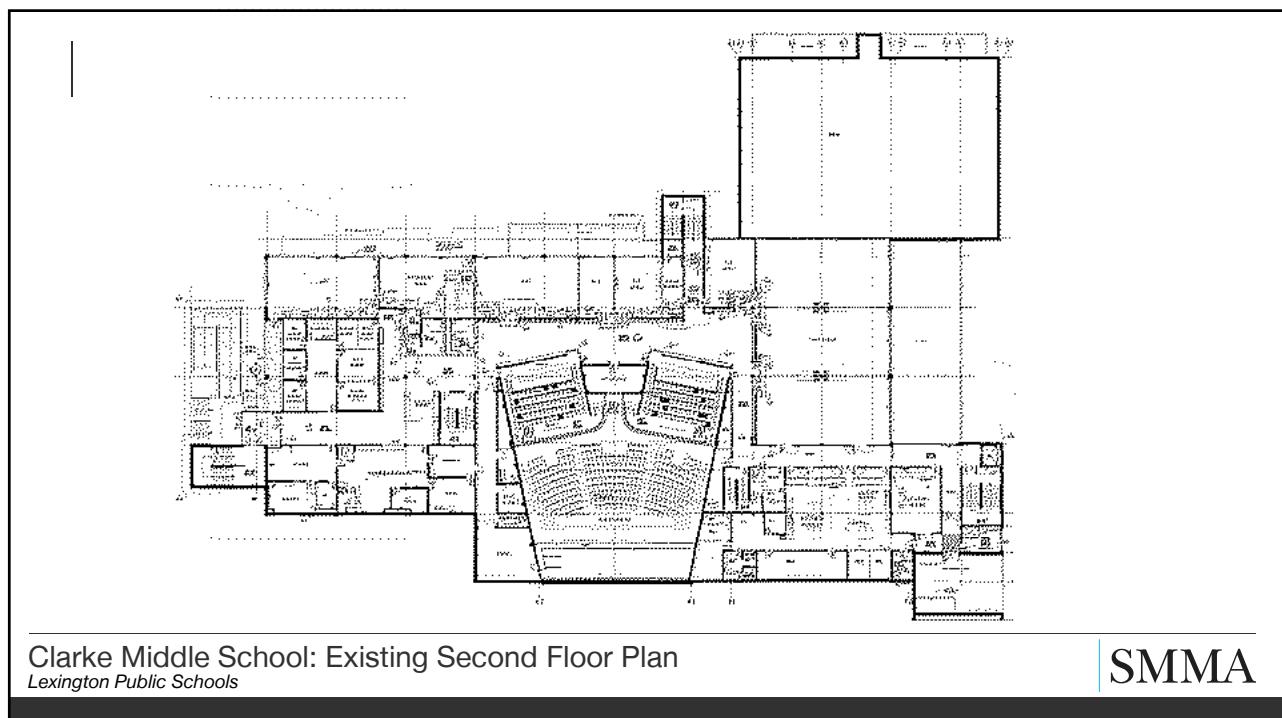
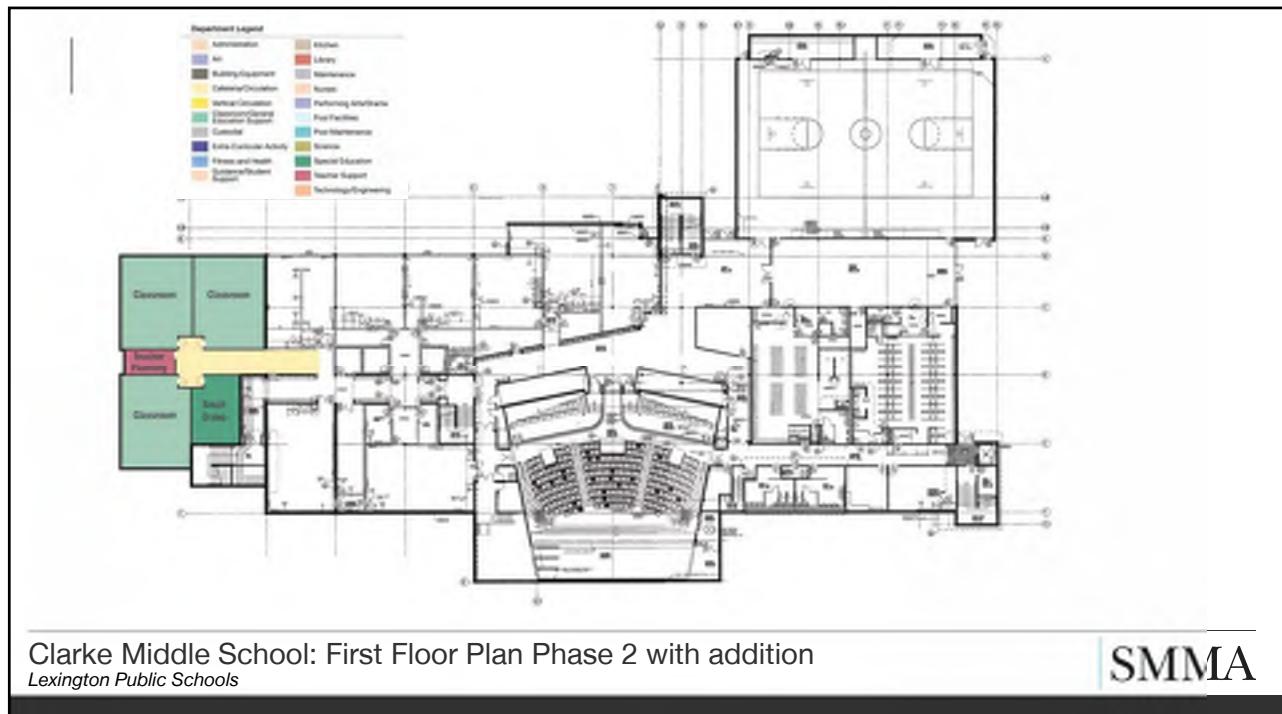
Clarke Middle School: Third Floor Plan Phase 1 with single story addition
Lexington Public Schools

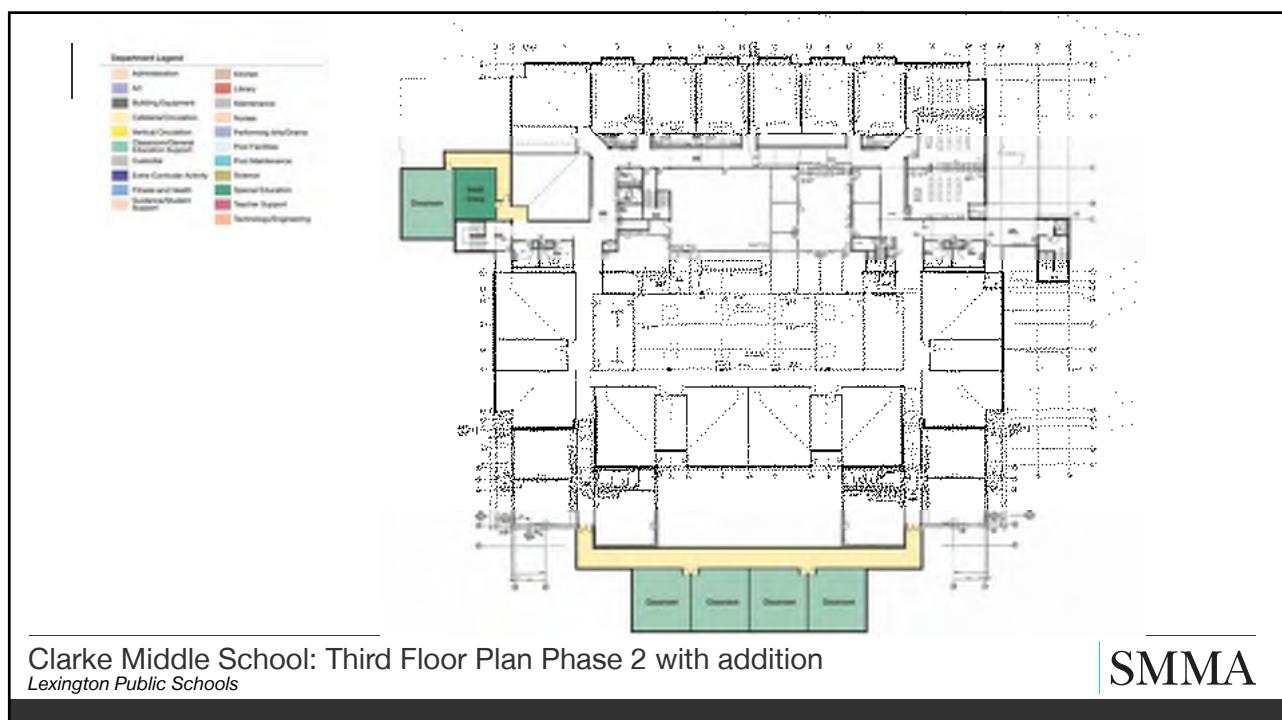
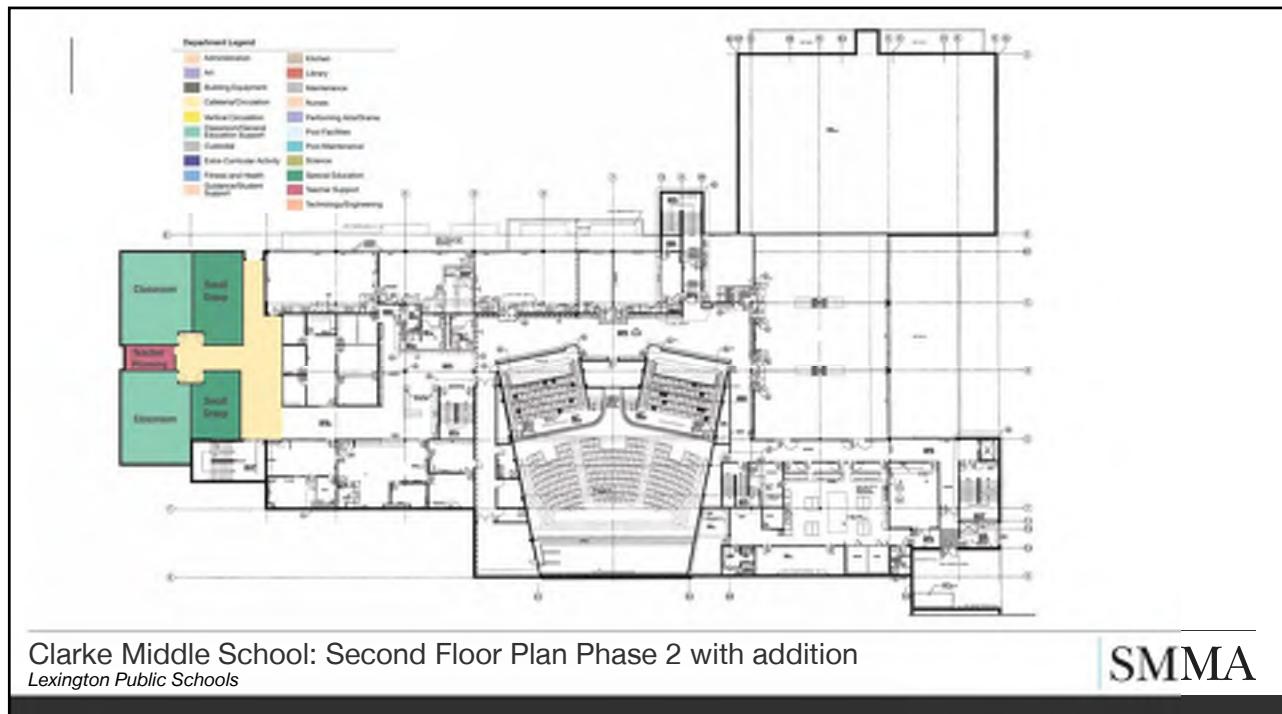
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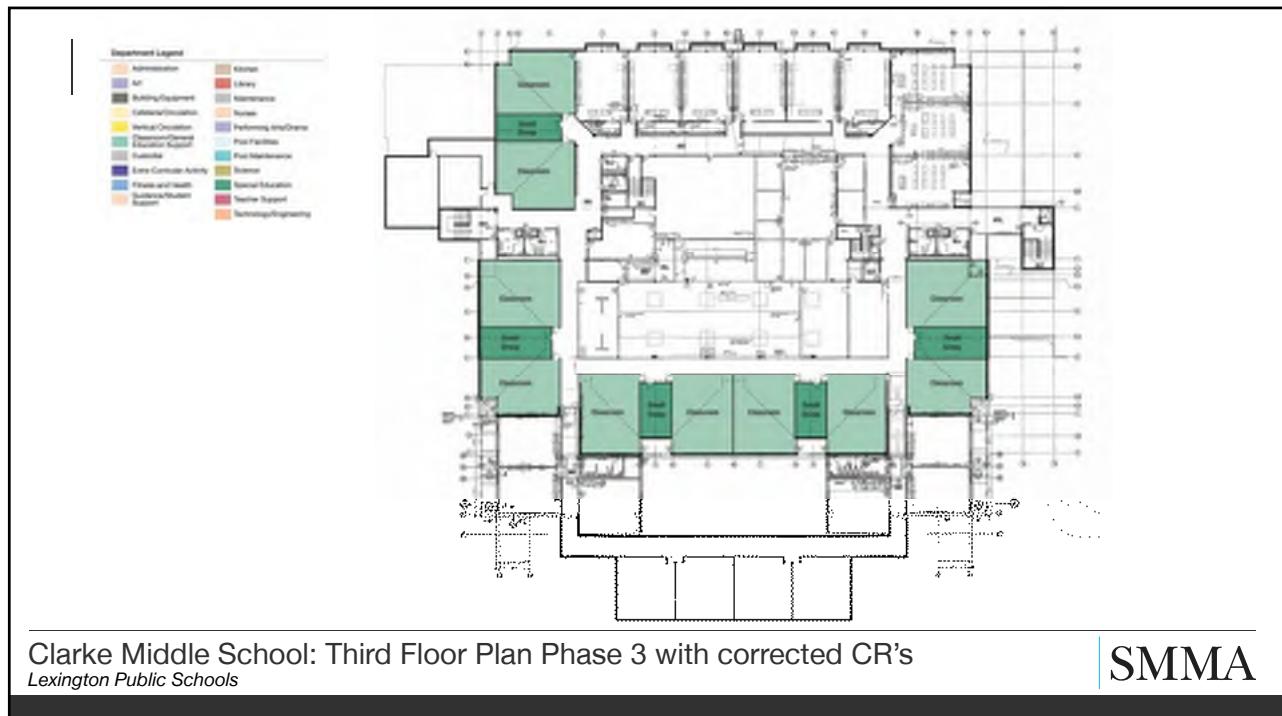


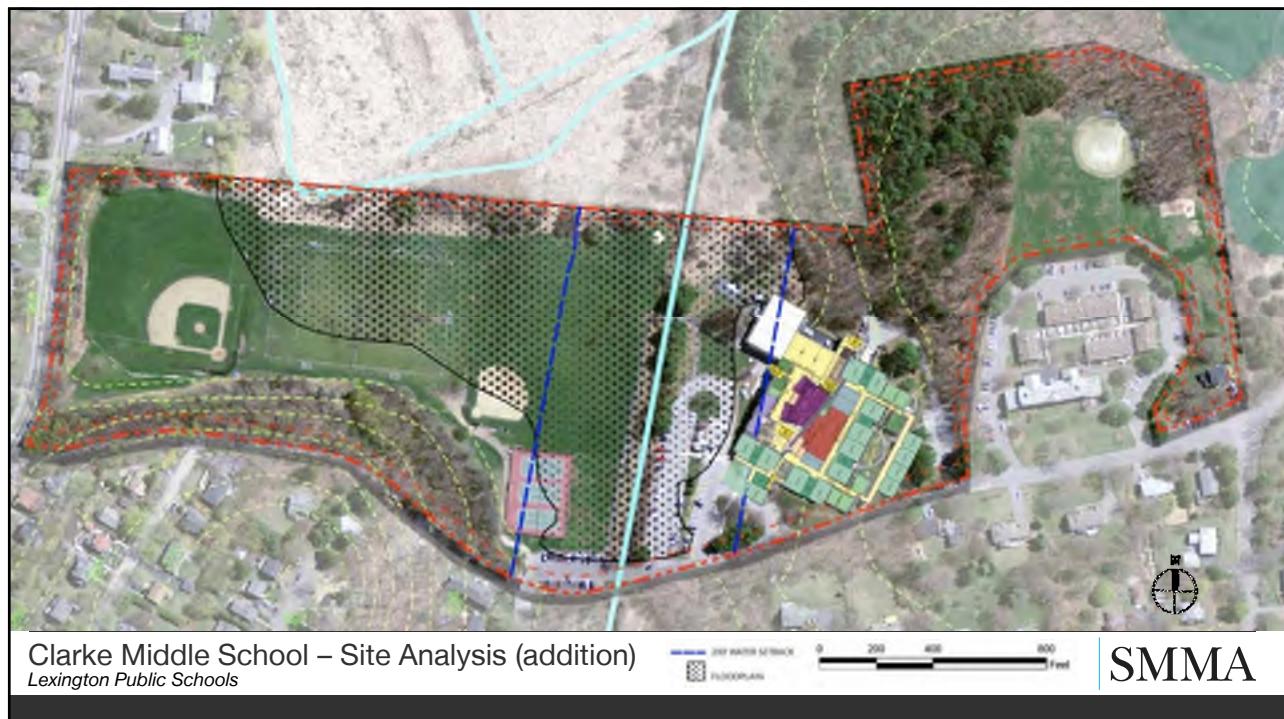
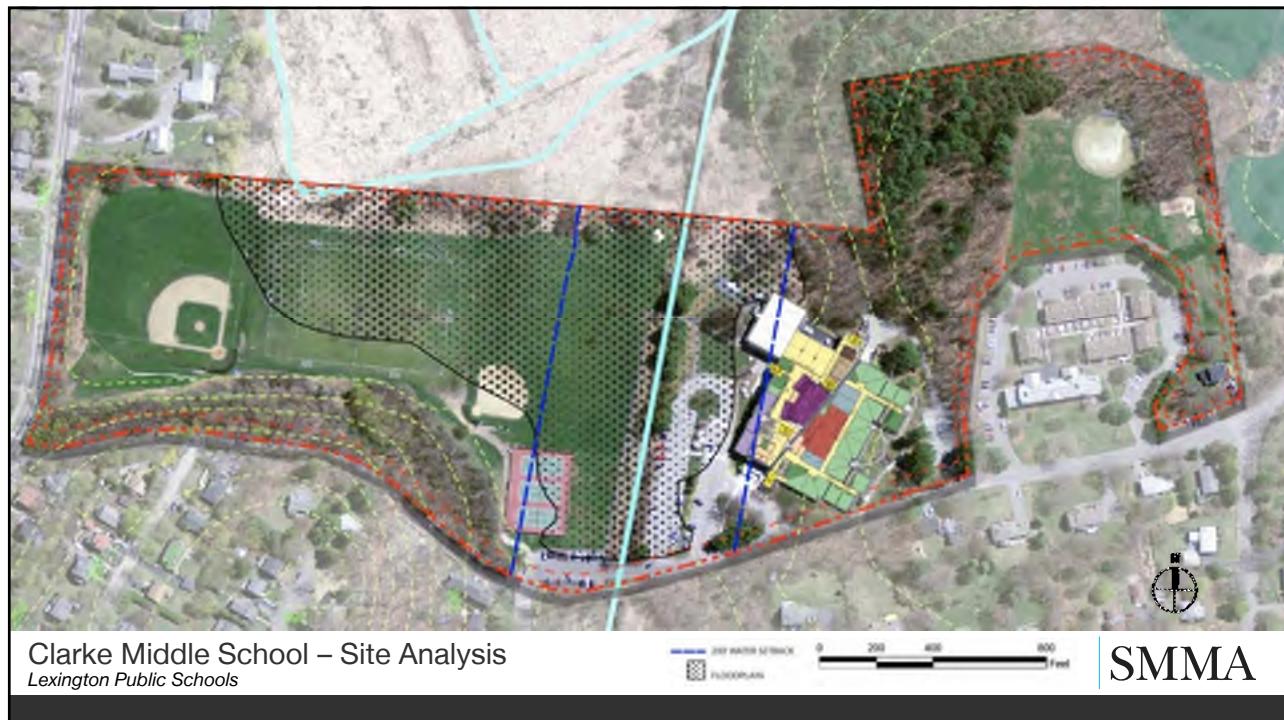
Clarke Middle School: Existing First Floor Plan
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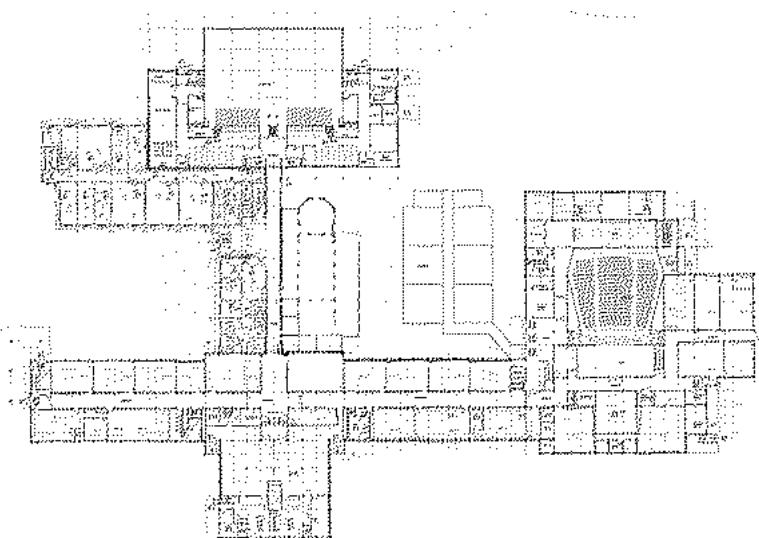


DIAMOND MIDDLE SCHOOL COMPONENT OPTIONS

			Nature of Construction	Population Change	Size	New Population	Comments
Option 4	793 Existing Population	Additions and renovations (6 – 8)	Bricks & Mortar	+184	22,300 GSF + 9,000 GSF Modular	977	(6) Modular CR's removed 8 CR's added (2) teams+)
Option 5	793 Existing Population	Additions and Renovations (6 – 8) for full population increase	Bricks & Mortar	+255	26,000 GSF + 9,000 GSF Modular	1,048	(6) Modular CR's removed 12 CR's added (3) teams)

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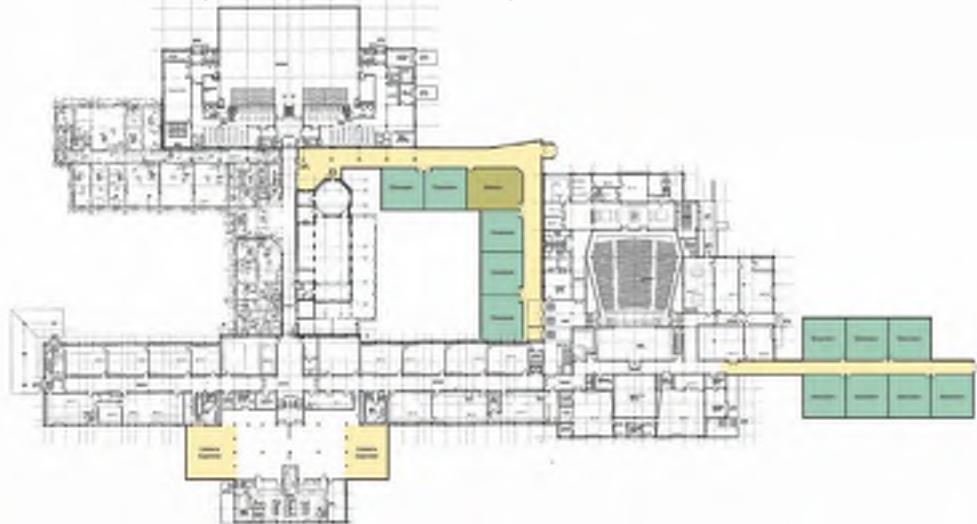
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Diamond Middle School: Existing First Floor Plan
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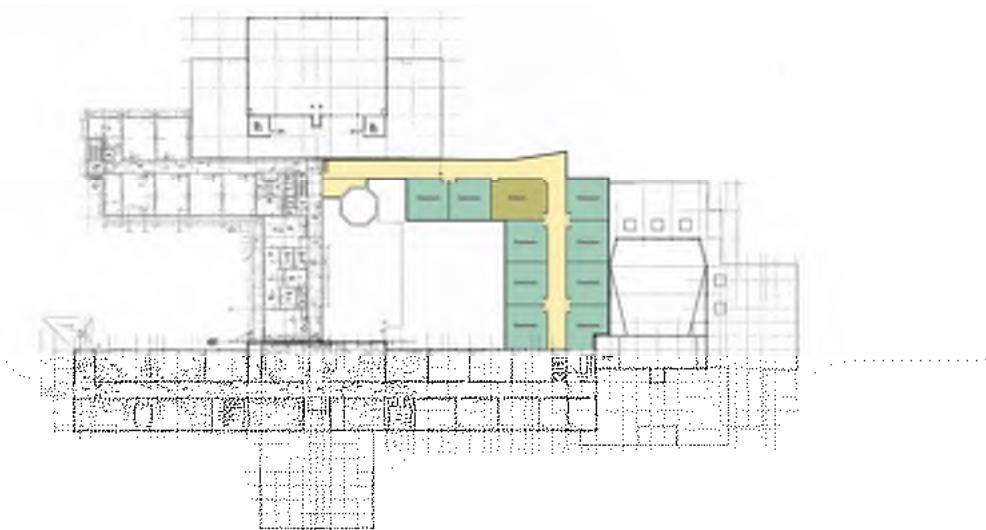
DIAMOND OPTION (IN PROGRESS)



Diamond Middle School: First Floor Plan
Lexington Public Schools

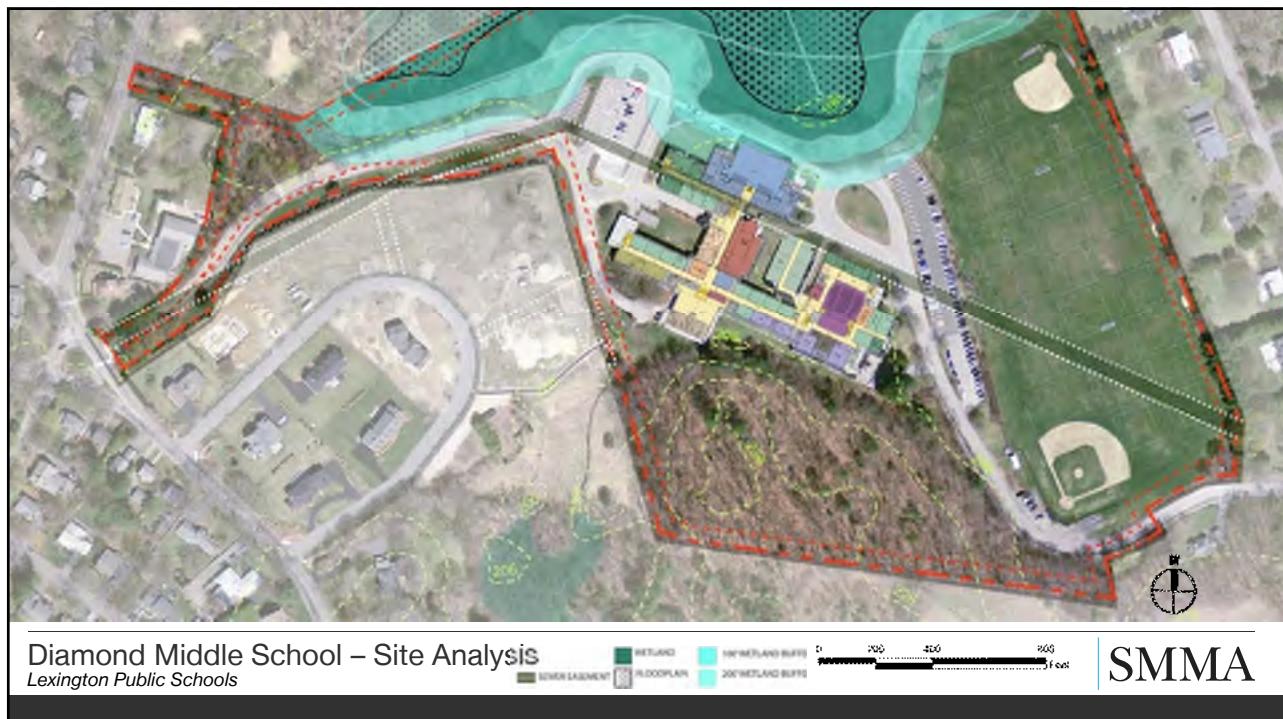
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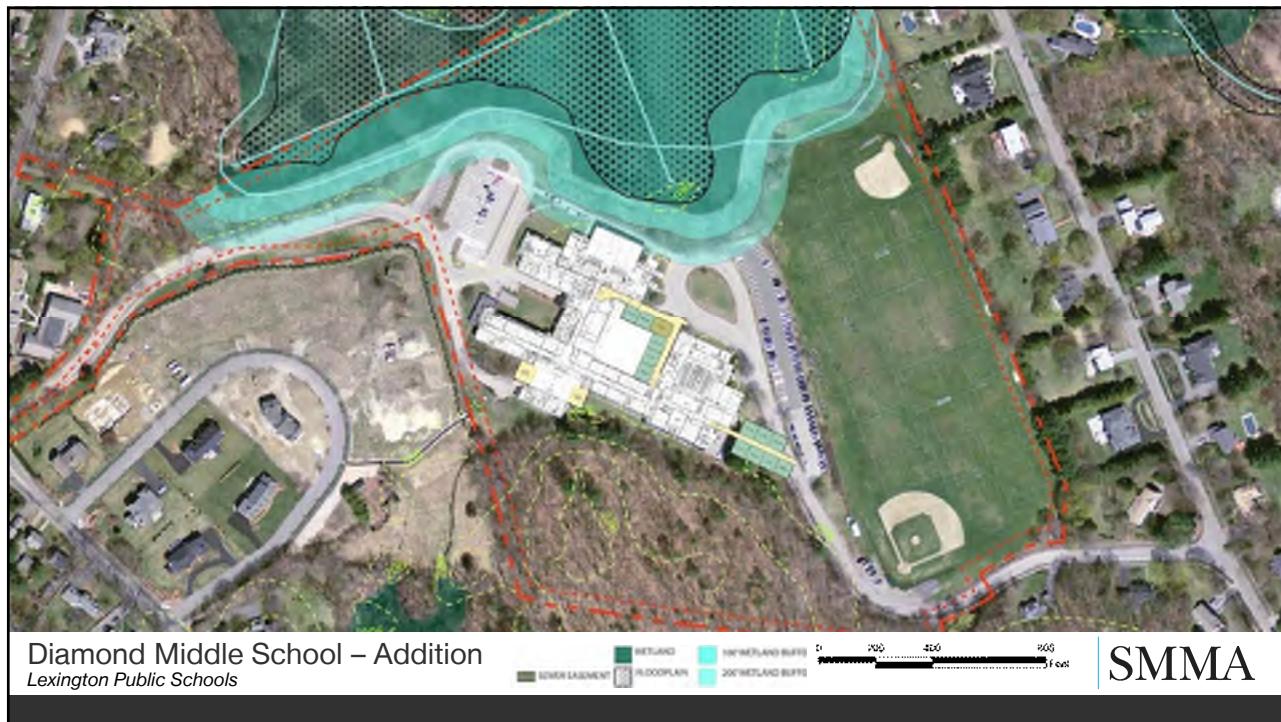
DIAMOND OPTION



Diamond Middle School: Second Floor Plan
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DISTRICT OPTIONS – MIDDLE SCHOOLS

COMBINED CAPACITY - 5 & 10 YEAR ENROLLMENT PROJECTION

SOLVE FOR 202/255 STUDENTS INCLUDING RIGHT SIZING CLARKE MIDDLE SCHOOL

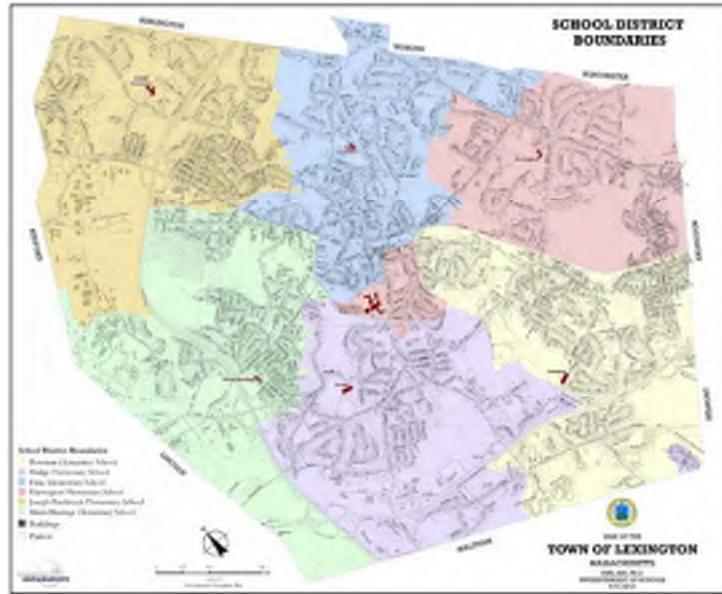
	Grade Range	Clarke	Diamond	3rd Middle School	Added Capacity	Time Frame	Comments
Phase 1	6 - 8	Prefab Building on North Side, +92, Part A	Bricks & Mortar Addition, +184	NA	+276	5 Year	Exceeds Target of 255
Phase 2 & 3	6 - 8	(3) Story Addition to the East Side, +138 Right Size, -138	Complete	NA	+276	10 Year	Exceeds Target of 255
Option 2	6 - 8	Right Size Only, +138 (Total 686)	Larger Bricks & Mortar Addition, +255 (Total 1,048)	NA	+255	10 Year	Equals Target of 255

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CURRENT ELEMENTARY BOUNDARIES



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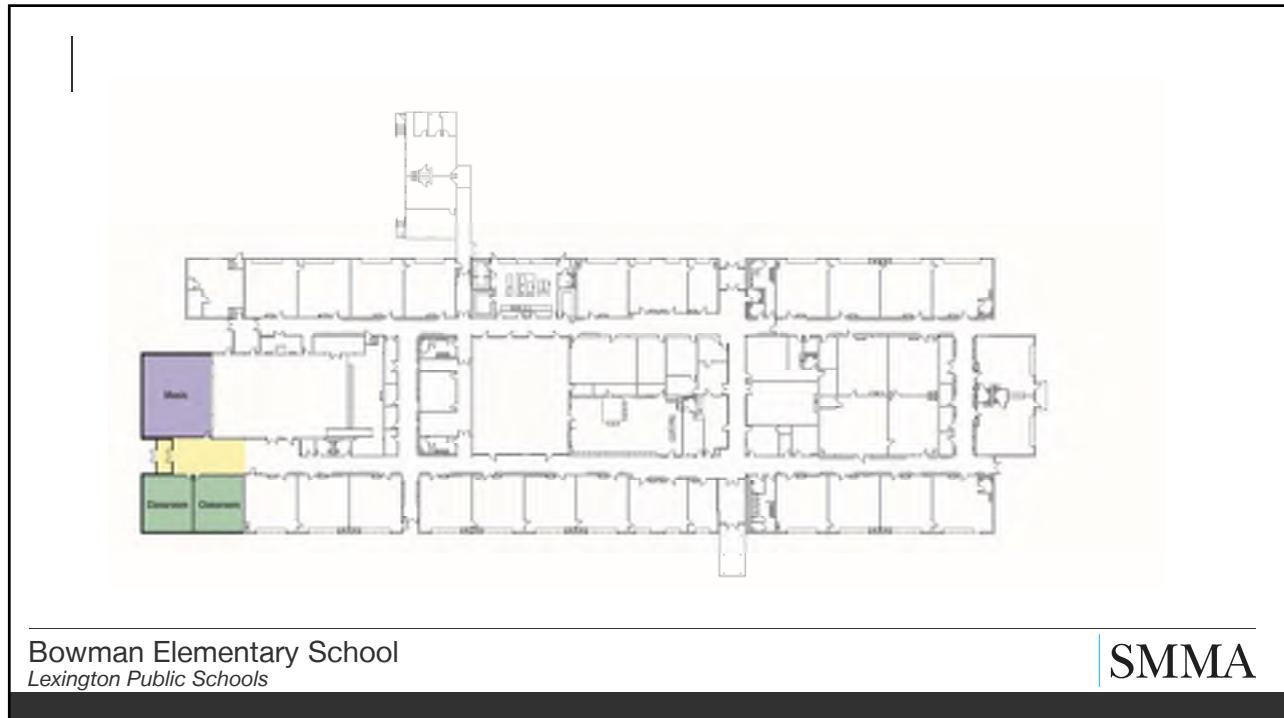
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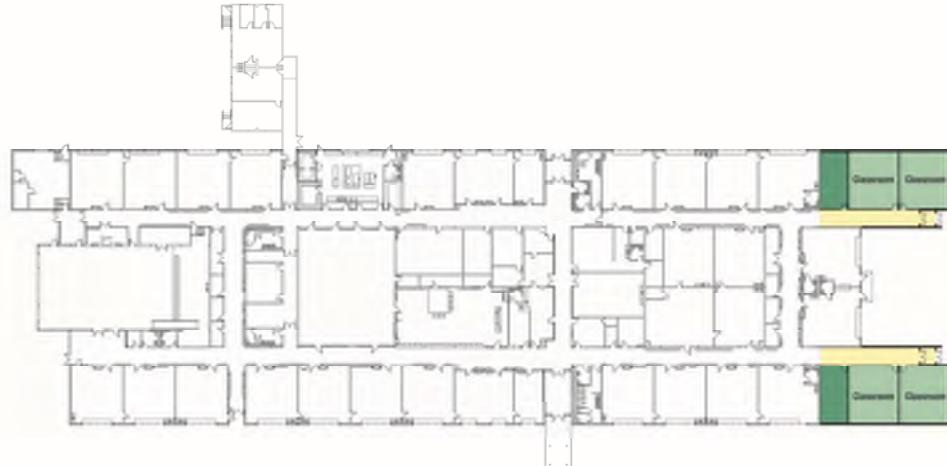
COMPONENT OPTIONS - BOWMAN

1. ~~No Additions (Status Quo): assumes population increase are accommodated elsewhere~~
2. PreFab Additions for temp capacity; (reduce population): ~~repurpose some spaces to better accommodate SPED, music, art, 21st C enhancements, and modest future growth~~
3. ~~Addition (classrooms only): to accommodate growth~~
4. Addition (classrooms + increase to “core spaces”): ~~growth + cafe, gym, library, SPED, music, art, , 21st C enhancements~~
5. Standard Modulars for temp capacity; (reduce population): ~~does not address core~~

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Bowman Elementary School
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RIGHT SIZE



Bowman Elementary School
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COMPONENT OPTIONS - BRIDGE

1. ~~No Additions (Status Quo): assumes population increase are accommodated elsewhere~~
2. PreFab Additions for temp capacity; ~~repurpose some spaces to better accommodate SPED, music, art, 21st C enhancements, and modest future growth~~
3. ~~Addition (classrooms only): to accommodate growth~~
4. Addition (classrooms + increase to “core spaces”): ~~growth + cafe, gym, library SPED, music, art, , 21st C enhancements~~
5. Standard Modulars for temp capacity; (reduce population): ~~does not address core~~

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COMPONENT OPTIONS - ESTABROOK

1. No Work (Status Quo):
2. Redistrict to take advantage of available space

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Estabrook Elementary
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COMPONENT OPTIONS - FISKE

1. ~~No Additions (Status Quo): assumes population increase are accommodated elsewhere~~
2. No Additions (reduce population): ~~repurpose some spaces to better accommodate SPED, music, art, 21st C enhancements, and modest future growth~~
3. ~~Addition (classrooms only): to accommodate growth~~
4. Addition (classrooms + increase to “core spaces”) ~~growth + cafe, SPED, music, art, 21st C enhancements~~

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Fiske Elementary School
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FIRST FLOOR



Fiske Elementary School
Lexington Public Schools

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SECOND FLOOR



Fiske Elementary School
Lexington Public Schools

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COMPONENT OPTIONS - HARRINGTON

1. ~~No Additions (Status Quo): assumes population increase are accommodated elsewhere~~
2. ~~No Additions (reduce population): repurpose some spaces to better accommodate SPED, music, art, 21st C enhancements, and modest future growth~~
3. Relocate Pre-K Program (convert 3+ to ES classrooms)
4. ~~Addition (classrooms only): item 3+ to accommodate growth~~
5. Addition (classrooms + increase to “core spaces”): ~~growth + cafe, gym, SPED, music, art, 21st C enhancements~~

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Harrington Elementary
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Harrington Elementary
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Harrington Elementary
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COMPONENT OPTIONS - HASTINGS

1. Capital Project (for 532 students – 4 sections)
2. Capital Project (for 665 students – 5 sections)

Variables: MSBA Schedule and MSBA approved size

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Hastings Elementary School
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Hastings Elementary School
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COMPONENT OPTIONS – CENTRAL ADMINISTRATION BUILDING SITE

1. Central Admin Leases Space in an Office Building
2. ~~Capital Project (convert to K-5): Renovation~~
3. Capital Project (new K-5): Remove Existing Building
4. Capital Project (new Early Childhood, Pre-K / K)
5. Central Administration Remains, New Pre-K Behind

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Harrington Elementary
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COMPONENT OPTIONS – LACONIA STREET SITE

1. ~~Capital Project (new K-5)~~ – limited access to site
2. New Pre-K building – small program and limited traffic makes this site a potential building location; recommend acquisition of private site within the boundaries of the site.
3. ~~Capital Project (new Early Childhood, Pre-K / K)~~ – likely too large for the site
4. Develop for Recreation Fields (swap for ES fields)

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ELEMENTARY SCHOOL SECTIONS

Sections	1	2	3	4	5	6
Kindergarten Classrooms (@18 students)	18	36	54	72	90	108
Grades 1-5 Classrooms (@ 23 students)	115	230	345	460	575	690
Total Students per School	133	266	399	532	665	798

Example: 3 Section School

3 x 18 kindergarten students = 54 students
5 grades x 3 / grade section = 15 sections 1-5 classrooms
5 grade 1-5 classrooms x 23 students = 345
Total Students in 3 section school = 399

Note: 90% Utilization Factor Recommendation

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DISTRICT OPTIONS – ELEMENTARY SCHOOLS

COMBINED CAPACITY - 5 & 10 YEAR ENROLLMENT PROJECTION

SOLVE FOR 500 STUDENTS INCLUDING RIGHT SIZING EXISTING ELEMENTARY SCHOOLS

	Bowman ES	Bridge ES	Estabrook ES	Fiske ES	Harrington ES	Phase 2 Hastings ES	Central Administration Site (Old Harrington)	Added Capacity
1.	Status Quo	Status Quo	Growth + Redistricting +96 Students	Status Quo	Expand Pre-K in current location	MSBA Capital Project (+239 Students) 5 Sections/Grade	-	335 Students 5 Year Solution
2.	Status Quo	Status Quo	Growth + Redistricting +96 Students	Status Quo	Expand Pre-K in current location; Remove 1 Pod, replace w/2 story (+69 students)	MSBA Capital Project (+239 Students) 5 Sections/Grade	-	404 Students 5 Year Solution
3.	Status Quo	Status Quo	Growth + Redistricting +96 Students	Status Quo	Remove Pre-K Pod (replace w/2 story (+129 students))	MSBA Capital Project (+239 Students) 5 Sections/Grade	Pre-K Pre-Fabricated Building	464 Students 10 Year Solution
4.	Right Size (4 sections) -46	Right Size (4 sections) -46	Growth + Redistricting +96 Students	Add 4 classrooms (3 Gen Ed) (+69 students)	Remove Pre-K (+69 students) Remove 1 Pod, replace w/2 story (+69 students)	MSBA Capital Project (+239 Students) 5 Sections/Grade	Pre-K Pre-Fabricated Building	450 Students 10 Year Solution
5.	Right Size (4 sections) -46	Right Size (4 sections) -46	Growth + Redistricting +96 Students	Status Quo	Remove Pre-K (+69 students)	MSBA Capital Project (+239 Students) 5 Sections/Grade	New PreK–K building to replace Old Harrington +529 students + PreK	841 Students 10 Year Solution
6.	Add/Reno (+87 students) 5 Sections/Grade	Add/Reno (+92 students) 5 Sections/Grade	Growth + Redistricting +96 Students	Add/Reno (+43 students) 4 Sections/Grade	Add/Reno (+86 students) 4 Section/Grade	MSBA Capital Project (+239 Students) 5 Sections/Grade	-	643 Students 10 Year Solution

DISTRICT OPTIONS – MIDDLE SCHOOLS

COMBINED CAPACITY - 5 & 10 YEAR ENROLLMENT PROJECTION

SOLVE FOR 202/255 STUDENTS INCLUDING RIGHT SIZING CLARKE MIDDLE SCHOOL

	Grade Range	Clarke	Diamond	3rd Middle School	Added Capacity	Time Frame	Comments
Phase 1	6 - 8	Prefab Building on North Side, +92, Part A	Bricks & Mortar Addition, +184	NA	+276	5 Year	Exceeds Target of 255
Phase 2 & 3	6 - 8	(3) Story Addition to the East Side, +138 Right Size, -138	Complete	NA	+276	10 Year	Exceeds Target of 255
Option 2	6 - 8	Right Size Only, -138 (Total 666)	Larger Bricks & Mortar Addition, +255 (Total 1,048)	NA	+255	10 Year	Equals Target of 255

GETTING TO 5 YEARS – DISTRICT OPTION 1

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GETTING TO 5 YEARS – DISTRICT OPTION 4

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Discussion

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SYMMES MAINI & MCKEE ASSOCIATES

November 20, 2014

GETTING TO 5 YEARS

	2014 - 2015	2015 - 2016	2016 - 2017	2017 - 2018	2018 - 2019	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	2024 - 2025
Bowman	563	578	584	590	596	602	610	617	625	633	641
Bridge	543	591	597	603	609	615	623	630	638	646	654
Estabrook	477	488	494	500	506	512	520	527	535	543	551
Fiske	480	509	515	521	527	533	541	548	556	564	572
Harrington	432	457	463	469	475	481	489	496	504	512	520
Hastings	423	426	432	438	444	450	458	465	473	481	489
ES Totals	2,918	3,049	3,085	3,121	3,157	3,193	3,239	3,286	3,332	3,379	3,425
6	511	584	606	549	615	621	615	612	551	639	647
7	537	521	596	618	560	627	633	627	624	562	652
8	569	548	531	608	630	571	640	646	640	636	573
	1,617	1,653	1,733	1,775	1,805	1,819	1,888	1,885	1,815	1,837	1,872
9	563	558	537	520	596	617	560	627	633	627	623
10	518	563	558	537	520	596	617	560	627	633	627
11	530	513	557	552	532	515	590	611	554	621	627
12	496	535	518	563	558	537	520	596	617	560	627
	2107	2169	2170	2172	2206	2265	2287	2394	2431	2441	2504
evenly distributed, straight line projections											

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POPULATION GROWTH GOALS

	Current Population 2014-2015	Anticipated Population 2015-2016 Next Year	Anticipated Population 2019-2020 5 Years	5 Year Growth	Anticipated Population 2024-2025 10 Years	10 Year Growth
Elementary Schools (6)	3,025	3,049	3,206	268 over 2013 181 over current	3,438	500 over 2013
Middle Schools	1,617	1,658	1,819	202	*1,872	255
Lexington High School	2,107	2,169	2,265	158	2,504	397

 Enrollment Working Group – Linear Extrapolation Method

 District Projections – Cohort Survival Method

*Middle Schools Progression Rate
2.05 = 1,872 = 255 students

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ENROLLMENT AND CAPACITY– ELEMENTARY

School	Current Student Enrollment	Building Capacity based on current use	Building Capacity after Right Size Re-design	Population Change if schools are right-sized Delta	5 year Projected Enrollment	10 year Projected Enrollment
Bowman	576	578	532	-46 4 Sections/Grade		
Bridge ES	585	573	532	-46 4 Sections/Grade		
Estabrook ES	500	596	596	+96 4+ Sections/Grade		
Fiske ES	489	486	486	3 Sections/Grade ±		
Harrington ES	446	417 Excludes Pre-K	486	+69 Removes Pre-K		
Hastings ES	426	468	665 5 Section/Grade	+239		
Central Administration (Old Harrington)	-	-	-	-		
New Elementary School	-	TBD	TBD	-		
Total District	3025	3118	3297		3293	?
Delta		+96 Students	+243 Students		+268 Students	?

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SCHEDULE / NEXT STEPS

Phase III Workplan and Ad Hoc Meetings

Meeting Date	Agenda
Thursday, November 20, 2014	Elementary concepts
Thursday, December 04, 2014	Middle School concepts, refined Elementary School concepts
Friday, December 12, 2014	High School concepts, refined Middle School concepts
Thursday, December 18, 2014	Refined High School concepts, Prioritize Components
Thursday, January 08, 2015	Preliminary Cost Models, Draft Report
Thursday, January 15, 2015	Draft Report Comments

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DISTRICT OPTIONS – MIDDLE SCHOOLS

COMBINED CAPACITY - 5 & 10 YEAR ENROLLMENT PROJECTION
 SOLVE FOR 202/255 STUDENTS INCLUDING RIGHT SIZING CLARKE MIDDLE SCHOOL

	Current Population 2014-2015	Anticipated Population 2015-2016 Next Year	Anticipated Population 2019-2020 5 Years	5 Year Growth	Anticipated Population 2024-2025 10 Years	10 Year Growth
Clark MS	824					
Diamond MS	793					
Total Middle Schools	1,617	1,658	1,819	202	*1,872	255

*Middle Schools Progression Rate
 $2.05 = 1,872 = 255$ students

 District Projections – Cohort Survival Method

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POPULATION ANALYSIS

	Clark Middle School	Diamond Middle School	TOTAL Middle School	Anticipated 5 Year Growth	TOTAL Middle School
Current Population 2014-2015	824	793	1,617	225 (high)	1,842
Options 1	+25	+217			
Options 2	-	+384			
Options 3	New 6-8 MS 600	New 6-8 MS 600			1,800
Options 4	New 5-8 MS 800	New 5-8 MS 800			2,400

*Middle Schools Progression Rate

2.05 = 1,872 = 255 students

 District Projections – Cohort Survival Method

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Bowman Elementary School
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Bowman Elementary School
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Fiske Elementary School
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Hastings Elementary School
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Hastings Elementary School
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Harrington Elementary
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Harrington Elementary
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Bridge Elementary School
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Bridge Elementary School
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CLARKE MIDDLE SCHOOL COMPONENT OPTIONS

		Nature of Construction	Population Change	Size	Prelim Cost (const. only)	Comments
Option 3	(1) Story building to the north (5 – 8)	Pre-fabricated building	(1) Team 92 students	6,400 gsf		820 students; includes relocation of the underground detention system
	(3) Story addition to the east (5 – 8)	Bricks & Mortar	138 students	12,500 gsf		(6) Classrooms + (2) small group
	Right size (6 – 8)	Renovations	-138			Reconfigure triangular CR's, loss of (6) classrooms

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MIDDLE SCHOOL OPTIONS SCHED SLIDE (TIMELINE)

	Grade Range	Clarke	Diamond	3rd Middle School	Added Capacity	Time Frame	Comments
BOWMAN¹	6 - 8	Prefab Building on North Side, +92, Part A	Bricks & Mortar Addition, +184	NA	+276	5 Year	Exceeds Target of 255
BRIDGE²	6 - 8	(3) Story Addition to the East Side, +138 Right Size, -138	Complete	NA	+276	10 Year	Exceeds Target of 255
3	6 - 8	Right Size Only, -138 (Total 686)	Mortar Addition, +184 (Total 977)	New MS for 209	Total 1,872	10 Year	
4	5 - 8	As is for 820 (No Right Sizing)	Minor renovations, revised schedule for 820	New MS for 820	Total 2,460	10 year	Clarke & Diamond remain largely status quo; no site available for 820 st. MS

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LEXINGTON PUBLIC SCHOOLS

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Elementary Concepts

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SYMMES MAINI & MCKEE ASSOCIATES

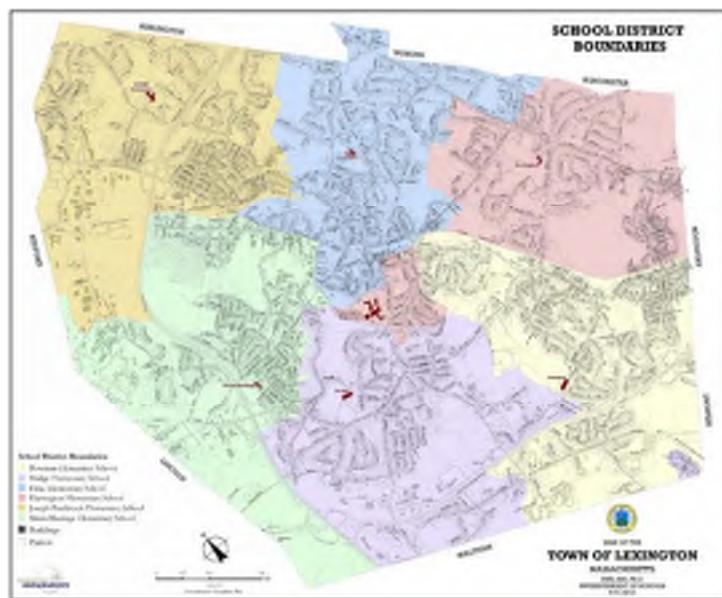
Philip J. Poinelli, FAIA, CEEP
November 207, 2014

AGENDA

1. Educational Plan: District Wide
 - Big Picture Thinking
 - 10 Year Enrollment Discussion – (Decision needed)
 - Grade Configuration Options
 - Current Population Configuration
 - Elementary School Planning – Equity and “even” Section Structure
2. Option Components / Site Constraints
3. Draft Chart of Options
4. Near Term/Temporary Population Concerns and Opportunities
5. Schedule / Next Steps

BIG PICTURE

- Town Wide Solution vs. Individual School Solutions
- Grade Configurations
- 21st C Ideas
- Redistricting
- In-town School Choice
- Equity not related to school size



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POPULATION ANALYSIS

	Current Population 2014-2015	Anticipated Population 2015-2016 Next Year	Anticipated Population 2019-2020 5 Years	Anticipated Population 2024-2025 10 Years	10 Year Growth
Elementary Schools (6)	3,025	3,049	3,206 – 3,293	?	?
Middle Schools	1,617	1,658	1,819	?	?
Lexington High School	2,107	2,169	2,265	2,504	397

 Enrollment Working Group – Linear Extrapolation Method

 District Projections – Cohort Survival Method

Middle Schools Progression Rate

1.85 = 1,692 = 75 students

1.95 = 1,783 = 166 students: (closest to the EWG forecast)

2.05 = 1,872 = 255 students

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GRADE CONFIGURATION OPTIONS

Current													Comments	
PreK	K	1	2	3	4	5	6	7	8	9	10	11	12	
<i>Status Quo, Most people are likely comfortable with this configuration</i>														
Option 1	PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
<i>K-8 is inefficient in small elementary schools, likely require more classrooms</i>														
Option 2	PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
<i>Adds a transition in within the elementary grades which can be disruptive; but likely reduces the number of classrooms needed</i>														
Option 3	PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
<i>Relieves elementary schools only; requires early childhood school and MS additions</i>														
Option 4	PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
<i>All elementary and both MS are relieved, Early Childhood and High School become the priority</i>														
Option 5	PreK	K	1	2	3	4	5	6	7	8	9	10	11	12
<i>Relieves elementary schools only, High School become the priority</i>														
Option 6	PreK	K	1	2	3	4	5	6	7	8	9	10	11	12

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COMPONENT OPTIONS - BOWMAN

1. **No Additions (Status Quo):** assumes population increase are accommodated elsewhere
2. **No Additions (reduce population):** repurpose some spaces to better accommodate SPED, music, art, 21st C enhancements, and modest future growth
3. **Addition (classrooms only):** to accommodate growth
4. **Addition (classrooms + increase to “core spaces”)** Growth + Cafe, Gym, Library, SPED, music, art, , 21st C enhancements

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Bowman Elementary School
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COMPONENT OPTIONS - BRIDGE

1. No Additions (Status Quo): assumes population increase are accommodated elsewhere
2. No Additions (reduce population): repurpose some spaces to better accommodate SPED, music, art, 21st C enhancements, and modest future growth
3. Addition (classrooms only): to accommodate growth
4. Addition (classrooms + increase to “core spaces”) Growth + Cafe, Gym, Library SPED, music, art, , 21st C enhancements



Bridge Elementary School
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Bridge Elementary School
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Bridge Elementary School
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COMPONENT OPTIONS - ESTABROOK

1. No Work (Status Quo):
2. Redistrict to take advantage of available space



Estabook Elementary
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COMPONENT OPTIONS - FISKE

1. No Additions (Status Quo): assumes population increase are accommodated elsewhere
2. No Additions (reduce population): repurpose some spaces to better accommodate SPED, music, art, 21st C enhancements, and modest future growth
3. Addition (classrooms only): to accommodate growth
4. Addition (classrooms + increase to “core spaces”) Growth + Cafe, SPED, music, art, 21st C enhancements

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Fiske Elementary School
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Fiske Elementary School
Lexington Public Schools

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COMPONENT OPTIONS - HARRINGTON

1. No Additions (Status Quo): assumes population increase are accommodated elsewhere
2. No Additions (reduce population): repurpose some spaces to better accommodate SPED, music, art, 21st C enhancements, and modest future growth
3. Relocate Pre-K Program (convert 3⁺ to ES classrooms)
4. Addition (classrooms only): item 3 + to accommodate growth
5. Addition (classrooms + increase to “core spaces”) Growth + Cafe, Gym, SPED, music, art, 21st C enhancements

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Harrington Elementary
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Harrington Elementary
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Harrington Elementary
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COMPONENT OPTIONS - HASTINGS

1. Capital Project (for 399 students – 3 sections)
2. Capital Project (for 532 students – 4 sections)
3. **Capital Project (for 665 students – 5 sections)**
4. Capital Project (for 798 students – 6 sections)
5. Capital Project (select one of 1 – 5 above + Pre-K)

Variables: MSBA Schedule and MSBA approved size

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Hastings Elementary School
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Hastings Elementary School
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Hastings Elementary School
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COMPONENT OPTIONS – CENTRAL ADMINISTRATION BUILDING SITE

1. Central Admin leases space in an office building
2. Capital Project (convert to K-5): renovation
3. Capital Project (new K-5): Remove existing building
4. Capital Project (new Early Childhood – Pre-K / K):
5. Central Administration Remains, New Pre-K behind

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Harrington Elementary
Lexington Public Schools

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COMPONENT OPTIONS – LACONIA STREET SITE

1. Capital Project (new K-5)
2. New Pre-K building
3. Capital Project (new Early Childhood – Pre-K / K):
4. Develop for Recreation Fields (swap for ES fields)

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ELEMENTARY SCHOOL SECTIONS

Sections	1	2	3	4	5	6
Kindergarten Classrooms (@18 students)	18	36	54	72	90	108
Grades 1-5 Classrooms (@ 23 students)	115	230	345	460	575	690
Total Students per School	133	266	399	532	665	798

Example: 3 Section School

3 x 18 kindergarten students = 54 students
 5 grades x 3 / grade section = 15 sections 1-5 classrooms
 5 grade 1-5 classrooms x 23 students = 345
 Total Students in 3 section school = 399

Note: 90% Utilization Factor Recommendation

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Lexington Public Schools



ENROLLMENT AND CAPACITY– ELEMENTARY SCHOOLS

School	Current Student Enrollment	Building Capacity based on current use	Building Capacity after Right Size Re-design	Population Change if schools are right-sized Delta	5 year Projected Enrollment	10 year Projected Enrollment
Bowman	576	578	532	-46 4 Sections/Grade		
Bridge ES	585	573	532	-46 4 Sections/Grade		
Estabrook ES	500	596	596	+96 4+ Sections/Grade		
Fiske ES	489	486	486	-69 3 Sections/Grade		
Harrington ES	446	417 Excludes Pre-K	486	+69 Removes Pre-K		
Hastings ES	426	468	665 5 Section/Grade	+239		
Central Administration (Old Harrington)	-	-	-	-		
New Elementary School	-	TBD	TBD	-		
Total District	3022	3118	3297		3293	?
Delta		+96 Students	+243 Students		+271 Students	?

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Lexington Public Schools



DISTRICT OPTIONS – ELEMENTARY SCHOOLS

COMBINED CAPACITY - 5 YEAR ENROLLMENT PROJECTION

SOLVE FOR 271 STUDENTS AFTER RIGHT SIZING EXISTING ELEMENTARY SCHOOLS

	Bowman ES	Bridge ES	Estabrook ES	Fiske ES	Harrington ES	Hastings ES	Central Administration Building (Old Harrington)	New Elementary School	Added Capacity
1.	-	-	Growth + Redistricting +96 Students	-	Renovation Remove Pre-K (+69 students)	MSBA Capital Project (+106 Students) 4 Sections/Grade	Pre-K Renovation (+0 students) Phase 2 Report	-	271 Students
2.	-	-	Growth + Redistricting +96 Students	-	-	MSBA Capital Project (+239 Students) 5 Sections/Grade	-	-	335 Students
3.	-	-	Growth + Redistricting +96 Students	-	Renovation Remove Pre-K (+69 students)	MSBA Capital Project (+239 Students) 5 Sections/Grade	Pre-K Renovation (+0 students) Phase 2 Report	-	404 Students
4.	-	-	Growth + Redistricting +96 Students	-	-	MSBA Capital Project (-69 Students) 3 Sections/Grade	-	MSBA Capital Project (+532 Students) 4 Sections/Grade	463 Students
5.	Addition/Renovation (+87 students) 5 Sections/Grade	Addition/Renovation (+92 students) 5 Sections/Grade	Growth + Redistricting +96 Students	Addition/Renovation (+46 students) 4 Sections/Grade	Addition/Renovation (+133 students) 4 Section/Grade	MSBA Capital Project (-69 Students) 3 Sections/Grade	-	-	385 Students
6.	-	-	Growth + Redistricting +96 Students	-	-	MSBA Capital Project (+239 Students) 5 Sections/Grade	Renovation (+320 Students) Capacity determined in Phase 1	-	665 Students
7.	-	-	Growth + Redistricting +96 Students	-	-	MSBA Capital Project (-69 Students) 3 Sections/Grade + Pre-K	MSBA Capital Project (+532 Students) 4 Sections/Grade	-	559 Students

Ad Hoc School Master Plan Committee
Lexington Public Schools

SMMA

SCHEDULE / NEXT STEPS

Phase III Workplan and Ad Hoc Meetings

Meeting Date	Agenda
Thursday, November 20, 2014	Elementary concepts
Thursday, December 04, 2014	Middle School concepts, refined Elementary School concepts
Thursday, December 11, 2014	High School concepts, refined Middle School concepts
Thursday, December 18, 2014	Refined High School concepts, Prioritize Components
Thursday, January 08, 2015	Preliminary Cost Models, Draft Report
Thursday, January 15, 2015	Draft Report Comments

Ad Hoc School Master Plan Committee
Lexington Public Schools

SMMA

Discussion

SMMA | SYMMES MAINI & MCKEE ASSOCIATES

November 20, 2014

Proposed Space Summary- Elementary Schools

Bowman Elementary		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments	
CORE ACADEMIC SPACES				25,050				
(List classrooms of different sizes separately)								
Pre-Kindergarten w/ toilet				1,200		-	1,100 SF min - 1,300 SF max	
Kindergarten w/ toilet	4	1000	4,000	1,200	4	4,800	1,100 SF min - 1,300 SF max	
General Classrooms - Grade 1-5	17	875	14,875	950	19	18,050	900 SF min - 1,000 SF max	
General Classrooms - Grade 1-5	3	850	2,550					
General Classrooms - Grade 1-5	2	900	1,800					
	26							
ELL small group room	925	1	925					
Reading small group room			0					
Gen Ed Support/ Small group instruction	900	1	900					
Gen Ed Support/ Literacy Library			0					
SPECIAL EDUCATION				3,305				
(List rooms of different sizes separately)								
Self-Contained SPED			0	950	4	3,800	8% of pop. in self-contained SPED	
Self-Contained SPED - LLP Suite	2,000	1	2,000					
Self-Contained SPED - toilet			0	60	4	240		
Resource Room	450	1	450	500	3	1,500	1/2 size Genl. Clrm.	
Small Group Room / Reading	160	1	160	500	1	500	1/2 size Genl. Clrm.	
Small Group Room / OT and PT	375	1	375					
Small Group Room / Speech and Language	160	2	320					
ART & MUSIC				2,050				
Art Classroom - 25 seats	1	1175	1,175	1,000	2	2,000	assumed schedule 2 times / week / student	
Art Workroom w/ Storage & kiln			0	150	2	300		
Music Classroom / Large Group - 25-50 seats	1	875	875	1,200	1	1,200	assumed schedule 2 times / week / student	
Music Practice / Ensemble			0	75	4	300		
HEALTH & PHYSICAL EDUCATION				3,620				
Gymnasium	1	3380	3,380	6,000	1	6,000	6000 SF Min. Size	
Gym Storeroom	1	240	240	150	1	150		
Health Instructor's Office w/ Shower & Toilet			0	150	1	150		
MEDIA CENTER				2,250				
Media Center / Reading Room	1	2250	2,250	3,064	1	3,064		
DINING & FOOD SERVICE				6,800				
Cafeteria / Dining	1	3450	3,450	3,990	1	3,990	2 seatings - 15SF per seat	
Stage	1	1200	1,200	1,000	1	1,000		
Chair / Table / Equipment Storage			0	377	1	377		
Kitchen	1	1600	1,600	1,832	1	1,832	1600 SF for first 300 + 1 SF/student Add'l	
Staff Lunch Room	1	550	550	233	1	233	20 SF/Occupant	
			0					
MEDICAL				300				
Medical Suite Toilet			0	60	1	60		
Nurses' Office / Waiting Room	1	300	300	250	1	250		
Examination Room / Resting			0	100	3	300		
ADMINISTRATION & GUIDANCE				3,310				
General Office / Waiting Room / Toilet	1	450	450	416	1	416		
Teachers' Mail and Time Room			0	100	1	100		
Staff Office (SSP and Mail)	280	1	280					
Staff Office			0					
Duplicating Room			0	150	1	150		
Records Room			0	110	1	110		
Principal's Office w/ Conference Area	1	400	400	375	1	375		
Principal's Secretary / Waiting			0	125	1	125		
Assistant Principal's Office	1	175	175	120	0	-		
Supervisory / Spare Office -Guidance Interventionist	1	90	90	120	1	120		
Supervisory / Spare Office - Lextended Day	1	90	90					
Supervisory / Spare Office - Metco	1	90	90					
Supervisory / Spare Office - Psychologist	1	90	90					
Supervisory / Spare Office ETS	1	370	370					
Conference Room	1	290	290	250	1	250		
Conference Room	1	225	225					
Guidance Office	1	450	450	150	2	300		

Proposed Space Summary- Elementary Schools

Bowman Elementary		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments	
Guidance Storeroom			0	35	1	35		
Teachers' Work Room	1	310	310	416	1	416		
CUSTODIAL & MAINTENANCE			0			2,132		
Custodian's Office				150	1	150		
Custodian's Workshop				375	1	375		
Custodian's Storage				375	1	375		
Recycling Room / Trash				400	1	400		
Receiving and General Supply				277	1	277		
Storeroom				355	1	355		
Network / Telecom Room				200	1	200		
OTHER			0			0		
Other (specify)								
Total Building Net Floor Area (NFA)			46,685			54,625		
Proposed Student Capacity / Enrollment						532		
Total Building Gross Floor Area (GFA) ²			66,816					
Grossing factor (GFA/NFA)			1.43			81,361		
						1.49		

¹ Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a pa

² Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies

Proposed Space Summary- Elementary Schools

Bridge Elementary		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments	
CORE ACADEMIC SPACES				24,480				
(List classrooms of different sizes separately)				24				
Pre-Kindergarten w/ toilet				1,200		-	1,100 SF min - 1,300 SF max	
Kindergarten w/ toilet	4	1000	4,000	1,200	4	4,800	1,100 SF min - 1,300 SF max	
General Classrooms - Grade 1-6	17	875	14,875	950	20	19,000	900 SF min - 1,000 SF max	
General Classrooms - Grade 1-6	2	850	1,700					
General Classrooms - Grade 1-6	2	900	1,800					
ELL small group room	1	160	160					
Reading small group room	2	85	170					
Gen Ed Support/ Small group instruction	1	850	850					
Gen Ed Support/ Literacy Library	1	925	925					
SPECIAL EDUCATION				1,950				
(List rooms of different sizes separately)				6,040				
Self-Contained SPED				950	4	3,800	8% of pop. in self-contained SPED	
Self-Contained SPED - TLP	1	900	900	60	4	240		
Self-Contained SPED - toilet				500	3	1,500	1/2 size Genl. Clrm.	
Resource Room	1	875	875	500	1	500	1/2 size Genl. Clrm.	
Small Group Room / Reading	1	100	100					
Small Group Room / Speech and Language	1	75	75					
ART & MUSIC				2,525				
Art Classroom - 25 seats	1	1175	1,175	1,000	2	2,000	assumed schedule 2 times / week / student	
Art Classroom - K Art and Music	1	450	450					
Art Workroom w/ Storage & kiln			0	150	2	300		
Music Classroom / Large Group - 25-50 seats	1	900	900	1,200	1	1,200	assumed schedule 2 times / week / student	
Music Practice / Ensemble			0	75	4	300		
HEALTH & PHYSICAL EDUCATION				3,620				
Gymnasium	1	3380	3,380	6,000	1	6,000	6000 SF Min. Size	
Gym Storeroom	1	240	240	150	1	150		
Health Instructor's Office w/ Shower & Toilet			0	150	1	150		
MEDIA CENTER				2,250				
Media Center / Reading Room	1	2250	2,250	3,114	1	3,114		
DINING & FOOD SERVICE				6,800				
Cafeteria / Dining	1	3450	3,450	7,532				
Stage	1	1200	1,200	4,073	1	4,073	2 seatings - 15SF per seat	
Chair / Table / Equipment Storage			0	1,000	1	1,000		
Kitchen	1	1600	1,600	381	1	381		
Staff Lunch Room	1	550	550	1,843	1	1,843	1600 SF for first 300 + 1 SF/student Add'l	
			0	236	1	236	20 SF/Occupant	
MEDICAL				610				
Medical Suite Toilet			0	60	1	60		
Nurses' Office / Waiting Room	1	300	300	250	1	250		
Examination Room / Resting			0	100	3	300		
ADMINISTRATION & GUIDANCE				2,470				
General Office / Waiting Room / Toilet	1	450	450	422	1	422		
Teachers' Mail and Time Room			0	100	1	100		
Staff Office	1	225	225					
Staff Office	1	280	280	150	1	150		
Duplicating Room			0	110	1	110		
Records Room			0	375	1	375		
Principal's Office w/ Conference Area	1	400	400	125	1	125		
Principal's Secretary / Waiting			0	120	0	-		
Assistant Principal's Office	1	175	175					
Supervisory / Spare Office - Psychologist & Social Worker	1	160	160	120	1	120		
Supervisory / Spare Office - ETL	1	90	90					
Conference Room	1	290	290	250	1	250		
Guidance Office	1	90	90	150	2	300		
Guidance Storeroom			0	35	1	35		
Teachers' Work Room	1	310	310	422	1	422		

Proposed Space Summary- Elementary Schools

Bridge Elementary		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments	
CUSTODIAL & MAINTENANCE				2,143				
Custodian's Office				150	1	150		
Custodian's Workshop				375	1	375		
Custodian's Storage				375	1	375		
Recycling Room / Trash				400	1	400		
Receiving and General Supply				281	1	281		
Storeroom				362	1	362		
Network / Telecom Room				200	1	200		
OTHER				0				
Other (specify)								
Total Building Net Floor Area (NFA)			44,395			55,747		
Proposed Student Capacity / Enrollment						543		
Total Building Gross Floor Area (GFA) ²			64,451			82,346		
Grossing factor (GFA/NFA)			1.45			1.48		

¹ Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a pa

² Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification	I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies
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Proposed Space Summary- Elementary Schools
New Elementary School

LEXINGTON ESTABROOK SCHOOL			
Existing Conditions			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals
CORE ACADEMIC SPACES	21	18,511	
(List classrooms of different sizes separately)			
Pre-Kindergarten w/ toilet			
Kindergarten w/ toilet (No toilet in existing)	945	2	1,889
Kindergarten w/ toilet (No toilet in existing)	960	1	960
General Classrooms - Grade 1-6	706	1	706
General Classrooms - Grade 1-6	723	2	1,445
General Classrooms - Grade 1-6	860	2	1,720
General Classrooms - Grade 1-6	866	1	866
General Classrooms - Grade 1-6	873	1	873
General Classrooms - Grade 1-6	882	2	1,763
General Classrooms - Grade 1-6	900	1	900
General Classrooms - Grade 1-6	908	1	908
General Classrooms - Grade 1-6	929	1	929
General Classrooms - Grade 1-6	933	2	1,865
General Classrooms - Grade 1-6	935	1	935
General Classrooms - Grade 1-6	965	2	1,929
Computer Lab	823	1	823
Teacher Prep / Work Area every 2 clrms			
SPECIAL EDUCATION	2,212		
(List rooms of different sizes separately)			
Self-Contained SPED			
Self-Contained SPED - toilet			
Resource Room			
Small Group Room / Reading			
CARE Program Suite	826	1	826
ETS Suite			
ETS Office	187	1	187
ETS / IEP Conference	0	0	0
ETS Reception	0	0	0
Psychologist	119	1	119
Psychologist	191	1	191
Social Worker	123	1	123
Resource Room (2 resource, Speech, Reading)	141	1	141
Resource Room (resource, CARE, Speech, Readin	119	1	119
Resource Room (resource, CARE, Speech, Readin	114	1	114
Resource Room (resource, CARE, Speech, Readin	97	1	97
OT/PT	113	1	113
Math Coach	182	1	182
Reading Program	0	0	0
Testing Room			
Literacy (Existing in portable clrm w/ ELL)	0	0	0
ELL (Existing in portable clrm w/ Literacy) Adjoining	0	0	0
ART & MUSIC	2,683		
Art Classroom - 25 seats	1,183	1	1,183
Art Workroom w/ Storage & kiln	98	1	98
Music Classroom / Large Group - 25-50 seats	1,402	1	1,402
Music Practice/ Ensemble	0	0	0
Band / Strings	0	0	0
HEALTH & PHYSICAL EDUCATION	2,412		
Gymnasium	2,412	1	2,412
Gym Storeroom	0	0	0
Health Instructor's Office w/Shower & Toilet	0	0	0
MEDIA CENTER	2,524		
Media Center/Reading Room	2,524	1	2,524
DINING & FOOD SERVICE	2,896		
Cafeteria/Dining	0	0	0
Stage	795	1	795
Chair/Table/Equipment Storage	0	0	0
Kitchen	1,650	1	1,650
Staff Lunch Room	451	1	451
MEDICAL	295		
Medical Suite Toilet	0	0	0
Nurses' Office/Waiting Room	111	1	111
Examination Room / Resting	184	1	184
ADMINISTRATION & GUIDANCE	1,851		

PROPOSED								
Existing to Remain/Renovated			New			Total		
ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals
0		26,910			27	26,910		
99	13	1,287	99	13	1,287			
46	2	92	46	2	92			
0		6,101			6,101			
99	13	1,287	99	13	1,287			
46	2	92	46	2	92			
0		4,972			4,972			
0		6,352			6,352			
0		2,952			2,952			
0		6,555			6,555			
0		612			612			
0		2,550			2,550			

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
23		22,850	
1,200		-	1,100 SF min - 1,300 SF max
1,200	4	4,800	1,100 SF min - 1,300 SF max
950	19	18,050	900 SF min - 1,000 SF max
		6,040	
950	4	3,800	8% of pop. in self-contained SPED
60	4	240	
500	3	1,500	1/2 size Genl. Clrm.
500	1	500	1/2 size Genl. Clrm.
		3,800	assumed schedule 2 times / week / student
1,000	2	2,000	
150	2	300	
		1,200	assumed schedule 2 times / week / student
75	4	300	
		6,300	
6,000	1	6,000	6000 SF Min. Size
150	1	150	
150	1	150	
		3,100	
3,100	1	3,100	
		7,505	
4,050	1	4,050	2 seatings - 15SF per seat
1,000	1	1,000	
380	1	380	
1,840	1	1,840	1600 SF for first 300 + 1 SF/student Add'l
235	1	235	20 SF/Occupant 85 staff/3 seatings = 567
		610	
60	1	60	
250	1	250	
100	3	300	
		2,405	

Proposed Space Summary- Elementary Schools

New Elementary School

LEXINGTON ESTABROOK SCHOOL		Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	
General Office / Waiting Room/Toilet	400	1	400	
Teachers' Mail and Time Room	0	0	0	
Duplicating Room	0	0	0	
Records Room (incl. above)	0	0	0	
Principal's Office w/ Conference Area	154	1	154	
Principal's Secretary / Waiting (incl. above in General)	0	0	0	
Assistant Principal's Office	191	1	191	
Supervisory / Spare Office	0	0	0	
Conference Room	182	1	182	
Extended Day Office / Storage	94	1	94	
Guidance Office (Suite - storage, conference, Office)	176	1	176	
Guidance Storeroom	0	0	0	
Teachers' Work Room	654	1	654	
CUSTODIAL & MAINTENANCE				967
Custodian's Office	0	0	0	
Custodian's Workshop	440	1	440	
Custodian's Storage	132	4	527	
Recycling Room / Trash				
Receiving and General Supply				
Storeroom				
Network/Telecom Room				
OTHER				0
Other (specify)				
Total Building Net Floor Area (NFA)				34,351
Proposed Student Capacity/Enrollment				
Total Building Gross Floor Area (GFA) ²				56,252
Grossing factor (GFA/NFA)				1.64

PROPOSED								
Existing to Remain/Renovated			New			Total		
ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals
0	0	0	561	1	561	561	1	561
0	0	0	101	1	101	101	1	101
0	0	0	150	1	150	150	1	150
0	0	0	0	0	0	0	0	0
0	0	0	299	1	299	299	1	299
0	0	0	0	0	0	0	0	0
0	0	0	134	1	134	134	1	134
0	0	0	0	0	0	0	0	0
0	0	0	292	1	292	292	1	292
0	0	0	130	1	130	130	1	130
0	0	0	300	1	300	300	1	300
0	0	0	34	1	34	34	1	34
0	0	0	549	1	549	549	1	549
0			2,076			2,076		
0	0	0	132	1	132	132	1	132
0	0	0	408	1	408	408	1	408
0	0	0	461	1	461	461	1	461
0	0	0	315	1	315	315	1	315
0	0	0	234	1	234	234	1	234
0	0	0	301	1	301	301	1	301
0	0	0	225	1	225	225	1	225
0			0			0		
			0			59,080		

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
420	1	420	
100	1	100	
150	1	150	
110	1	110	
375	1	375	
125	1	125	
120	0	-	
120	1	120	
250	1	250	
150	2	300	
35	1	35	
420	1	420	
		2,140	
150	1	150	
375	1	375	
375	1	375	
400	1	400	
280	1	280	
360	1	360	
200	1	200	
		0	
		54,750	
		540	
		82,080	
		1.50	

¹ Individual Room Net Floor Area (NFA) Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular program area including such spaces as non-communal toilets and storage rooms.

² Total Building Gross Floor Area (GFA) Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification	I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement, made under the penalties of perjury.
Name of Architect Firm:	<u>DiNisco Design Partnership, Ltd.</u>
Name of Principal Architect:	<u>Kenneth DiNisco</u>
Signature of Principal Architect:	<u>K. DiNisco</u>
Date:	<u>1/26/2012</u>

Proposed Space Summary- Elementary Schools

Fiske Elementary		Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	
CORE ACADEMIC SPACES		24,705		
<i>(List classrooms of different sizes separately)</i>				
Pre-Kindergarten w/ toilet				
Kindergarten w/ toilet	1,260	2	2,520	
Kindergarten w/ toilet	1,090	2	2,180	
General Classrooms - Grade 1-5	1,000	19	19,000	
ELL small group room	200	1	200	
Math Specialist small group room	180	1	180	
Literacy Support Office	100	4	400	
Gen Ed Support/ Small group instruction			0	
Gen Ed Support/ Literacy Library	225	1	225	
SPECIAL EDUCATION		4,610		
<i>(List rooms of different sizes separately)</i>				
Self-Contained SPED w/ toilet- ILP	1,000	1	1,000	
Self-Contained SPED w/ toilet- ILP	1,070	1	1,070	
Self-Contained SPED	1,150	1	1,150	
Self-Contained SPED - toilet			0	
Resource Room			0	
Small Group Room / Speech and Language	100	1	100	
Small Group Room / Speech ILP	150	2	300	
OT/PT	490	1	490	
ETS Office	125	2	250	
SPED Reading Office	100	1	100	
BCBA Office	150	1	150	
ART & MUSIC		2,945		
Art Classroom - 25 seats	1,175	1	1,175	
Art Workroom w/ Storage & kiln	280	1	280	
Music Classroom / Large Group - 25-50 seats	1,150	1	1,150	
Music Practice / Ensemble	170	2	340	
HEALTH & PHYSICAL EDUCATION		6,460		
Gymnasium	5,960	1	5,960	
Gym Storeroom	500	1	500	
Health Instructor's Office w/ Shower & Toilet			0	
MEDIA CENTER		2,550		
Media Center / Reading Room	2,550	1	2,550	
DINING & FOOD SERVICE		5,280		
Cafeteria / Dining	2,100	1	2,100	
Stage	1,250	1	1,250	
Chair / Table / Equipment Storage			0	
Kitchen	1,450	1	1,450	
Staff Lunch Room	480	1	480	
			0	
MEDICAL		510		
Medical Suite Toilet			0	
Nurses' Office / Waiting Room	510	1	510	
Examination Room / Resting			0	
ADMINISTRATION & GUIDANCE		2,855		
General Office / Waiting Room / Toilet	570	1	570	
Teachers' Mail and Time Room	180	1	180	
Staff Office			0	
Staff Office			0	
Duplicating Room			0	
Records Room			0	
Principal's Office w/ Conference Area	200	1	200	
Principal's Secretary / Waiting			0	
Assistant Principal's Office	150	1	150	
Supervisory / Spare Office	150	3	450	
Supervisory / Spare Office - Metco	100	1	100	
Conference Room	250	1	250	
Conference Room	200	2	400	
Guidance Office	170	1	170	
Psychologist Office	125	1	125	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
		21	20,950
1,200		-	1,100 SF min - 1,300 SF max
1,200	4	4,800	1,100 SF min - 1,300 SF max
950	17	16,150	900 SF min - 1,000 SF max
		5,540	
950	4	3,800	8% of pop. in self-contained SPED
60	4	240	
500	2	1,000	1/2 size Genl. Crrm.
500	1	500	1/2 size Genl. Crrm.
		2,575	
1,000	1	1,000	assumed schedule 2 times / week / student
150	1	150	
1,200	1	1,200	assumed schedule 2 times / week / student
75	3	225	
		6,300	
6,000	1	6,000	6000 SF Min. Size
150	1	150	
150	1	150	
		2,830	
2,830	1	2,830	
		6,960	
3,600	1	3,600	2 seatings - 15SF per seat
1,000	1	1,000	
360	1	360	
1,780	1	1,780	1600 SF for first 300 + 1 SF/student Add'l
220	1	220	20 SF/Occupant
		510	
60	1	60	
250	1	250	
100	2	200	
		2,345	
390	1	390	
100	1	100	
150	1	150	
110	1	110	
375	1	375	
125	1	125	
120	0	-	
120	1	120	
250	1	250	
150	2	300	

Proposed Space Summary- Elementary Schools

Fiske Elementary		Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	
Guidance Storeroom			0	
Teachers' Work Room	260	1	260	
CUSTODIAL & MAINTENANCE			0	
Custodian's Office				
Custodian's Workshop				
Custodian's Storage				
Recycling Room / Trash				
Receiving and General Supply				
Storeroom				
Network / Telecom Room				
OTHER			150	
Lextended Day	150	<u>1</u>	150	
Total Building Net Floor Area (NFA)			50,065	
Proposed Student Capacity / Enrollment				
Total Building Gross Floor Area (GFA) ²			75,843	
Grossing factor (GFA/NFA)			1.51	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
35	1	35	
390	1	390	
		2,080	
150	1	150	
375	1	375	
375	1	375	
400	1	400	
260	1	260	
320	1	320	
200	1	200	
		0	
		50,090	
		480	
		76,320	
		1.52	

¹ Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular room.

² Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls.

Architect Certification

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies

Proposed Space Summary- Elementary Schools

Harrington Elem		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			28,390				
(List classrooms of different sizes separately)							
Pre-Kindergarten w/ toilet	1,030	3	3,090	1,200		-	1,100 SF min - 1,300 SF max
Pre-Kindergarten w/ toilet	660	1	660				
Kindergarten w/ toilet	1,100	4	4,400				
General Classrooms - Grade 1-5	1,000	18	18,000	1,200	3	3,600	1,100 SF min - 1,300 SF max
Computer Classroom	1,175	1	1,175	950	16	15,200	900 SF min - 1,000 SF max
ELL Small Group	120	1	120				
Foreign Language Small Group	320	1	320				
Math Specialist	150	1	150				
Literacy Library	475	1	475				
SPECIAL EDUCATION			4,000				
(List rooms of different sizes separately)							
Self-Contained SPED - DLP	1,000	1	1,000	950	3	2,850	8% of pop. in self-contained SPED
Self-Contained SPED - Pre-K Gross Motor	600	2	1,200				
Self-Contained SPED - toilet			0	60	3	180	
Resource Room			0	500	2	1,000	1/2 size Genl. Cllrm.
Small Group Room / Reading	1,000	1	1,000	500	1	500	1/2 size Genl. Cllrm.
ETL	160	1	160				
Speech	160	4	640				
ART & MUSIC			2,835				
Art Classroom - 25 seats	1,270	1	1,270	1,000	1	1,000	assumed schedule 2 times / week / student
Art Workroom w/ kiln	75	1	75	150	1	150	
Art Workroom w/ Storage	135	1	135				
Music Classroom / Large Group - 25-50 seats	975	1	975	1,200	1	1,200	assumed schedule 2 times / week / student
Music Practice / Ensemble	90	2	180	75	3	225	
Music Practice / Ensemble	200	1	200				
HEALTH & PHYSICAL EDUCATION			4,425				
Gymnasium	3,975	1	3,975	6,000	1	6,000	6000 SF Min. Size
Gym Storeroom	450	1	450	150	1	150	
Health Instructor's Office w/ Shower & Toilet			0	150	1	150	
MEDIA CENTER			3,155				
Media Center / Reading Room	3,155	1	3,155	2,614	1	2,614	
DINING & FOOD SERVICE			5,945				
Cafeteria / Dining	2,650	1	2,650	3,240	1	3,240	2 seatings - 15SF per seat
Stage	1,130	1	1,130	1,000	1	1,000	
Chair / Table / Equipment Storage	200	1	200	344	1	344	
Kitchen	1,525	1	1,525	1,732	1	1,732	1600 SF for first 300 + 1 SF/student Add'l
Staff Lunch Room	440	1	440	208	1	208	20 SF/Occupant
			0				
MEDICAL			490				
Medical Suite Toilet	90	1	90	60	1	60	
Nurses' Office / Waiting Room	325	1	325	250	1	250	
Examination Room / Resting	75	1	75	100	2	200	
ADMINISTRATION & GUIDANCE			2,740				
General Office / Waiting Room / Toilet	485	1	485	366	1	366	
General Office - Pre-K	150	1	150				
Teachers' Mail and Time Room	135	1	135	100	1	100	
Duplicating Room			0	150	1	150	
Records Room			0	110	1	110	
Principal's Office w/ Conference Area	180	1	180	375	1	375	
Pre-K Director's Office	160	1	160				
Principal's Secretary / Waiting			0	125	1	125	
Assistant Principal's Office	180	1	180	120	0	-	
Supervisory / Spare Office			0				
Supervisory / Spare Office - METCO	150	1	150	120	1	120	
Conference Room	225	2	450	250	1	250	
Conference Room	180	1	180				
Conference Room - Pre-K	160	1	160				
Guidance Office	210	1	210	150	1	150	
Guidance Conference	300	1	300	35	1	35	
Teachers' Work Room			0	366	1	366	

Proposed Space Summary- Elementary Schools

Harrington Elem		Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	
CUSTODIAL & MAINTENANCE			0	
Custodian's Office				
Custodian's Workshop				
Custodian's Storage				
Recycling Room / Trash				
Receiving and General Supply				
Storeroom				
Network / Telecom Room				
OTHER			350	
Lextended Day Office	350	1	350	
Total Building Net Floor Area (NFA)			52,330	
Proposed Student Capacity / Enrollment				
Total Building Gross Floor Area (GFA) ²			79,470	
Grossing factor (GFA/NFA)			1.52	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
		2,032	
150	1	150	
375	1	375	
375	1	375	
400	1	400	
244	1	244	
288	1	288	
200	1	200	
		0	
		46,032	
		432	
		71,107	
		1.54	

¹ Individual Room Net Floor Area (NFA) Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a p

² Total Building Gross Floor Area (GFA) Includes the entire building gross square footage measured from the outside face of exterior walls

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Name of Architect Firm: _____	
Name of Principal Architect: _____	
Signature of Principal Architect: _____	
Date: _____	

Proposed Space Summary- Elementary Schools

Hastings Elem		Existing Conditions		
<u>ROOM TYPE</u>	ROOM NFA ¹	# OF RMS	area totals	
CORE ACADEMIC SPACES			18,760	
(List classrooms of different sizes separately)				
Pre-Kindergarten w/ toilet				
Kindergarten w/ toilet	1,140	2	2,280	
Kindergarten	865	1	865	
General Classrooms - Grade 1-5	865	12	10,380	
General Classrooms - Grade 1-5	890	2	1,780	
General Classrooms - Grade 1-5	825	4	3,300	
ELL Small Group Room	155	1	155	
SPECIAL EDUCATION			4,180	
(List rooms of different sizes separately)				
Self-Contained SPED - ILP	825	2	1,650	
Self-Contained SPED - toilet			0	
Resource Room	860	1	860	
OT	550	1	550	
Math Coach/SPED Office	550	1	550	
Small Group Room / Speech and Language	160	2	320	
ETS Office / Small Group	250	1	250	
ART & MUSIC			1,690	
Art Classroom - 25 seats	825	1	825	
Art Workroom w/ Storage & kiln			0	
Music Classroom / Large Group - 25-50 seats	865	1	865	
Music Practice / Ensemble			0	
HEALTH & PHYSICAL EDUCATION			3,875	
Gymnasium	3,650	1	3,650	
Gym Storeroom	225	1	225	
Health Instructor's Office w/ Shower & Toilet			0	
MEDIA CENTER			0	
Media Center / Reading Room	1,500		0	
DINING & FOOD SERVICE			6,180	
Cafeteria / Dining	3,000	1	3,000	
Stage	1,100	1	1,100	
Chair / Table / Equipment Storage			0	
Kitchen	1,600	1	1,600	
Staff Lunch Room	480	1	480	
			0	
MEDICAL			240	
Medical Suite Toilet			0	
Nurses' Office / Waiting Room	240	1	240	
Examination Room / Resting			0	
ADMINISTRATION & GUIDANCE			1,590	
General Office / Waiting Room / Toilet			0	
Teachers' Mail and Time Room			0	
Duplicating Room			0	
Records Room			0	
Principal's Office w/ Conference Area	300	1	300	
Principal's Secretary / Waiting	150	1	150	
Assistant Principal's Office	250	1	250	
Supervisory / Spare Office - Psychologis	160	1	160	
Conference Room			0	
Guidance Office	200	1	200	
Guidance Storeroom			0	
Teachers' Work Room	530	1	530	
CUSTODIAL & MAINTENANCE			0	
Custodian's Office				
Custodian's Workshop				
Custodian's Storage				
Recycling Room / Trash				
Receiving and General Supply				
Storeroom				
Network / Telecom Room				

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
		18	17,850
1,200		-	1,100 SF min - 1,300 SF max
1,200	3	3,600	1,100 SF min - 1,300 SF max
950	15	14,250	900 SF min - 1,000 SF max
		4,530	
950	3	2,850	8% of pop. in self-contained SPED
60	3	180	
500	2	1,000	1/2 size Genl. Clrm.
500	1	500	1/2 size Genl. Clrm.
		2,575	
1,000	1	1,000	assumed schedule 2 times / week / student
150	1	150	
1,200	1	1,200	assumed schedule 2 times / week / student
75	3	225	
		6,300	
6,000	1	6,000	6000 SF Min. Size
150	1	150	
150	1	150	
		2,574	
2,574	1	2,574	
		6,442	
3,173	1	3,173	2 seatings - 15SF per seat
1,000	1	1,000	
341	1	341	
1,723	1	1,723	1600 SF for first 300 + 1 SF/student Add'l
206	1	206	20 SF/Occupant
		510	
60	1	60	
250	1	250	
100	2	200	
		2,138	
362	1	362	
100	1	100	
150	1	150	
110	1	110	
375	1	375	
125	1	125	
120	0	-	
120	1	120	
250	1	250	
150	1	150	
35	1	35	
362	1	362	
		2,023	
150	1	150	
375	1	375	
375	1	375	
400	1	400	
241	1	241	
282	1	282	
200	1	200	

Proposed Space Summary- Elementary Schools

Hastings Elem		Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	
OTHER			1,530	
Lextended Day	130	<u>1</u>	130	
Lextended Day Office/Storage Tralier	1,400	<u>1</u>	1,400	
Total Building Net Floor Area (NFA)			38,045	
Proposed Student Capacity / Enrollment				
Total Building Gross Floor Area (GFA) ²			64,982	
Grossing factor (GFA/NFA)			1.71	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
		0	
		44,942	
		423	
		70,070	
		1.56	

¹ Individual Room Net Floor Area (NFA) Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a p

² Total Building Gross Floor Area (GFA) Includes the entire building gross square footage measured from the outside face of exterior walls

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Name of Architect Firm: _____	
Name of Principal Architect: _____	
Signature of Principal Architect: _____	
Date: _____	

Proposed Space Summary- Elementary Schools

Central Administration Building (Old Harrington)		Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	
CORE ACADEMIC SPACES		12,965		
(List classrooms of different sizes separately)				
Pre-Kindergarten w/ toilet			0	
Pre-Kindergarten w/ toilet			0	
Kindergarten w/ toilet	830	2	1,660	
Kindergarten w/ toilet	1,170	2	2,340	
General Classrooms - Grade 1-5	815	11	8,965	
General Classrooms - Grade 1-5	0	0	0	
General Classrooms - Grade 1-5	0	0	0	
General Classrooms - Grade 1-5	0	0	0	
SPECIAL EDUCATION		1,815		
(List rooms of different sizes separately)				
Self-Contained SPED - DLP			0	
Self-Contained SPED - Pre-K Gross Motor			0	
Self-Contained SPED - toilet			0	
Resource Room	730	1	730	
	815	1	815	
Small Group Room / Reading	270	1	270	
ETL			0	
Speech			0	
ART & MUSIC		1,880		
Art Classroom - 25 seats	930	1	930	
Art Workroom w/ kiln			0	
Art Workroom w/ Storage			0	
Music Classroom / Large Group - 25-50 seats	950	1	950	
Music Practice / Ensemble			0	
Music Practice / Ensemble			0	
HEALTH & PHYSICAL EDUCATION		0		
Gymnasium			0	
Gym Storeroom			0	
Health Instructor's Office w/ Shower & Toilet			0	
MEDIA CENTER		1,630		
Media Center / Reading Room	815	2	1,630	
DINING & FOOD SERVICE		3,499		
Cafeteria / Dining	2,472	1	2,472	
Stage	860	1	860	
Chair / Table / Equipment Storage			0	
Kitchen			0	
Staff Lunch Room	167	1	167	
			0	
MEDICAL		0		
Medical Suite Toilet			0	
Nurses' Office / Waiting Room			0	
Examination Room / Resting			0	
ADMINISTRATION & GUIDANCE		2,301		
General Office / Waiting Room / Toilet	388	1	388	
General Office - Pre-K			0	
Teachers' Mail and Time Room	250	1	250	
Duplicating Room			0	
Records Room	89	1	89	
Principal's Office w/ Conference Area	366	1	366	
Principal's Secretary / Waiting			0	
Assistant Principal's Office			0	
Supervisory / Spare Office			0	
Supervisory / Spare Office	150	2	300	
Conference Room	600	1	600	
Conference Room			0	
Conference Room - Pre-K			0	
Guidance Office	308	1	308	
Guidance Conference			0	
Teachers' Work Room			0	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
	14	14,050	
1,200		-	1,100 SF min - 1,300 SF max
1,200	3	3,600	1,100 SF min - 1,300 SF max
950	11	10,450	900 SF min - 1,000 SF max
		4,530	
950	3	2,850	8% of pop. in self-contained SPED
60	3	180	
500	2	1,000	1/2 size Genl. Clrm.
500	1	500	1/2 size Genl. Clrm.
		2,500	
1,000	1	1,000	assumed schedule 2 times / week / student
150	1	150	
1,200	1	1,200	assumed schedule 2 times / week / student
75	2	150	
		6,300	
6,000	1	6,000	6000 SF Min. Size
150	1	150	
150	1	150	
		2,110	
2,110	1	2,110	
		5,527	
2,400	1	2,400	2 seatings - 15SF per seat
1,000	1	1,000	
307	1	307	
1,620	1	1,620	1600 SF for first 300 + 1 SF/student Add'l
200	1	200	20 SF/Occupant
		510	
60	1	60	
250	1	250	
100	2	200	
		2,035	
310	1	310	
100	1	100	
150	1	150	
110	1	110	
375	1	375	
125	1	125	
120	0	-	
		120	
120	1	120	
250	1	250	
		150	
150	1	150	
35	1	35	
310	1	310	

Proposed Space Summary- Elementary Schools

Central Administration Building (Old Harrington)		Existing Conditions		
<u>ROOM TYPE</u>	ROOM NFA ¹	# OF RMS	area totals	
CUSTODIAL & MAINTENANCE			0	
Custodian's Office				
Custodian's Workshop				
Custodian's Storage				
Recycling Room / Trash				
Receiving and General Supply				
Storeroom				
Network / Telecom Room				
OTHER			0	
Lextended Day Office				
Total Building Net Floor Area (NFA)			24,090	
Proposed Student Capacity / Enrollment				
Total Building Gross Floor Area (GFA) ²			49,734	
Grossing factor (GFA/NFA)			2.06	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
1,920			
150	1	150	
375	1	375	
375	1	375	
400	1	400	
207	1	207	
213	1	213	
200	1	200	
0			
39,482			
320			
56,853			
1.44			

¹ **Individual Room Net Floor Area (NFA)** Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular room.

² **Total Building Gross Floor Area (GFA)** Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification

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Name of Architect Firm: _____

Name of Principal Architect: _____

Signature of Principal Architect: _____

Date:

Proposed Space Summary - Middle Schools

Clarke Middle		Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	
CORE ACADEMIC SPACES			35,410	
(List classrooms of different sizes separately)				
Classroom - General	700	17	11,900	
Classroom - General	725	4	2,900	
Classroom - General	860	2	1,720	
Classroom - General	1,175	4	4,700	
Classroom - General	1,450	2	2,900	
		29		
Classroom - General - Learning Center	275	1	275	
Classroom - ELL	470	1	470	
Classroom - Computers	925	1	925	
Science Classroom / Lab	1,000	7	7,000	
Science Classroom / Lab	950	2	1,900	
Prep Room	Varies	4	720	
SPECIAL EDUCATION			7,570	
(List classrooms of different sizes separately)				
Self-Contained SPED ILP	880	1	880	
Self-Contained SPED TLP	Varies	3	1,650	
Self-Contained SPED Toilet			0	
SPED Admin	300	1	300	
Resource Room	225	7	1,575	
Resource Room Common Area	1,125	1	1,125	
OT small group and office	150	2	300	
Small Group Room / Reading - SPED	200	1	200	
Small Group Room / Reading - SPED	140	1	140	
Small Group Room / Reading Gen Ed	700	1	700	
Small Group Room / Speech and Language	700	1	700	
ART & MUSIC			8,785	
Art Classroom	1,670	1	1,670	
Art Classroom	1,515	1	1,515	
Art Workroom w/ Storage & kiln	950	1	950	
Band / Chorus - 100 seats	1,660	1	1,660	
Band / Chorus - 100 seats	1,700	1	1,700	
Drama Storage	350	1	350	
Music Practice / Ensemble	220	1	220	
Music Office	170	1	170	
Instrument Storage	550	1	550	
VOCATIONS & TECHNOLOGY			1,520	
Tech Clrm. - (E.G. Drafting, Business)	760	2	1,520	
Tech Shop - (E.G. Consumer, Wood)			0	
HEALTH & PHYSICAL EDUCATION			21,320	
Gymnasium	10,900	1	10,900	
Fitness Center	2,900	1	2,900	
Gym Storeroom	Varies	3	1,225	
Health Instructor's Office w/ Shower & Toilet			0	
Locker Rooms - Girls w/ Toilets	3,180	1	3,180	
Locker Rooms - Boys w/ Toilets	3,115	1	3,115	
MEDIA CENTER			4,750	
Media Center / Reading Room	4,750	1	4,750	
DINING & FOOD SERVICE			15,525	
Cafetorium / Dining	6,725	1	6,725	
Stage	3,350	1	3,350	
Chair / Table / Equipment Storage			0	
Kitchen	4,870	1	4,870	
Staff Lunch Room	580	1	580	
MEDICAL			1,100	
Medical Suite Toilet			0	
Nurses' Office / Waiting Room	1,100	1	1,100	
Examination Room / Resting			0	
ADMINISTRATION & GUIDANCE			6,470	
General Office / Waiting Room / Toilet	1,175	1	1,175	
Teachers' Mail and Time Room			0	

Proposed Space Summary - Middle Schools

Clarke Middle		Existing Conditions		
<u>ROOM TYPE</u>	ROOM NFA ¹	# OF RMS	area totals	
Duplicating Room			0	
Records Room			0	
Principal's Office w/ Conference Area	380	1	380	
Principal's Secretary / Waiting			0	
Assistant Principal's Office - AP1	190	1	190	
Assistant Principal's Office - AP2	380	2	760	
Supervisory / Spare Office - Social Worker	140	1	140	
Supervisory / Spare Office - Social Worker	275	1	275	
Conference Room	350	1	350	
Guidance Office	150	3	450	
Guidance Waiting Room	500	1	500	
Guidance Storeroom			0	
Teachers' Work Room	2,250	1	2,250	
CUSTODIAL & MAINTENANCE			0	
Custodian's Office			0	
Custodian's Workshop			0	
Custodian's Storage			0	
Recycling Room / Trash			0	
Receiving and General Supply			0	
Storeroom			0	
Network / Telecom Room			0	
OTHER			6,350	
Other (specify)				
Auditorium	6,350	1	6,350	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
200	1	200	
200	1	200	
375	1	375	
125	1	125	
150	1	150	
150	1	150	
150	1	150	
350	1	350	
150	5	750	
100	1	100	
50	1	50	
562	1	562	
		2,299	
150	1	150	
250	1	250	
375	1	375	
400	1	400	
374	1	374	
550	1	550	
200	1	200	
		0	

Total Building Net Floor Area (NFA)		108,800
Proposed Student Capacity / Enrollment		
Total Building Gross Floor Area (GFA) ²		
Grossing factor (GFA/NFA)		0.00

		89,185	
		824	
		131,840	
		1.48	

¹ Individual Room Net Floor Area (NFA) Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular room.

² Total Building Gross Floor Area (GFA) Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification	I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority, I have not made any changes to the proposed space summary.
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Proposed Space Summary - Middle Schools

Diamond Middle		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments	
CORE ACADEMIC SPACES			37,155			35,560		
<i>(List classrooms of different sizes separately)</i>								
Classroom - General (6 portables)	775	6	4,650	950	28	26,600	850 SF min - 950 SF max	
Classroom - General	680	17	11,560					
Classroom - General	725	1	725					
Classroom - General	825	2	1,650					
Classroom - General	740	11	8,140					
classroom total		37		incl FL				
Classroom - General - Learning Center			0					
Classroom - ELL	460	1	460					
Classroom - Gen Ed Intervention	360	1	360					
Classroom - Computers	850	1	850				850 SF min - 950 SF max	
Science Classroom / Lab	1,000	2	2,000	1,200	7	8,400	1 period / day / student	
Science Classroom / Lab	830	1	830					
Science Classroom / Lab	860	1	860					
Science Classroom / Lab	680	1	680					
Science Classroom / Lab	890	2	1,780					
Science Classroom / Lab	965	2	1,930					
Science total		9						
Prep Room	350	1	350	80	7	560		
Prep Room	230	1	230					
Chem Storage	100	1	100					
SPECIAL EDUCATION			6,095			9,060		
<i>(List classrooms of different sizes separately)</i>								
Self-Contained SPED	1,000	1	1,000	950	6	5,700	assumed 8% of pop. in self-contained SPED	
Self-Contained SPED ILP	1,900	1	1,900					
Self-Contained SPED Toilet			0	60	6	360		
SPED Admin			0					
Resource Room	500	2	1,000	500	4	2,000	1/2 size Genl. Clrm.	
Resource Room Common Area			0					
ETS SPED Director Office	270	1	270	500	2	1,000	1/2 size Genl. Clrm.	
Small Group Room / Reading - SPED	350	4	1,400					
Small Group Room / Reading - SPED	175	3	525					
Small Group Room / Reading Gen Ed			0					
Small Group Room / Speech and Language			0					
ART & MUSIC			4,320			4,600		
Art Classroom	900	1	900	1,200	2	2,400	assumed use - 50% population 2 times / week	
Art Classroom	1,000	1	1,000					
Art Workroom w/ Storage & kiln			0	150	2	300		
Band / Chorus - 100 seats	1,250	1	1,250	1,500	1	1,500	assumed use - 50% population 2 times / week	
Band / Chorus - 100 seats	930	1	930					
Drama Storage			0					
Music Practice / Ensemble	80	3	240	200	2	400		
Music Office			0					
Instrument Storage			0					
VOCATIONS & TECHNOLOGY			825			6,400		
Tech Clrm. - (Computers)	825	1	825	1,200	2	2,400	Assumed use - 25% Population - 5 times/week	
Tech Shop - (E.G. Consumer, Wood)			0	2,000	2	4,000	Assumed use - 25% Population - 5 times/week	
HEALTH & PHYSICAL EDUCATION			12,200			8,400		
Gymnasium	6,950	1	6,950	6,000	1	6,000		
Fitness Center	850	1	850					
Gym Storeroom			0	150	1	150		
Health Instructor's Office w/ Shower & Toilet	200	2	400	250	1	250		
Locker Rooms - Girls w/ Toilets	2,000	1	2,000	1,000	2	2,000		
Locker Rooms - Boys w/ Toilets	2,000	1	2,000					
MEDIA CENTER			3,150			4,940		
Media Center / Reading Room	3,150	1	3,150	4,940	1	4,940		
DINING & FOOD SERVICE			11,220			10,403		
Cafetorium / Dining	3,000	1	3,000	5,948	1	5,948	2 seatings - 15SF per seat	
Auditorium	4120	1	4120					
Stage	1,300	1	1,300	1,600	1	1,600		
Chair / Table / Equipment Storage			0	464	1	464		
Kitchen	2,400	1	2,400	2,093	1	2,093	1600 SF for first 300 + 1 SF/student Add'l	
Staff Lunch Room	400	1	400	298	1	298	20 SF/occupant	
MEDICAL			590			710		
Medical Suite Toilet			0	60	1	60		
Nurses' Office / Waiting Room	590	1	590					
Examination Room / Resting			0	250	1	250		
			0	100	4	400		

Proposed Space Summary - Middle Schools

Diamond Middle		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments	
ADMINISTRATION & GUIDANCE			3,325			3,743		
General Office / Waiting Room / Toilet	650	1	650	497	1	497		
Teachers' Mail and Time Room			0	100	1	100		
Duplicating Room			0	200	1	200		
Records Room			0	200	1	200		
Principal's Office w/ Conference Area	250	1	250	375	1	375		
Principal's Secretary / Waiting			0	125	1	125		
Assistant Principal's Office - AP1	200	1	200	150	1	150		
Assistant Principal's Office - AP2	200	1	200	150	1	150		
Supervisory / Spare Office	Varies	5	1,000	150	1	150		
Supervisory / Spare Office - ETS	270	1	270	150	1	150		
Supervisory / Spare Office	140	2	280	350	1	350		
Conference Room			0	150	4	600		
Guidance Office			0	100	1	100		
Guidance Waiting Room			0	50	1	50		
Guidance Storeroom			0	547	1	547		
Teachers' Work Room	475	1	475			2,268		
CUSTODIAL & MAINTENANCE			0	150	1	150		
Custodian's Office			0	250	1	250		
Custodian's Workshop			0	375	1	375		
Custodian's Storage			0	400	1	400		
Recycling Room / Trash			0	364	1	364		
Receiving and General Supply			0	529	1	529		
Storeroom			0	200	1	200		
Network / Telecom Room			0			0		
OTHER			4,120			86,084		
Other (specify)						793		
Auditorium	4,120	1	4,120			126,880		
Total Building Net Floor Area (NFA) ²			83,000				1.47	
Total Building Gross Floor Area (GFA) ²			131,091					
Grossing factor (GFA/NFA)			1.58					

¹ Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular p

² Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification	
<p>I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the</p> <hr/> <hr/> <hr/>	

Proposed Space Summary - High Schools

Most information contained in this chart was collected from the 2009 Master Plan study conducted by DPC

Lexington High School		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES		76,312			100,620 -24,308		
(List classrooms of different sizes separately)							
Classroom - General				850	72	61,200	825 SF min - 950 SF max
Permanent	775	9	6,975				
	700	23	16,100				
	725	4					
	675	2					
	650	7	4,550				
	600	1	600				
	575	13	7,475				
	1,150	2	2,300				
	500	11	5,500				
	450	0	0				
		72					
Modular construction (2014)	825	10	8,250				
Total Gen Ed Classrooms		82	51,750				
Teacher Planning				100	72	7,200	
Small Group Seminar (20-30 seats)				500	5	2,500	
Science Classroom / Lab				1,440	18	25,920	3 x85% ut=20 Seats-1 per /day/student
	1,180	1	1,180				
	1,070	4	4,280				
	1,000	1	1,000				
	775	2	1,550				
	890	3	2,670				
	950	3	2,850				
	1,065	1	1,065				
	820	1	820				
	1,030	6	6,180				
Total Science		22	21,595				
Prep Room	180	10	1,800	200	18	3,600	
	822	1	822				
	225	1	225				
	120	1	120				
Total Science Prep		13	2,967	200	1	200	
Central Chemical Storage Rm							
SPECIAL EDUCATION		22,740			21,150 1,590		
(List classrooms of different sizes separately)							
Self-Contained SPED	500	5	2,500	950	15	14,250	assumed 8% of pop. in self-contained SPED
	575	1	575				
	700	3	2,100				
	650	2	1,300				
	665	2	1,330				
	775	1	775				
	665	2	1,330				
Modular	600	2	1,200				
Modular	825	1	825				
Modular	850	1	850				
Modular	560	1	560				
LABBB	700	2	1,400				
LABBB	500	8	4,000				
LABBB Office/Admin/Support	3,995	1	3,995				
Self-Contained SPED Toilet				60	15	900	
Resource Room				500	6	3,000	1/2 size Genl. Clrm.
Small Group Room				500	6	3,000	1/2 size Genl. Clrm.
ART & MUSIC		11,925			9,850 2,075		
Art Classroom - 25 seats				1,200	4	4,800	Assumed use - 25% Population - 5 times/week
	1,125	2	2,250				
	1,000	2	2,000				
	1,375	1	1,375				
Art Workroom w/ Storage & kiln	Varies	2	575	150	4	600	
Dark Room	630	1	630				
Band - 50 - 100 seats	1,850	1	1,850	1,500	1	1,500	Assumed use - 25% Population - 5 times/week
Chorus - 50 - 100 seats				1,500	1	1,500	
Music	700	2	1,400				
Music Office	575	1	575	200	1	200	
Ensemble				75	10	750	
Music Practice	120	2	240				
Music Practice	90	2	180				
Music Storage	850	1	850	500	1	500	
VOCATIONS & TECHNOLOGY		0			22,400 -22,400		
Tech Clrm. - (E.G. Drafting, Business)				1,200	7	8,400	Assumed use - 50% Population - 5 times/week
Tech Shop - (E.G. Consumer, Wood)				2,000	7	14,000	Assumed use - 50% Population - 5 times/week
HEALTH & PHYSICAL EDUCATION		63,253			27,999 35,254		
Gymnasium	11,435	1	11,435	12,000	1	12,000	
Field House	35,700	1	35,700				
PE Alternatives	4,100	1	4,100	3,000	1	3,000	
Gym Storeroom				300	1	300	
Locker Rooms - Boys / Girls w/ Toilets	5,020	1	5,020	11,799	1	11,799	5.6 sf/student total
	4,600	1	4,600				
Phys. Ed. Offices	400	2	800				
Phys. Ed. Storage	569	2	1,138	500	1	500	
Athletic Director's Office	230	2	460	150	1	150	
Health Instructor's Office w/ Shower & Toilet			0	250	1	250	
MEDIA CENTER		8,575			13,069 -4,494		
Media Center / Reading Room	8,575	1	8,575	13,069	1	13,069	
Computer Lab							
AUDITORIUM / DRAMA		15,750			10,400 5,350		
Auditorium	9,400	1	9,400	7,500	1	7,500	2/3 Enrollment @ 10 SF/Seat - 750 seats MAX
Stage	1,800	1	1,800	1,600	1	1,600	
Perf Arts	1,850	1	1,850				
Perf Arts	1,575	1	1,575				
Auditorium Storage	925	1	925	500	1	500	
Make-up / Dressing Rooms				300	2	600	
Controls / Lighting / Projection	200	1	200	200	1	200	

Proposed Space Summary - High Schools

Most information contained in this chart was collected from the 2009 Master Plan study conducted by DPC

Lexington High School		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
DINING & FOOD SERVICE			14,380			15,996	-1,616
Cafeteria / Student Lounge / Break-out	4,850	1	4,850	10,535	1	10,535	3 seatings - 15SF per seat
	3,900	1	3,900	677	1	677	
Chair / Table Storage				600	1	600	
Scramble Serving Area				3,407	1	3,407	1600 SF for first 300 + 1 SF/student Add'l
Kitchen	4,600	1	4,600				
	1,030	1	1,030	777	1	777	20 SF/Occupant
Staff Lunch Room							
MEDICAL			1,300			1,710	-410
Medical Suite Toilet				60	1	60	
Nurses' Office / Waiting Room	1,300	1	1,300	250	1	250	
Interview Room				100	5	500	
Examination Room / Resting				100	9	900	
ADMINISTRATION & GUIDANCE			15,870			7,092	8,778
General Office / Waiting Room / Toilet				1,054	1	1,054	
Teachers' Mail and Time Room				100	1	100	
Duplicating Room				200	1	200	
Records Room				200	1	200	
Principal's Office w/ Conference Area				375	1	375	
Principal's Secretary / Waiting				125	1	125	
Assistant Principal's Office - AP1				150	1	150	
Assistant Principal's Office - AP2				150	3	450	
Supervisory / Spare Office				120	1	120	
Office	775	1	775				
	700	2	1,400				
	890	1	890				
	2,300	1	2,300				
	600	1	600				
	325	1	325				
	200	1	200				
	525	1	525				
	640	1	640				
	725	1	725				
	500	2	1,000				
	185	2	370				
	2,385	1	2,385				
Conference Room				450	1	450	
Guidance Office	660	1	660	150	11	1,650	
	900	1	900				
	2,175	1	2,175				
Guidance Waiting Room				100	1	100	
Guidance Storeroom				100	1	100	
Career Center				677	1	677	
Records Room				288	1	288	
Teachers' Work Room	3,150	1		1,054	1	1,054	
	2,850	1					
	680	1					
	2,375	1					
CUSTODIAL & MAINTENANCE			3,375			3,205	170
Custodian's Office				150	1	150	
Custodian's Workshop				250	1	250	
Custodian's Storage				375	1	375	
Recycling Room / Trash				400	1	400	
Receiving and General Supply				677	1	677	
Storeroom	2,000	1		1,154	1	1,154	
	1,150	1					
Network / Telecom Room	775	3	2,325	200	1	200	
OTHER						0	0
Science Lecture Hall	2,550	1	2,550				
Total Building Net Floor Area (NFA)			233,480			233,491	
Proposed Student Capacity / Enrollment						2,107	157
Total Building Gross Floor Area (GFA) ²			361,195			330,799	
Grossing factor (GFA/NFA)			1.55			1.42	

¹ Individual Room Net Floor Area (NFA)

particular program area including such spaces as non-communal toilets and storage rooms.

² Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification	I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the	
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LEXINGTON PUBLIC SCHOOLS MASTER PLAN

Phase 1 – Capacity Analysis

Lexington Public Schools
Lexington, Massachusetts

November 10, 2014

Submitted by,

SMMA

*Symmes Maini & McKee Associates
Cambridge, MA*

SMMA No. 14043.00

LEXINGTON PUBLIC SCHOOLS MASTER PLAN*Phase 1 - Capacity Analysis****Table of Contents*****1 | EXECUTIVE SUMMARY**

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- 1.3 CLASS SIZE
- 1.4 CAPACITY ANALYSIS
- 1.5 ENROLLMENT PROJECTIONS

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 - CENTRAL ADMINISTRATION BUILDING (OLD HARRINGTON) *use as permanent or temporary school use*
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INCLUDES: narrative, current use plans (color coded, plans with comparison to MSBA standards)

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 - HARRINGTON ELEMENTARY SCHOOL

- HASTINGS ELEMENTARY
- CENTRAL ADMINISTRATION BUILDING (OLD HARRINGTON)
- CLARKE MIDDLE SCHOOL
- DIAMOND MIDDLE SCHOOL
- SCHOOL HIGH SCHOOL *includes Space-Curriculum worksheets*

Includes: narrative, MSBA Summary of Spaces comparison

SPECIAL AREAS / PROGRAMS WITHIN THE DISTRICT

- SPECIAL EDUCATION
- CURRICULUM
- TECHNOLOGY
- LABBB
- METCO
- PRE-K PROGRAM
- LEXTENDED DAY PROGRAM

4 | APPENDIX

**4.1 SCHOOL COMMITTEE PROGRESS REPORT,
9/17/2014 (POWERPOINT PRESENTATION)**

Section 1

Executive Summary

LEXINGTON PUBLIC SCHOOLS MASTER PLAN
Phase 1 - Capacity Analysis

SECTION 1

EXECUTIVE SUMMARY

1.1 ACKNOWLEDGMENTS

Symmes Maini & McKee Associates (SMMA) would like to acknowledge the participation and guidance provided by the district administration, Master Plan Committee, and the teachers and staff of the District.

Ad hoc School Master Planning Committee (AhSMPC)

Dr. Paul Ash, Superintendent
Judy Crocker, School Committee
Jessie Steigerwald, School Committee
Jon Himmel, Permanent Building Committee
Peter Kelley, Board of Selectmen (BoS)
Carl Oldenburg, Permanent Building Committee
Patrick Goddard, Director, Department of Public Facilities (DPF)

Committee Liaisons

Rod Cole, Capital Expenditures Committee
Mollie Garberg, Appropriation Committee
Alan Levine, Appropriation Committee

School Committee

Margaret Coppe, Chair
Judith Crocker
Jessie Steigerwald
Alessandro Alessandrini
Abigail Schwartz, Student Representative

Lexington Public Facilities Department

Pat Goddard
Mark Barrett

1.2 INTRODUCTION

This report summarizes the findings of Phase 1 of the Master Plan for the Lexington Public Schools District. The Phase 1 scope includes: review of each of the buildings for the accuracy of use and sizes of spaces; review of class sizes and educational programs; development of the "capacity" for each of the schools, all done in the context of the Massachusetts School Building Authority (MSBA) Guidelines.

SMMA met with the educational administrators at each of the schools to understand how the buildings are currently being used for teaching and learning. From that, "current use" floor plans were developed. These plans are color coded representing different uses of the spaces e.g. classrooms, art rooms, SPED etc. Meeting reports are included in Section 3 of this report.

We also developed floor plans that indicate (in red), spaces that are more than 10% smaller than the Massachusetts School Building Authority (MSBA) Guidelines for new construction. There is no requirement that the room sizes conform to those guidelines but the information will be helpful in latter phases of this study when long range use and configurations of buildings are proposed.

The report for each school includes a Summary of Spaces, identifying the rooms by category, their sizes and comparison to MSBS Guidelines.

1.3 CLASS SIZE

Class sizes will always vary within a school because of the differing number of students within each grade level and the guidelines range for class sizes. Lexington's elementary schools use the following guidelines:

- Prekindergarten: 15 students (7 SPED + 8 typically developing peers)
- Kindergarten: 18 - 20 students per class
- Grade 1: 22 - 24 students per class
- Grades 2 – 5: 24 - 26 students per class

For this study, the following numbers were used to set the "capacity" for each elementary school:

- Prekindergarten: 15 students
- Kindergarten: 18 students per class
- Grade 1: 23 students per class
- Grades 2 – 5: 23 students per class

Special Education (SPED) students are included within the class sizes. All SPED students are home roomed within the grade level classrooms. Those students move throughout the day as needed to receive their supplemental or special instructions. Class sizes vary throughout the days as SPED students migrate in and out for those special programs.

1.4 CAPACITY ANALYSIS

Capacities of the schools have been developed based on the number of rooms available for classroom use, using class sizes as indicated above. In all cases, the capacities have been compared with criteria used by the MSBA. Differences, if any, are identified on the accompanying charts.

Setting school capacities follows a process that allows us to set a theoretical capacity. Because student populations range between grade levels and from year to year, it is often difficult to hit the target capacity, often going under or over based on the number and grade level of students enrolled.

Redistricting is one way of smoothing out some of the enrollment variations. That is often an unpopular mechanism with parents. Additionally, siblings within a school can complicate the redistricting process.

Elementary Schools - The capacities for the elementary schools have been set based on the number of rooms available for classroom use, using class sizes as indicated above.

- Bowman Elementary School: 578 students
- Bridge Elementary School: 573 students
- Estabrook Elementary School: 596 students*
- Fiske Elementary School: 486 students
- Harrington Elementary School: 417 students**
- Hastings Elementary School:
 - Including current modular classrooms: 468 students
 - Without modular classrooms: 376 students

**Slightly larger than the design MSBA design enrollment*

***Excludes the PreK population*

- Central Administration (old Harrington) if returned to elementary school use, the building capacity would be approximately 320 students.

Elementary Schools Capacity
Lexington Public Schools Master Plan

			Current Population - MSBA Guidelines			Available Classrooms - Lexington				Capacity		
	Population (End of 2014 School Year)	2014 - 2015 Population**	# of Kindergarten CR MSBA	# of Gen Ed CR's (1-5) MSBA	Total MSBA	# of Kindergarten CR as used	CR's (1 - 5) as used Permanent	Total Classrooms (K + Grade Level)	CR's (1 - 5) as used Modular	Current Capacity w/o Modulars	Current Capacity w/ Modulars	Comments
Bowman	563	576	5	20	25	4	22	26	0	578	578	2 CR Modulars for LLP SPED Program, At / Over Capacity
Bridge	543	585	5	20	25	5*	21	21	0	573	573	At / Over Capacity, *5th K is only for current year, lacks tlt rm
Estabrook	477	500	4	18	22	5	22	27	0	596	596	excess capacity
Fiske	480	489	4	17	21	4	18	22	0	486	486	At / Over Capacity
Harrington	432	446	4	15	19	4	15	19	0	417	417	excludes PK, At / Over Capacity
Hastings	423	426	3	16	19	3	14	17	4	376	468	Permanent building is Over Capacity, excess capacity when including modular classrooms
	2918	3022	25	106	131	20	112	132	139	3026	3118	
Harrington												
PreK	98 FTE		-	-	-					100 FTE		At / Over Capacity
Old Harrington						4	11	15	0	319	319	2K's are small and calculated at 15
K assumes 18 students / class												
Gr 1 - 5 assume 23 students / class												
** 8-26-2014 Enrollment Report												

Middle Schools - must take into account "Teams", the basic organizational structure and educational delivery model for these grade levels.

The Clarke Middle School operates on a shared classroom basis, where teachers' "home base" in a common teacher planning room. This allows the classrooms to be used by multiple teachers for both on-team and off-team classes. This does need to consider age groupings and team structure. Although sharing rooms do result in better room utilization than dedicated classrooms, by its nature, cannot reach the 85% utilization achievable in a high school. We have identified a range of population: 810 students to 828 students

Diamond Middle School operates on a dedicated classroom basis. It also has more classrooms than Clarke. Following a discussion with the schools' administration, there is a recognition that at some point there may be a need to move towards a shared classroom basis.

In order to move to a shared classroom structure, teacher planning rooms would be required to create a "home base" for each teacher. Creation of those rooms can be explored in Phase 3 of the Master Plan.

Additionally, the middle school administration will need to construct a preliminary schedule with shared rooms to truly be able determine how many students can be accommodated. At that time, they will also explore if partial teams will be required.

The six portable classrooms, put in place for the 2001 renovation and never removed, are required in the short term. For that reason, the capacity will include those rooms.

Capacity range for dedicated use of classrooms (as currently exists) including portable classrooms: 810 to 828 students, similar to the capacity of Clarke. This is counter intuitive since Diamond has more classrooms. Diamond will need to go through the process identified above (teacher planning and MS rescheduling) in order to determine a revised and presumably larger capacity.

It is anticipated that the classroom use policy will be discussed by the school administration concurrent with options development in Phase 3.

Lexington High School

The review of Lexington High School has been approached from multiple directions:

1. MSBA Summary of Spaces based on the number of classrooms available
2. A review of the curriculum offerings in the context of current Master Schedule enrollments for each offering. We refer to these as Curriculum - Space Worksheets. These are included in Section 2 of this report. This process identifies the number of classrooms needed to accomplish the curriculum delivery. In addition to setting a capacity range, the process will be modified to predict the number of classrooms needed as the population increases.

High School capacity range: 2,250 - 2,290 students

1.5 ENROLLMENT PROJECTIONS

Enrollment Projections have been studied and developed in two ways:

1. The district regularly develops projections using the Cohort Survival Method. These are summarized in a district report dated 8/26/14.
2. The Ad hoc Enrollment Working Group (EWG), assembled by the district, using the Linear Extrapolation Method, has developed projections. These are summarized in a report dated 9/10/14.

The EWG recommended using a combination of methods for different school cohorts at different milestones: for next year (2015-2016); 5 years (2019-2020) and 10 years (2024-2025).

The chart below shows the projections and indicates the method used as recommended by the EWG through a 5 year projection.

It should be noted that although there is not agreement for a 10 year projection for the schools, continued enrollment increases are anticipated and need to be planned for on the Master Plan options.

	Current Population 2014-2015	Anticipated Population 2015-2016 Next Year	Anticipated Population 2019-2020 5 Years	Estimated School Capacity incl. Portables
Elementary Schools (6)	3,025	3,049	3,196	3,118
Middle Schools (2)	1,617	1,658	1,839	1,620 - 1,656
Lexington High School	2,107	2,169	2,265	2,250 - 2,290

Enrollment Working Group – Linear Extrapolation Method

District Projections – Cohort Survival Method

Section 2

Phase 1 - Capacity Analysis

LEXINGTON PUBLIC SCHOOLS MASTER PLAN

Phase 1 - Capacity Analysis

SECTION TWO CAPACITY ANALYSIS

2.1 INTRODUCTION

This Section 2 includes numerous exhibits that were developed as part of the Capacity Analysis process. Among them are:

1. Existing Building Information - statistical information about each school
2. Floor plans of each school that represent "current use". These plans are color coded representing different uses of the spaces e.g. classrooms, art rooms, SPED etc. Meeting reports are included in this report.
3. Floor plans that indicate (in red), spaces that are more than 10% smaller than the Massachusetts School Building Authority (MSBA) Guidelines for new construction.
4. Each school includes a Summary of Spaces, identifying the rooms by category, their sizes and comparison to MSBS Guidelines. These summaries can be found in Section 3 of this report.

2.2 CONTRIBUTING ISSUE

Music Spaces: The scheduling rooms for music classes has been a discussion at most of the elementary schools and both middle schools. The specific issues differ between schools but at its' core discussion, some music classes are being conducted in teaching spaces that were not originally intended for the purpose. The result is often music that is not acoustically contained within the spaces; spaces shared with other subjects and a feeling of cramped environments for the limited times of the week that music classes are conducted.

As currently configured, multiple music classes are taught by multiple teachers at the same time within a school. Multiple school principals have stated that scheduling these important and well attended classes often dive much of the academic schedule.

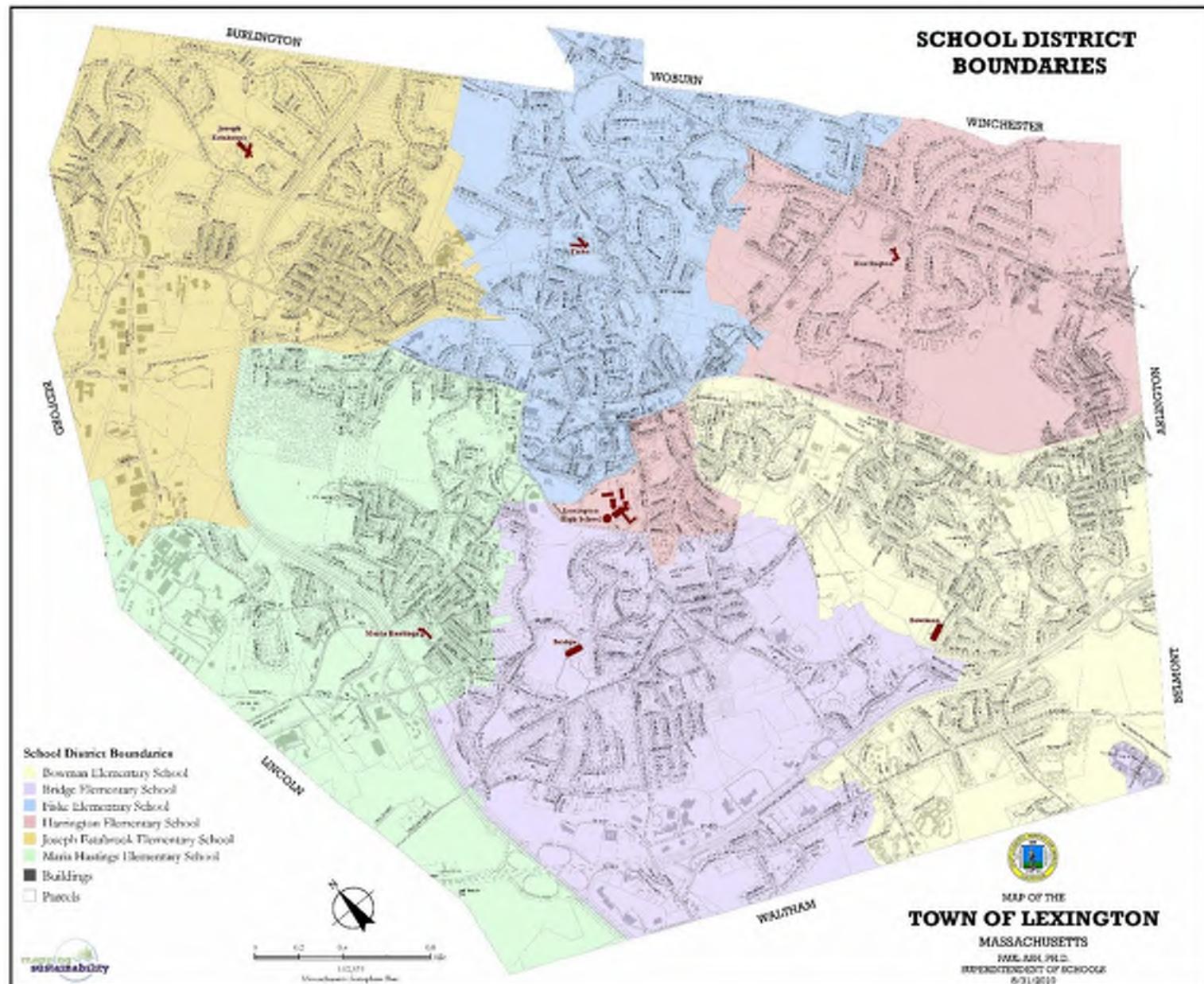
It is recommended that the school department explore an alternative scheduling of music teachers and classes so no more than one class is being conducted at any one time. This may result in freeing up the "non-intended" spaces for other academic uses.

Moving the teachers and schedules may result in a better room utilization. At this point, we are not stating that there are specific rooms that can be repurposed, but a review of this concept by the school department may result in some degree of freed up spaces.

2.3 EXISTING BUILDING INFORMATION

The Lexington School District serves a large suburban community. Facilities currently occupied and maintained by the Lexington School Department consists of nine schools, totaling approximately 1,068,900 GSF and serving a total population of over 6746 students (enrollment 9/3/14).

School	GSF	Grades	Current Enrollment 8/26/14	Year Built	Add/Reno
Bowman Elementary School	66,800 incl. modular CR's	K-5	576	1967	Reno 2014
Bridge Elementary School	64,450	K-5	585	1966	Reno 2014
Estabrook Elementary School	91,840	K-5	500	2014	
Fiske Elementary School	75,840	K-5	489	2007	
Harrington Elementary School	79,470	PreK-5	446 (excludes PreK)	2005	
Hastings Elementary School	64,980 incl. modular CR's	K-5	426	1955	1959, 1995, 2003
Clarke Middle School	133,200	6-8	824	1972	Reno 2000
Diamond Middle School	131,100	6-8	793	1958	Add Reno 2000
High School	361,200	9-12	2107	1953	1955, 1962, 2000, 2014





BOWMAN ELEMENTARY SCHOOL

Facility Type:	Elementary School
Year Built:	1967, Reno 2014
Grade Configuration:	K-5
Student Enrollment (FY 09/3/13):	576
Gross Square Feet:	66,800 incl. modular CR's
Administrative Organization:	
Principal	Mary Anton, Ed.D.

Discussion

The school has recently undergone a renovation to address deferred maintenance issues and modest room modifications. The renovations included the creation of four (4) new classrooms: two by "space mining" (reconfiguring existing spaces) and two by modest additions.

The school contains 4 kindergarten classrooms and 22 general education classrooms. In general, most of the typical classrooms are slightly smaller than the MSBA guidelines but within acceptable standards.

The two modular classrooms have been set up to accommodate the District's LLP SPED program. This program serves students with students with language and communication based learning disabilities.

Using the study guidelines of 18 students/kindergarten classrooms and 23 students / class for grades 1 - 5, the school has an anticipated capacity of 578 students. With a current enrollment of 572 students, Bowman Elementary School is at capacity.

The school department guidelines identify a range of 18 - 20 for kindergarten; 22 - 25 for grade 1 and 24 to 26 for grades 2 - 5. This study analysis assumed fewer students than Lexington's guidelines. Since grade levels vary in populations, there are some classes that are under class size guidelines and some that are slightly over.



Bowman Elementary School
First Floor Programming



Bowman Elementary School
First Floor Deficiencies (Per MSBA Requirements)



BRIDGE ELEMENTARY SCHOOL

Facility Type:	Elementary School
Year Built:	1966, Reno 2014
Grade Configuration:	K-5
Student Enrollment (FY 2011-2012) :	585
Gross Square Feet:	64,450
Administrative Organization:	
Principal	Margaret Colella

Discussion

The school has recently undergone a renovation to address deferred maintenance issues and modest room modifications. The renovations included the creation of four (4) new classrooms: two by "space mining" (reconfiguring existing spaces) and two by modest additions.

The school contains 5 kindergarten classrooms (4 with toilets that were intended as kindergarten classrooms with larger size than those of grade 1-5 classrooms) and 21 general education classrooms. In general, most of the typical classrooms are slightly smaller than the MSBA guidelines but within acceptable standards.

Bridge hosts the district Therapeutic Learning Program (TLP) serves students with social-emotional and behavioral issues. The space is best served by two rooms that are separate and function with different activities in each space.

Using the study guidelines of 18 students / kindergarten classrooms and 23 students / class for grades 1 - 5, the school has an anticipated capacity of 573 students. With a current enrollment of 589 students, Bridge Elementary School is slightly over capacity.

The school department guidelines identify a range of 18 - 20 for kindergarten; 22 - 25 for grade 1 and 24 to 26 for grades 2 - 5. This study analysis assumed fewer students than Lexington's guidelines. Since grade levels vary in populations, there are some classes that are under class side guidelines and some that are slightly over.



Bridge Elementary School

First Floor Programming



Bridge Elementary School
First Floor Deficiencies (per MSBA Requirements)



ESTABROOK ELEMENTARY SCHOOL

Facility Type:	Elementary School
Year Built:	2014
Grade Configuration:	K-5
Student Enrollment (FY10/1/14):	500
Gross Square Feet:	91,840
Administrative Organization:	
Principal	Sandra Trach

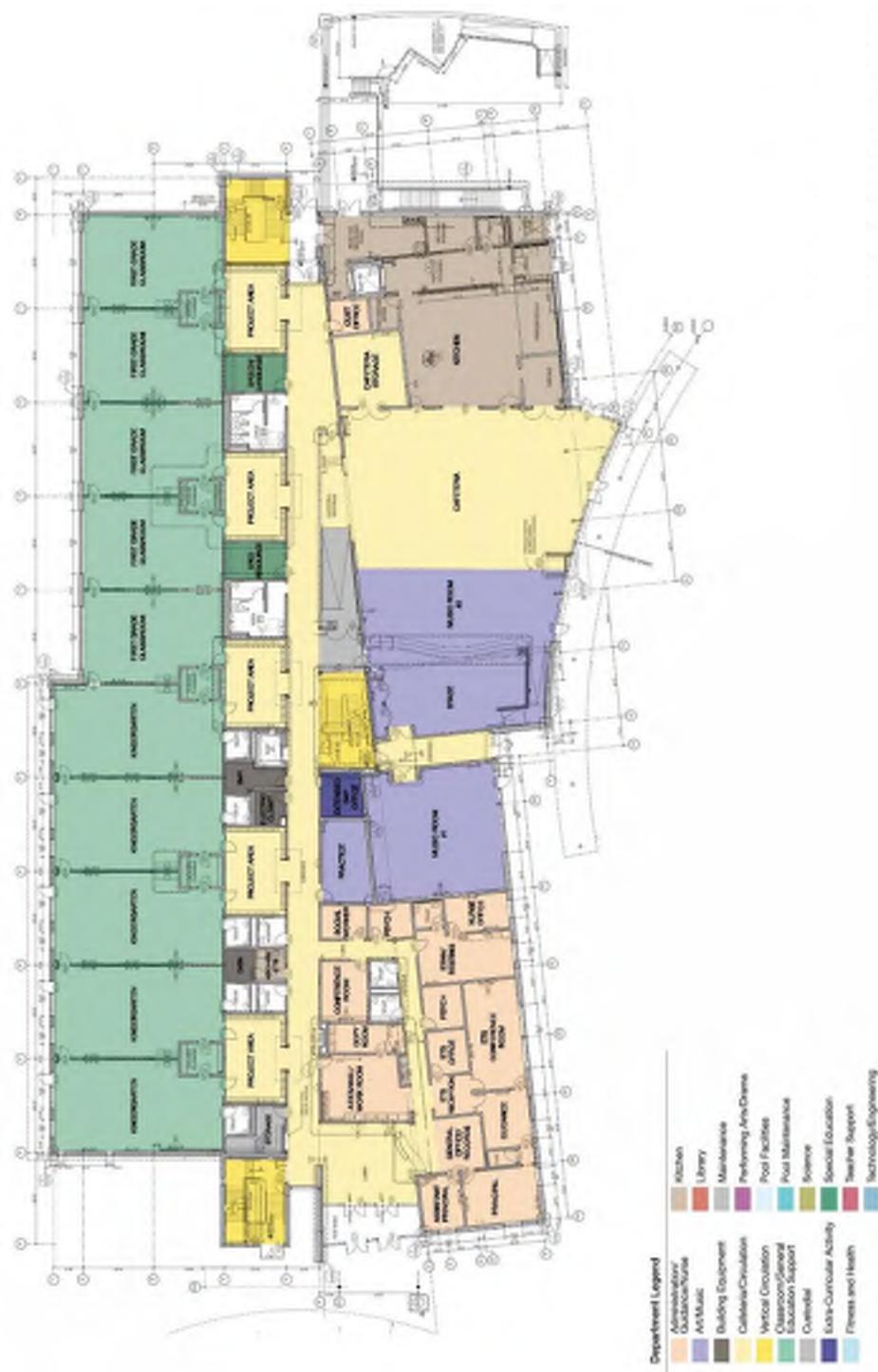
Discussion

The Estabrook Elementary School is a new building which opened to students in the spring of 2014. Demolition of the old Estabrook School and completion of the site development work was completed prior to the start of the 2014 - 2015 academic year. The facility is also an excellent example of how schools have evolved in recent years to better serve both students and faculty for 21st Century educational pedagogy.

The building meets the MSBA Guidelines. The school contains 5 kindergarten classrooms and 22 general education classrooms.

Therapeutic Learning Program serves students with social-emotional and behavioral issues – mood and anxiety concerns. The space is served by two rooms that are connected through a door and function with different activities in each space. There is also a third room that is not connected that is for academic work. Students in this program are integrated as much as possible into their general education classrooms.

Using the study guidelines of 18 students/kindergarten classrooms and 23 students / class for grades 1 - 5, the school has an anticipated capacity of 596 students. With a current enrollment of 500 students, Estabrook Elementary School is under capacity.



Estabrook Elementary School
First Floor Programming



Estabrook Elementary School
Second Floor Programming



Estabrook Elementary School
Third Floor Programming



FISKE ELEMENTARY SCHOOL

Facility Type:	Elementary School
Year Built:	2007
Grade Configuration:	K-5
Student Enrollment (FY10/1/14):	489
Gross Square Feet:	75,840
Administrative Organization:	
Principal	Thomas Martellone

Discussion

Fiske Elementary School is a relatively new building, completed in 2007. It was designed prior to the current MSBA space standards. There are a few spaces that are under the current standards.

The school contains 4 kindergarten classrooms and 18 general education classrooms. The typical classrooms meet the MSBA guidelines.

Fiske hosts the district Intensive Learning Program (ILP). The ILP program has grown significantly since the school was built and in the process has taken over additional teaching spaces.

Using the study guidelines of 18 students / kindergarten classrooms and 23 students / class for grades 1 - 5, the school has an anticipated capacity of 486 students. With a current enrollment of 489 students, Fiske Elementary School is slightly over capacity.

The school department guidelines identify a range of 18 - 20 for kindergarten; 22 - 25 for grade 1 and 24 to 26 for grades 2 - 5. This study analysis assumed fewer students than Lexington's guidelines. Since grade levels vary in populations, there are some classes that are under class side guidelines and some that are slightly over.



Fiske Elementary School
First Floor Programming



Fiske Elementary School
First Floor Deficiencies (Per MSBA Requirements)



Fiske Elementary School
Second Floor Programming



NEW HARRINGTON ELEMENTARY SCHOOL

Facility Type:	Elementary School
Year Built:	2005
Grade Configuration:	PreK-5
Student Enrollment:	446 (excludes PreK)
Gross Square Feet:	79,470
Administrative Organization:	
Principal	Elaine Mead

Discussion

Harrington Elementary School is a relatively new building, completed in 2005. It was designed prior to the current MSBA space standards. There are a few spaces that are under the current standards.

The school contains 3 kindergarten classrooms and 18 general education classrooms. The school was planned to have 4 kindergarten classrooms however the DLP special education program occupies one of the intended kindergarten classrooms currently. The school is also home of the district's Prekindergarten Program. PreK has three full size classrooms; a fourth smaller classroom for students on the autism spectrum; a physical therapy room and office and support areas. The program has also taken over a small Harrington classroom for additional physical therapy needs. The typical classrooms meet the MSBA guidelines.

Harrington hosts the district Developmental Learning Program (DLP) for students with intellectual impairments.

Using the study guidelines of 18 students / kindergarten classrooms and 23 students / class for grades 1 - 5, the school has an anticipated capacity of 417 students (excluding the PreK). With a current enrollment of 447 students, Harrington Elementary School is slightly over capacity.

The school department guidelines identify a range of 18 - 20 for kindergarten; 22 - 25 for grade 1 and 24 to 26 for grades 2 - 5. This study analysis assumed fewer students than Lexington's guidelines. Since grade levels vary in populations, there are some classes that are under class side guidelines and some that are slightly over.

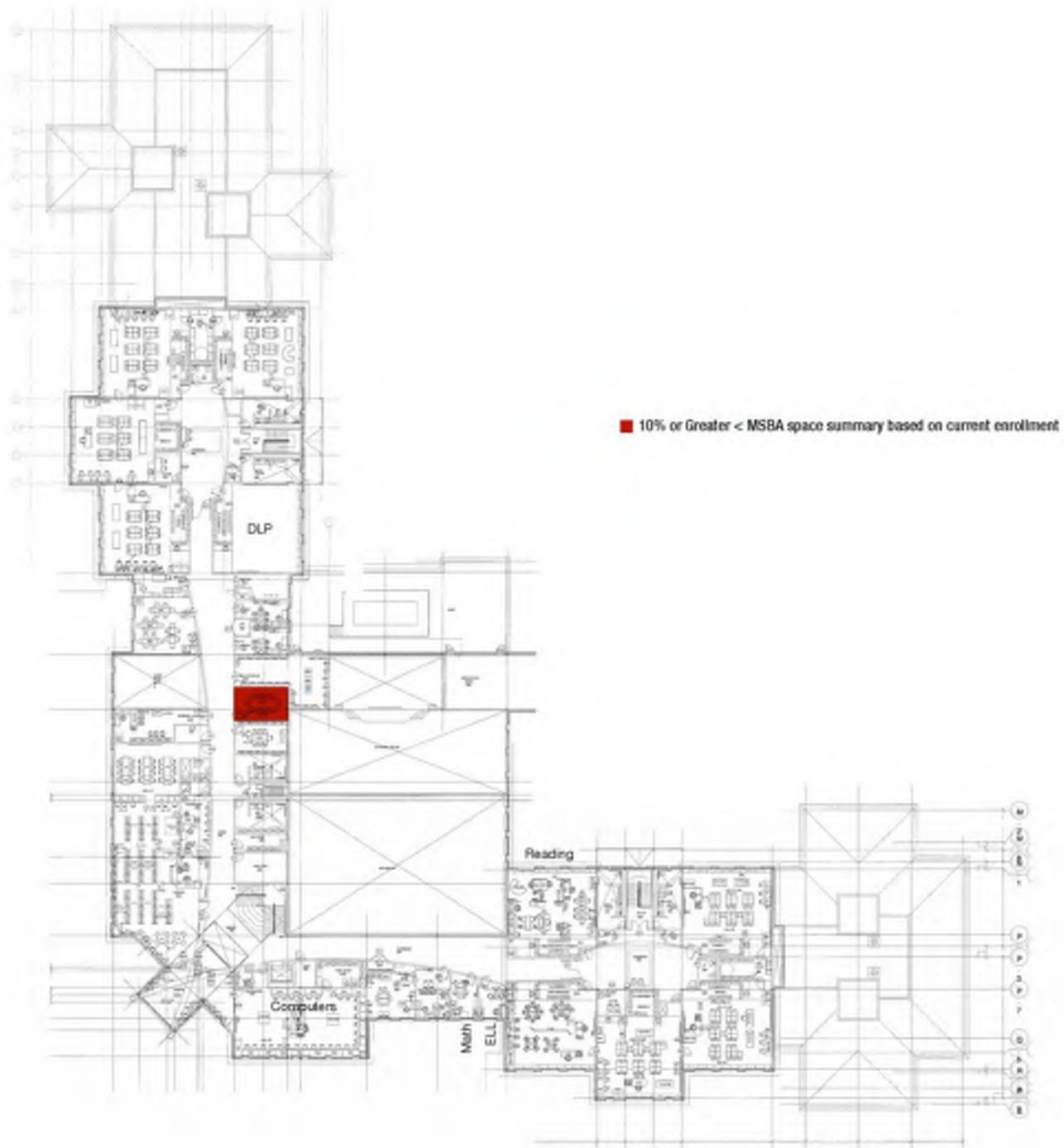




Harrington Elementary School
First Floor Deficiencies (Per MSBA Requirements)



Harrington Elementary School
Second Floor Programming



Harrington Elementary School
Second Floor Deficiencies (Per MSBA Requirements)



HASTINGS ELEMENTARY SCHOOL

Facility Type:	Elementary School
Year Built:	1955, 1959, 1995, 2003
Grade Configuration:	K-5
Student Enrollment (FY 10/1/2014):	426
Gross Square Feet:	64,980 incl. modular CR's
Administrative Organization:	
Principal	Louise Lipsitz

Discussion

Hastings is the one elementary school that has not been renovated or replaced in recent years. The original portion of the school is 59 years old. The building has eight modular classrooms that serve general education grade level classes; SPED programs and art.

In the spring of 2014, the Town of Lexington submitted a Statement of Interest (SOI) to the Massachusetts Building Authority (MSBA) requesting acceptance into the agency's Capital Projects Program to study renovation / addition or replacement.

The school contains 3 kindergarten classrooms and 14 general education classrooms in the permanent portion of the building. Of the eight modular classrooms, four serve grade level classrooms. The school is also home of 1/2 of the district's elementary level, Intensive Learning Program (ILP). The program has also taken over a small Harrington classroom for additional physical therapy needs. Some of the classrooms do not meet the MSBA guidelines.

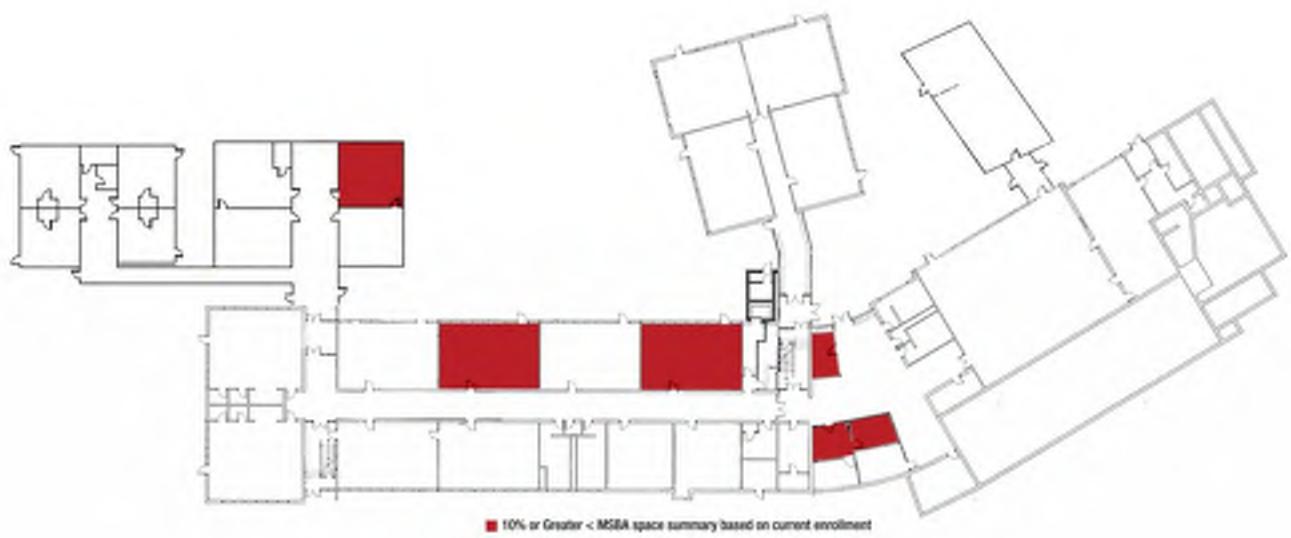
Using the study guidelines of 18 students / kindergarten classrooms and 23 students / class for grades 1 - 5, the permanent school building has an anticipated capacity of 376 students. With the added modular classrooms, the school building has an anticipated capacity of 468 students. With a current enrollment of 426 students, Hastings Elementary School is over capacity for the permanent building and under capacity when the modular's are factored in.

The school department guidelines identify a range of 18 - 20 for kindergarten; 22 - 25 for grade 1 and 24 to 26 for grades 2 - 5. This study analysis assumed fewer students than

Lexington's guidelines. Since grade levels vary in populations, there are some classrooms that have class sizes slightly under or over district guidelines.



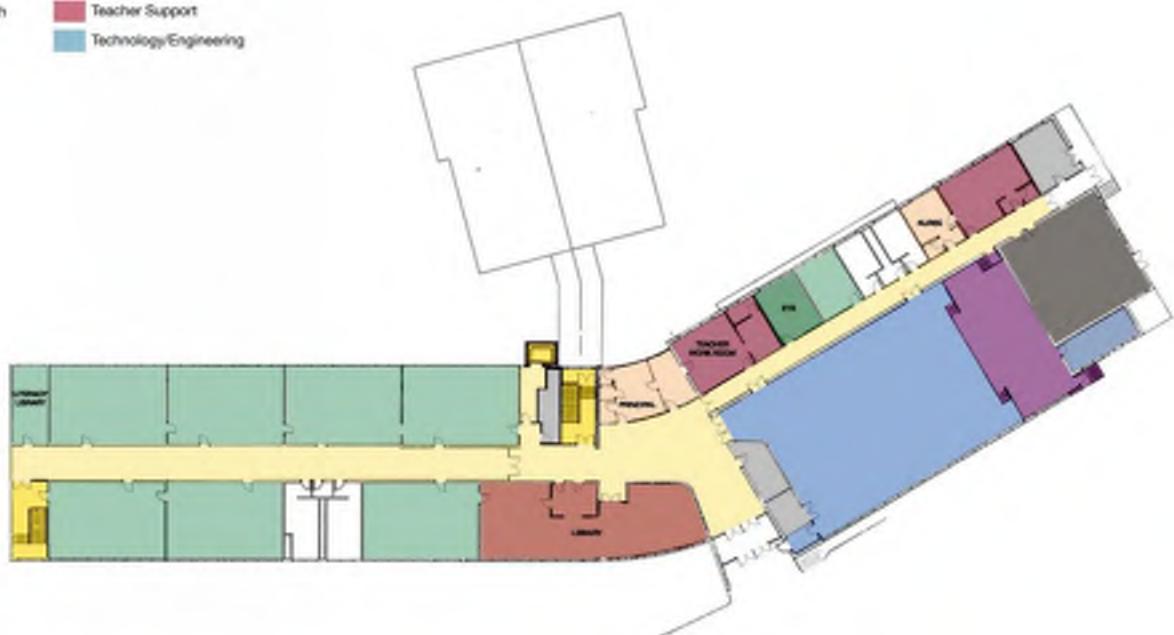
Hastings Elementary School
Ground Floor Programming



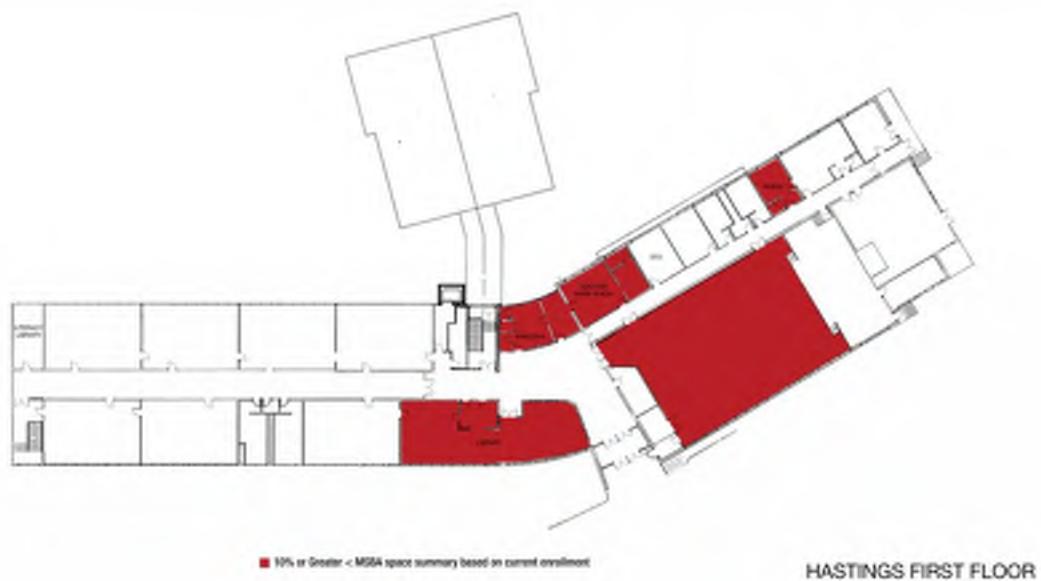
Hastings Elementary School
Ground Floor Deficiencies (Per MSBA Requirements)

Department Legend

Administration/Guidance/Nurse	Kitchen
Art/Music	Library
Building Equipment	Maintenance
Cafeteria/Circulation	Performing Arts/Drama
Vertical Circulation	Pool Facilities
Classrooms/General Education Support	Pool Maintenance
Custodial	Science
Extra-Curricular Activity	Special Education
Fitness and Health	Teacher Support
	Technology/Engineering



Hastings Elementary School
First Floor Programming



Hastings Elementary School
First Floor Deficiencies (Per MSBA Requirements)

Central Administration Building (Old Harrington)

The current Central Administration building is the former "old" Harrington School. The building was used as swing space while the new Fiske School was being constructed,(until February 2007). The building then underwent minor renovations to accommodate the Central Administration staff and functions. Although it has been used by Central Administration for approximately seven years, as we understand it, it was never formally reclassified for business use.

If the building were to be converted back to elementary school use, a number of code upgrades would be required including: an automatic fire protection system (sprinklers); handicapped accessibility and life safety. Additionally, a seismic review would need to be conducted.

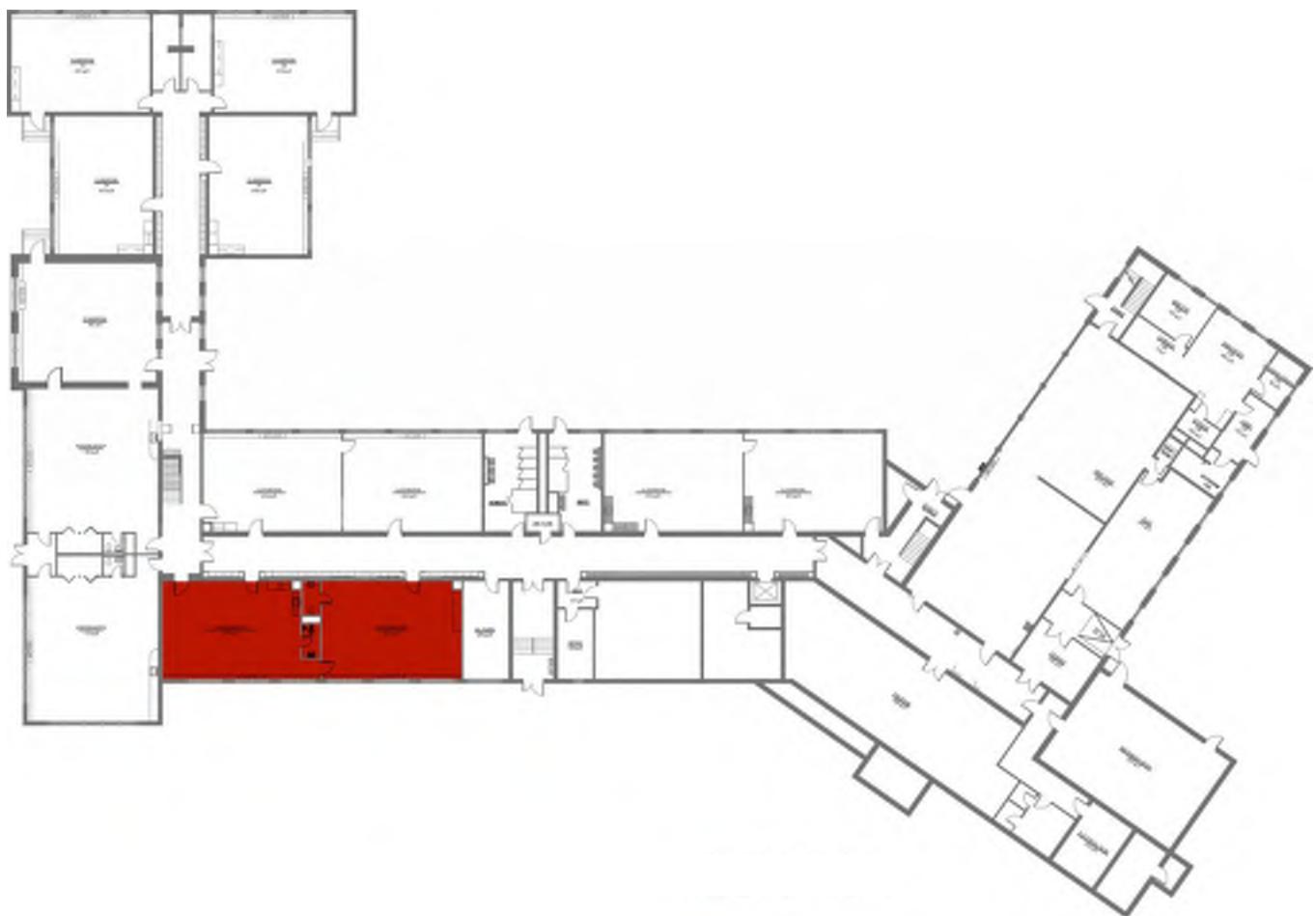
We have developed a Summary of Spaces and floor plans in order to develop a possible capacity for elementary school use. The floor plans do not indicate a number of spaces that are normal and required for a school today. We have made some assumptions and assigned classrooms to those uses. These assignments include: SPED, art, music and media center.

Central Administration (old Harrington) if returned to elementary school use, the building capacity would be approximately 320 students

This exercise assumes that Central Administration would find a new home. Determination of whether this is a cost effective and realistic option can be explored in Phase 3 Master Plan.



Central Administration Building
Ground Floor Programming



Central Administration Building
Ground Floor Deficiencies (Per MSBA Requirements)



Central Administration Building
First Floor Programming



Central Administration Building
First Floor Deficiencies (Per MSBA Requirements)

MIDDLE SCHOOLS

The traditional organization of middle schools are Team centric set up around the core subjects of English Language Arts, Social Studies, Math and Science. Four teachers, each with a dedicated classroom, would make up each team. In an ideal world, the classrooms would be clustered and adjacent to project areas and SPED classrooms/support.

Both of Lexington's middle schools were designed as junior high schools that had a departmental organization rather than a team organization. The building additions in the early 2000's largely maintained the double loaded corridor/departmental organization due to the existing building configurations and site limitations.

The schools have organized the classrooms by teams by grade to the extent possible, typically with science class / labs remote from the team.

Lexington's middle schools are organized and deliver education from a Team structure. This is significantly different from elementary or high schools. In addition, Lexington's two middle schools operate their classroom utilization differently. Clarke using a "shared classroom" approach and Diamond from a "dedicated classroom" approach.



CLARKE MIDDLE SCHOOL

Facility Type	Middle School
Year Built	1972 Reno 2000
Grade Configuration	6-8
Student Enrollment	824
Gross Square Feet	133,200
Administrative Organization:	
Principal	Anna Monaco
Assistant Principals	Jennifer Turner Johnathan Wettstone

Discussion

Clarke Middle School (current population 824)

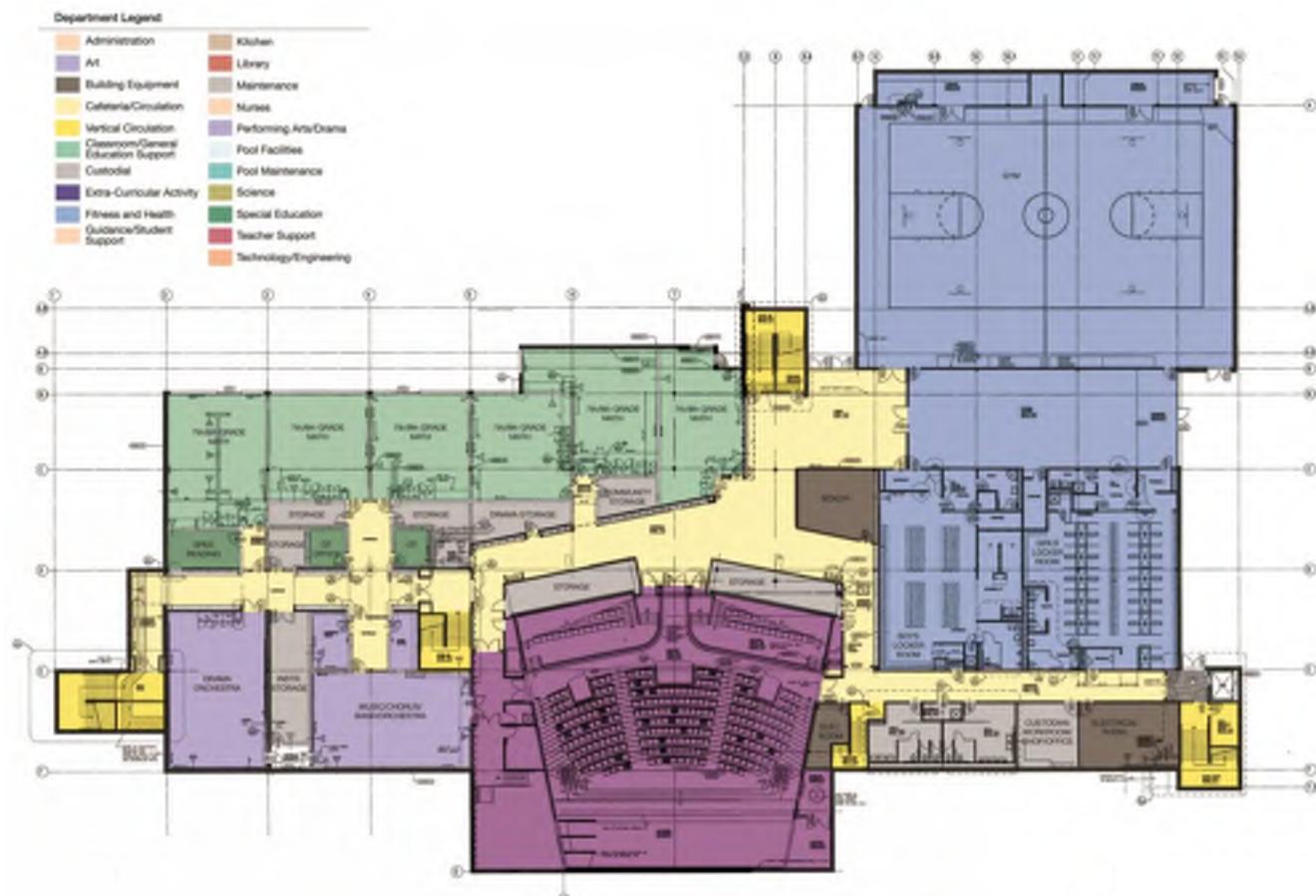
Clarke Middle School is organized with three teams for each grade level of grades 6, 7 and 8 = 9 teams. Each team consists of approximately 95 - 100 students, slightly larger than an ideal size of 80 - 90 students per team.

MSBA has a target of 23 students per class which would result in team sizes of 92 students. We have reviewed the class sizes; the schools' Master Schedule and classroom utilization. We have also discussed the shared room usage with the school administration. Although they would prefer classrooms that are more dedicated to grade levels, the current room utilization is working well with the 824 student population.

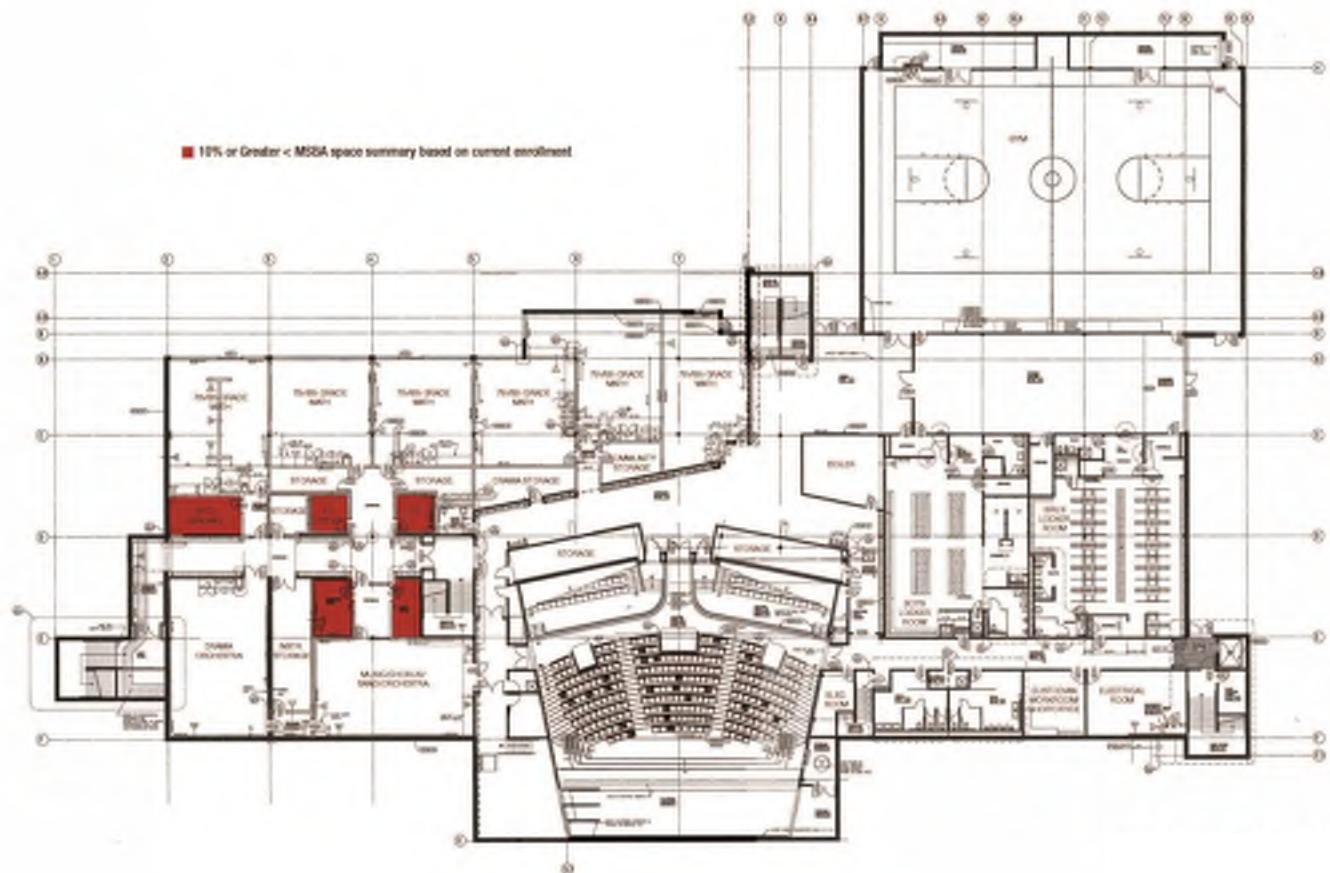
- 29 total General Education classrooms serve 9 teams (3 teams / grade) and Foreign Language. Foreign Language shares 4 classrooms
- According to the MSBA Summary of Spaces form, 29 classrooms is the correct number for the current population.

- The current average class size is slightly over 21 students / class. With a student class size of 23 students/ class along with a continued operation of the flexible scheduling of classrooms, we estimate the school capacity could be approximately 840 students.

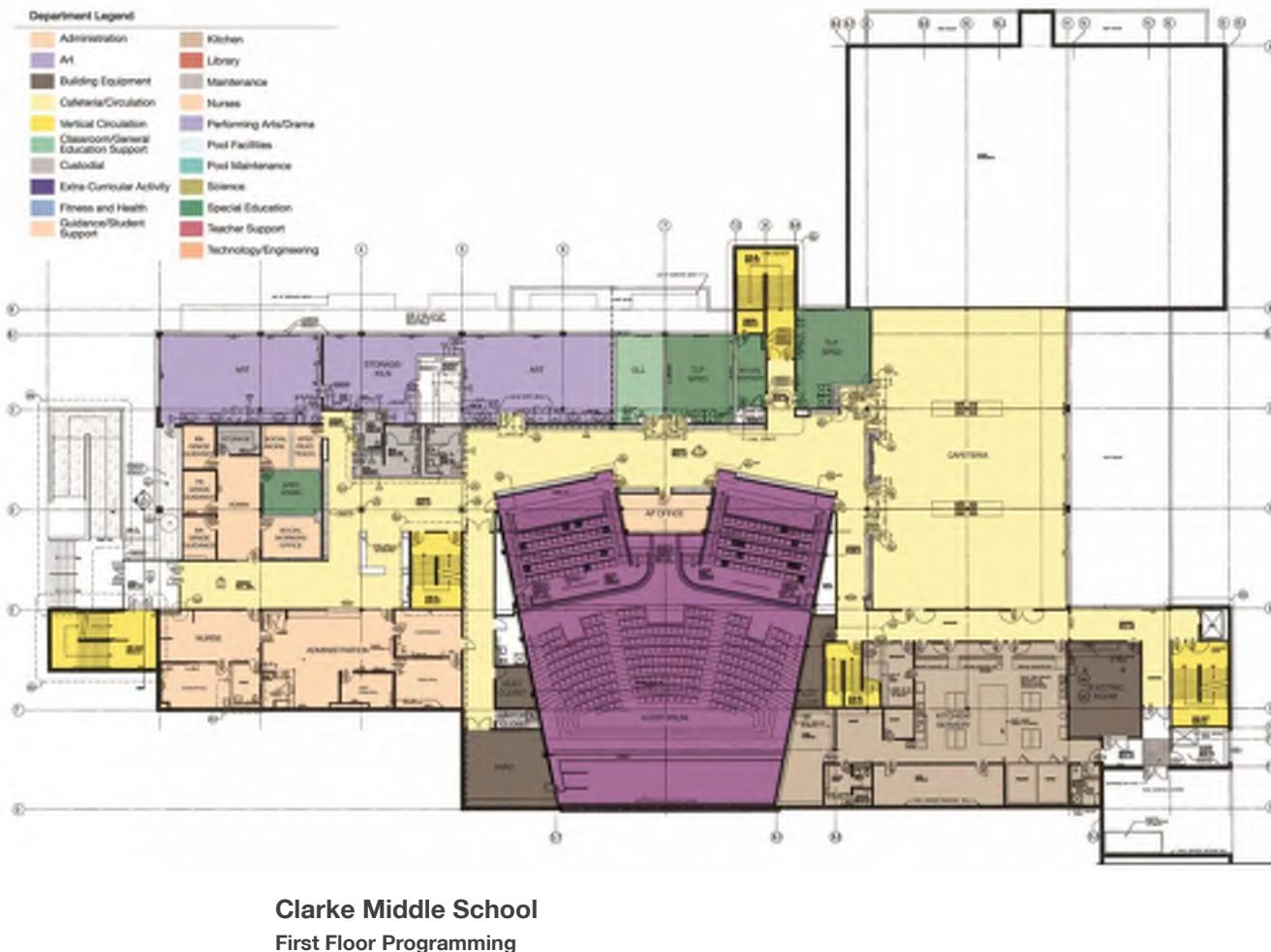
We have identified a capacity range for the current building capacity to 810 to 828 students.

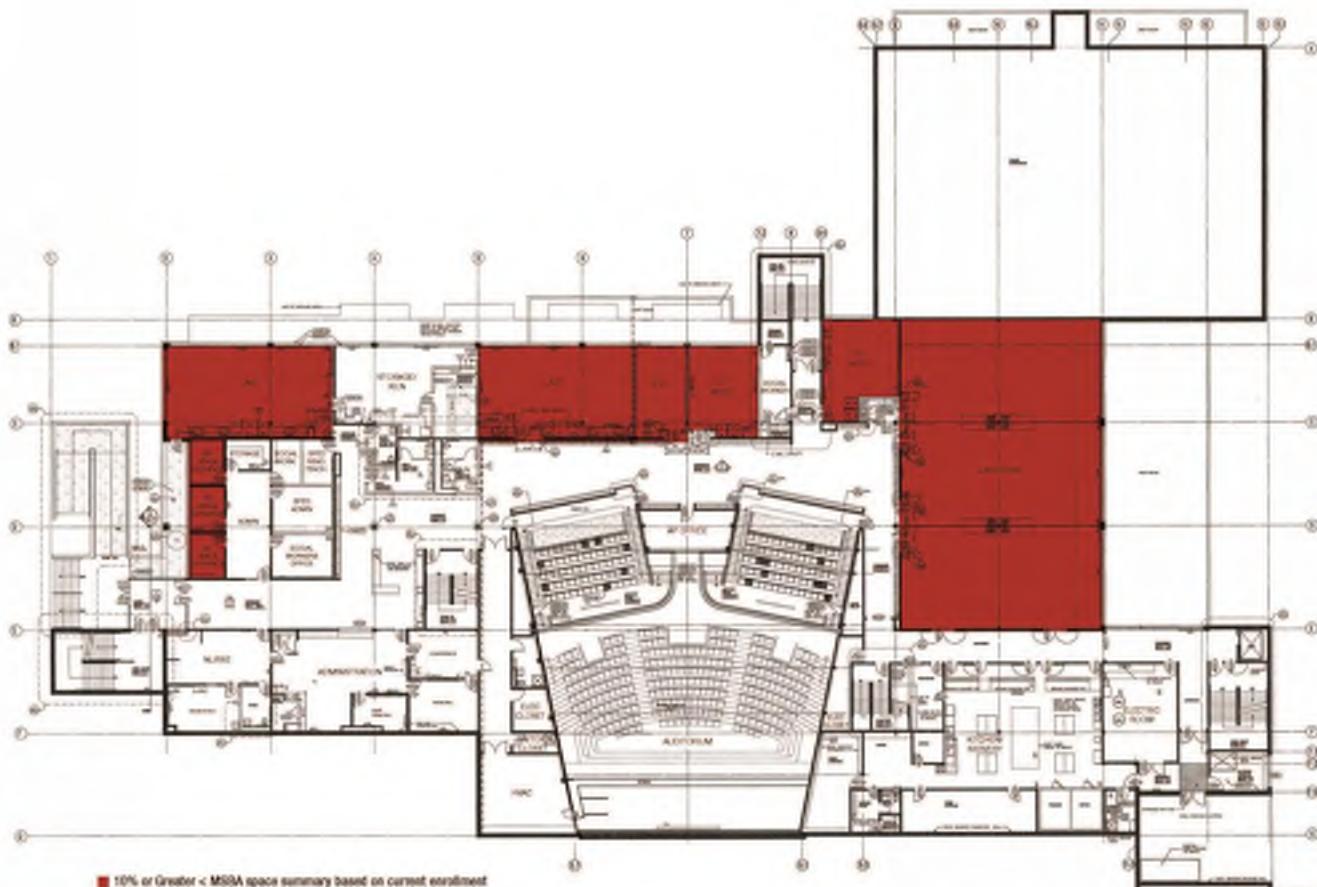


Clarke Middle School
Lower Level Programming

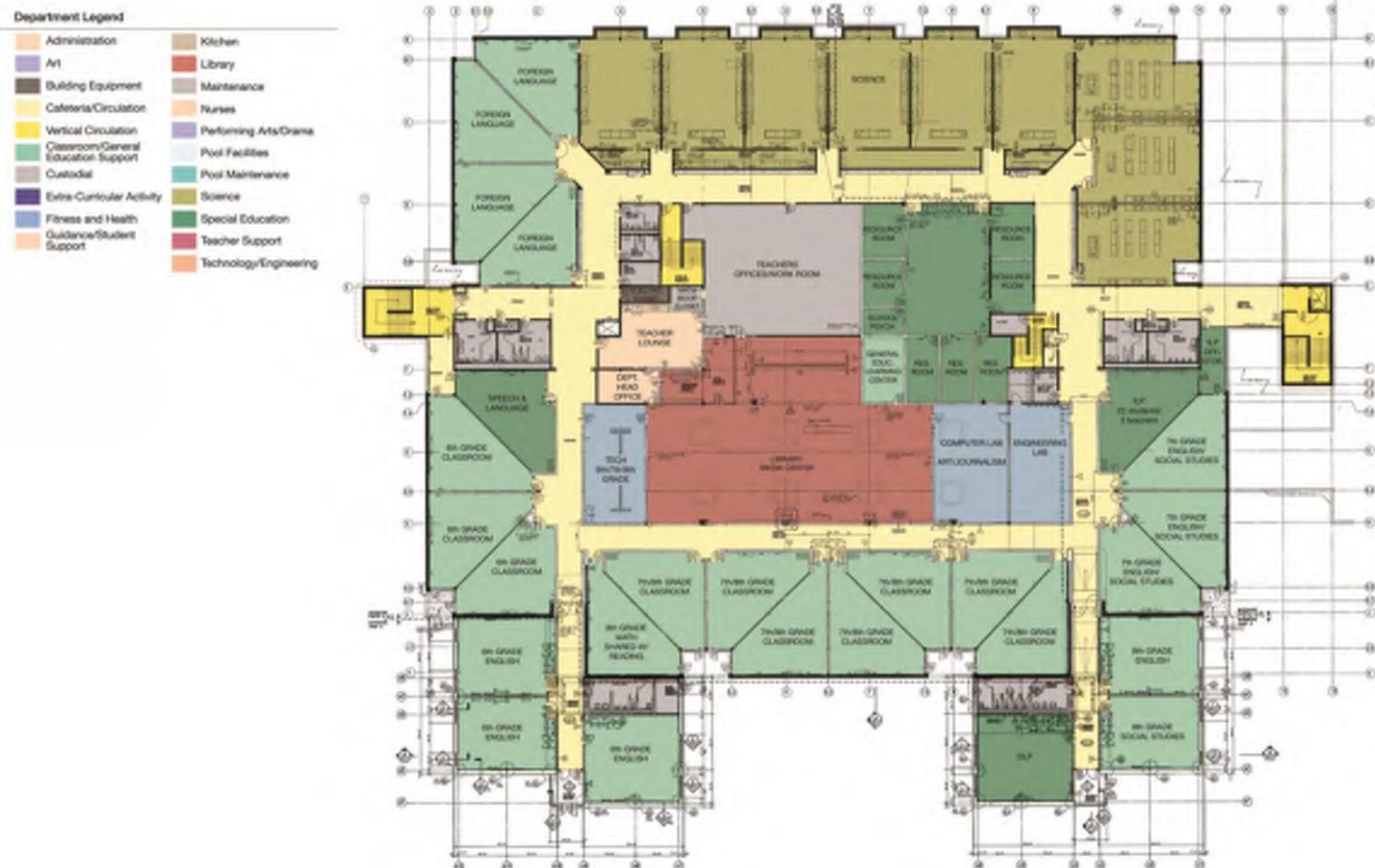


Clarke Middle School
Lower Level Deficiencies (Per MSBA Requirements)





Clarke Middle School
First Floor Deficiencies (Per MSBA Requirements)



Clarke Middle School

Second Floor Programming



Clarke Middle School
Second Floor Deficiencies (Per MSBA Requirements)



DIAMOND MIDDLE SCHOOL

Facility Type:	Middle School
Year Built:	1958, Add Reno 2000
Grade Configuration:	6-8
Student Enrollment (FY 2011 - 2012) :	793
Gross Square Feet:	131,100
Administrative Organization:	
Principal	Anne Carothers
Assistant Principals	Elizabeth Sharp Bayard Klimasmith

Discussion

Diamond Middle School (Current population 793)

Diamond Middle School is organized with three teams for each grade level of grades 6, 7 and 8 = 9 teams. Each team consists of approximately 86 - 93 students, slightly smaller than those at Clarke.

MSBA has a target of 23 students per class which would result in team sizes of 92 students.

We have reviewed the class sizes; the schools' Master Schedule and classroom utilization and have discussed this with the school administration. Diamond differs from Clarke in its' classroom utilization in that it has, for the most part, dedicated classrooms for teachers / by subject by grade level. This is possible because of: a slightly smaller population and more classrooms. The building has a six classroom "temporary addition" that was constructed as part of the 2000 building renovation. Originally intended simply as swing space for the construction project, they have remained on-line ever since. These classrooms are serving as grade level general education classrooms.

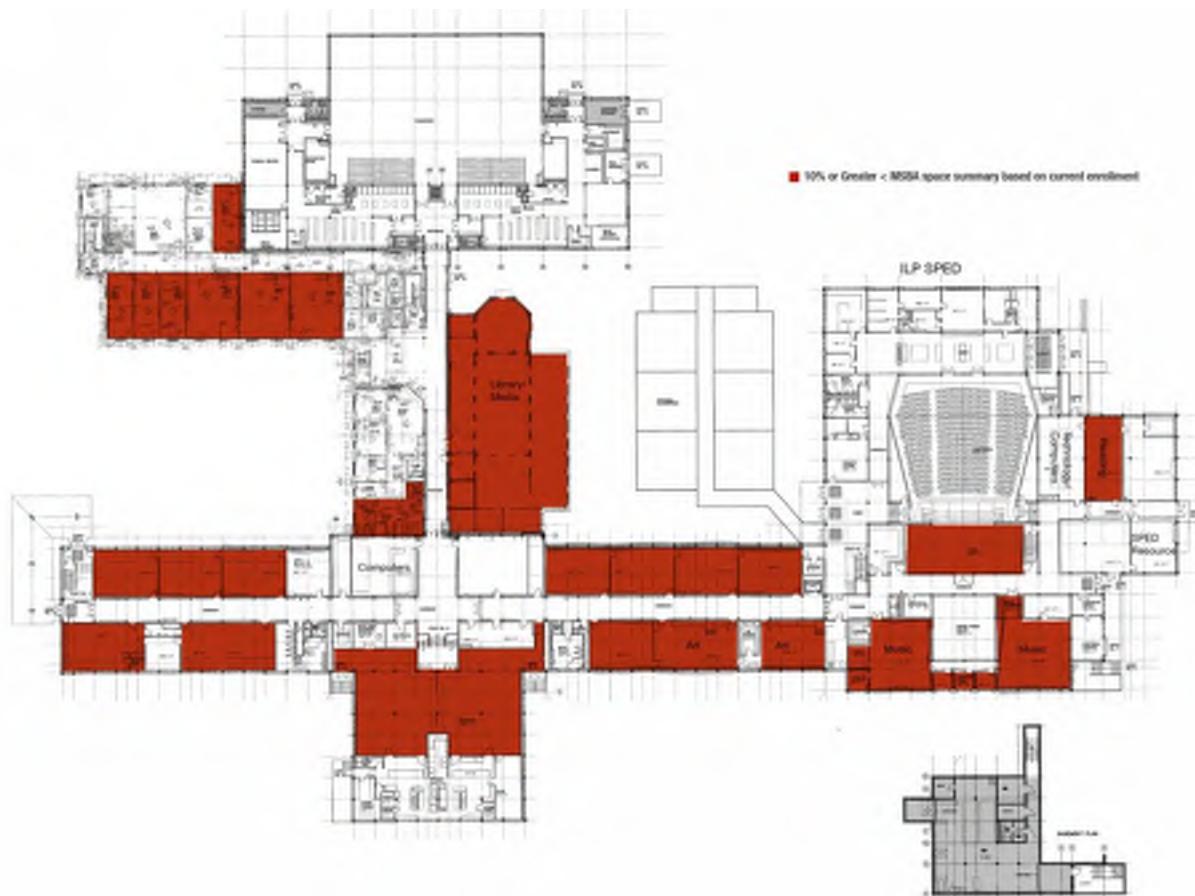
- 36 total General Education classrooms, including the 6 portable classrooms, serve 9 teams (3 teams / grade) and Foreign Language. Unlike Clarke, team teachers own their own classrooms because of the larger number available. There are 7 Foreign Language classrooms at Diamond compared to 4 at Clarke (less sharing). The portables can be counted for current capacity but should not be counted for long term capacity.

- According to the MSBA Summary of Spaces form, 36 classrooms will serve a population of 850 - 860 MS students or 10 teams.
- The 30 permanent classrooms will serve a population of approximately 860 students with class sizes of 23 students / class. The current average class size is slightly over 21 students / class.

In Phase 3 of the Master Plan, alternatives will be developed that include removing the current modular classrooms in favor of permanent rooms.

We have identified a capacity range for the current building capacity to 810 to 828 students.

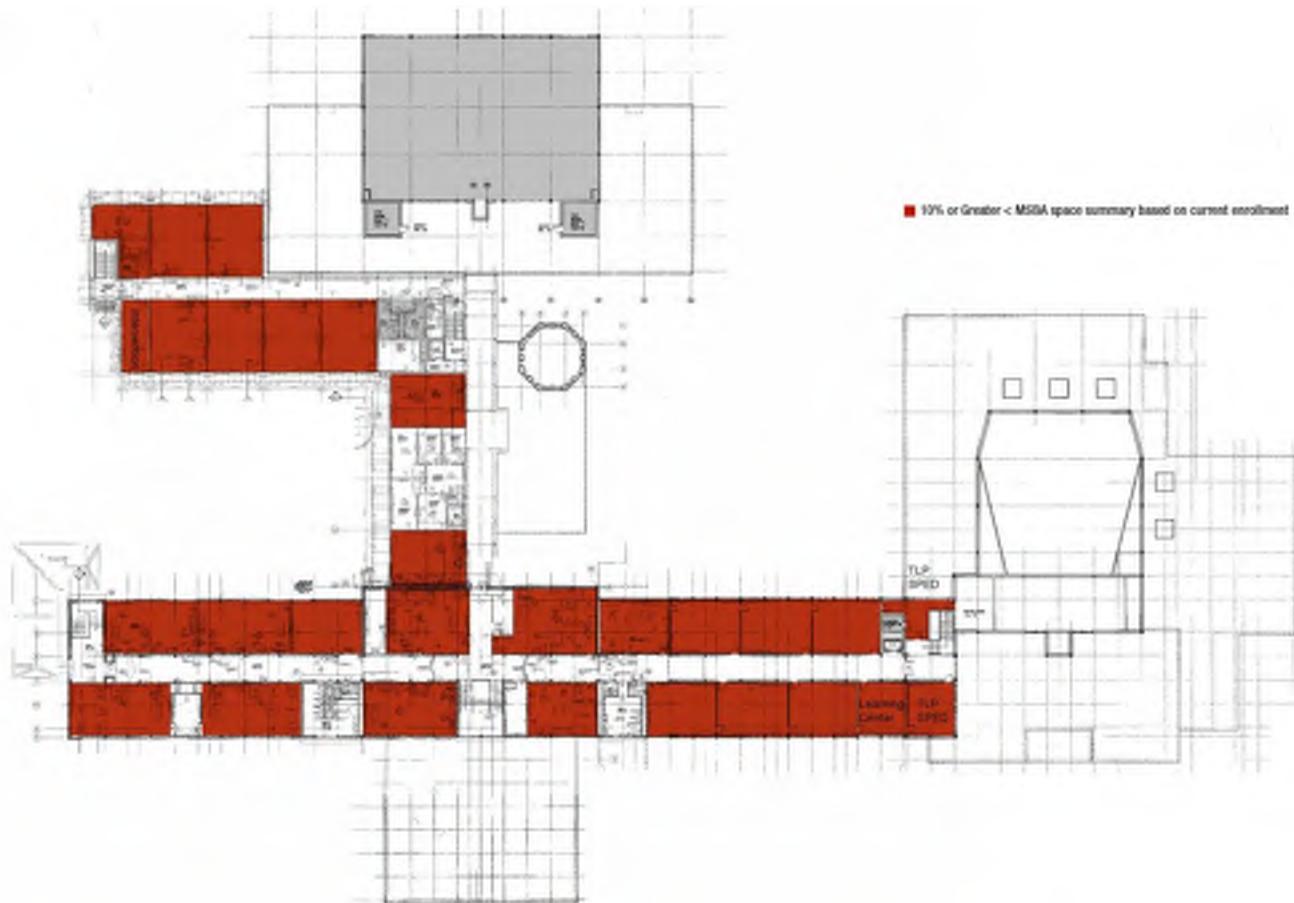




Diamond Middle School
First Floor Deficiencies (Per MSBA Requirements)



Diamond Middle School
Second Floor Programming



Diamond Middle School
Second Floor Deficiencies (Per MSBA Requirements)



LEXINGTON HIGH SCHOOL

Facility Type:	High School
Year Built:	1953, 1955, 1962, 2000, 2014
Grade Configuration:	9-12
Student Enrollment (FY 2011 - 2012):	2,107
Gross Square Feet:	361,200 incl. modular CR's
Administrative Organization:	
Principal	Laura Lasa
Associate Principal	John Murray

Discussion

High School

Both the quantity and quality of spaces will be addressed as part of the Master Plan study. For the most part it is the quantity of spaces that address the question of capacity.

1. The quantity of spaces that contribute to the determination of capacity- are there enough classrooms and other teaching spaces to serve the current population; also 5 years from now and 10 years from now?
2. Quality of spaces - most of the classrooms, SPED rooms, science lecture / labs and other teaching spaces across the school are undersized when compared to the MSBA space guidelines for new construction. This latter discussion will be a focus of Phase 3 of the Master Plan.

Determination of "capacity" in high schools involves a large number of variables. Those variables taken by themselves can result in differing capacities, therefore we are identifying a range of capacity.

Our analysis indicates that the current high school building has sufficient "classrooms" to support a population of approximately 2,270 students (say 2,250 – 2,290). The 8% growth over the current 2107 student population will put increased pressure on a number of spaces and programs within the school that will likely result in overcrowding or the perception of overcrowding.

These will include:

- SPED programs, cafeterias, and library/media center.
- Classrooms:

The number of current classrooms appears to be adequate for the current population as well as the anticipated population for the 2015 - 2016 school year. The recent construction of the modularly built classrooms provided needed space that addresses the quantity of spaces needed currently as well as through the school year 2019-2020. The number of "general education classrooms", slightly exceeds the count needed based on our analysis of the current population and curriculum as represented by the schools' Master Schedule. The aggregate area of all classrooms however is significantly less than the MSBA guidelines because most classrooms are undersized.

- Science Lecture/Labs:

The number of current science lecture/labs appears to be adequate for the current population as well as the anticipated population for the 2015 - 2016 school year. The aggregate area of all science lecture/labs however is significantly less than the MSBA guidelines because most lecture/labs are undersized.

- Special Education:

The quantity and sizes of teaching and support spaces are less than needed. The total area is 14% under MSBA Guidelines. This category of spaces does not contribute to the capacity discussion.

- Vocations/Technology/STEM: There are no curriculum offerings that require additional space at this time. This may be revised in the future as both curriculum and educational delivery methodologies change.

- Core Spaces:

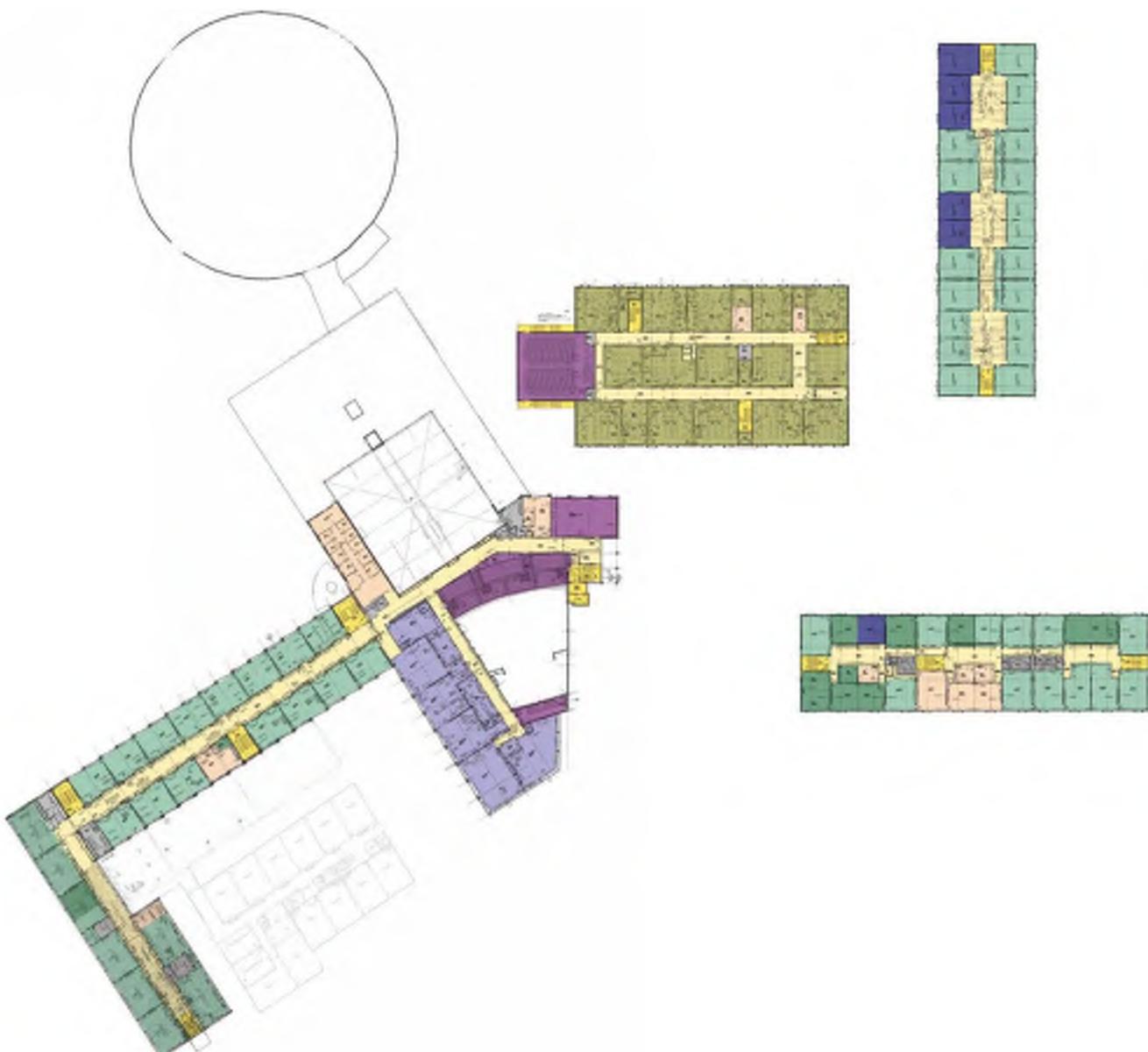
- Student Dining: The actual area dedicated to student dining is 11% under the MSBA guidelines. That said, the open campus policy of the school likely makes up for the undersized spaces, though this is in contrast to the impressions of the faculty and students.

- Library/Media Center: The existing space is 30% under the MSBA guidelines. Although this is an important space in support of teaching and learning, it does not contribute to the capacity discussion.

The chart below shows the current and anticipated populations into the future as well as estimated school capacities.



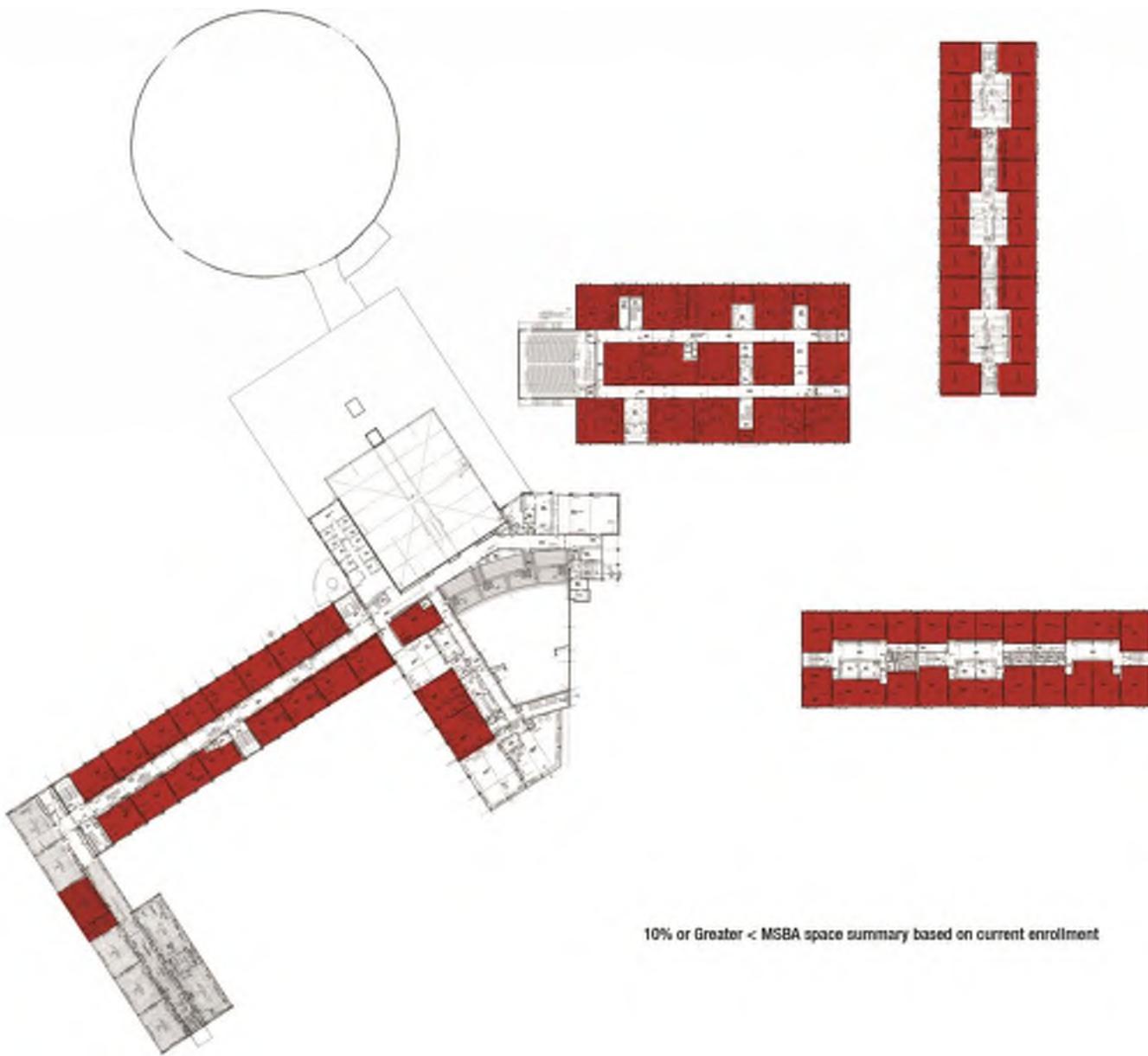
Lexington High School
First Floor Programming



Lexington High School
Second Floor Programming



Lexington High School
First Floor Deficiencies (Per MSBA Requirements)



Lexington High School
Second Floor Deficiencies (Per MSBA Requirements)

Section 3

Educational Program Review

LEXINGTON PUBLIC SCHOOLS MASTER PLAN
Phase 1 - Capacity Analysis

SECTION 3

EDUCATIONAL PROGRAM REVIEW

3.1 INTRODUCTION

Spread across July and August or 2014, SMMA met with the educational administrators (principals and some assistant principals) at each of the schools. All meetings included a representative of Lexington's Facilities Department. The purpose of the meetings were to understand how the buildings are currently being used for teaching and learning. From that, "current use" floor plans were developed. Meeting Reports from each meeting were written and are included in this Section.

Discussions varied between schools but included topics such as: class size, school organization; special education; the district wide special education programs hosted by the schools; what is working well and areas for improvement

The study team and facilities representative also met with Program Directors to understand, district wide what their concerns and ideas for the future are. Those program meetings were with: Special Education; Curriculum; Technology; LABBB; METCO; Pre-K program; Lextended day program.

The study space and population analysis was conducted within the context of the Massachusetts School Building Authority guidelines. Included in this Section are "Summary of Spaces" for each school in an abbreviated MSBA form. Spaces, (teaching, administrative, support etc) are identified by category, their sizes and comparison to MSBS Guidelines.

All of these exercises were conducted in support of developing capacities for each school. The information will be useful in Phase 3 of the Master Plan.

Section 4

Appendix

LEXINGTON PUBLIC SCHOOLS MASTER PLAN
Phase 1 - Capacity Analysis

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	8/5/2014
Re:	Principal Meeting – Bowman Elementary School	Meeting No:	1
Distribution:	MF (MF)		

Attendees: Mary Anton / Principal, Patrick Goddard / LPFD, Phil Poinelli / SMMA, Kate Jessup / SMMA

DiscussionSchool/ Class Organization

- 565 students (with an additional 15-20 expected by the start of the school year) – will be the highest population in 8 years
- Because of large population of rental homes within the district's boundaries the school receives an in-migration/out-migration of students from foreign students that occurs March, May, and November based on varying international school calendars
- School has 8% of students receiving free or reduced lunch
- Typically 1-2 McKinney Vento students per year
- Sections for 2014-2015 school year: 4 x Kindergarten, 4 x 1st grade, 5 x 2nd grade, 5 x 3rd grade, 4 x 4th grade, 4 x 5th grade
- Class sizes range from 19-27 students, averaging slightly over 22 / class
- Approximately 30% of students are English Language Learners, most often English is not their primary language at home.
- The ELL program includes estimated 80 students and requires 2 full time teachers. ELL works with groups of about 8 students however groups can get as large as 12 with caseloads.
- The Reading and Math Specialists space accommodates 6 teachers as well as small group instruction.
- Education team supervisor – space requires an office and conference area. Responsibilities include leading SPED team members, making district decisions, supervising and evaluating teachers, and meeting with parents.

Curriculum

- LLP SPED program: Serves students with language and communication based learning disabilities. Program begins at the 2nd grade when students begin to read and write. Because of this, reading is a challenge for these students.
 - Currently 3 sections of LLP
 - 1 teacher and 2 para-professionals per classroom
 - Target 8 students per section

- Students often attend science, social studies, and specials with their general education class and receive pull-out services and instruction for reading and English language arts
- A pilot program is being established for next year that will help students with low vocabulary and language skills. The goal is to focus on what teachers can do to target academic vocabulary. Focus groups are currently taking place currently to help guide the content for this pilot.
- SPED reading program focuses on reading needs students. This is separate from the general education reading instruction.
- Resource space is undersized. The faculty provides pull-out and push-in services and works with students in groups of roughly 3-4 and serves a total of roughly 65-70 students. 3 full time staff serve the students.
- Utilize the Lucy Calkins project and the Fountas and Pinnell models:
<http://educationnext.org/the-lucy-calkins-project/>
http://www.heinemann.com/fountasandpinnell/Illi_Overview.aspx

Areas for Improvement

- Adaptive PE has no dedicated space.
 - SSP – support staff has 12 staff sharing a small office, which is undersized.
 - School lacks adequate storage
 - Literacy Library is a small room which lacks space for PD and sorting of books.
 - No dedicated space in the school for the data teams to meet and discuss the educational plans of students in groups. This takes place once every 6-8 weeks for 2-3 days. Intervention space is desired. Estimated 150 students with personalized educational plans from the data teams.
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

Proposed Space Summary- Elementary Schools

Bowman Elementary		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
<u>ROOM TYPE</u>	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES		25,050			24		
<i>(List classrooms of different sizes separately)</i>							
Pre-Kindergarten w/ toilet				1,200		-	1,100 SF min - 1,300 SF max
Kindergarten w/ toilet	1000	4	4,000	1,200	4	4,800	1,100 SF min - 1,300 SF max
General Classrooms - Grade 1-5	875	17	14,875	950	20	19,000	900 SF min - 1,000 SF max
General Classrooms - Grade 1-5	850	3	2,550				
General Classrooms - Grade 1-5	900	2	1,800				
ELL small group room	925	1	925				
Reading small group room			0				
Gen Ed Support/ Small group instruction	900	1	900				
Gen Ed Support/ Literacy Library			0				
SPECIAL EDUCATION		3,305			6,040		
<i>(List rooms of different sizes separately)</i>							
Self-Contained SPED			0	950	4	3,800	8% of pop. in self-contained SPED
Self-Contained SPED - LLP Suite	2,000	1	2,000				
Self-Contained SPED - toilet			0	60	4	240	
Resource Room	450	1	450	500	3	1,500	1/2 size Genl. Clrm.
Small Group Room / Reading	160	1	160	500	1	500	1/2 size Genl. Clrm.
Small Group Room / OT and PT	375	1	375				
Small Group Room / Speech and Language	160	2	320				
ART & MUSIC		2,050			5,000		
Art Classroom - 25 seats	1175	1	1,175	1,000	2	2,000	assumed schedule 2 times / week / student
Art Workroom w/ Storage & kiln			0	150	2	300	
Music Classroom / Large Group - 25-50 seats	875	1	875	1,200	2	2,400	assumed schedule 2 times / week / student
Music Practice / Ensemble			0	75	4	300	
HEALTH & PHYSICAL EDUCATION		3,620			6,300		
Gymnasium	3380	1	3,380	6,000	1	6,000	6000 SF Min. Size
Gym Storeroom	240	1	240	150	1	150	
Health Instructor's Office w/ Shower & Toilet			0	150	1	150	
MEDIA CENTER		2,250			3,204		
Media Center / Reading Room	2250	1	2,250	3,204	1	3,204	
DINING & FOOD SERVICE		6,800			7,714		
Cafeteria / Dining	3450	1	3,450	4,223	1	4,223	2 seatings - 15SF per seat
Stage	1200	1	1,200	1,000	1	1,000	
Chair / Table / Equipment Storage			0	388	1	388	
Kitchen	1600	1	1,600	1,863	1	1,863	1600 SF for first 300 + 1 SF/student Add'l
Staff Lunch Room	550	1	550	241	1	241	20 SF/Occupant
			0				
MEDICAL		300			610		
Medical Suite Toilet			0	60	1	60	
Nurses' Office / Waiting Room	300	1	300	250	1	250	
Examination Room / Resting			0	100	3	300	
ADMINISTRATION & GUIDANCE		3,310			2,428		
General Office / Waiting Room / Toilet	450	1	450	432	1	432	
Teachers' Mail and Time Room			0	100	1	100	
Staff Office (SSP and Mail)	280	1	280				
Staff Office			0	150	1	150	
Duplicating Room			0	110	1	110	
Records Room			0	375	1	375	
Principal's Office w/ Conference Area	400	1	400	125	1	125	
Principal's Secretary / Waiting			0	120	0	-	
Assistant Principal's Office	175	1	175				
Supervisory / Spare Office -Guidance Interventionist	90	1	90	120	1	120	
Supervisory / Spare Office - Lextended Day	90	1	90				
Supervisory / Spare Office - Metco	90	1	90				
Supervisory / Spare Office - Psychologist	90	1	90				
Supervisory / Spare Office ETS	370	1	370				

Proposed Space Summary- Elementary Schools

Bowman Elementary		Existing Conditions		
<u>ROOM TYPE</u>	ROOM NFA ¹	# OF RMS	area totals	
Conference Room	290	1	290	
Conference Room	225	1	225	
Guidance Office	450	1	450	
Guidance Storeroom			0	
Teachers' Work Room	310	1	310	
CUSTODIAL & MAINTENANCE			0	
Custodian's Office				
Custodian's Workshop				
Custodian's Storage				
Recycling Room / Trash				
Receiving and General Supply				
Storeroom				
Network / Telecom Room				
OTHER			0	
Other (<i>specify</i>)				
Total Building Net Floor Area (NFA)			46,685	
Proposed Student Capacity / Enrollment				
Total Building Gross Floor Area (GFA) ²				
Grossing factor (GFA/NFA)			0.00	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
250	1	250	
150	2	300	
35	1	35	
432	1	432	
		2,163	
150	1	150	
375	1	375	
375	1	375	
400	1	400	
288	1	288	
375	1	375	
200	1	200	
		0	
		57,258	
		563	
		84,065	
		1.47	

¹ Individual Room Net Floor Area (NFA) Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a room.

² Total Building Gross Floor Area (GFA) Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification
I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and
_____ _____ _____

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	7/1/2014
Re:	Principal Meeting – Bridge Elementary School	Meeting No:	2
Distribution:	MF (MF)		

Attendees: Meg Colella / Principal, Patrick Goddard / LPFD, Phil Poinelli / SMMA, Kate Jessup / SMMA

DiscussionSchool/ Class Organization

- Current population is 588 students
- Current class size ranges from: 18-26 students
- Current classroom size and organization feels comfortable- though class size is getting larger, space is concerning, small group work is challenging with larger class sizes
- Each elementary school houses one Resource Room (for pull-out instruction) and 1 District-wide program. Bridge houses Therapeutic Learning Program (TLP)
- Resource room is shared by 4 teachers.
- 7-8 instructional assistants push-in to classrooms to assist classroom teachers. Instructional assistants do not require a desk as the 4 Resource room teachers create the lesson plans.
- 63 ELL students at the school
- OT space serves small motor and some gross motor skills.
- Adaptive PE teacher uses the stage
- Outdoor classroom might be considered for use if it was provided. Typically teachers only utilize the outdoor environment during the Big Backyard Program which takes place 3 times per year. Garden area was provided as a grant and does not have a champion.

Curriculum

- District teaches elementary students based on workshop model. This includes an 10-15 minute teacher focused lesson which is followed by group work. Physical movement is critical to the differentiated learning. Teaching is differentiated and personalized. Students move to other classrooms within their own grade based on mastery. Quiet zones become critical with this teaching method.
- Therapeutic Learning Program serves students with social-emotional and behavioral issues. The space is best served by two rooms that are separate and function with different activities in each space. One for instruction, one for activities. Students in this program are integrated as much as possible into their general education classrooms. 3 teachers serve this space. An office space is attached, 6 instructional assistants also share this space

- SPED Reading follows the Orton Gillinham and Wilson Language Program models. Goal is to keep these students in the district.
 - Utilize block scheduling (2 hour language arts, 1 hour math, etc.)
 - Adaptive PE serves portion of the population that has trouble with gross motor. It is facilitated on the stage and is provided in addition to typical PE class.
 - Science prep time is limited so scheduling science experiments is difficult and challenging.
 - Library, gym, and cafeteria are small for the enrollment numbers.
-

Areas for Improvement

- Need for break-out space for pull-out / pull-over instruction and more small group rooms
 - SPED Reading teacher does not have adequate space. Requires 1 on 1 instruction in a separate space
 - Offices are too small for required instruction and space needs of teachers
 - Desire for connected “front porch” approach with visual connection to separate small group area
 - Space required for band and orchestra as well as storage
 - Resource room organization not ideal.
 - Kindergarten PE takes place in cafeteria, not ideal
 - Kindergarten art/music classroom has skylights but lighting levels are still poor and not in the ideal location. Located far from Kindergarten classrooms.
 - When band and orchestra lessons are taking place, students are scattered throughout the building in offices, conference spaces, displaces staff members to the teacher’s room so their space can be utilized, and closets. This does not meet the needs for acoustics and is far from the ideal.
 - Resource Room program should have more smaller spaces rather than one large room.
 - ELL program needs larger space than currently allocated.
 - Not enough storage space throughout the building
 - Arrival/Dismissal is a huge issue for logistics. A study is taking place to evaluate site improvements, parking is limited
 - Smart boards are limited to only grades 3-5 by district policy. Need more technology including more laptop or ipad carts and technology for SPED programs
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

Proposed Space Summary- Elementary Schools

Bridge Elementary		Existing Conditions		
<u>ROOM TYPE</u>	ROOM NFA ¹	# OF RMS	area totals	
CORE ACADEMIC SPACES			24,480	
(List classrooms of different sizes separately)				
Pre-Kindergarten w/ toilet				
Kindergarten w/ toilet	1000	4	4,000	
	850	1	850	
General Classrooms - Grade 1-5	875	17	14,875	
General Classrooms - Grade 1-5	850	2	1,700	
General Classrooms - Grade 1-5	900	2	1,800	
ELL small group room	160	1	160	
Reading small group room	85	2	170	
Gen Ed Support/ Literacy Library	925	1	925	
SPECIAL EDUCATION			1,950	
(List rooms of different sizes separately)				
Self-Contained SPED			0	
Self-Contained SPED - TLP	900	1	900	
Self-Contained SPED - toilet			0	
Resource Room	875	1	875	
Small Group Room / Reading	100	1	100	
Small Group Room / Speech and Language	75	1	75	
ART & MUSIC			2,525	
Art Classroom - 25 seats	1175	1	1,175	
Art Classroom - K Art and Music	450	1	450	
Art Workroom w/ Storage & kiln			0	
Music Classroom / Large Group - 25-50 seats	900	1	900	
Music Practice / Ensemble			0	
HEALTH & PHYSICAL EDUCATION			3,620	
Gymnasium	3380	1	3,380	
Gym Storeroom	240	1	240	
Health Instructor's Office w/ Shower & Toilet			0	
MEDIA CENTER			2,250	
Media Center / Reading Room	2250	1	2,250	
DINING & FOOD SERVICE			6,800	
Cafeteria / Dining	3450	1	3,450	
Stage	1200	1	1,200	
Chair / Table / Equipment Storage			0	
Kitchen	1600	1	1,600	
Staff Lunch Room	550	1	550	
			0	
MEDICAL			300	
Medical Suite Toilet			0	
Nurses' Office / Waiting Room	300	1	300	
Examination Room / Resting			0	
ADMINISTRATION & GUIDANCE			2,470	
General Office / Waiting Room / Toilet	450	1	450	
Teachers' Mail and Time Room			0	
Staff Office	225	1	225	
Staff Office	280	1	280	
Duplicating Room			0	
Records Room			0	
Principal's Office w/ Conference Area	400	1	400	
Principal's Secretary / Waiting			0	
Assistant Principal's Office	175	1	175	
Supervisory / Spare Office - Psychologist & Social Worker	160	1	160	
Supervisory / Spare Office - ETL	90	1	90	
Conference Room	290	1	290	
Guidance Office	90	1	90	
Guidance Storeroom			0	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
	24	23,800	
1,200		-	1,100 SF min - 1,300 SF max
1,200	4	4,800	1,100 SF min - 1,300 SF max
950	20	19,000	900 SF min - 1,000 SF max
		6,040	
950	4	3,800	8% of pop. in self-contained SPED
60	4	240	
500	3	1,500	1/2 size Genl. Clrm.
500	1	500	1/2 size Genl. Clrm.
		3,800	
1,000	2	2,000	assumed schedule 2 times / week / student
150	2	300	
1,200	1	1,200	assumed schedule 2 times / week / student
75	4	300	
		6,300	
6,000	1	6,000	6000 SF Min. Size
150	1	150	
150	1	150	
		3,114	
3,114	1	3,114	
		7,532	
4,073	1	4,073	2 seatings - 15SF per seat
1,000	1	1,000	
381	1	381	
1,843	1	1,843	1600 SF for first 300 + 1 SF/student Add'l
236	1	236	20 SF/Occupant
		610	
60	1	60	
250	1	250	
100	3	300	
		2,408	
422	1	422	
100	1	100	
150	1	150	
110	1	110	
375	1	375	
125	1	125	
120	0	-	
120	1	120	
250	1	250	
150	2	300	
35	1	35	

Proposed Space Summary- Elementary Schools

Bridge Elementary		Existing Conditions		
<u>ROOM TYPE</u>	ROOM NFA ¹	# OF RMS	area totals	
Teachers' Work Room	310	1	310	
CUSTODIAL & MAINTENANCE			0	
Custodian's Office				
Custodian's Workshop				
Custodian's Storage				
Recycling Room / Trash				
Receiving and General Supply				
Storeroom				
Network / Telecom Room				
OTHER			0	
Other (specify)				
Total Building Net Floor Area (NFA)			44,395	
Proposed Student Capacity / Enrollment				
Total Building Gross Floor Area (GFA) ²				
Grossing factor (GFA/NFA)			0.00	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
422	1	422	
		2,143	
150	1	150	
375	1	375	
375	1	375	
400	1	400	
281	1	281	
362	1	362	
200	1	200	
		0	
		55,747	
		543	
		82,346	
		1.48	

¹ Individual Room Net Floor Area (NFA) Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to each room.

² Total Building Gross Floor Area (GFA) Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	7/1/2014
Re:	Principal Meeting – Estabrook Elementary School	Meeting No:	3
Distribution:	MF (MF)		

Attendees: Sandra Trach / Principal, Patrick Goddard / LPFD, Phil Poinelli / SMMA, Kate Jessup / SMMA

DiscussionSchool/ Class Organization

- Students are organized into classrooms grades K-5. When educationally appropriate, students switch classrooms for flexibly grouped instruction. The adjoining doors and nearby project spaces allow for flexible instructional grouping practices.
 - Shared teacher planning spaces between classrooms are necessary for teachers' instructional materials and shared unit materials. The project spaces also house a shared printer between classrooms.
 - Desire was to design a building that met the educational program needs, as well as LEED design principles.
 - The classroom enrollment adheres to district class size ratio guidelines. The space supports the educational program including special education, English Language Learning and appropriate specialist space.
-

Curriculum

- The elementary schools employ a literacy and mathematics workshop model throughout the school day. This model includes a mini-lesson, followed by differentiated learning and a closing circle. Physical movement around the classroom is important to help achieve the goals of the workshop and personalized learning methods. Students work as individuals, partners, groups, and meet as an entire class throughout the day. As a result, teachers and students require flexible space, in and around their classrooms, to engage in this methodology successfully.
 - Teachers College Readers and Writers Project <http://readingandwritingproject.com/about/overview.html>
 - Engage in a constructivist learning approach
 - Therapeutic Learning Program serves students with social-emotional and behavioral issues identified by Special Education. The space is served by three rooms; two of which are connected through an adjoining door. The third room is separate resource room is for academic work in the program. Students in this program are fully included in their general education classrooms.
 - Professional Literacy Room– This space is critical to the success of the elementary core curriculum. Currently, this room houses volumes of trade literature for all aspects of the elementary curriculum. The room is also actively used for professional learning and training needs of the school and district.
-

Project: **Lexington Public Schools**

Meeting Date: **7/1/2014**

Meeting No.: **3**

- Incorporates the Response to Intervention (RTI) teaching philosophy. RTI identifies the learning and pro-social needs as early as possible, so that educators can intervene with personalized instruction to help students be successful.

Areas for Improvement

- Principal is pleased with the new school and collaborated directly with the architect and project team, in order to achieve the goals for the educational program, which were realized in the design and construction.
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

Proposed Space Summary- Elementary Schools
New Elementary School

LEXINGTON ESTABROOK SCHOOL			
Existing Conditions			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals
CORE ACADEMIC SPACES	21	18,511	
(List classrooms of different sizes separately)			
Pre-Kindergarten w/ toilet			
Kindergarten w/ toilet (No toilet in existing)	945	2	1,889
Kindergarten w/ toilet (No toilet in existing)	960	1	960
General Classrooms - Grade 1-6	706	1	706
General Classrooms - Grade 1-6	723	2	1,445
General Classrooms - Grade 1-6	860	2	1,720
General Classrooms - Grade 1-6	866	1	866
General Classrooms - Grade 1-6	873	1	873
General Classrooms - Grade 1-6	882	2	1,763
General Classrooms - Grade 1-6	900	1	900
General Classrooms - Grade 1-6	908	1	908
General Classrooms - Grade 1-6	929	1	929
General Classrooms - Grade 1-6	933	2	1,865
General Classrooms - Grade 1-6	935	1	935
General Classrooms - Grade 1-6	965	2	1,929
Computer Lab	823	1	823
Teacher Prep / Work Area every 2 clrms			
SPECIAL EDUCATION	2,212		
(List rooms of different sizes separately)			
Self-Contained SPED			
Self-Contained SPED - toilet			
Resource Room			
Small Group Room / Reading			
CARE Program Suite	826	1	826
ETS Suite			
ETS Office	187	1	187
ETS / IEP Conference	0	0	0
ETS Reception	0	0	0
Psychologist	119	1	119
Psychologist	191	1	191
Social Worker	123	1	123
Resource Room (2 resource, Speech, Reading)	141	1	141
Resource Room (resource, CARE, Speech, Readin	119	1	119
Resource Room (resource, CARE, Speech, Readin	114	1	114
Resource Room (resource, CARE, Speech, Readin	97	1	97
OT/PT	113	1	113
Math Coach	182	1	182
Reading Program	0	0	0
Testing Room			
Literacy (Existing in portable clrm w/ ELL)	0	0	0
ELL (Existing in portable clrm w/ Literacy) Adjoining	0	0	0
ART & MUSIC	2,683		
Art Classroom - 25 seats	1,183	1	1,183
Art Workroom w/ Storage & kiln	98	1	98
Music Classroom / Large Group - 25-50 seats	1,402	1	1,402
Music Practice/ Ensemble	0	0	0
Band / Strings	0	0	0
HEALTH & PHYSICAL EDUCATION	2,412		
Gymnasium	2,412	1	2,412
Gym Storeroom	0	0	0
Health Instructor's Office w/Shower & Toilet	0	0	0
MEDIA CENTER	2,524		
Media Center/Reading Room	2,524	1	2,524
DINING & FOOD SERVICE	2,896		
Cafeteria/Dining	0	0	0
Stage	795	1	795
Chair/Table/Equipment Storage	0	0	0
Kitchen	1,650	1	1,650
Staff Lunch Room	451	1	451
MEDICAL	295		
Medical Suite Toilet	0	0	0
Nurses' Office/Waiting Room	111	1	111
Examination Room / Resting	184	1	184
ADMINISTRATION & GUIDANCE	1,851		

PROPOSED								
Existing to Remain/Renovated			New			Total		
ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals
0		26,910			27	26,910		
99	13	1,287	99	13	1,287			
46	2	92	46	2	92			
0		6,101			6,101			
99	13	1,287	99	13	1,287			
46	2	92	46	2	92			
0		4,972			4,972			
0		6,352			6,352			
0		2,952			2,952			
0		6,555			6,555			
0		612			612			
0		2,550			2,550			

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
23		22,850	
1,200		-	1,100 SF min - 1,300 SF max
1,200	4	4,800	1,100 SF min - 1,300 SF max
950	19	18,050	900 SF min - 1,000 SF max
		6,040	
950	4	3,800	8% of pop. in self-contained SPED
60	4	240	
500	3	1,500	1/2 size Genl. Clrm.
500	1	500	1/2 size Genl. Clrm.
		3,800	assumed schedule 2 times / week / student
1,200	1	1,200	assumed schedule 2 times / week / student
75	4	300	
		6,300	
6,000	1	6,000	6000 SF Min. Size
150	1	150	
150	1	150	
		3,100	
3,100	1	3,100	
		7,505	
4,050	1	4,050	2 seatings - 15SF per seat
1,000	1	1,000	
380	1	380	
1,840	1	1,840	1600 SF for first 300 + 1 SF/student Add'l
235	1	235	20 SF/Occupant 85 staff/3 seatings = 567
		610	
60	1	60	
250	1	250	
100	3	300	
		2,405	

Proposed Space Summary- Elementary Schools

New Elementary School

LEXINGTON ESTABROOK SCHOOL		Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	
General Office / Waiting Room/Toilet	400	1	400	
Teachers' Mail and Time Room	0	0	0	
Duplicating Room	0	0	0	
Records Room (incl. above)	0	0	0	
Principal's Office w/ Conference Area	154	1	154	
Principal's Secretary / Waiting (incl. above in General)	0	0	0	
Assistant Principal's Office	191	1	191	
Supervisory / Spare Office	0	0	0	
Conference Room	182	1	182	
Extended Day Office / Storage	94	1	94	
Guidance Office (Suite - storage, conference, Office)	176	1	176	
Guidance Storeroom	0	0	0	
Teachers' Work Room	654	1	654	
CUSTODIAL & MAINTENANCE				967
Custodian's Office	0	0	0	
Custodian's Workshop	440	1	440	
Custodian's Storage	132	4	527	
Recycling Room / Trash				
Receiving and General Supply				
Storeroom				
Network/Telecom Room				
OTHER				0
Other (specify)				
Total Building Net Floor Area (NFA)				34,351
Proposed Student Capacity/Enrollment				
Total Building Gross Floor Area (GFA) ²				56,252
Grossing factor (GFA/NFA)				1.64

PROPOSED								
Existing to Remain/Renovated			New			Total		
ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals
0	0	0	561	1	561	561	1	561
0	0	0	101	1	101	101	1	101
0	0	0	150	1	150	150	1	150
0	0	0	0	0	0	0	0	0
0	0	0	299	1	299	299	1	299
0	0	0	0	0	0	0	0	0
0	0	0	134	1	134	134	1	134
0	0	0	0	0	0	0	0	0
0	0	0	292	1	292	292	1	292
0	0	0	130	1	130	130	1	130
0	0	0	300	1	300	300	1	300
0	0	0	34	1	34	34	1	34
0	0	0	549	1	549	549	1	549
0			2,076			2,076		
0	0	0	132	1	132	132	1	132
0	0	0	408	1	408	408	1	408
0	0	0	461	1	461	461	1	461
0	0	0	315	1	315	315	1	315
0	0	0	234	1	234	234	1	234
0	0	0	301	1	301	301	1	301
0	0	0	225	1	225	225	1	225
0			0			0		

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
420	1	420	
100	1	100	
150	1	150	
110	1	110	
375	1	375	
125	1	125	
120	0	-	
120	1	120	
250	1	250	
150	2	300	
35	1	35	
420	1	420	
		2,140	
150	1	150	
375	1	375	
375	1	375	
400	1	400	
280	1	280	
360	1	360	
200	1	200	
		0	
		54,750	
		540	
		82,080	
		1.50	

¹ Individual Room Net Floor Area (NFA) Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular program area including such spaces as non-communal toilets and storage rooms.

² Total Building Gross Floor Area (GFA) Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification	I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement, made under the penalties of perjury.
Name of Architect Firm:	<u>DiNisco Design Partnership, Ltd.</u>
Name of Principal Architect:	<u>Kenneth DiNisco</u>
Signature of Principal Architect:	<u>K. DiNisco</u>
Date:	<u>1/26/2012</u>

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	7/29/2014
Re:	Principal Meeting –Fiske Elementary School	Meeting No:	4
Distribution:	MF (MF)		

Attendees: Thomas Martellone / Principal, Patrick Goddard / LPFD, Phil Poinelli / SMMA, Kate Jessup / SMMA

DiscussionSchool/ Class Organization

- Fiske hosts all of the K-8 summer extended school year programs for district students with IEPs.
- 115 staff – 51 for SPED program (including 36.5 for Intensive Learning Program (ILP program)
- Many spaces have been repurposed (since its opening in 2006) and many spaces are being shared. Some spaces are not appropriate for students (i.e. band in a conference room)
- The school houses an ETS and an ILP ETS
- Gymnasium is oversized for the need however it is understood to be a community resource.
- Current configuration of the pods is 5 classrooms per pod x 4 pods. This model does not work because there are not currently 5 sections per grade nor are there enough pods to satisfy each grade. This results in grades broken up across multiple pods which is not ideal.
- Adaptive PE takes place on the stage

Curriculum

- Intensive Learning Program (ILP)
 - School was opened in 2006 and under the program at that time, there was only 1 ILP classroom. The program now requires 4 classrooms.
 - Each ILP classroom can only house 6-8 children in an effort to be comparable to out of district programs .
 - Program currently serves 26 students in 4 classrooms (2 full sized). These are students with very significant needs in the Lexington district.
 - Each student has a 1:1 aide. The amount of inclusion depends on the needs of each individual student. This indicates that there are (26) 1:1 aides in the building.
 - There is an inherent culture of having the ILP program in the building to which the general ed. students are accustomed. It would be difficult to relocate the program to another location.
- ELL program has estimated 53 students.
- School serves moderate OT, PT, and ILP OT – 3 staff share the same space

Areas for Improvement

- Cafeteria is too small for the population. Lack of restrooms adjacent to the cafeteria can create problems of safety/security
 - Building lacks adequate storage space. Storage within classrooms creates a concern for supplies monitoring as well as creating a fire hazard with teachers amassing supplies too close to the fire protection systems.
 - Only available space for moderate IEP resource rooms is too small. Currently occupy 3 offices which do not serve the academic need of the students.
 - Nurse's office is the first door accessible from the front door is problematic because some parents do not check in at the main office but rather go directly into the nurse's office. This poses a security concern.
 - Triangular shape of main office is problematic for organization
 - Having many sets of doors causes an access/security concern. Would like to swap out door hardware on exterior doors for egress only at all locations except the front door.
 - 7-8 aides helping during lunch and recess have to share small office.
 - Moderate resource rooms are too small for an office and a small group setting in one space. Space was originally designed as just office space.
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

Proposed Space Summary- Elementary Schools

Fiske Elementary		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			24,705				
(List classrooms of different sizes separately)							
Pre-Kindergarten w/ toilet				1,200	21	20,950	
Kindergarten w/ toilet	1,260	2	2,520	1,200	-	1,100 SF min - 1,300 SF max	
Kindergarten w/ toilet	1,090	2	2,180	1,200	4	4,800	1,100 SF min - 1,300 SF max
General Classrooms - Grade 1-5	1,000	19	19,000	950	17	16,150	900 SF min - 1,000 SF max
ELL small group room	200	1	200				
Math Specialist small group room	180	1	180				
Literacy Support Office	100	4	400				
Gen Ed Support/ Small group instruction			0				
Gen Ed Support/ Literacy Library	225	1	225				
SPECIAL EDUCATION			4,610				
(List rooms of different sizes separately)							
Self-Contained SPED w/ toilet- ILP	1,000	1	1,000	950	4	5,540	
Self-Contained SPED w/ toilet- ILP	1,070	1	1,070				
Self-Contained SPED	1,150	1	1,150				
Self-Contained SPED - toilet			0				
Resource Room			0				
Small Group Room / Speech and Language	100	1	100				
Small Group Room / Speech ILP	150	2	300				
OT/PT	490	1	490				
ETS Office	125	2	250				
SPED Reading Office	100	1	100				
BCBA Office	150	1	150				
ART & MUSIC			2,945				
Art Classroom - 25 seats	1,175	1	1,175				
Art Workroom w/ Storage & kiln	280	1	280				
Music Classroom / Large Group - 25-50 seats	1,150	1	1,150				
Music Practice / Ensemble	170	2	340				
HEALTH & PHYSICAL EDUCATION			6,460				
Gymnasium	5,960	1	5,960				
Gym Storeroom	500	1	500				
Health Instructor's Office w/ Shower & Toilet			0				
MEDIA CENTER			2,550				
Media Center / Reading Room	2,550	1	2,550				
DINING & FOOD SERVICE			5,280				
Cafeteria / Dining	2,100	1	2,100				
Stage	1,250	1	1,250				
Chair / Table / Equipment Storage			0				
Kitchen	1,450	1	1,450				
Staff Lunch Room	480	1	480				
			0				
MEDICAL			510				
Medical Suite Toilet			0				
Nurses' Office / Waiting Room	510	1	510				
Examination Room / Resting			0				
ADMINISTRATION & GUIDANCE			2,855				
General Office / Waiting Room / Toilet	570	1	570				
Teachers' Mail and Time Room	180	1	180				
Staff Office			0				
Staff Office			0				
Duplicating Room			0				
Records Room			0				
Principal's Office w/ Conference Area	200	1	200				
Principal's Secretary / Waiting			0				
Assistant Principal's Office	150	1	150				
Supervisory / Spare Office	150	3	450				
Supervisory / Spare Office - Metco	100	1	100				
Conference Room	250	1	250				
Conference Room	200	2	400				
Guidance Office	170	1	170				

Proposed Space Summary- Elementary Schools

Fiske Elementary		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
Psychologist Office	125	1	125				
Guidance Storeroom			0				
Teachers' Work Room	260	1	260				
CUSTODIAL & MAINTENANCE			0				
Custodian's Office							
Custodian's Workshop							
Custodian's Storage							
Recycling Room / Trash							
Receiving and General Supply							
Storeroom							
Network / Telecom Room							
OTHER			150				
Lextended Day	150	1	150				
Total Building Net Floor Area (NFA)			50,065				
Proposed Student Capacity / Enrollment							
Total Building Gross Floor Area (GFA) ²			75,843				
Grossing factor (GFA/NFA)			1.51				

¹ Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a p

² Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification	I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies
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PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Phil Poinelli	Meeting Date:	7/2/2014
Re:	Principal Meeting –Harrington Elementary School	Meeting No:	5
Distribution:	MF (MF)		

Attendees:, Elaine Mead, Principal , Patrick Goddard / LPFD, Phil Poinelli / SMMA

DiscussionSchool/ Class Organization

- Opened in 2005, used 18 classrooms, currently using 21 rooms for instruction
 - Widened corridor areas within classroom pods was originally intended for project areas. Since there is a good deal of circulation through there, teachers on the first floor do not typically use this area. Students in the upstairs pods use the common area as a working space.
 - Tutorial rooms within the pods are not optimally used. Tutor rooms are used for storage because of the lack elsewhere. These materials create distractions for students who are working in the space. The hallway traffic can also create distractions.
 - Cafeteria is crowded and feels undersized and is undersized according to the population and MSBA guidelines
 - Indoor air quality and lighting was reported as good
 - The building is used year around
 - Lextended day operates in the building each day, primarily using the cafeteria. They have a small office that is also used for storage
 - Grade 3 classrooms are in different locations and feel isolated
 - The district wide Prekindergarten program is located at Harrington. The building was designed for that program. The Pre-K program has grown over the years and is at capacity. The program has taken over a small classroom to provide motor skills services to Lexington students who are not in the PreK full program. That space is important to the Harrington program and is desired back if alternate space can be found for the PreK program.
 - Would like an outdoor classroom
 - There is a conflict between the playground area and the traffic pattern for service vehicles
-

Curriculum

- The school hosts the Developmental Learning Program (DLP) - An inclusive special education program that serves students with developmental delays and cognitive impairments for the entire school district. There are two spaces dedicated to this program, one for lower grade level students and one for upper grade level
-

students.

- Each DLP classroom typically serves 6-8 children in an effort to be comparable to out of district programs within Lexington.
-

Areas for Improvement

- Inadequate academic storage within classrooms, also student cubbies are small for children with clothes, boots and backpacks
 - Desire for teacher planning area and conference room space.
 - Music program, especially instrumental music needs better, more space to conduct sessions
 - SPED staff need an office
 - Gym and cafeteria have no acoustical separation. Operable wall does not seal well.
 - Cafeteria is too small for the population.
 - Building lacks adequate storage space for custodial, general supplies, and curriculum materials.
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

Proposed Space Summary- Elementary Schools

Harrington Elem		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES		28,390			19		
<i>(List classrooms of different sizes separately)</i>				18,800			
Pre-Kindergarten w/ toilet	1,030	3	3,090	1,200		-	1,100 SF min - 1,300 SF max
Pre-Kindergarten w/ toilet	660	1	660	1,200	3	3,600	1,100 SF min - 1,300 SF max
Kindergarten w/ toilet	1,100	4	4,400	950	16	15,200	900 SF min - 1,000 SF max
General Classrooms - Grade 1-5	1,000	18	18,000				
Computer Classroom	1,175	1	1,175				
ELL Small Group	120	1	120				
Foreign Language Small Group	320	1	320				
Math Specialist	150	1	150				
Literacy Library	475	1	475				
SPECIAL EDUCATION		4,000			4,530		
<i>(List rooms of different sizes separately)</i>				950	3	2,850	8% of pop. in self-contained SPED
Self-Contained SPED - DLP	1,000	1	1,000	60	3	180	
Self-Contained SPED - Pre-K Gross Motor	600	2	1,200	500	2	1,000	1/2 size Genl. Clrm.
Self-Contained SPED - toilet			0	500	1	500	1/2 size Genl. Clrm.
Resource Room			0				
Small Group Room / Reading	1,000	1	1,000				
ETL	160	1	160				
Speech	160	4	640				
ART & MUSIC		2,835			2,575		
Art Classroom - 25 seats	1,270	1	1,270	1,000	1	1,000	assumed schedule 2 times / week / student
Art Workroom w/ kiln	75	1	75	150	1	150	
Art Workroom w/ Storage	135	1	135	1,200	1	1,200	assumed schedule 2 times / week / student
Music Classroom / Large Group - 25-50 seats	975	1	975	75	3	225	
Music Practice / Ensemble	90	2	180				
Music Practice / Ensemble	200	1	200				
HEALTH & PHYSICAL EDUCATION		4,425			6,300		
Gymnasium	3,975	1	3,975	6,000	1	6,000	6000 SF Min. Size
Gym Storeroom	450	1	450	150	1	150	
Health Instructor's Office w/ Shower & Toilet			0	150	1	150	
MEDIA CENTER		3,155			2,614		
Media Center / Reading Room	3,155	1	3,155	2,614	1	2,614	
DINING & FOOD SERVICE		5,945			6,524		
Cafeteria / Dining	2,650	1	2,650	3,240	1	3,240	2 seatings - 15SF per seat
Stage	1,130	1	1,130	1,000	1	1,000	
Chair / Table / Equipment Storage	200	1	200	344	1	344	
Kitchen	1,525	1	1,525	1,732	1	1,732	1600 SF for first 300 + 1 SF/student Add'l
Staff Lunch Room	440	1	440	208	1	208	20 SF/Occupant
			0				
MEDICAL		490			510		
Medical Suite Toilet	90	1	90	60	1	60	
Nurses' Office / Waiting Room	325	1	325	250	1	250	
Examination Room / Resting	75	1	75	100	2	200	
ADMINISTRATION & GUIDANCE		2,740			2,147		
General Office / Waiting Room / Toilet	485	1	485	366	1	366	
General Office - Pre-K	150	1	150	100	1	100	
Teachers' Mail and Time Room	135	1	135	150	1	150	
Duplicating Room			0	110	1	110	
Records Room			0	375	1	375	
Principal's Office w/ Conference Area	180	1	180	125	1	125	
Pre-K Director's Office	160	1	160	120	0	-	
Principal's Secretary / Waiting			0				
Assistant Principal's Office	180	1	180				
Supervisory / Spare Office			0				
Supervisory / Spare Office - METCO	150	1	150	120	1	120	
Conference Room	225	2	450	250	1	250	
Conference Room	180	1	180				
Conference Room - Pre-K	160	1	160				
Guidance Office	210	1	210	150	1	150	
Guidance Conference	300	1	300	35	1	35	
Teachers' Work Room			0	366	1	366	

Proposed Space Summary- Elementary Schools

Harrington Elem		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CUSTODIAL & MAINTENANCE			0			2,032	
Custodian's Office				150	1	150	
Custodian's Workshop				375	1	375	
Custodian's Storage				375	1	375	
Recycling Room / Trash				400	1	400	
Receiving and General Supply				244	1	244	
Storeroom				288	1	288	
Network / Telecom Room				200	1	200	
OTHER			350			0	
Lextended Day Office	350	<u>1</u>	350				
Total Building Net Floor Area (NFA)			52,330			46,032	
Proposed Student Capacity / Enrollment						432	
Total Building Gross Floor Area (GFA) ²			79,470			71,107	
Grossing factor (GFA/NFA)			1.52			1.54	

¹ Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a room.

² Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls.

Architect Certification	I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies
Name of Architect Firm: _____	
Name of Principal Architect: _____	
Signature of Principal Architect: _____	
Date: _____	

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	7/25/2014
Re:	Principal Meeting – Hastings Elementary School	Meeting No:	6
Distribution:	Report,(MF)		

Attendees:, Louise Lipsitz / Principal, Patrick Goddard / LPFD, Phil Poinelli / SMMA, Kate Jessup / SMMA

Discussion

School/ Class Organization

- SOI submitted in January 2014. The school is the only one in the district that has not been substantially renovated or replaced. The SOI identified numerous issues that face the building that can affect teaching and learning. Specifically, the SOI was submitted for: #2 - Elimination of existing severe overcrowding; #5 - Replacement, renovation or modernization of school facility systems; #7 - Replacement or addition to obsolete building....
- Current enrollment: 420 students
- Sections: 3 x Kindergarten, 3 x 1st grade, 4 x 2nd grade, 3 x 3rd grade, 4 x 4th grade, 4 x 5th grade
- Campus contains 8 modular classrooms (4 from the 1995 and 4 from 2000)
- Special education district program: ILP mild-moderate autism spectrum disorder with focus on those with issues around speech and language. Contains estimated 30 students each year. Concern for general education students moving on to Diamond Middle School and the ILP program going to Clarke. ILP community is sensitive and routed in routine so separating them from the peers that they have gotten accustomed to can be difficult. Would like to reconsider separating them from their general education peers, possibly moving to middle school together.
- Typical classrooms are about 860-900 sq. ft. and one of the kindergarten classrooms does not have a bathroom. All of the other space (art, music, etc.) are undersized
- District teaches elementary students based on workshop model. The Hastings classroom size and configuration is not ideal for the workshop model. Would like more storage associated with each classroom to provide more space within the rooms. Need more space for movement during instructional times. Better furniture would also improve the classrooms.
- Students use laptop and ipad carts rather than a stationary computer lab. The building lacks storage space for the carts in locations where they can be easily accessed for instruction.

Curriculum

- The literacy library is a closet and cannot be relocated to the literacy center because the center is too small. Students receive intervention in the center.
 - Special education spaces are undersized
-

- The facility does not meet the space needs or equity with the rest of the Lexington elementary schools for the core curriculum.
- When asked by the interviewer about an interest of having an outdoor classroom, the response was it would be “nice to have” not a “must have”.

- Lextended Day has a trailer that connects to the cafeteria which houses storage and an office for their after school program. There is no dedicated space for the over 100 children from TWO schools who attend Lextended Day at Hastings. The result is that the professional meetings that take place after school cannot be held in the cafeteria where Lextended Day is run.
- There is no space for DATA Team meetings, conferences.
- The Health Room is inadequate.
- The psychologist and METCO social worker share a space.
- Several small groups spaces are accessed by one door, meaning that children must pass through one space to get to another.
- Over 30 students meet with special education teachers in one space.
- The Guidance Room is inadequate.
- The building is undersized for the current enrollment. With an anticipated population increase, the overcrowding and lack of adequate facilities will stress the school further.
- Given the clear need for additional space on Lexington for increasing enrollment at the elementary level, it is critical that any document written to address these needs indicates the need for an updated and enlarged facility on the Hastings site.

Areas for Improvement

NEED, a facility that enables staff, students and the community to participate in an education equitable with the other schools in the Town of Lexington.

Desire for a maker-space to improve project based learning

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

Proposed Space Summary- Elementary Schools

Hastings Elem		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			18,760				
(List classrooms of different sizes separately)							
Pre-Kindergarten w/ toilet				1,200		-	1,100 SF min - 1,300 SF max
Kindergarten w/ toilet	1,140	2	2,280	1,200	3	3,600	1,100 SF min - 1,300 SF max
Kindergarten	865	1	865	950	15	14,250	900 SF min - 1,000 SF max
General Classrooms - Grade 1-5	865	12	10,380				
General Classrooms - Grade 1-5	890	2	1,780				
General Classrooms - Grade 1-5	825	4	3,300				
ELL Small Group Room	155	1	155				
SPECIAL EDUCATION			4,180				
(List rooms of different sizes separately)							
Self-Contained SPED - ILP	825	2	1,650	950	3	2,850	8% of pop. in self-contained SPED
Self-Contained SPED - toilet			0	60	3	180	
Resource Room	860	1	860	500	2	1,000	1/2 size Genl. Crrm.
OT	550	1	550				
Math Coach/SPED Office	550	1	550				
Small Group Room / Speech and Language	160	2	320	500	1	500	1/2 size Genl. Crrm.
ETS Office / Small Group	250	1	250				
ART & MUSIC			1,690				
Art Classroom - 25 seats	825	1	825	1,000	1	1,000	assumed schedule 2 times / week / student
Art Workroom w/ Storage & kiln			0	150	1	150	
Music Classroom / Large Group - 25-50 seats	865	1	865	1,200	1	1,200	assumed schedule 2 times / week / student
Music Practice / Ensemble			0	75	3	225	
HEALTH & PHYSICAL EDUCATION			3,875				
Gymnasium	3,650	1	3,650	6,000	1	6,000	6000 SF Min. Size
Gym Storeroom	225	1	225	150	1	150	
Health Instructor's Office w/ Shower & Toilet			0	150	1	150	
MEDIA CENTER			0				
Media Center / Reading Room	1,500		0	2,574	1	2,574	
DINING & FOOD SERVICE			6,180				
Cafeteria / Dining	3,000	1	3,000	3,173	1	3,173	2 seatings - 15SF per seat
Stage	1,100	1	1,100	1,000	1	1,000	
Chair / Table / Equipment Storage			0	341	1	341	
Kitchen	1,600	1	1,600	1,723	1	1,723	1600 SF for first 300 + 1 SF/student Add'l
Staff Lunch Room	480	1	480	206	1	206	20 SF/Occupant
			0				
MEDICAL			240				
Medical Suite Toilet			0	60	1	60	
Nurses' Office / Waiting Room	240	1	240	250	1	250	
Examination Room / Resting			0	100	2	200	
ADMINISTRATION & GUIDANCE			1,590				
General Office / Waiting Room / Toilet			0	362	1	362	
Teachers' Mail and Time Room			0	100	1	100	
Duplicating Room			0	150	1	150	
Records Room			0	110	1	110	
Principal's Office w/ Conference Area	300	1	300	375	1	375	
Principal's Secretary / Waiting	150	1	150	125	1	125	
Assistant Principal's Office	250	1	250	120	0	-	
Supervisory / Spare Office - Psychologist	160	1	160	120	1	120	
Conference Room			0	250	1	250	
Guidance Office	200	1	200	150	1	150	
Guidance Storeroom			0	35	1	35	
Teachers' Work Room	530	1	530	362	1	362	
CUSTODIAL & MAINTENANCE			0				
Custodian's Office			0	150	1	150	
Custodian's Workshop			0	375	1	375	
Custodian's Storage			0	375	1	375	
Recycling Room / Trash			0	400	1	400	
Receiving and General Supply			0	241	1	241	
Storeroom			0	282	1	282	

Proposed Space Summary- Elementary Schools

Hastings Elem		Existing Conditions		
<u>ROOM TYPE</u>	ROOM NFA ¹	# OF RMS	area totals	
Network / Telecom Room				
OTHER			1,530	
Lextended Day	130	<u>1</u>	130	
Lextended Day Office/Storage Tralier	1,400	<u>1</u>	1,400	
Total Building Net Floor Area (NFA) ²			38,045	
Proposed Student Capacity / Enrollment				
Total Building Gross Floor Area (GFA) ²			64,982	
Grossing factor (GFA/NFA)			1.71	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
200	1	200	
		0	
		44,942	
		423	
		70,070	
		1.56	

¹ Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a p

² Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification	I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies
Name of Architect Firm: _____	
Name of Principal Architect: _____	
Signature of Principal Architect: _____	
Date: _____	

Proposed Space Summary- Elementary Schools

Central Administration Building (Old Harrington)		Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	
CORE ACADEMIC SPACES		12,965		
(List classrooms of different sizes separately)				
Pre-Kindergarten w/ toilet			0	
Pre-Kindergarten w/ toilet			0	
Kindergarten w/ toilet	830	2	1,660	
Kindergarten w/ toilet	1,170	2	2,340	
General Classrooms - Grade 1-5	815	11	8,965	
General Classrooms - Grade 1-5	0	0	0	
General Classrooms - Grade 1-5	0	0	0	
General Classrooms - Grade 1-5	0	0	0	
SPECIAL EDUCATION		1,815		
(List rooms of different sizes separately)				
Self-Contained SPED - DLP			0	
Self-Contained SPED - Pre-K Gross Motor			0	
Self-Contained SPED - toilet			0	
Resource Room	730	1	730	
	815	1	815	
Small Group Room / Reading	270	1	270	
ETL			0	
Speech			0	
ART & MUSIC		1,880		
Art Classroom - 25 seats	930	1	930	
Art Workroom w/ kiln			0	
Art Workroom w/ Storage			0	
Music Classroom / Large Group - 25-50 seats	950	1	950	
Music Practice / Ensemble			0	
Music Practice / Ensemble			0	
HEALTH & PHYSICAL EDUCATION		0		
Gymnasium			0	
Gym Storeroom			0	
Health Instructor's Office w/ Shower & Toilet			0	
MEDIA CENTER		1,630		
Media Center / Reading Room	815	2	1,630	
DINING & FOOD SERVICE		3,499		
Cafeteria / Dining	2,472	1	2,472	
Stage	860	1	860	
Chair / Table / Equipment Storage			0	
Kitchen			0	
Staff Lunch Room	167	1	167	
			0	
MEDICAL		0		
Medical Suite Toilet			0	
Nurses' Office / Waiting Room			0	
Examination Room / Resting			0	
ADMINISTRATION & GUIDANCE		2,301		
General Office / Waiting Room / Toilet	388	1	388	
General Office - Pre-K			0	
Teachers' Mail and Time Room	250	1	250	
Duplicating Room			0	
Records Room	89	1	89	
Principal's Office w/ Conference Area	366	1	366	
Principal's Secretary / Waiting			0	
Assistant Principal's Office			0	
Supervisory / Spare Office			0	
Supervisory / Spare Office	150	2	300	
Conference Room	600	1	600	
Conference Room			0	
Conference Room - Pre-K			0	
Guidance Office	308	1	308	
Guidance Conference			0	
Teachers' Work Room			0	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
	14	14,050	
1,200		-	1,100 SF min - 1,300 SF max
1,200	3	3,600	1,100 SF min - 1,300 SF max
950	11	10,450	900 SF min - 1,000 SF max
		4,530	
950	3	2,850	8% of pop. in self-contained SPED
60	3	180	
500	2	1,000	1/2 size Genl. Clrm.
500	1	500	1/2 size Genl. Clrm.
		2,500	
1,000	1	1,000	assumed schedule 2 times / week / student
150	1	150	
1,200	1	1,200	assumed schedule 2 times / week / student
75	2	150	
		6,300	
6,000	1	6,000	6000 SF Min. Size
150	1	150	
150	1	150	
		2,110	
2,110	1	2,110	
		5,527	
2,400	1	2,400	2 seatings - 15SF per seat
1,000	1	1,000	
307	1	307	
1,620	1	1,620	1600 SF for first 300 + 1 SF/student Add'l
200	1	200	20 SF/Occupant
		510	
60	1	60	
250	1	250	
100	2	200	
		2,035	
310	1	310	
100	1	100	
150	1	150	
110	1	110	
375	1	375	
125	1	125	
120	0	-	
		120	
250	1	250	
		150	
35	1	35	
310	1	310	

Proposed Space Summary- Elementary Schools

Central Administration Building (Old Harrington)		Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	
CUSTODIAL & MAINTENANCE			0	
Custodian's Office				
Custodian's Workshop				
Custodian's Storage				
Recycling Room / Trash				
Receiving and General Supply				
Storeroom				
Network / Telecom Room				
OTHER			0	
Extended Day Office				
Total Building Net Floor Area (NFA)			24,090	
Proposed Student Capacity / Enrollment				
Total Building Gross Floor Area (GFA) ²			49,734	
Grossing factor (GFA/NFA)			2.06	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
		1,920	
150	1	150	
375	1	375	
375	1	375	
400	1	400	
207	1	207	
213	1	213	
200	1	200	
		0	
		39,482	
		320	
		56,853	
		1.44	

¹ Individual Room Net Floor Area (NFA) Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a room.

² Total Building Gross Floor Area (GFA) Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification
<p>I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and</p> <p style="text-align: center;">Name of Architect Firm: _____</p> <p style="text-align: center;">Name of Principal Architect: _____</p> <p style="text-align: center;">Signature of Principal Architect: _____</p> <p style="text-align: center;">Date: _____</p>

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	7/15/2014
Re:	Principal Meeting – Clarke Middle School	Meeting No:	7
Distribution:	MF (MF)		

Attendees: Anna Monaco / Principal, Jennifer Turner / Assistant Principal, Jonathon Wettstone / Assistant Principal, Pat Goddard / LPFD, Phil Poinelli / SMMA, Kate Jessup / SMMA

Discussion

School/ Class Organization

- 2013-2014 school year: est. 860 students – largest population accommodated at the school. School feels overcrowded especially in hallways, stairs, and the cafeteria.
- 2014-2015 est. 824 students.
- Feeder schools: Bridge, Bowman, and Harrington
- Serves students grade 6-8 and has 3 teams per grade (last year half team was created for larger grade size)
- Teams are 80-100 students. Target 85 which creates class sizes that are 20-22 students per class.
- Passing time is 4 minutes. Because most academic spaces are on the third floor, this works effectively for distances with most crowding occurring in the stairwells which only have a single door for both up and down traffic. Administration has dedicated certain stairs to be either up or down only to alleviate congestion.
- The schedule is developed to allow for room sharing. This is working well however because of the physical shape of the classrooms, sharing bulletin boards is difficult
- Lack of dedicated foreign language classrooms means that teachers utilize other types of classrooms and consequently full immersion is difficult.
- Communal teacher work room fosters creativity and collaboration
- Lack of dedicated music space means that music spaces get shuffled throughout the building in addition to the 2 classrooms and auditorium.
- Room 318 – large unused central space with a ring of SPED resource rooms around the perimeter. This central space is used only as circulation to get into the resource rooms. There are concerns about the privacy for teachers to occupy the space. There are distractions and concerns about quality teaching being able to be conducted in the space. An effort for the teachers to use the space as a community office space was not enforced.
- Chinese Language School rents the building on Sundays.
- Each student has a gym locker room. Students do not shower – by choice (except teachers who use the gym after hours). Would like a renovation that would accommodate staff shower areas. Student shower areas could be limited.
- ELL program is estimated 30 students at all levels. Typically these students meet in groups of 10.

Curriculum

- Teams consist of core classes (English, Social Studies, Science, and Math)
 - Schedule consists of 33 blocks. Teachers are required by contract to work for 24 of those blocks.
 - Study hall is held in the main office conference room and serves students whose schedule requirements leave them an empty class. Administration would prefer not to have study hall at all. Sometimes up to 10 students are in the conference room during this time. It is not efficient for either teachers or students.
 - Students enroll in core classes, foreign language, and exploratory classes (formerly called electives) Exploratory classes include art, music, PE, drama, etc. and are off team.
 - Exploratory offerings:
 - 6th and 8th grade students have engineering and design for one semester
 - Technology is offered for student's grade 6-8 for one semester. Students learn about the internet, research techniques, management, blogging, digital citizenship and some coding (8th graders only)
 - Engineering and science teachers work together. They are working towards STEM.
 - Current teaching is more content driven and less project based learning. The teachers believe in creating a common experience for all students and differentiating the teaching from the same concept. Differentiation is done between individual subjects. e.g. English teachers will meet to discuss how to differentiate teacher styles to meet the different needs of different students, specifically and generally.
 - Created a laid back lunch which can serve any student looking for a more quiet smaller scale lunch environment but has been very successful for students with autism. Due to increase in recent populations and lack of cafeteria space, the laid back lunch space has been partially taken back to serve other students.
 - ILP – (Intensive Learning Program) SPED program is currently serving 22 students on the autism spectrum. Currently occupies one triangular classroom and portion of corridor. The existing folding partition wall makes space not acoustically separated from adjacent classrooms. Students in this program move on to the new pre-fabricated classrooms at the high school.
 - DLP – (Developmental Learning Program) SPED program serving students with cognitive disabilities. Serves 22 students currently. Life skills program.
 - Multiple levels of math per team makes scheduling challenges.
 - Foreign Language: students have an option of French, Spanish, or Mandarin. They make the selection in 6th grade and must take that same selection for 3 years.
-

Areas for Improvement

- Laid back lunch to be refined and partially separated to serve sensitive student populations
- Shared common space much like the Estabrook Elementary "front porch" would be an ideal way to design a new school – would like to incorporate ideas like this into a new space.
- Foldable partitions do not provide acoustic separation and are almost never opened by teachers. Partitions in the auditorium do not work at all.

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these

Project Minutes.

Proposed Space Summary - Middle Schools

Clarke Middle		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES		34,490			36,510		
(List classrooms of different sizes separately)							
Classroom - General	730	18	13,140	950	29	27,550	850 SF min - 950 SF max
Classroom - General	770	4	3,080				
Classroom - General	900	4	3,600				
Classroom - General	0	1	0				
Classroom - General	750	3	2,250				
Classroom - General	800	1	800				
Classroom - General - Learning Center	300	1	300				
Classroom - ELL	280	1	280				
Classroom - Computers	975	1	975				
Science Classroom / Lab	1,040	6	6,240				
Science Classroom / Lab	1,025	3	3,075				
Prep Room	Varies	4	750				
SPECIAL EDUCATION		7,750			9,060		
(List classrooms of different sizes separately)							
Self-Contained SPED ILP	920	1	920	950	6	5,700	assumed 8% of pop. in self-contained SPED
Self-Contained SPED TLP	Varies	3	1,010				
Self-Contained SPED DLP	900	1	900				
SPED Admin	180	1	180				
Resource Room	240	7	1,680				
Resource Room Common Area	1,175	1	1,175				
OT small group and office	95	2	190				
Small Group Room / Reading - SPED	85	1	85				
Small Group Room / Reading - SPED	180	1	180				
Small Group Room / Reading Gen Ed	730	1	730				
Small Group Room / Speech and Language	700	1	700				
ART & MUSIC		5,542			4,800		
Art Classroom	1,032	1	1,032	1,200	2	2,400	assumed use - 50% population 2 times / week
Art Classroom	935	1	935				
Art Workroom w/ Storage & kiln	585	1	585				
Band / Chorus - 100 seats	1,100	1	1,100	150	2	300	
Band / Chorus - 100 seats	1,075	1	1,075	1,500	1	1,500	assumed use - 50% population 2 times / week
Drama Storage	225	1	225				
Music Practice / Ensemble	140	1	140				
Music Office	100	1	100				
Instrument Storage	350	1	350				
VOCATIONS & TECHNOLOGY		1,600			6,400		
Tech Clrm. - (E.G. Drafting, Business)	800	2	1,600	1,200	2	2,400	Assumed use - 25% Population - 5 times/week
Tech Shop - (E.G. Consumer, Wood)			0	2,000	2	4,000	Assumed use - 25% Population - 5 times/week
HEALTH & PHYSICAL EDUCATION		13,700			8,400		
Gymnasium	7,010	1	7,010	6,000	1	6,000	
Fitness Center	1,875	1	1,875				
Gym Storeroom	Varies	3	775	150	1	150	
Health Instructor's Office w/ Shower & Toilet			0	250	1	250	
Locker Rooms - Girls w/ Toilets	2,040	1	2,040	1,000	2	2,000	
Locker Rooms - Boys w/ Toilets	2,000	1	2,000				
MEDIA CENTER		5,125			5,015		
Media Center / Reading Room	4,975	1	4,975	5,015	1	5,015	
Media Center Conference	150	1	150				
DINING & FOOD SERVICE		15,228			10,521		
Cafetorium / Dining	4,150	1	4,150	6,045	1	6,045	2 seatings - 15SF per seat
Auditorium	5,313	1	5,313				
Stage	2,150	1	2,150				
Chair / Table / Equipment Storage			0				
Kitchen	3,000	1	3,000	1,600	1	1,600	
Staff Lunch Room	615	1	615	468	1	468	
MEDICAL		680			710		
Medical Suite Toilet			0	2,106	1	2,106	1600 SF for first 300 + 1 SF/student Add'l
Nurses' Office / Waiting Room	680	1	680	302	1	302	20 SF/Occupant
Examination Room / Resting			0				
ADMINISTRATION & GUIDANCE		5,255			3,906		
General Office / Waiting Room / Toilet	725	1	725	503	1	503	

Proposed Space Summary - Middle Schools

Clarke Middle		Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	
Teachers' Mail and Time Room			0	
Duplicating Room			0	
Records Room			0	
Principal's Office w/ Conference Area	240	1	240	
Principal's Secretary / Waiting			0	
Assistant Principal's Office - AP1	235	1	235	
Assistant Principal's Office - AP2	135	2	270	
Supervisory / Spare Office - Social Worker	85	1	85	
Supervisory / Spare Office - Social Worker	175	1	175	
Conference Room	220	1	220	
Guidance Office	100	3	300	
Guidance Waiting Room	320	1	320	
Guidance Storeroom			0	
Dept Head Office	215	1	215	
Teacher Work Room	2,350	1	2,350	
Psych Office	120	1	120	
CUSTODIAL & MAINTENANCE			0	
Custodian's Office			0	
Custodian's Workshop			0	
Custodian's Storage			0	
Recycling Room / Trash			0	
Receiving and General Supply			0	
Storeroom			0	
Network / Telecom Room			0	
OTHER			0	
Other (specify)				
Total Building Net Floor Area (NFA)			89,370	
Proposed Student Capacity / Enrollment				
Total Building Gross Floor Area (GFA) ²			133,200	
Grossing factor (GFA/NFA)			1.49	

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
100	1	100	
200	1	200	
200	1	200	
375	1	375	
125	1	125	
150	1	150	
150	1	150	
150	1	150	
150	1	150	
150	1	150	
350	1	350	
150	5	750	
100	1	100	
50	1	50	
553	1	553	
			2,281
150	1	150	
250	1	250	
375	1	375	
400	1	400	
368	1	368	
538	1	538	
200	1	200	
			0
			87,602
			806
			128,960
			1.47

¹ Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular pro

² Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	7/29/2014
Re:	Principal Meeting – Diamond Middle School	Meeting No:	8
Distribution:	MF (MF)		

Attendees: Anne Carothers / Principal, Bayard Klimasmith / Assistant Principal, Patrick Goddard / LPFD, Phil Poinelli / SMMA, Kate Jessup / SMMA

DiscussionSchool/ Class Organization

- Renovated in 2001
- 790 students at the school. 3 teams per grade. Each is made up of 85-90 students which meet with each on-team subject 5 times per week (ELA, science, social studies and math).
- Most teachers have a dedicated classroom, so teachers do not usually share space. Many classrooms do not host classroom instruction for 1 – 3 blocks per day; they are used for teacher planning and meetings during this time.
- Faculty room is under-used, as it is no longer centrally located (given renovations).
- Teams consisting of Math, SS, and ELA are grouped together throughout the school in order to foster collaboration. Science classrooms are grouped together, due to special room requirements of curriculum.
- Foreign language teachers share classrooms with each other. 2 teacher desks are added to these classrooms.
- Would like to increase the size and use of the aerobics room. Classroom is not large enough to have 24 students in the same place. Current schedule sometimes require that 3 PE classes are taking place at the same time so one full class is required to be in the fitness room.
- German School rents the building on Saturdays and consequently require dedicated storage space in the building which takes away from school storage in two areas.

Curriculum

- Library is becoming a “learning commons”: a flexible space designed for multiple kinds of use, and supported by flexible access to various forms of media/technology. Through certain design changes (like putting many bookshelves on wheels), a variety of project, meeting, performance and learning spaces can be created.
- SPED programs: LLP (Language Learning Program) ILP (Intensive Learning Program), TLP (Therapeutic Learning Program, and resource support.
- Band, Orchestra, and Chorus drive many scheduling decisions because of the traveling teachers, and room

size and location requirements.

- Music program is very important to the school and the community. Historically, students have been allowed to split the elective offering, and so been able to take any 2 of these performance offerings 1 day a week (in place of one offering 2 days a week).
 - ICE block was created which provides a time for student choice and enrichment once per week. School is beginning to add an intervention component, to address student needs.
 - Each team meets at least once weekly to discuss student progress and team business. Each content area team meets weekly to discuss, plan and develop curriculum and assessment.
 - Not sharing classrooms allows teams to be grouped together geographically (home within school). It also allows room set-up and decoration to be specific to curriculum and student needs. This can help foster “middle school model” (vs junior high model).
-

Areas for Improvement

- A more centrally located faculty area would help build community and increase faculty conversation. If teachers needed to share classroom spaces, then one or more quality teacher “office” area(s) would need to be created.
 - Adult office spaces are lacking. Temporary intermediary spaces are being carved out of existing offices to accommodate the professional staff.
 - Principal and Vice Principal’s offices are not acoustically isolated and it is a concern for privacy.
 - Building lacks space for interventionists
 - Building lacks a conference room for meetings; principal’s office doubles as only conference space.
 - Stage is too small to comfortably house orchestra and band groups
 - Adjunct music spaces are too small to comfortably housed band or orchestra either
 - When band uses drama room, drama classes must travel to other spaces
 - Cafeteria space is not good as teaching / performance space, and so is not used during parts of the day
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

Proposed Space Summary - Middle Schools

Diamond Middle		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments	
CORE ACADEMIC SPACES			37,155			35,560		
<i>(List classrooms of different sizes separately)</i>								
Classroom - General (6 portables)	775	6	4,650	950	28	26,600	850 SF min - 950 SF max	
Classroom - General	680	17	11,560					
Classroom - General	725	1	725					
Classroom - General	825	2	1,650					
Classroom - General	740	11	8,140					
classroom total		37		incl FL				
Classroom - General - Learning Center			0					
Classroom - ELL	460	1	460					
Classroom - Gen Ed Intervention	360	1	360					
Classroom - Computers	850	1	850				850 SF min - 950 SF max	
Science Classroom / Lab	1,000	2	2,000	1,200	7	8,400	1 period / day / student	
Science Classroom / Lab	830	1	830					
Science Classroom / Lab	860	1	860					
Science Classroom / Lab	680	1	680					
Science Classroom / Lab	890	2	1,780					
Science Classroom / Lab	965	2	1,930					
Science total		9						
Prep Room	350	1	350	80	7	560		
Prep Room	230	1	230					
Chem Storage	100	1	100					
SPECIAL EDUCATION			6,095			9,060		
<i>(List classrooms of different sizes separately)</i>								
Self-Contained SPED	1,000	1	1,000	950	6	5,700	assumed 8% of pop. in self-contained SPED	
Self-Contained SPED ILP	1,900	1	1,900					
Self-Contained SPED Toilet			0	60	6	360		
SPED Admin			0					
Resource Room	500	2	1,000	500	4	2,000	1/2 size Genl. Clrm.	
Resource Room Common Area			0					
ETS SPED Director Office	270	1	270	500	2	1,000	1/2 size Genl. Clrm.	
Small Group Room / Reading - SPED	350	4	1,400					
Small Group Room / Reading - SPED	175	3	525					
Small Group Room / Reading Gen Ed			0					
Small Group Room / Speech and Language			0					
ART & MUSIC			4,320			4,600		
Art Classroom	900	1	900	1,200	2	2,400	assumed use - 50% population 2 times / week	
Art Classroom	1,000	1	1,000					
Art Workroom w/ Storage & kiln			0	150	2	300		
Band / Chorus - 100 seats	1,250	1	1,250	1,500	1	1,500	assumed use - 50% population 2 times / week	
Band / Chorus - 100 seats	930	1	930					
Drama Storage			0					
Music Practice / Ensemble	80	3	240	200	2	400		
Music Office			0					
Instrument Storage			0					
VOCATIONS & TECHNOLOGY			825			6,400		
Tech Clrm. - (Computers)	825	1	825	1,200	2	2,400	Assumed use - 25% Population - 5 times/week	
Tech Shop - (E.G. Consumer, Wood)			0	2,000	2	4,000	Assumed use - 25% Population - 5 times/week	
HEALTH & PHYSICAL EDUCATION			12,200			8,400		
Gymnasium	6,950	1	6,950	6,000	1	6,000		
Fitness Center	850	1	850					
Gym Storeroom			0	150	1	150		
Health Instructor's Office w/ Shower & Toilet	200	2	400	250	1	250		
Locker Rooms - Girls w/ Toilets	2,000	1	2,000	1,000	2	2,000		
Locker Rooms - Boys w/ Toilets	2,000	1	2,000					
MEDIA CENTER			3,150			4,940		
Media Center / Reading Room	3,150	1	3,150	4,940	1	4,940		
DINING & FOOD SERVICE			11,220			10,403		
Cafetorium / Dining	3,000	1	3,000	5,948	1	5,948	2 seatings - 15SF per seat	
Auditorium	4120	1	4120					
Stage	1,300	1	1,300	1,600	1	1,600		
Chair / Table / Equipment Storage			0	464	1	464		
Kitchen	2,400	1	2,400	2,093	1	2,093	1600 SF for first 300 + 1 SF/student Add'l	
Staff Lunch Room	400	1	400	298	1	298	20 SF/Occupant	
MEDICAL			590			710		
Medical Suite Toilet			0	60	1	60		
Nurses' Office / Waiting Room	590	1	590					
Examination Room / Resting			0	250	1	250		
			0	100	4	400		

Proposed Space Summary - Middle Schools

Diamond Middle		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments	
ADMINISTRATION & GUIDANCE			3,325			3,743		
General Office / Waiting Room / Toilet	650	1	650	497	1	497		
Teachers' Mail and Time Room			0	100	1	100		
Duplicating Room			0	200	1	200		
Records Room			0	200	1	200		
Principal's Office w/ Conference Area	250	1	250	375	1	375		
Principal's Secretary / Waiting			0	125	1	125		
Assistant Principal's Office - AP1	200	1	200	150	1	150		
Assistant Principal's Office - AP2	200	1	200	150	1	150		
Supervisory / Spare Office	Varies	5	1,000	150	1	150		
Supervisory / Spare Office - ETS	270	1	270	150	1	150		
Supervisory / Spare Office	140	2	280	350	1	350		
Conference Room			0	150	4	600		
Guidance Office			0	100	1	100		
Guidance Waiting Room			0	50	1	50		
Guidance Storeroom			0	547	1	547		
Teachers' Work Room	475	1	475			2,268		
CUSTODIAL & MAINTENANCE			0	150	1	150		
Custodian's Office			0	250	1	250		
Custodian's Workshop			0	375	1	375		
Custodian's Storage			0	400	1	400		
Recycling Room / Trash			0	364	1	364		
Receiving and General Supply			0	529	1	529		
Storeroom			0	200	1	200		
Network / Telecom Room			0			0		
OTHER			4,120			86,084		
Other (specify)						793		
Auditorium	4,120	1	4,120			126,880		
Total Building Net Floor Area (NFA) ²			83,000				1.47	
Total Building Gross Floor Area (GFA) ²			131,091					
Grossing factor (GFA/NFA)			1.58					

¹ Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular p

² Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification	
<p>I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the</p> <hr/> <hr/> <hr/>	

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Phil Poinelli	Meeting Date:	7/2/2014
Re:	Principal Meeting – Lexington High School	Meeting No:	9
Distribution:	MF (MF)		

Attendees:, Laura Lasa, Principal , Mark Barrett / LFD, Phil Poinelli / SMMA

DiscussionSchool/ Class Organization

- The school enrollment is growing and everyone feels it. The 2014 - 2015 school year has an enrollment of approximately 2,100 students, with an anticipated increase of 66-80 students in 2015-2016. The outgoing class size is 480 students, the incoming class is 560 students
 - There is a goal to divide the student population into smaller communities. There are four deans, each with 500+ students. They are assigned by building / homeroom
 - There is a desire to develop schools within the school without calling it that
 - The modularly built classrooms being built over the summer will go a long way to relieving overcrowding as well as housing incoming students in the ILP program, primarily for students on the autism spectrum. This is expected to be a growing population.
 - A very strong academic school with an emphasis and pressure for all students to go to college
 - No technology offerings for hands on and tactile learning. Would like to develop some but there are no concrete plans for the near future
 - Classes are 50, 55, or 60 minutes long, arranged in 6 or 7 periods per day (varies by day) - not rotating
 - Core curriculum courses meet four times per week
 - Three lunch periods per day - there is open campus so some students go off site for lunch
 - Class size target for most classes is 25 students. Level 2 classes have a target of 15 to 18 students per class
 - The schedule as currently constructed has limitations on the ability to develop a wider variety of curriculum offerings
 - The school provides space for the LABBB program and has done so for many years. This is a collaborative program serving Lexington and other towns in s substantially separate program.
 - The school is strongly department based. There are a number of departmental work rooms where all teachers within the department have a desk (home base). The rooms are arranged differently from each other, but done so by the desire of the teachers.
-
-

Curriculum

- Minimal electives in science, would like to develop more
 - Although the school has technology including a good wireless network, the curriculum and practice often does not reflect the 21st C digital age
 - Some students complete "projects" instead of final exams
 - There is not a great deal of interdisciplinary course work. The exception is Freshman history and English, a teamed approach
 - Many teachers are interested in the ideas of interdisciplinary course work but few are actively working in that direction due to time constraints
 - Classes are conducted around the 4C's: Communication, Collaboration, Creativity, Critical Thinking and Problem Solving. But classes are not cross curricular.
-

Areas for Improvement

- Many / most of the classrooms are undersized. The one piece units will be replaced by 2015-2016. This makes it difficult to arrange classrooms for discussion and collaboration. this maybe the biggest shortcoming of the high school building.
 - Campus design of the school is difficult in many ways: passing time, the need to go outdoors in cold and inclement weather, difficult internal circulation within the free standing classroom buildings
 - Science areas are outdated. Prep rooms are small and configured is ways that don't support prep well.
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

Proposed Space Summary - High Schools

Most information contained in this chart was collected from the 2009 Master Plan study conducted by DPC

Lexington High School		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES		76,312			100,620 -24,308		
(List classrooms of different sizes separately)							
Classroom - General				850	72	61,200	825 SF min - 950 SF max
Permanent	775	9	6,975				
	700	23	16,100				
	725	4					
	675	2					
	650	7	4,550				
	600	1	600				
	575	13	7,475				
	1,150	2	2,300				
	500	11	5,500				
	450	0	0				
		72					
Modular construction (2014)	825	10	8,250				
Total Gen Ed Classrooms		82	51,750				
Teacher Planning				100	72	7,200	
Small Group Seminar (20-30 seats)				500	5	2,500	
Science Classroom / Lab				1,440	18	25,920	3 x85% ut=20 Seats-1 per /day/student
	1,180	1	1,180				
	1,070	4	4,280				
	1,000	1	1,000				
	775	2	1,550				
	890	3	2,670				
	950	3	2,850				
	1,065	1	1,065				
	820	1	820				
	1,030	6	6,180				
Total Science		22	21,595				
Prep Room	180	10	1,800	200	18	3,600	
	822	1	822				
	225	1	225				
	120	1	120				
Total Science Prep		13	2,967	200	1	200	
Central Chemical Storage Rm							
SPECIAL EDUCATION		22,740			21,150 1,590		
(List classrooms of different sizes separately)							
Self-Contained SPED	500	5	2,500	950	15	14,250	assumed 8% of pop. in self-contained SPED
	575	1	575				
	700	3	2,100				
	650	2	1,300				
	665	2	1,330				
	775	1	775				
	665	2	1,330				
Modular	600	2	1,200				
Modular	825	1	825				
Modular	850	1	850				
Modular	560	1	560				
LABBB	700	2	1,400				
LABBB	500	8	4,000				
LABBB Office/Admin/Support	3,995	1	3,995				
Self-Contained SPED Toilet				60	15	900	
Resource Room				500	6	3,000	1/2 size Genl. Clrm.
Small Group Room				500	6	3,000	1/2 size Genl. Clrm.
ART & MUSIC		11,925			9,850 2,075		
Art Classroom - 25 seats				1,200	4	4,800	Assumed use - 25% Population - 5 times/week
	1,125	2	2,250				
	1,000	2	2,000				
	1,375	1	1,375				
Art Workroom w/ Storage & kiln	Varies	2	575	150	4	600	
Dark Room	630	1	630				
Band - 50 - 100 seats	1,850	1	1,850	1,500	1	1,500	Assumed use - 25% Population - 5 times/week
Chorus - 50 - 100 seats				1,500	1	1,500	
Music	700	2	1,400				
Music Office	575	1	575	200	1	200	
Ensemble				75	10	750	
Music Practice	120	2	240				
Music Practice	90	2	180				
Music Storage	850	1	850	500	1	500	
VOCATIONS & TECHNOLOGY		0			22,400 -22,400		
Tech Clrm. - (E.G. Drafting, Business)				1,200	7	8,400	Assumed use - 50% Population - 5 times/week
Tech Shop - (E.G. Consumer, Wood)				2,000	7	14,000	Assumed use - 50% Population - 5 times/week
HEALTH & PHYSICAL EDUCATION		63,253			27,999 35,254		
Gymnasium	11,435	1	11,435	12,000	1	12,000	
Field House	35,700	1	35,700				
PE Alternatives	4,100	1	4,100	3,000	1	3,000	
Gym Storeroom				300	1	300	
Locker Rooms - Boys / Girls w/ Toilets	5,020	1	5,020	11,799	1	11,799	5.6 sf/student total
	4,600	1	4,600				
Phys. Ed. Offices	400	2	800				
Phys. Ed. Storage	569	2	1,138	500	1	500	
Athletic Director's Office	230	2	460	150	1	150	
Health Instructor's Office w/ Shower & Toilet			0	250	1	250	
MEDIA CENTER		8,575			13,069 -4,494		
Media Center / Reading Room	8,575	1	8,575	13,069	1	13,069	
Computer Lab							
AUDITORIUM / DRAMA		15,750			10,400 5,350		
Auditorium	9,400	1	9,400	7,500	1	7,500	2/3 Enrollment @ 10 SF/Seat - 750 seats MAX
Stage	1,800	1	1,800	1,600	1	1,600	
Perf Arts	1,850	1	1,850				
Perf Arts	1,575	1	1,575				
Auditorium Storage	925	1	925	500	1	500	
Make-up / Dressing Rooms				300	2	600	
Controls / Lighting / Projection	200	1	200	200	1	200	

Proposed Space Summary - High Schools

Most information contained in this chart was collected from the 2009 Master Plan study conducted by DPC

Lexington High School		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
DINING & FOOD SERVICE			14,380			15,996	-1,616
Cafeteria / Student Lounge / Break-out	4,850	1	4,850	10,535	1	10,535	3 seatings - 15SF per seat
	3,900	1	3,900	677	1	677	
Chair / Table Storage				600	1	600	
Scramble Serving Area				3,407	1	3,407	1600 SF for first 300 + 1 SF/student Add'l
Kitchen	4,600	1	4,600				
	1,030	1	1,030	777	1	777	20 SF/Occupant
Staff Lunch Room							
MEDICAL			1,300			1,710	-410
Medical Suite Toilet				60	1	60	
Nurses' Office / Waiting Room	1,300	1	1,300	250	1	250	
Interview Room				100	5	500	
Examination Room / Resting				100	9	900	
ADMINISTRATION & GUIDANCE			15,870			7,092	8,778
General Office / Waiting Room / Toilet				1,054	1	1,054	
Teachers' Mail and Time Room				100	1	100	
Duplicating Room				200	1	200	
Records Room				200	1	200	
Principal's Office w/ Conference Area				375	1	375	
Principal's Secretary / Waiting				125	1	125	
Assistant Principal's Office - AP1				150	1	150	
Assistant Principal's Office - AP2				150	3	450	
Supervisory / Spare Office				120	1	120	
Office	775	1	775				
	700	2	1,400				
	890	1	890				
	2,300	1	2,300				
	600	1	600				
	325	1	325				
	200	1	200				
	525	1	525				
	640	1	640				
	725	1	725				
	500	2	1,000				
	185	2	370				
	2,385	1	2,385				
Conference Room				450	1	450	
Guidance Office	660	1	660	150	11	1,650	
	900	1	900				
	2,175	1	2,175				
Guidance Waiting Room				100	1	100	
Guidance Storeroom				100	1	100	
Career Center				677	1	677	
Records Room				288	1	288	
Teachers' Work Room	3,150	1		1,054	1	1,054	
	2,850	1					
	680	1					
	2,375	1					
CUSTODIAL & MAINTENANCE			3,375			3,205	170
Custodian's Office				150	1	150	
Custodian's Workshop				250	1	250	
Custodian's Storage				375	1	375	
Recycling Room / Trash				400	1	400	
Receiving and General Supply				677	1	677	
Storeroom	2,000	1		1,154	1	1,154	
	1,150	1					
Network / Telecom Room	775	3	2,325	200	1	200	
OTHER						0	0
Science Lecture Hall	2,550	1	2,550				
Total Building Net Floor Area (NFA)			233,480			233,491	
Proposed Student Capacity / Enrollment						2,107	157
Total Building Gross Floor Area (GFA) ²			361,195			330,799	
Grossing factor (GFA/NFA)			1.55			1.42	

¹ Individual Room Net Floor Area (NFA)

particular program area including such spaces as non-communal toilets and storage rooms.

² Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification		I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the
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**Basic Educational Space
for Planned Program**

ENGLISH

**2107 STUDENTS
23 target / class size**

A	B	C	D	E	F	G	H		
Course No.	Subject	Current Students, per Subject	Projected Students, per Subject	Class Size	Sections	Sessions Per Week	Total Sessions	Periods Per Week	Total Stations
ENGLISH									
1100	Lit & Comp I	534	534	23	24	4	96	32	3.00
1100	Lit & Comp I CoLLAB	18	18	18	1	4	4	32	0.13
1204	Lit & Comp II	22	22	18	2	4	8.0	32	0.25
1206	Lit & Comp II	329	329	23	14	4	56.0	32	1.75
1208	Lit & Comp Honors	160	160	23	7	4	28.0	32	0.88
1304	Amer Lit	29	29	18	2	4	8.0	32	0.25
1306	Amer Lit	324	324	23	14	4	56.0	32	1.75
1308	Amer Lit Honors	166	166	23	8	4	32.0	32	1.00
1404	Read Write Beyond	13	13	18	1	4	4.0	32	0.13
1420	Brit Lit I	22	22	23	1	4	4.0	32	0.13
1430	Short Story	52	52	23	3	4	12.0	32	0.38
1450	Memoir & other writ	98	98	23	4	4	16.0	32	0.50
1460	Film & Lit	72	72	23	3	4	12.0	32	0.38
1470	Shakespeare	15	15	15	1	4	4.0	32	0.13
1480	Dystopias	153	153	23	7	4	28.0	32	0.88
1490	Lit of our time	27	27	23	2	4	8.0	32	0.25
1510	Philosophy, Religion	25	25	23	2	4	8.0	32	0.25
1910	Topics in Lit & Comp	5	5	23	1	4	4.0	32	0.13
									12.13
ENGLISH SUBTOTAL		2064	2,064				12.13	/ .85 =	14.3
Courses listed as "Semester" are adjusted to Full Time Equivalent (FTE). This is done by reducing "sessions per week" by half to give an equivalent year classroom requirement.									

**Basic Educational Space
for Planned Program**

SOCIAL STUDIES

**2107 STUDENTS
23 target / class size**

A	B	C	D	E	F	G	H			
Course No.	Subject	Current Students, per Subject	Projected Students, per Subject	Class Size	Sections	Sessions Per Week	Total Sessions	Periods Per Week	Total Stations Required	Comments
SOCIAL STUDIES										
2100	World History I COLLB	33	33	18	2	4	8	32	0.25	
2100	World History I	518	518	23	23	4	92	32	2.88	
2204	World History II COLLAB	22	22	18	2	4	8.0	32	0.25	
2206	World History II	407	407	23	18	4	72.0	32	2.25	
2209	AP World History II	86	86	23	4	4	16.0	32	0.50	
2304	Issues Amer Hist	25	25	18	2	4	8.0	32	0.25	
2306	Issues Amer Hist	308	308	23	14	4	56.0	32	1.75	
2309	AP US History	185	185	23	8	4	32.0	32	1.00	
2438	Political Thought	25	25	23	2	2	4.0	32	0.13	Semester
2456	Conflict in Modern World	50	50	23	3	2	6.0	32	0.19	Semester
2479	AP Human Geography	26	26	23	2	4	8.0	32	0.25	
2536	International Relations	49	49	23	2	2	4.0	32	0.13	Semester
2556	East Asian Studies	15	15	15	1	2	2.0	32	0.06	Semester
2580	Facing History	50	50	23	3	2	6.0	32	0.19	Semester
2616	Child Psychology	149	149	23	7	2	14.0	32	0.44	Semester
2649	AP Psychology	101	101	23	5	4	20.0	32	0.63	
2656	Intro to Law	25	25	23	2	2	4.0	32	0.13	Semester
2666	Intro to Economics	98	98	23	5	2	10.0	32	0.31	Semester
2679	AP Economics	114	114	23	5	4	20.0	32	0.63	
2716	Intro to Business	123	123	23	3	2	6.0	32	0.19	Semester
2726	Intro to Personal Finance	45	45	20	3	2	6.0	32	0.19	Semester
2756	Marketing	95	95	20	5	2	10.0	32	0.31	Semester
2766	Positive Psych: Happiness	50	50	23	3	2	6.0	32	0.19	Semester
2776	Media Studies	50	50	23	3	2	6.0	32	0.19	Semester
2780	Journalism	25	25	23	2	2	4.0	32	0.13	Semester
2810	intro to Policy Debate	21	21	23	1	4	4.0	32	0.13	
2818	Policy Debate	31	31	23	2	4	8.0	32	0.25	
2820	Intro to LD Debate	26	26	23	2	4	8.0	32	0.25	
2828	Lin-Doug Debate	20	20	23	1	4	4.0	32	0.13	
2838	Public Forum Debate	27	27	23	2	4	8.0	32	0.25	
2910	Topics in World Hist	5	5	23	1	4	4.0	32	0.13	
SOCIAL STUDIES SUBTOTAL		2804	2,804						14.50	
									/.85 =	17.1 Say 17 Social Studies Classrooms
Courses listed as "Semester" are adjusted to Full Time Equivalent (FTE). This is done by reducing "sessions per week" by half to give an equivalent year classroom requirement.										

**Basic Educational Space
for Planned Program**

MATH

**2107 STUDENTS
23 target / class size**

A	B	C	D	E	F	G	H			
Course No.	Subject	Current Students, per Subject	Projected Students, per Subject	Class Size	Sections	Sessions Per Week	Total Sessions	Periods Per Week	Total Stations Required	Comments
MATH										
3314	Math 1	30	30	18	2	4	8	32	0.25	
3324	Math 2	44	44	18	3	4	12	32	0.38	
3325	Math 1B/2A	119	119	23	6	4	24	32	0.75	
3326	Math 2	175	175	23	8	4	32	32	1.00	
3328	Math 2 Honors	215	215	23	10	4	40	32	1.25	
3334	Math 3	83	83	18	5	4	20	32	0.63	
3335	Math 2B/3A	107	107	23	5	4	20	32	0.63	
3336	Math 3	195	195	23	9	4	36	32	1.13	
3338	Math 3 Honors	175	175	23	8	4	32	32	1.00	
3344	Advance Alg	25	25	18	2	4	8	32	0.25	
3345	Math 3B/4A	72	72	23	3	4	12	32	0.38	
3346	Math 4	183	183	23	8	4	32	32	1.00	
3347	Advanced Math	33	33	23	2	4	8	32	0.25	
3348	Math 4:PreCal Honors	168	168	23	8	4	32	32	1.00	
3356	Calculus	107	107	23	5	4	20	32	0.63	
3359	AP Calculus	156	156	23	7	4	28	32	0.88	
3456	Statistics	98	98	23	5	4	20	32	0.63	
3459	AP Statistics	75	75	23	4	4	16	32	0.50	
3510	Accounting	25	25	23	1	4	4	32	0.13	
3610	Computer Applications	47	47	23	2	2	4	32	0.13	Semester
3716	Intro to Programm	169	169	23	8	2	16	32	0.50	Semester
3726	Intro to Programm	60	60	23	3	2	6	32	0.19	Semester
3739	AP Computer Sci	42	42	23	2	4	8	32	0.25	
MATH SUBTOTAL		2403	2,403						13.69	
									/ .85 =	16.1
										Say 16 Math Classrooms
Courses listed as "Semester" are adjusted to Full Time Equivalent (FTE). This is done by reducing "sessions per week" by half to give an equivalent year classroom requirement.										

**Basic Educational Space
for Planned Program**

SCIENCE

**2107 STUDENTS
23 target / class size**

	A		B	C	D	E	F	G	H	
Course No.	Subject	Current Students, per Subject	Projected Students, per Subject	Class Size	Sections	Sessions Per Week	Total Sessions	Periods Per Week	Total Stations Required	Comments
SCIENCE										
Earth Science										
4104	Concept Environ Earth	26	26	18	2	4	8	32	0.25	
4106	Environ Earth Sci	397	397	23	18	4	72	32	2.25	
4108	AP Adv Environ Earth Sci	133	133	23	6	4	24	32	0.75	
									3.25	
							3.3	/ .85 =	3.82	Say 4 Earth Science Lecture / Labs
Biology										
4204	Conceptual Biology	31	31	18	2	4	8	32	0.25	
4206	Biology	321	321	23	14	4	56	32	1.75	
4209	AP Biology	164	164	23	8	4	32	32	1.00	
									3.00	
							3.0	/ .85 =	3.53	Say 4 Biology Lecture / Labs
Chemistry										
4304	Conceptual Chemistry	53	53	18	3	4	12	32	0.38	
4306	Chemistry	235	235	23	10	4	40	32	1.25	
4309	AP Chemistry	232	232	23	10	4	40	32	1.25	
									2.88	
							2.9	/ .85 =	3.38	Say 4 Chemistry Lecture / Labs
Physics										
4404	Conceptual Physics	35	35	18	2	4	8	32	0.25	
4406	Physics	218	218	23	10	4	40	32	1.25	
4409	AP Physics I	194	194	23	9	4	36	32	1.13	
4448	Extended Physics Topics	18	18	23	2	2	4	32	0.13	Semester
4516	Astronomy	21	21	23	1	4	4	32	0.13	
4550	Intro to Robotics	32	32	16	2	4	8	32	0.25	
									3.13	
	SCIENCE SUBTOTAL	2084	2,084		99		3.13	/ .85 =	3.7	Say 4 Physics Lecture / Labs
										Say 16 Total Science Lecture / Labs
Courses listed as "Semester" are adjusted to Full Time Equivalent (FTE). This is done by reducing "sessions per week" by half to give an equivalent year classroom requirement.										

**Basic Educational Space
for Planned Program**

WORLD LANGUAGES

**2107 STUDENTS
23 target / class size**

	A		B	C	D	E	F	G	H	
Course	Subject	Current Students, per Subject	Projected Students, per Subject	Class Size	Sections	Sessions Per Week	Total Sessions	Periods Per Week	Total Stations Required	Comments
WORLD LANGUAGES										
5116	French I	24	24	23	1	4	4	32	0.13	
5126	French II	65	65	23	3	4	12	32	0.38	
5128	French II Honors	62	62	23	3	4	12	32	0.38	
5136	French III	52	52	23	3	4	12	32	0.38	
5138	French III Honors	65	65	23	3	4	12	32	0.38	
5146	French IV	45	45	23	2	4	8	32	0.25	
5148	French IV Honors	45	45	23	2	4	8	32	0.25	
5156	French V Film	38	38	23	2	4	8	32	0.25	
5169	French V AP lang	42	42	23	2	4	8	32	0.25	
									2.63	
							2.6	/ .85 =	3.1	Say 3 French Classrooms
5216	German I	35	35	23	2	4	8	32	0.25	
5226	German II	25	25	23	1	4	4	32	0.13	
5248	German IV	15	15	23	1	4	4	32	0.13	
									0.50	
							0.5	/ .85 =	0.6	Say 1 German Classroom
5316	Italian I	60	60	23	3	4	12	32	0.38	
5326	Italian II	18	18	23	1	4	4	32	0.13	
5328	Italian II Honors	30	30	23	2	4	8	32	0.25	
5336	Italian III	17	17	23	1	4	4	32	0.13	
5338	Italian III Honors	21	21	23	1	4	4	32	0.13	
5346	Italian IV Film	18	18	23	1	4	4	32	0.13	
5349	AP Italian IV	8	8	23	1	4	4	32	0.13	
									1.25	
							1.3	/ .85 =	1.5	Say 2 Italian Classrooms
5416	Latin I	62	62	23	3	4	12	32	0.38	
5426	Latin II	36	36	23	2	4	8	32	0.25	
5436	Latin III	12	12	23	1	4	4	32	0.13	
5438	Latin III Honors	14	14	23	1	4	4	32	0.13	

**Basic Educational Space
for Planned Program**

WORLD LANGUAGES

**2107 STUDENTS
23 target / class size**

5446	Latin IV	3	3	23	1	4	4	32	0.13	
5448	Latin IV Honors	12	12	23	1	4	4	32	0.13	
									1.1	
							1.1	/ .85 =	1.3	Say 2 Latin Classrooms
5516	Mandarin I	15	15	23	1	4	4	32	0.13	
5526	Mandarin II	16	16	23	1	4	4	32	0.13	
5528	Mandarin II Honors	30	30	23	2	4	8	32	0.25	
5538	Mandarin III Honors	40	40	23	2	4	8	32	0.25	
5546	Mandarin IV	10	10	23	1	4	4	32	0.13	
5548	Mandarin IV Honors	30	30	23	2	4	8	32	0.25	
5558	Mandarin V	18	18	23	1	4	4	32	0.13	
5559	Mandarin AP Lang	16	16	23	1	4	4	32	0.13	
									1.38	
							1.4	/ .85 =	1.6	Say 2 Mandarin Classrooms
5614	Spanish I Lang	15	15	18	1	4	4	32	0.13	
5616	Spanish I	40	40	23	2	4	8	32	0.25	
5624	Spanish II Lang	29	29	18	2	4	8	32	0.25	
5626n	Spanish II	122	122	23	6	4	24	32	0.75	
5628	Spanish II Honors	106	106	23	5	4	20	32	0.63	
5634	Spanish III Lang	22	22	23	1	4	4	32	0.13	
5636	Spanish III	120	120	23	6	4	24	32	0.75	
5638	Spanish III Honors	93	93	23	4	4	16	32	0.50	
5646	Spanish IV	109	109	23	5	4	20	32	0.63	
5648	Spanish IV Honors	73	73	23	4	4	16	32	0.50	
5656	Spanish V Film	56	56	23	3	4	12	32	0.38	
5658	Spanish V Honors	23	23	23	1	4	4	32	0.13	
5659	Spanish V Honors AP Lang	40	40	23	2	4	8	32	0.25	
									5.25	
							5.3	/ .85 =	6.2	Say 6 Spanish Classrooms
5816	American Sign Lang I	35	35	18	2	4	8	32	0.25	
5826	American Sign Lang II	38	38	18	2	4	8	32	0.25	
									0.50	
							0.5	/ .85 =	0.6	Say 1 American Sign Classroom

**Basic Educational Space
for Planned Program**

WORLD LANGUAGES

**2107 STUDENTS
23 target / class size**

	WORLD LANGUAGES SUBTOTAL	1920	1,920							Say 17 World Languages Classrooms if each language has dedicated classrooms
	If Language Classrooms are shared									
	French	2.63								
	German	0.50								
	Italian	1.25								
	Latin	1.1								
	Mandarin	1.38								
	Spanish	5.25								
	American Sign	0.50								
		12.63	/ .85 =	15						
	Courses listed as "Semester" are adjusted to Full Time Equivalent (FTE). This is done by reducing "sessions per week" by half to give an equivalent year classroom requirement.									

**Basic Educational Space
for Planned Program**

VISUAL ARTS

**2107 STUDENTS
23 target / class size**

A	B	C	D	E	F	G	H			
Course No.	Subject	Current Students, per Subject	Projected Students, per Subject	Class Size	Sections	Sessions Per Week	Total Sessions	Periods Per Week	Total Stations Required	Comments
VISUAL ARTS										
2D										
6100	Found in Art	425	425	23	19	2	38	32	1.19	Semester
6111	Drawing I	142	142	23	7	2	14	32	0.44	Semester
6112	Drawing II	47	47	23	2	2	4	32	0.13	Semester
6130	Illustration	39	39	23	2	2	4	32	0.13	Semester
6141	Painting 1	70	70	23	3	2	6	32	0.19	Semester
									2.06	
							2.1	/ .85 =	2.4	Say 3 - 2D Art Rooms
3D										
6211	Ceramics	172	172	23	8	2	16	32	0.50	Semester
6212	Advanced Ceramics	70	70	23	3	2	6	32	0.19	Semester
6230	Sculpture	44	44	23	2	2	4	32	0.13	Semester
									0.81	
							0.8	/ .85 =	1.0	Say 1 - 3D Art Room
Photography										
6251	Photography	139	139	18	8	2	16	32	0.50	Semester
6252	Adv Photography	24	24	18	2	2	4	32	0.13	Semester
6270	Digital Imaging	160	160	18	9	2	18	32	0.56	Semester
6311	Int Didital Video Prod	119	119	18	7	2	14	32	0.44	Semester
6430	Web Design	35	35	18	2	4	8	32	0.25	
									1.88	
VISUAL ARTS SUBTOTAL		1486	1,486				1.88	/ .85 =	2.2	Say 2 Photo / Graphics Classrooms
Courses listed as "Semester" are adjusted to Full Time Equivalent (FTE). This is done by reducing "sessions per week" by half to give an equivalent year classroom requirement.										

**Basic Educational Space
for Planned Program**

PERFORMING ARTS

**2107 STUDENTS
23 target / class size**

A	B	C	D	E	F	G	H			
Course No.	Subject	Current Students, per Subject	Projected Students, per Subject	Class Size	Sections	Sessions Per Week	Total Sessions	Periods Per Week	Total Stations Required	Comments
PERFORMING ARTS										
6510	Art of the Theater	97	97	23	5	2	10	32	0.31	Semester
6520	Improvisational Theater	116	116	23	5	2	10	32	0.31	Semester
6530	Public Speaking	65	65	23	3	2	6	32	0.19	Semester
6540	Drama of Social Issues	29	29	23	2	2	4	32	0.13	Semester
6560	Adv Drama Workshop	9	9	23	1	2	2	32	0.06	Semester
6570	Playwriting	10	10	23	1	2	2	32	0.06	Semester
6580	Directing	11	11	23	1	2	2	32	0.06	Semester
									1.13	
									1.13	/ .85 = 1.3
6610	Music Theory	23	23	23	1	4	4	32	0.13	
6710	LHS Choral	127	127	70	2	4	8	32	0.25	
6728	Womens Chorale	43	43	70	1	4	4	32	0.13	
6738	Concert Chorale	57	57	70	1	4	4	32	0.13	
6778	Madrigal Singers	19	19	23	1	4	4	32	0.13	
									0.75	
									0.75	/ .85 = 0.9
										Say 1 Choral Classrooms
6631	Jazz in Society	7	7	23	1	2	2	32	0.06	Semester
6632	Jazz in Society GD	18	18	23	1	2	2	32	0.06	Semester
6850	Beg Jazz Improv	21	21	15	2	4	8	32	0.25	
6860	Seminar Jazz Improv	21	21	15	2	4	8	32	0.25	
6878	LHS Jazz Combo	7	7	15	1	4	4	32	0.13	
6900	Symphonic Band	88	88	90	1	4	4	32	0.13	
6010	Repertoire Orch	94	94	90	1	4	4	32	0.13	
6928	Concert Band	61	61	90	1	4	4	32	0.13	
6938	Symphony	56	56	90	1	4	4	32	0.13	
6948	Wind Ensemble	48	48	50	1	4	4	32	0.13	
6958	Chamber Orchestra	48	48	50	1	4	4	32	0.13	
									1.50	
									1.50	
									1.8	Say 2 Instrumental Classrooms

**Basic Educational Space
for Planned Program**

PERFORMING ARTS

**2107 STUDENTS
23 target / class size**

	PERFORMING ARTS SUBTOTAL	1075	1,075							
Courses listed as "Semester" are adjusted to Full Time Equivalent (FTE). This is done by reducing "sessions per week" by half to give an equivalent year classroom requirement.										

**Basic Educational Space
for Planned Program**

HEALTH FITNESS

**2107 STUDENTS
23 target / class size**

A	B	C	D	E	F	G	H		
Course No.	Subject	Current Students, per Subject	Projected Students, per Subject	Class Size	Sections Per Week	Total Sessions	Periods Per Week	Total Stations Required	Comments
HEALTH & FITNESS									
7100	Badminton	353	353	24	11	1	11	32	0.34 Quarter
7105	Tennis / Games	288	288	24	12	1	12	32	0.38 Quarter
7110	Football	158	158	24	7	1	7	32	0.22 Quarter
7130	Recreational Games	184	184	24	8	1	8	32	0.25 Quarter
7150	Fitness Concepts	94	94	24	4	1	4	32	0.13 Quarter
7155	Rollerblading	164	164	24	7	1	7	32	0.22 Quarter
7175	Athletic Training	32	32	18	2	1	2	32	0.06 Quarter
7180	CPR	25	25	16	2	1	2	32	0.06 Quarter
7185	Pilates	70	70	24	3	1	3	32	0.09 Quarter
7190	Yoga	97	97	24	4	1	4	32	0.13 Quarter
7192	Jazz Dance	16	16	24	1	1	1	32	0.03 Quarter
7193	Stretch & Strength	25	25	24	1	1	1	32	0.03 Quarter
7194	Dance for Musical	20	20	24	1	1	1	32	0.03 Quarter
7215	Games / BB	340	340	24	14	1	14	32	0.44 Quarter
7220	Vollyball/Olympic	614	614	30	26	1	26	32	0.81 Quarter
7260	Cardio Kick Boxing	166	166	24	7	1	7	32	0.22 Quarter
7270	Strength & Fitness	217	217	24	9	1	9	32	0.28 Quarter
7275	Athletic Training	35	35	18	2	1	2	32	0.06 Quarter
7280	CPR	30	30	30	1	1	1	32	0.03 Quarter
7285	Pilates	92	92	24	4	1	4	32	0.13 Quarter
7290	Yoga	71	71	24	3	1	3	32	0.09 Quarter
7293	Stretch & Strength	25	25	24	1	1	1	32	0.03 Quarter
7296	Partner Dance	25	25	24	1	1	1	32	0.03 Quarter
7297	Choreography	25	25	24	1	1	1	32	0.03 Quarter
7315	Games / BB	281	281	24	12	1	12	32	0.38 Quarter
7320	Vollyball/Olympic	507	507	24	21	1	21	32	0.66 Quarter
7340	Fencing	192	192	20	8	1	8	32	0.25 Quarter
7365	Total Body C	138	138	24	6	1	6	32	0.19 Quarter
7370	Strength & Fitness	151	151	24	6	1	6	32	0.19 Quarter
7375	Athletic Training	25	25	18	2	1	2	32	0.06 Quarter
7380	CPR	29	29	16	2	1	2	32	0.06 Quarter
7385	Pilates	73	73	24	3	1	3	32	0.09 Quarter

**Basic Educational Space
for Planned Program**

HEALTH FITNESS

**2107 STUDENTS
23 target / class size**

7390	Yoga	94	94	24	4	1	4	32	0.13	Quarter
7392	Jazz Dance	25	25	24	1	1	1	32	0.03	Quarter
7393	Stretch & Strength	25	25	24	1	1	1	32	0.03	Quarter
7394	Dance for Musical	25	25	24	1	1	1	32	0.03	Quarter
7400	Badminton	351	351	24	15	1	15	32	0.47	Quarter
7425	Softball	134	134	24	6	1	6	32	0.19	Quarter
7435	Outdoor Games	491	491	24	21	1	21	32	0.66	Quarter
7445	Golf	154	154	24	7	1	7	32	0.22	Quarter
7450	Fitness Concepts	141	141	24	6	1	6	32	0.19	Quarter
7475	Athletic Training	29	29	18	2	1	2	32	0.06	Quarter
7480	CPR	30	30	16	2	1	2	32	0.06	Quarter
7485	Pilates	69	69	24	3	1	3	32	0.09	Quarter
7490	Yoga	99	99	24	4	1	4	32	0.13	Quarter
7493	Stretch & Strength	50	50	24	2	1	2	32	0.06	Quarter
7497	Choreography	24	24	24	1	1	1	32	0.03	Quarter
									8.38	
							8.38	/ .85 =	9.9	Say 10 Teaching Stations
7810	Adolesc Health Issues	555	555	23	24	2	48	32	1.50	Semester
7830	Adolesc Health Issues	516	516	23	23	2	46	32	1.44	Semester
	HEALTH & FITNESS SUBTOTAL	7374	7,374						2.94	
							2.94	/ .85 =	3.5	Say 4 Classrooms
Courses listed as "Semester" are adjusted to Full Time Equivalent (FTE). This is done by reducing "sessions per week" by half to give an equivalent year classroom requirement.										

Basic Educational Space for Planned Program

ENGLISH

1800 STUDENTS
23 target / class size

**Basic Educational Space
for Planned Program**

SUMMARY

**2107 STUDENTS
23 target / class size**

		Classrooms Required for 2107 Current	Classrooms Required for 2290 2019 - 2020	Classrooms Required for 2504 2024 - 2025	Current Classrooms	Comments
Core Academic						
English		15				
Social Studies		17				
Math		16				
World Languages		17				15 if CR's are shared by languages
Wellness		4				
Classroom total		69				
Science						
Environmental Sci		4				
Biology		4				
Physics		4				
Chemistry		4				
Sci Total		16				
Special Education		TBD				
Performing Arts						
Theater		1				
Choral Music		1				
Instrumental Music		2				
Total Performing Arts		4				
Visual Arts						
Art 2D		3				
Art 3D		1				
Photography		2				
Total Art		6				
Health and Physical Education	Gym				10 Teaching Stations Total	
Alternate PE						

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	7/24/2014
Re:	Program Director Meeting –District Curriculum	Meeting No:	13
Distribution:	MF (MF)		

Attendees: Carol Pilarski, / Assistant Superintendent for Curriculum, Phil Poinelli / SMMA, Kate Jessup / SMMA

DiscussionProgram Background / Organization

- Increased enrollments: An additional 43 students have enrolled in the district since 6/23/14
- Families are moving to Lexington from other towns for the public schools and there is a learning curve to catch up to Lexington standards. People move for the public school system.
- Some teachers at Clarke Middle School have been teaching with blended learning styles and working with the flipped classroom.
- Goal for elementary schools would be to try and move all the schools towards the “Estabrook” model. Some of the schools are in significant need of repair/renovation
- Goal is to have 21 max. in the first grade. 2nd grade and older is 25-27 max.
- In elementary schools, there is a K-5 science department head that works with a materials specialist that works with the district storage located at Old Harrington Central Office and distributes learning materials to the elementary schools depending on what topic is being studied.
- 9th grade uses team teaching approach for English Language Arts and Social Studies
- Supports the idea of a centralized collaboration space for office and workspace with classroom wings.
- More focus needs to be paid to the middle of the road students. Not all students are high flyers that are going to be taking AP classes. There need to be time devoted to help students who may not be going to college or are unsure about their future to help them find a niche. Some of these students may in fact be attending college but are unsure what to study. Need to minimize the stressors in these middle achieving students
- 2020 Committee developed a report that reflects ELL growth, needs for professional development, and looks at school from the municipal side.
- Professional development is a large program in Lexington and the town is very proud of that. There are 2 classrooms for dedicated PD at Old Harrington which become instructional space.

Program Spaces

- No academic area should be sacrificed when master planning the district.
- Schools within a school: MST is an alternative program for those who are not successful in a traditional program. There are estimated 40 students in the program who suffer from burnout, are school phobic,

returning from hospitalization, etc. and they work in a certain portion of the HS.

- Would like to incorporate apprenticeship opportunities with the community for students who would like to both work and go to school. This would enable students the opportunity to discover what they want to pursue as a career.
-

Areas for Improvement

- Movement jeopardizes the curriculum so any teacher that teaches on a cart is at a detriment to others. Carts are not good for curriculum.
 - Would like to incorporate a project based learning room where a unit being covered can be shared between teachers and can be interactive/maker space for the unit being covered.
 - Are investigating the use of Listed Edition from NPR which would provide access to a repository of information from NPR interviews.
 - High School teachers typically are too concerned about their own content and do not actively pursue working with other teachers
 - Many buildings lack the space for 21st century education, collaboration, or new curriculum such as robotics.
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	8/08/2014
Re:	Program Director Meeting –Special Education	Meeting No:	10
Distribution:	MF (MF)		

Attendees: Ellen Sugita / Director, Patrick Goddard / LPFD, Phil Poinelli / SMMA, Kate Jessup / SMMA

DiscussionProgram Background / Organization

- District is 14% students with IEPs (State average is estimated at 17%)
- Special Education programs within district:
 - DLP: Students who have significant developmental delays or intellectual/neurological impairments
 - Substantially Separate ILP: Students with autism spectrum disorder who require highly individualized services and have social/emotional, language and behavioral needs. These students may also have physical need and are typically spending most of their time substantially separate . Housed at Fiske Elementary and Diamond Middle Schools. Program to begin fall 2015-2016 with 4 classrooms at LHS. Ratio is 7:1
 - Integrated ILP: Students with autism spectrum disorder and other related disabilities. These students are typically receiving pull-out and push-in services but are mainstreamed as much as possible in their general education classrooms. Housed at Hastings Elementary and Clarke Middle Schools. Program at LHS began in the fall of 2014-2015 with 3 classrooms at LHS.
 - TLP: Students with significant emotional and other needs that require therapeutic and academic support These students are typically receiving pull-out and push-in services but are mainstreamed as much as possible in their general education classrooms. Housed at Estabrook Elementary, Bridge Elementary, Clarke Middle, Diamond Middle, and LHS.
 - LLP: Students with significant language-based learning disabilities. Program typically begins in grade 3 when students increasingly apply their reading and writing skills.. Students typically receive pull-out and push-in services –mainly focused on reading, writing, and English language arts - but are mainstreamed as much as possible in their general education classrooms. Program is located at Bowman Elementary, Clarke Middle, Diamond Middle, and LHS.
 - MST – Multidisciplinary Support Team. Provides integrated academic and social/emotional supports for students. These students are mainstreamed as much as possible but have pull-out classroom support and counseling as needed.
- Director believes that in the future, the social/emotional and autism programs will continue to grow.
- Integrated Pre-K located at Harrington. Students at Bridge, Harrington, and Bowman feed to Clarke. Students at Estabrook, Hastings, and Fiske feed to Diamond.

- A consideration in the district should be the ratio of general education students to special education students in integrated classrooms.
-

Program Spaces

- ILP program at Clarke is located in a single 700 SF classroom and a portion of the corridor which is not an adequate amount of space for ILP students. If the program were to be relocated they would not want to do so without at least 2 dedicated classrooms at Diamond.
 - Modular classrooms have been added at Bowman Elementary for the LLP program. It includes 3 half size classrooms and 3 offices.
 - TLP program has been designed to be 2 classrooms and an office/testing area.
 - Modular classrooms have been added to LHS for the new ILP program.
-

Areas for Improvement

- Would like to consider relocation of Integrated ILP from Clark to Diamond Middle Schools. This would alleviate the problem of students in the ILP program moving from Hastings to Clarke, instead of Diamond, where their general education peers move for middle school. Students in the Integrated ILP program are on the autism spectrum and are integrated at Hastings and attend classes with their general education peers. Moving the program from Clarke to Diamond would mean that students in the ILP program would go to the same middle school as their general education peers, peers with whom they are familiar and have a connection.
 - Resource and other inclusion students need a space that is dedicated for test taking.
 - The DLP program students at the high school level go into the LABBB program as there is currently no dedicated LHS specialized programs. This creates challenges for students who may want to attend some mainstream classes since the LABBB program does not work with the LHS schedule. More and more students are seeking to participate in mainstream electives such as art and music and a closer evaluation must be made with scheduling LABBB to accommodate those students. New ILP program at the HS will alleviate some of the concern as it will work with the HS schedule. Future possibility of creating other HS level special programs is being considered to keep the students in district (rather than at collaborative).
 - Future DLP program at the HS would serve students from 9th grade to 22 years old. The classroom portion of the program would include classrooms and support space and SPED restroom. Also included would be a vocational program which could potentially work together with the LABBB program.
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	8/08/2014
Re:	Program Director Meeting –Pre-K	Meeting No:	16
Distribution:	MF (MF)		

Attendees: Elizabeth Billings-Fouhy / Director PreK, Ellen Sugita / Director Special Education, Patrick Goddard / LPFD, Phil Poinelli / SMMA, Kate Jessup / SMMA

Discussion**Program Background / Organization**

- Lexington Children's place is a district wide pre-school program that serves students with and without special needs in an inclusive and developmentally appropriate learning environment.
- Students between 0-3 years old attend as early intervention. Typical program includes students ages 3-5. It is an inclusion program with age appropriate peers.
- The range of the special needs students vary from severely autistic students to students that come in once per week from private Pre-K programs to receive speech therapy.
- The program helps to work with students who have gaps in their learning which include language, social/emotional, etc.
- Each class is made up of 15 students. 8 general education students required with 7 special needs students. There are morning and afternoon classes so 30 students are served in each classroom throughout the day.
- Program is very much tied to the state regulations provided by DESE.
- Students aged 3-5 all interact together. They follow the requirements for 24 month instructional grouping and follow a curriculum program that allows the different aged groups to tackle tasks differently depending on their mastery.

Program Spaces

- Program is located in a wing of the new Harrington Elementary School which was designed to meet the needs of the students.
- An additional motor room is now used within the Harrington Elementary space and is classrooms size. Harrington would like to re-capture the room back into their program.
- Playground space is new and any relocation would need to keep that exterior playground space in mind.

Areas for Improvement

- Must begin to consider the new programs that are being started at the state level now. One includes that all 4 year olds are entitled to preschool services in Cambridge, Boston, and Lowell districts. This would require an additional 70-80 students

- 90 “slots” of pre-K can only serve about 70 students because some require both morning and afternoon services. If the program becomes full, the students must go to a collaborative. The ability for students to go to the collaborative serves as an additional option for the program but is not ideal. There is a concern about sending students to a collaborative for Pre-K if the collaborative does not have a Pre-K program since the students will not have peers to interact with and lose the ability to learn from and interact with their peers. Additionally, collaboratives are much more costly than in-district Pre-K programs.
 - Must be careful to assess language skills vs. and IEP. Many students speak many languages and it can be difficult to assess whether it is an intellectual learning issue or a language issue.
 - Testing is done in OT and speech rooms. A dedicated testing space for IEP students is necessary (100 SF)
– consider an observation space as part of the testing space.
 - Need additional desk space for psychologists, consultations, and itinerary therapists
 - Need flexible space for additional speech therapists, testing, shared offices, program growth, and Pre-K bathrooms
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	7/22/2014
Re:	Program Director Meeting –Extended Day Program	Meeting No:	11
Distribution:	MF (MF)		

Attendees: Heather Hartshorn / Director , Phil Poinelli / SMMA, Kate Jessup / SMMA,

DiscussionProgram Background / Organization

- 30 year old non-profit program in the district
- Currently serve estimated 650 students
- The program fills very quickly and there is a waiting list that is first come first served.
- Program serves 20% of Lexington students at the elementary level. Ratio of students to teachers is 10:1
- Program takes place M, T, W, F 3:15-6 and Th 12:15-6
- EEC dictates that the number of students permitted into the program be dictated by the SF of dedicated space.
- Each school has 88-100 students per day. Program has a 2 day minimum.
- Activities for students include: (vary by school) homework help outside of tutoring, free choice, play, art, yoga, dance, drama, games, healthy snack
- Dismissal: students must indicate to a teacher that their parent/guardian is there for pick up, parents must sign out the student on a form
- Play and Choice are extremely important aspects of after school care.
- Group serves all students including SPED. Some students who may be of concern have a year-long trial period.

Program Spaces

- Currently located in all elementary schools with the exception of Bridge. Bridge students take a bus to Hastings Elementary for after school programs. Adding a school would eliminate the need and cost of busing. It would also allow the district to serve more students.
- Require prep space, storage, a location for sick kids to be isolated, access to exterior (physical proximity or electrical means), tables for students to eat daily snack
- Would like to have access to secondary spaces such as library, art rooms, or a classroom for quiet activities outside of the dedicated space (typically gymnasium or cafeteria).
- Primary storage has been moved off site.

- Currently work out of an office for mailing purposes and foot traffic.
- Bowman:
 - music room is used for rest
 - 2 staff, Fridge, kitchen supplies in office
 - Gym
 - Cafeteria
 - Office includes buzzer to let in parents
- Estabrook:
 - Dedicated office with rolling cart storage that get wheeled in and out.
 - Staff person must wait at the entry separate from the students to let in the parents. Works when the students can be dismissed from the cafeteria.
 - No quiet space or space for sick students
- Harrington:
 - Has a large office that fits a computer
 - Parents can walk into the school to pick up their children
 - Sometimes have access to a classroom for students to have a quiet space to do their homework
- Hastings:
 - Are given dedicated access to the cafeteria
 - Have storage space in a closet adjacent to cafeteria
 - Have a purchased dedicated trailer connected to cafeteria that houses storage, refrigerator, and office space
 - Space has direct access to exterior for parent dismissal
- Fiske:
 - Extended day office
 - Dedicated space in the cafeteria
 - Connects to back parking lot for parent pickup
 - Given access to music room if available
 - Have access to portion of gym when available

Areas for Improvement

- The priority would be to increase the number of students served. There is no issue with internal expansion, only increasing the amount of space.
 - Concern over reducing the space when new buildings are being developed and programmed. Rolling carts need to be utilized to not prevent prep from occurring at the same time as refrigerator stocking, etc. Rolling carts in a single office are too cumbersome.
 - Desire for the program to expand to include middle school programs when the contract is renewed.
 - Need to incorporate buzzers or indicators into all buildings where direct visual access is not provided.
 - Teachers need space to take their legally required break which is separate from the students
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	8/07/2014
Re:	Program Director Meeting –LABBB	Meeting No:	15
Distribution:	Final Report (MF)		

Attendees: James Kelly / Director, Lindsay Rice / Assist Director, Patrick Goddard / LPFD, Phil Poinelli / SMMA, Kate Jessup / SMMA

DiscussionProgramBackground / Organization

- LABBB Mission statement: The LABBB Collaborative helps students with special needs reach their full potential through high quality programs that integrate academic, social, recreational and vocational services and enable participation in the least restrictive environment. By sharing its resources with multiple school districts and social service agencies, its programs maintain superior quality and reasonable costs to those it serves, by meeting or exceeding state standards, and achieving economies of scale. We are serving 70 cities and delivering the following specialized services.
- Program serves students Grades in Lexington, Arlington, Burlington, Bedford, and Belmont and Minuteman Vocational Technical School with a variety of special needs including students on the autism spectrum, students with multi-handicaps, pervasive development disorders, developmental delays, language deficits and social/emotional challenges.
- Program provides an alternative HS environment for students with some learning disabilities or social/emotional challenges.
- LABBB is a substantially separate program however some students access mainstream for certain curriculum such as core academics, art, music, sports, etc. Some of the students may drive to the program or take public transportation but many are learning life skills in the program.
- Program includes a medical component and some of the students have 1:1 aids/nurses.
- 70 districts attend LABBB programs in the 5 collaborative towns. The Centralized High School location is at Lexington HS and it is the only location in Lexington for the program exclusive of Minuteman Vocational Technical School.
- There additionally is a vocational training program space at the central administration.
- DESE determines the 11 month program. Additionally, there is a LESP extended summer program which serves estimated 45 students through August and another estimated 35 students that go directly to LABBB supported worksites from LHS, when the traditional 11 month program is completed.
- Students taking part in the vocation program meet first at Lexington HS before being transported to their specific work location by van.
- All LABBB teachers are special education certified.
- All districts sending students, including those from Lexington, pay tuition into the program.
- Created a transportation pilot which coordinates transportation for about 500 students. The transportation

program does not require that they be part of the collaborative. The program owns 25 vans to serve those students who attend LABBB Collaborative. Typically, six of which, park permanently at LHS.

- Lexington facility houses in the vicinity of 80 students. Students are grouped by mastery within 48 months of each other. Program has rolling admission so those who need services do not need to wait to become part of the collaborative.
 - Students that are wheelchair bound have many restrictions to their classrooms space. If each student needs a 5' radius, it limits classrooms to just a few wheelchair-bound students per classroom and then others
 - The transportation vans drop off students at the beginning of school in the front of the building. The most medically fragile students get dropped off in front of LABBB program entrance.
 - Program at Lexington High School has 10 teachers. 6 Teachers have their own classroom and 4 teachers share 2 rooms.
-

Program Spaces

- Lexington HS program spaces include 8 classrooms: 6 in math building (along with administrative, kitchen, and nurse space) and 2 classrooms in the foreign language building.
 - The majority of students use the Lexington HS cafeteria for lunch.
 - Students use Hayden Recreation Center, Hayden indoor pool, the LHS weight room in addition to LHS property. Rent is paid to Hayden Recreations Center facility.
 - Program requires the space of a storage trailer which is located in the parking area adjacent to the entry.
-

Areas for Improvement

- If there was more space, there would be more students who would want to join the collaborative. Space dictates enrollment.
 - Changing areas open to classroom space and changing may be performed within instruction space which is inappropriate for the students needing the medical service and students receiving instruction.
 - Need a room for Individual Education Plan (IEP) meetings with parents and teachers which could also serve as a more formal conference room. IEP meetings can be up to 10 adults including advocates.
 - In the classrooms, teacher desks limit the amount of student space available and are not ideal for classroom layout, particularly for students with ambulatory issues.
 - Wayfinding is extremely critical for students – particularly when classrooms are broken into different areas of the building. Some students can lose their way without signage or staff support.
 - Many students learn life skills most successfully with real examples such as community based settings such as Lexington center, which they are accessible to.
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	7/22/2014
Re:	Program Director Meeting –METCO Program	Meeting No:	12
Distribution:	MF (MF)		

Attendees: Barbara Nobles / METCO Director, Phil Poinelli / SMMA, Kate Jessup / SMMA

DiscussionProgram Background / Organization

- The METCO Program (Metropolitan Council for Educational Opportunities) was founded in 1966. It is a voluntary integration program that provides a suburban public school education for African-American, Hispanic and Asian students from Boston. The Lexington Public Schools have participated in the program since 1968. The program provides Lexington students and staff an opportunity to interact with many minority students and to benefit from a culturally diverse learning environment.
 - The METCO staff consist of 1 Director (Barbara Nobles), 1 Administrative Assistant, 2 Elementary Social Workers, 1 Middle School Counselor and 1 Academic Support Teacher, 6 Bus monitors/SSP.
 - Most students entering the program do so in kindergarten or first grade.
 - Program included 237 total students (2013-2014 school year). Estimated 242 students next year: 122 elementary, 42 middle, 78 high school.
 - Quantity of students in the program depends entirely of the space available within the schools. A METCO student would never displace a student from Lexington.
 - MELP is the elementary program that is conducted during the school year on selected Thursdays which are 1/2 days.
 - Mathpath is the Middle School 3 week summer program
 - Jump Start is an Elementary summer program for new students entering the program.
 - Elementary students come to Old Harrington to do homework after the half day Thursday.
 - Extended Day is a Middle School program that meets at Clarke and Diamond Monday - Thursday during the school year. It focuses on homework completion.
-

Program Spaces

- Current office space at the high school is shared by offices and small group rooms
 - Target is to have 4 students interacting with a teacher in a small group setting. Sometimes as many as 6 students are in the office with staff for small group instruction.
-

Project: **Lexington Public Schools**

Meeting Date: **7/22/2014**

Meeting No.: **12**

- The staff floats between buildings: 2 elementary social workers serve (3) schools each. Offices in schools are often shared between part-time individuals.
 - Department/Teacher/Parent meetings take place within the office
-

Areas for Improvement

- Due to lack of space and lack of acoustical separation, the current support teacher is moving to another part of the building due to lack of space in the current office.
 - Office becomes busy often which is not conducive to teaching and learning. Small group instruction occurs in the office.
 - Teachers need more privacy for academic space with acoustic separation. Should be located near the offices but not in the same room
 - METCO students find an identity within their space. The office/small group room serves as a place where students feel ownership.
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

PROJECT MINUTES

Project:	Lexington Public Schools	Project No.:	14043
Prepared by:	Kate Jessup	Meeting Date:	7/31/2014
Re:	Program Director Meeting –Technology	Meeting No:	14
Distribution:	MF (MF)		

Attendees: Tom Plati, Marianne McKenna, Paul Newt, Edward Borden, Pat Goddard / LPFD, Phil Poinelli / SMMA, Kate Jessup / SMMA

DiscussionProgram Background / Organization

- Department has 3 different parts.
 - Technology deployment – 3 people manage what is happening in the schools and its deployment, network, and facilities
 - Student Information Services
 - Teaching Coaches – work within the schools, with teachers
 - 13-14 people work in operations which is located in the high school computer center
 - Goal for accommodating 1:1 in elementary schools should be enough compared to the HS level where 3:1 may be more realistic to the way students are operating.
 - The plan is for 8th and 9th grade students to begin the program for school supplied 1:1. Each year, the devices will be given to the 8th grade students and the technology will move up with the students to begin 2016-2017 school year.
 - Grades 3-12 should have smart technology in every classrooms soon.
-

Program Spaces

- Technology is currently located in the corner of the high school
 - Data team is located at Central Administration but should be located with the other staff.
 - Would like to create a helpdesk space in each media center which students would be able to access for e-books, troubleshooting, etc.
 - The head end and backbone for technology is shared between the school and the town through the facilities building. From that hub, all of the other connections are “spokes” going out to the various nodes. Each spoke is a 1 gig connection. The HS is a 10 gig connection. They would like to upgrade to a 10 gig connection everywhere.
 - Office space at center administration is required for: Data administrators for student information, SPED data manager, and HR
-

Areas for Improvement

- Technology in general is “added on” rather than master planned which has caused many problems
 - Although they are currently located in a corner of the high school, this may not be the ideal location.
 - Need space within each school for professional development, training, and learning. This space could be shared as part of a collaboration space.
 - Lack proper space for opening up the boxes and setting up new equipment prior to its distribution.
 - Data team is located at the Central Administration building. These individuals should be located with the other technology staff. They require space for technology training within each of the buildings. Could be a shared collaboration space.
 - Need a space where all 25 technology employees can meet occasionally.
 - None of the schools were designed to properly house technology except Estabrook.
 - HS needs significant effort to accommodate 3:1. Students already have smart technology so there is an immediate need for 2:1 at least.
 - Technology program needs to be involved/considered in the district administration decision making. It should be a collaborative vision.
 - Questions that need to be considered include:
 - How are these school supplied devices charged?
 - What security needs to be included in a roll-out of a school supplied device program?
 - Can wireless charging be considered?
 - How much “big brother” content management is preferred?
 - Would like all of the buildings’ systems to be considered part of the same system so that HVAC, lighting usage, voiceover IP, security, print usage, and power can all be monitored.
 - Looking for a way to recycle old computers when the systems become obsolete.
 - Need air conditioned spaces for all IT equipment in the schools
 - Need to consider the equipment involved with hearing or visually impaired students at each school.
 - Each classroom should include a projection area, microphone, and sound system.
-

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.

Section 4

Appendix

LEXINGTON PUBLIC SCHOOLS MASTER PLAN
Phase 1 - Capacity Analysis

LEXINGTON PUBLIC SCHOOLS

Ad hoc Schools Master Plan Committee
School Committee Progress Report

SMMA | SYMMES MAINI & MCKEE ASSOCIATES

Philip J. Poinelli, FAIA, CEEP
September 17, 2014

Agenda

1. Phase 1 Scope
2. School and School Administration Meetings
3. Evaluation of Existing Buildings (including MSBA criteria)
 - A. Current Use Floor Plans
 - B. Undersized Spaces Floor Plans
4. Schools Administration Meetings
5. Discussion of Elementary Sections
6. Capacity: Elementary Schools; Middle School; High School
7. Short Term – 2015 – 2016; Possible Relief Valves
8.  Next Steps



Lexington Master Plan – Phase 1

SMMA

Phase 1 Scope

- Review all Schools + Central Administration
- Review class sizes and educational programs
- Meet with Principals, Administrators, committee
- Develop a Capacity Analysis for each school
- Review all in the context of the MSBA criteria and funding
- Final Report



SMMA

Design Team / Client Meetings

- Ad hoc School Master Planning Committee (AhSMPC)
- All School Principals + some Assist Principals
- Lextended Day
- METCO
- Assistant Superintendent for Curriculum
- Technology
- LABBB
- Early Childhood
- SPED



SMMA



Bowman Elementary School – Current Use Plan

| SMMA



Bowman ES - 90% or smaller than MSBA

| SMMA



BRIDGE SCHOOL



Bridge Elementary School – Current Use Plan

SMMA



BRIDGE SCHOOL



Bridge ES - 90% or smaller than MSBA

SMMA

Proposed Space Summary- Elementary Schools

Bowman Elementary		Existing Conditions			MSSA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			25,656				
...All classrooms of different sizes separately							
Pre-Kindergarten w/ toilet	4	1,000	4,000	1,200	4	4,800	1,140 SF min - 1,320 SF max
Kindergarten w/ toilet	17	875	14,875	1,200	4	4,800	1,140 SF min - 1,320 SF max
General Classrooms - Grade 1-6	3	850	2,550	956	20	19,000	95 SF min - 1,000 SF max
General Classrooms - Grade 1-6	2	900	1,800				
General Classrooms - Grade 1-6	2	900	1,800				
ELT Room	1	950	950				
Reading small group room			0				
Gen Ed Support Small group instruction	900	1	900				
Gen Ed Support Library Library			0				
SPECIAL EDUCATION			3,236				
...All rooms of different sizes separately							
Self-Contained SPED			0				
Self-Contained SPED - LIP Suite	2,000		2,000	956	4	3,800	3,800 SF min - 4,000 SF max
Self-Contained SPED - toilet			0				
Resource Room	450		450	60	4	240	
Small Group Room / Reading	100		100	500	3	1,500	1,500 SF min - 1,700 SF max
Small Group Room / OT and PT	375		375	500	1	500	500 SF min - 500 SF max
Small Group Room / Speech and Language	100		100				
ART & MUSIC			2,636				
Art Classroom - 25 seats	1	1,175	1,175	1,000	2	2,000	2,000 SF min - 2,100 SF max
Art Workshop, w/ Storage & Min			0	150	2	300	
Music Classroom / Large Group : 25-50 seats	1	875	875	1,200	2	2,400	2,400 SF min - 2,600 SF max
Music Practice / Ensemble			0	75	4	300	
HEALTH & PHYSICAL EDUCATION			3,626				
Gymnasium	1	3,500	3,500	8,000	1	8,000	8,000 SF min - 8,500 SF max
Gym Storeroom			0	150	1	150	
Health Instructor's Office w/ Shower & Toilet			0	150	1	150	
MEDIA CENTER			2,256				
Media Center / Reading Room	1	2,250	2,250	3,204	1	3,204	3,204 SF min - 3,204 SF max



Lexington Master Plan – Phase 1

SMMA

Proposed Space Summary- Elementary Schools

Bridge Elementary		Existing Conditions			MSSA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			24,446				
...All classrooms of different sizes separately							
Pre-Kindergarten w/ toilet	1	100	100	1,200	1	1,200	1,140 SF min - 1,320 SF max
Kindergarten w/ toilet	17	875	14,875	1,200	4	4,800	1,140 SF min - 1,320 SF max
General Classrooms - Grade 1-6	3	850	2,550	956	20	19,000	95 SF min - 1,000 SF max
General Classrooms - Grade 1-6	2	900	1,800				
General Classrooms - Grade 1-6	2	900	1,800				
ELT Room			0				
Reading small group room			0				
Gen Ed Support Small group instruction	900	1	900				
Gen Ed Support Library Library			0				
SPECIAL EDUCATION			1,806				
All classrooms of different sizes separately							
Self-Contained SPED			0				
Self-Contained SPED - LIP Suite	1	900	900	956	1	900	900 SF min - 1,000 SF max
Self-Contained SPED - toilet			0				
Resource Room	1	875	875	60	4	240	
Resource Room / Reading	1	875	875	60	3	180	
Small Group Room / Reading	1	875	875	60	1	60	
Small Group Room / OT and PT			0				
Small Group Room / Speech and Language			0				
ART & MUSIC			2,636				
Art Classroom - 25 seats	1	1,175	1,175	1,000	1	1,000	1,000 SF min - 1,100 SF max
Art Workshop, w/ Storage & Min			0	150	2	300	
Music Classroom / Large Group : 25-50 seats	1	875	875	1,200	2	2,400	2,400 SF min - 2,600 SF max
Music Practice / Ensemble			0	75	4	300	
HEALTH & PHYSICAL EDUCATION			3,626				
Gymnasium	1	3,500	3,500	8,000	1	8,000	8,000 SF min - 8,500 SF max
Gym Storeroom			0	150	1	150	
Health Instructor's Office w/ Shower & Toilet			0	150	1	150	
MEDIA CENTER			2,256				
Media Center / Reading Room	1	2,250	2,250	3,204	1	3,204	3,204 SF min - 3,204 SF max



Lexington Master Plan – Phase 1

SMMA

Proposed Space Summary- Elementary Schools

Bowman Elementary		Existing Conditions			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals		
CORE ACADEMIC SPACES 25,656					
Pre-Kindergarten w/ toilet					
Kindergarten w/ toilet	4	1,000	4,000		
General Classrooms - Grade 1-6	17	875	14,675		
General Classrooms - Grade 1-6	3	850	2,550		
General Classrooms - Grade 1-6	2	900	1,800		
ELL/small group room	925	1	925		
Reading small group room					
Classroom Support (Instructional)	300	1	300		
Gen.Ed Support Library/Library					
SPECIAL EDUCATION 3,955					
All rooms of different sizes separate					
Self-Contained SPED					
Self-Contained SPED - LLP Suite	2,000	1	2,000		
Self-Contained SPED - toilet					
Resource Room	450	1	450		
Small Group Room / Reading	180	1	180		
Small Group Room / OT and PT	375	1	375		
Small Group Room / Speech and Language	180	2	360		
ART & MUSIC 2,656					
Art Classroom - 25,000	1	1,175	1,175		
Art Workshop w/ Storage & Min					
Music Classroom - Large Group - 25-50	1	875	875		
Music Practice Ensemble					
HEALTH & PHYSICAL EDUCATION 3,436					
Gymnasium	1	3,380	3,380		
Gym Showerroom	1	240	240		
Health Instructor's Office w/ Shower & Toilet					
MEDIA CENTER 2,256					
Media Center / Reading Room	1	2,250	2,250		

ES – Undersized Spaces (by room size)

➤ Bowman: SPED, art, music, gym, cafeteria, library, medical

➤ Bridge: SPED, art, music, gym, cafeteria, library

➤ Estabrook: none

➤ Fiske: cafeteria, ELL, a few support spaces

➤ Harrington: music, gym, cafeteria

➤ Hastings: art, music, gymnasium, medical, admin.



Lexington Master Plan – Phase 1

SMMA

Bowman Elementary		Existing Conditions			
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals		
CORE ACADEMIC SPACES 25,656					
All rooms of different sizes separately					
Pre-Kindergarten w/ toilet					
Kindergarten w/ toilet	4	1,000	4,000		
General Classrooms - Grade 1-6	17	875	14,675		
General Classrooms - Grade 1-6	3	850	2,550		
General Classrooms - Grade 1-6	2	900	1,800		
ELL/small group room	925	1	925		
Reading small group room					
Classroom Support (Instructional)	300	1	300		
Gen.Ed Support Library/Library					
SPECIAL EDUCATION 3,955					
All rooms of different sizes separately					
Self-Contained SPED					
Self-Contained SPED - LLP Suite	2,000	1	2,000		
Self-Contained SPED - toilet					
Resource Room	450	1	450		
Small Group Room / Reading	180	1	180		
Small Group Room / OT and PT	375	1	375		
Small Group Room / Speech and Language	180	2	360		
ART & MUSIC 2,656					
Art Classroom - 25,000	1	1,175	1,175		
Art Workshop w/ Storage & Min					
Music Classroom / Large Group - 25-50	1	875	875		
Music Practice Ensemble					
HEALTH & PHYSICAL EDUCATION 3,436					
Gymnasium	1	3,380	3,380		
Gym Showerroom	1	240	240		
Health Instructor's Office w/ Shower & Toilet					
MEDIA CENTER 2,256					
Media Center / Reading Room	1	2,250	2,250		

ES – Undersized Spaces (by room size)

➤ Bowman: SPED, art, music, gym, cafeteria, library, medical

➤ Bridge: SPED, art, music, gym, cafeteria, library

➤ Estabrook: none

➤ Fiske: cafeteria, ELL, a few support spaces

➤ Harrington: music, gym, cafeteria

➤ Hastings: art, music, gymnasium, medical, admin.



Lexington Master Plan – Phase 1

SMMA

Proposed Space Summary- Elementary Schools

Bowman Elementary		Existing Conditions			MSSA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			25,656			23,896	
...All classrooms of different sizes separately							
Pre-Kindergarten w/ toilet	4	1,000	4,000	1,200	4	4,800	1,080 SF min - 1,320 SF max
Kindergarten w/ toilet	17	875	14,875	1,200	4	4,800	1,080 SF min - 1,320 SF max
General Classrooms - Grade 1-6	3	850	2,550	956	20	19,000	959 SF min - 1,000 SF max
General Classrooms - Grade 1-6	2	900	1,800				
Gen/Ext Classrooms - Grade 1-6	1	900	900				
ELT/Small Group Room	1	900	900				
Reading small group room							
Gen Ed Support Small group instruction	1	900	900				
Gen Ed Support Library Library							
SPECIAL EDUCATION			3,326			6,046	
...Extremes of different sizes separately							
Self-Contained SPED			0				
Self-Contained SPED - LIP Suite	2,000		2,000	956	4	3,800	3,800 SF min in self-contained SPED
Self-Contained SPED - toilet			0				
Resource Room	450		450	60	4	240	
Small Group Room / Reading	100		100	500	3	1,500	10 ave. 60 SF min, 70 SF max
Small Group Room / OT and PT	375		375	500	1	500	10 ave. 60 SF min, 70 SF max
Small Group Room / Speech and Language	100		100				
ART & MUSIC			2,636			5,896	
Art Classroom - 25 seats	1	1175	1,175	1,000	2	2,000	schedule 2 times / week / student
Art Workshop, w/ Storage & Min			0	150	2	300	
Music Classroom / Large Group : 25-50 seats	1	875	875	1,200	2	2,400	seated, standing, 2 min / week / student
Music Practice / Ensemble			0	75	4	300	
HEALTH & PHYSICAL EDUCATION			3,626			6,396	
Gymnasium	1	3800	3,800	8,000	1	8,000	6,000 SF min, 8,000 SF max
Gym Storeroom	1	240	240	150	1	150	
Health Instructor's Office w/ Shower & Toilet			0	150	1	150	
MEDIA CENTER			2,256			3,294	
Media Center / Reading Room	1	2250	2,250	3,294	1	3,294	



Lexington Master Plan – Phase 1

SMMA

Proposed Space Summary- Elementary Schools

Bridge Elementary		Existing Conditions			MSSA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			24,446			23,896	
...All classrooms of different sizes separately							
Pre-Kindergarten w/ toilet	4	1,000	4,000	1,200	4	4,800	1,080 SF min - 1,320 SF max
Kindergarten w/ toilet	17	875	14,875	1,200	4	4,800	1,080 SF min - 1,320 SF max
General Classrooms - Grade 1-6	3	850	2,550	956	20	19,000	959 SF min - 1,000 SF max
General Classrooms - Grade 1-6	2	900	1,800				
Gen/Ext Classrooms - Grade 1-6	1	900	900				
ELT/Small Group Room			0				
Reading small group room			0				
Gen Ed Support Small group instruction			0				
Gen Ed Support Library Library			0				
SPECIAL EDUCATION			3,196			6,046	
...Extremes of different sizes separately							
Self-Contained SPED			0				
Self-Contained SPED - LIP Suite	2,000		2,000	956	4	3,800	3,800 SF min in self-contained SPED
Self-Contained SPED - toilet			0				
Resource Room	450		450	60	4	240	
Small Group Room / Reading	100		100	500	3	1,500	10 ave. 60 SF min, 70 SF max
Small Group Room / OT and PT	375		375	500	1	500	10 ave. 60 SF min, 70 SF max
Small Group Room / Speech and Language	100		100				
ART & MUSIC			2,636			5,896	
Art Classroom - 25 seats	1	1175	1,175	1,000	2	2,000	schedule 2 times / week / student
Art Workshop, w/ Storage & Min			0	150	2	300	
Music Classroom / Large Group : 25-50 seats	1	875	875	1,200	2	2,400	seated, standing, 2 min / week / student
Music Practice / Ensemble			0	75	4	300	
HEALTH & PHYSICAL EDUCATION			3,626			6,396	
Gymnasium	1	3800	3,800	8,000	1	8,000	6,000 SF min, 8,000 SF max
Gym Storeroom	1	240	240	150	1	150	
Health Instructor's Office w/ Shower & Toilet			0	150	1	150	
MEDIA CENTER			2,256			3,294	
Media Center / Reading Room	1	2250	2,250	3,294	1	3,294	



Lexington Master Plan – Phase 1

SMMA

Proposed Space Summary- Elementary Schools

Bowman Elementary		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ^a	# OF RMS	area totals	ROOM NFA ^a	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES							
(List classrooms of different sizes separately)							
Pre-Kindergarten w/ toilet				1,200		4,800	100, SF. min., 1,000, SF. max.
Kindergarten w/ toilet	4	1000	4,000	1,200	4	4,800	100, SF. min., 1,000, SF. max.
General Classrooms - Grade 1-6	17	875	14,875	950	20	19,000	100, SF. min., 1,000, SF. max.
General Classrooms - Grade 1-6	3	850	2,550				
General Classrooms - Grade 1-6	1	250	250				
ELL, small group room	95	1	95				
Reading small group room							
Classroom - Grade 1-6	100	1	100				
Gen Ed Support University Library							
SPECIAL EDUCATION							
(List rooms of different sizes separately)							
Self-Contained SPED				950	4	3,800	4,000, if pos. in self-contained, RPR...
Self-Contained SPED - LTP Suite	2,000	1	2,000				
Self-Contained SPED - toilet				60	4	240	
Resource Room	450	1	450				
Small Group Room / Reading	180	1	180	500	1	500	100, SF. min., 1,000, SF. max.
Small Group Room / OT and PT	375	1	375				
Small Group Room / Speech and Language	780	2	1,560				
ART & MUSIC							
2,650							
Art Classroom - 25 seats	1175	1	1,175	1,000	2	2,000	100, SF. min., 1,000, SF. max.
Art Workroom w/ Storage & Min				150	2	300	
Music Classroom / Large Group - 25-50	1	875	875				
Music Practice / Ensemble				75	4	300	
HEALTH & PHYSICAL EDUCATION							
3,620							
Gymnasium	1	3380	3,380	6,000	1	6,000	100, SF. min., 1,000, SF. max.
Gym Storage	1	240	240				
Health Instructor's Office w/ Shower & Toilet				150	1	150	
MEDIA CENTER							
2,250							
Media Center / Reading Room	1	4250	4,250	3,204	1	3,204	

ES – Undersized Spaces (by program)

- Bowman: **SPED, art, music, PE, library**
- Bridge: **SPED, art, music, PE, library**
- Estabrook: **none**
- Fiske: **SPED**
- Harrington: **SPED, PE**
- Hastings: **SPED, art, music, PE**



Lexington Master Plan – Phase 1

SMMA

Bowman Elementary		Existing Conditions			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ^a	# OF RMS	area totals	ROOM NFA ^a	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES							
(List classrooms of different sizes separately)							
Pre-Kindergarten w/ toilet				1,200		4,800	100, SF. min., 1,000, SF. max.
Kindergarten w/ toilet	4	1000	4,000	1,200	4	4,800	100, SF. min., 1,000, SF. max.
General Classrooms - Grade 1-6	17	875	14,875	950	20	19,000	100, SF. min., 1,000, SF. max.
General Classrooms - Grade 1-6	3	850	2,550				
General Classrooms - Grade 1-6	1	250	250				
ELL, small group room	95	1	95				
Reading small group room							
Classroom - Grade 1-6	100	1	100				
Gen Ed Support Small group instruction	900	1	900				
Gen Ed Support University Library							
SPECIAL EDUCATION							
(List rooms of different sizes separately)							
Self-Contained SPED				950	4	3,800	4,000, if pos. in self-contained, RPR...
Self-Contained SPED - LTP Suite	2,000	1	2,000				
Self-Contained SPED - toilet				60	4	240	
Resource Room	450	1	450				
Small Group Room / Reading	180	1	180	500	1	500	100, SF. min., 1,000, SF. max.
Small Group Room / OT and PT	375	1	375				
Small Group Room / Speech and Language	780	2	1,560				
ART & MUSIC							
2,650							
Art Classroom - 25 seats	1175	1	1,175	1,000	2	2,000	100, SF. min., 1,000, SF. max.
Art Workroom w/ Storage & Min				150	2	300	
Music Classroom / Large Group - 25-50	1	875	875				
Music Practice / Ensemble				75	4	300	
HEALTH & PHYSICAL EDUCATION							
3,620							
Gymnasium	1	3380	3,380	6,000	1	6,000	100, SF. min., 1,000, SF. max.
Gym Storage	1	240	240				
Health Instructor's Office w/ Shower & Toilet				150	1	150	
MEDIA CENTER							
2,250							
Media Center / Reading Room	1	4250	4,250	3,204	1	3,204	

ES – Undersized Spaces (by program)

- Bowman: **SPED, art, music, PE, library**
- Bridge: **SPED, art, music, PE, library**
- Estabrook: **none**
- Fiske: **SPED**
- Harrington: **SPED, PE**
- Hastings: **SPED, art, music, PE**



Lexington Master Plan – Phase 1

SMMA

Proposed Space Summary- Elementary Schools

Bowman Elementary		Existing Conditions			MSSA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			25,656			23,896	
...All classrooms of different sizes separately							
Pre-Kindergarten w/ toilet	4	1,000	4,000	1,200	4	4,800	1,100 SF min - 1,300 SF max
Kindergarten w/ toilet	17	875	14,875	1,200	20	19,200	1,000 SF min - 1,300 SF max
General Classrooms - Grade 1-6	3	850	2,550	956	4	3,824	1,000 SF min - 1,300 SF max
General Classrooms - Grade 1-6	2	900	1,800	956	4	3,824	1,000 SF min - 1,300 SF max
ELT Room	100	0	0	60	4	240	
Reading small group room	100	0	0	500	3	1,500	10 ave. def. chmn.
Gen Ed Support Small group instruction	900	1	900	500	1	500	10 ave. def. chmn.
Gen Ed Support Library Library				75	4	300	
SPECIAL EDUCATION			3,326			6,046	
...All rooms of different sizes separately							
Self-Contained SPED			0				
Self-Contained SPED - LTP Suite	2,000		2,000				
Self-Contained SPED - toilet			0				
Resource Room	450		450				
Small Group Room / Reading	100		100				
Small Group Room / OT and PT	375		375				
Small Group Room / Speech and Language	100		100				
ART & MUSIC			2,636			5,896	
Art Classroom - 25 seats	1	1175	1,175	1,000	2	2,000	schedule 2 times / week / student
Art Workroom, w/ Storage & Min			0	150		300	
Music Classroom / Large Group : 25-50 seats	1	875	875	1,200	2	2,400	seated, standing, 2 min / week / student
Music Practice / Ensemble			0	75	4	300	
HEALTH & PHYSICAL EDUCATION			3,626			6,396	
Gymnasium	1	3500	3,500	8,000	1	8,000	6,000 SF min. size
Gym Storeroom			0	150		150	
Health Instructor's Office w/ Shower & Toilet			0	150		150	
MEDIA CENTER			2,256			3,204	
Media Center/ Reading Room	1	2250	2,250	3,204	1	3,204	



Lexington Master Plan – Phase 1

SMMA

Elementary School - Sections

Elementary schools sections per grade are developed based on the number of students per grade and class size guidelines. In addition, one or two additional classrooms per school are added to reduce large class sizes when class sizes are too large (bubbles classes).

The MSBA Summary of Spaces is based on an average number of students for the school and does not recognize the number of sections needed per grade.



Lexington Master Plan – Phase 1

SMMA

Elementary School - Sections

Example, Grades 1 - 5:

200 students = 40 students/grade = 2 sections / grade =
10 sections req, MSBA 9 CR's

300 students = 60 students/grade = 3 sections / grade =
15 sections req, MSBA 13 CR's

400 students = 80 students/grade = 4 sections / grade =
20 sections req, MSBA 17 CR's



Lexington Master Plan – Phase 1

SMMA

Elementary Schools Capacity

	Population (End of School Year)	2014 - 2015 Population	Current Population - MSBA			Available Classrooms - Lexington			Capacity		Comments
			# of Kindergarten CR MSBA	# of Gen Ed CR's (1-5) MSBA	Total MSBA	# of Kindergarten CR as used	CR's (1 - 5) as used Permanent	Total Classrooms (K + Grade Level)	CR's (1 - 5) as used Modular	Current Capacity w/o Modulars	
Bowman	563	576	5	20	25	4	22	26	0	578	578 2 CR Modulars for LLP SPED Program, At / Over Capacity
Bridge	543	585	5	20	25	5	21	26	0	578	578 At / Over Capacity
Estabrook	477	500	4	18	22	4	21	25	0	596	596 excess capacity
Fiske	480	489	4	17	21	4	18	22	0	486	486 At / Over Capacity
Harrington	432	446	4	15	19	4	15	19	0	417	417 excludes PK, At / Over Capacity
Hastings	423	426	3	16	19	3	14	17	4	376	468 Permanent building is Over Capacity, excess capacity when including modular classrooms
	2918	3022	25	106	131	24	111	135	139	3031	3123
Harrington											
PreK	98 FTE		-	-	-				100 FTE		At / Over Capacity
K assumes 18 students / class											
Gr 1 - 5 assume 23 students / class											



Lexington Master Plan – Phase 1

SMMA

2014 – 2015 Enrollments as of 8/26/2014

Grade	Bowman	Bridge	Estabrook	Fiske	Harrington	Hastings	TOTALS
K	22	18	15	18	19	20	426
	22	18	17	18	19	18	23 Sections
	21	18	16	17	20	20	18.8 Average class size
	21	18	16	17			
				18			
					Small Sections		
1	20	22	20	22	20	22	486
	21	22	22	22	20	22	23 Sections
	21	22	21	21	21	21	21.1 Average class size
	22	22	20	21	19		
2	21	25	19	21	23	20	515
	23	24	19	21	23	20	24 Sections
	22	24	19	21	23	19	21.4 Average class size
	22	24	19	21		20	
3	19	25	20	23	25	23	484
	20	24	19	22	25	20	22 Sections
	20	25	19	23	25	23	22 Average class size
	20	25	19				
4	23	25	26	25	21	20	555
	23	25	26	24	21	20	24 Sections
	23	25	26	24	20	19	23.2 Average class size
	23	25	26	24	20	21	
5	27	23	25	28	21	19	556
	26	22	23	28	20	20	24 Sections
	26	22	24	28	20	19	23.1 Average class size
	26	21	24		21	20	
			23				
Total Enrollment	576	585	500	489	446	426	3022
Sections	26	26	24	22	21	21	140



Lexington Master Plan – Phase 1

SMMA

Elementary Schools Capacity

Population (End of School Year)	2014 - 2015 Population	Current Population - MSBA			Available Classrooms - Lexington			Capacity			
		# of Kindergarten CR MSBA	# of Gen Ed CR's (1-5) MSBA	Total MSBA	# of Kindergarten CR as used	CR's (1-5) as used Permanent	Total Classrooms (K + Grade Level)	CR's (1-5) as used Modular	Current Capacity w/o Modulars	Current Capacity w/ Modulars	Comments
Bowman	563	576	5	20	25	4	22	26	0	578	578 2 CR Modulars for LLP SPED Program, At / Over Capacity
Bridge	543	585	5	20	25	5	21	26	0	573	573 At / Over Capacity
Estabrook	477	500	4	18	22	5	22	27	0	596	596 excess capacity
Fiske	480	489	4	17	21	4	18	22	0	486	486 At / Over Capacity
Harrington	432	446	4	15	19	4	15	19	0	417	417 excludes PK, At / Over Capacity
Hastings	423	426	3	16	19	3	14	17	4	376	468 Permanent building is Over Capacity, excess capacity when including modular classrooms
	2918	3022	25	106	131	25	112	137	139	3026	3118
Harrington PreK	98 FTE	-	-	-					100 FTE		At / Over Capacity
K assumes 18 students / class Gr 1 - 5 assume 23 students / class											



Lexington Master Plan – Phase 1

SMMA

Elementary Schools Summary (based on MSBA class size guidelines, K=18, Grades 1-5= 23)

- Bowman:At / Over Capacity
- Bridge:At / Over Capacity
- Estabrook:Under Capacity
- Fiske:Over Capacity
- Harrington:Over Capacity
- Hastings:Under Capacity*
- Pre-K Program (at Harrington)At Capacity

* including modular classrooms



Lexington Master Plan – Phase 1

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Elementary Schools Short Term, '15-16

- Bowman: + 2 students
- Bridge: + 6 students
- Estabrook: – 12 students
- Fiske: + 20 Students
- Harrington:+ 11 Students
- Hastings: no change
- Pre-K Program (at Harrington)unknown

Note: Figures are taken from the 8/26/14 Enrollment Report which uses the Cohort Survival Method



Lexington Master Plan – Phase 1

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Elementary Schools Relief Valves

- Populations Come In Lower than Forecast
- Dependent on Population Projections
- Slight Increase in Class Sizes
- Redistrict Adjustments
- Out of District for Pre-K
- Use Art and Music as Classrooms
- Divide the Gym into: Gym, Art and Music spaces



Lexington Master Plan – Phase 1

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Enrollment Growth

Elementary schools:

- Increase of 104 students since May
- Anticipation of 268 students (5 years)
- Straight line analysis:
 - (38) Kindergarten students / 23 sections = 1.6 students / section or 2 total sections
 - (230) Grades 1 – 5 students / 117 sections = 1.9 students / section or 10 total sections



Lexington Master Plan – Phase 1

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Middle Schools – Undersized or Oversized Spaces (by room size)

- Clarke - Under: Most classrooms, most SPED, science
- Clarke – Over: Art, Band/Chorus, gym, fitness, locker rooms, auditorium and stage, administration
- Diamond - Under: science labs, some SPED, art, library, cafeteria, medical
- Diamond – Over: music, fitness, locker rooms



Lexington Master Plan – Phase 1

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Middle Schools – Undersized or Oversized Spaces (Program)

- Clarke - Under: SPED, science
- Clarke – Over: Art, Band/Chorus, gym, PE/fitness (overall net SF)
- Diamond - Under: SPED, science, vocational and technology, library, cafeteria, medical
- Diamond – Over: PE/fitness, media center



Lexington Master Plan – Phase 1

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Middle Schools Short-Term, '15-16

- Clarke: + 29 students
- Diamond: + 13 students

Middle Schools Enrollments:

- Increase of 28 students since May
- Anticipation of 222 students (5 years) Clarke = 982, Diamond = 857

Middle Schools Relief Valves

- To be Determined (Phase 2)



Lexington Master Plan – Phase 1

SMMA

High Schools – Undersized or Oversized Spaces (by room size)

Undersized:

- Most Classrooms: 500 – 775 sf vs. 850 sf
- All Science Lecture / Labs: 1,000 – 1,270 sf vs 1,440 sf
- SPED Classrooms
- Media Center
- Stage

Oversized:

- Gymnasium and Physical Ed
- Auditorium
- Administration



Lexington Master Plan – Phase 1

SMMA

High Schools – Undersized or Oversized Spaces (Program)

Undersized:

- Gen Ed Classrooms
- All Science Lecture / Labs
- SPED
- Media Center

Oversized:

- Gymnasia and Physical Ed
- Art and Music
- Auditorium
- Administration



Lexington Master Plan – Phase 1

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High School Short-Term, '15-16

- High School: + 62 students

High School Enrollment Growth:

- Increase of 32 students since May
- Anticipation of 158 students (5 years)
- Anticipation of 397 students (10 years)

High School Relief Valves

- Recent 10 classroom + Modular Addition
- Phase 2 Modular Addition



Lexington Master Plan – Phase 1

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Next Steps

- Short Term Solution for Pre-K
- Additional High School Analysis Required
- Enrollment Projections Analysis
- Formalize Report
- Phase 2 – Scope and Schedule
 - Short-Term Space Short-fall – Nov '14 STM or '15 ATM
 - Demands of 21st Century Education
- Phase 3
 - District Wide Long Term Needs
 - Demands of 21st Century Education



Lexington Master Plan – Phase 1

SMMA

LEXINGTON PUBLIC SCHOOLS MASTER PLAN

*Phase 2 – Elementary Schools Short and Long
Term Options Study*

Lexington Public Schools

Lexington, Massachusetts

November 10, 2014

Submitted by,

SMMA

Symmes Maini & McKee Associates

Cambridge, MA

SMMA No. 14043.00

LEXINGTON PUBLIC SCHOOLS MASTER PLAN*Phase 2 - Elementary Schools Short and Long Term Options Study****Table of Contents***

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- 6.2 STUDY DRAWINGS PACKAGE (APPENDED SEPARATELY)

Section 1

Executive Summary

LEXINGTON PUBLIC SCHOOLS MASTER PLAN
Phase 2 – Elementary Schools

SECTION 1

EXECUTIVE SUMMARY

1.1 ACKNOWLEDGMENTS

Symmes Maini & McKee Associates (SMMA) would like to acknowledge the participation and guidance provided by the district administration, Master Plan Committee, and the teachers and staff of the district.

Ad Hoc School Master Planning Committee (AhSMPC)

Dr. Paul Ash, Superintendent
Judy Crocker, School Committee
Jessie Steigerwald, School Committee
Jon Himmel, Permanent Building Committee
Peter Kelley, Board of Selectmen (BoS)
Carl Oldenburg, Permanent Building Committee
Patrick Goddard, Director, Department of Public Facilities (DPF)

Committee Liaisons

Rod Cole, Capital Expenditures Committee
Mollie Garberg, Appropriation Committee
Alan Levine, Appropriation Committee

School Committee
Margaret Coppe, Chair
Judith Crocker
Jessie Steigerwald
Alessandro Alessandrini
Abigail Schwartz, Student Representative

Lexington Public Facilities Department

Patrick Goddard
Mark Barrett

1.2 INTRODUCTION

This report summarizes the findings of Lexington Public Schools Master Plan - Phase 2 Elementary Schools Short and Long Terms Options Study. The intent of the study is understand the impact of potential short term solutions to increase space capacity at the elementary schools level as well as understand the implications of a multi-step longer term solution to the Harrington Elementary School.

The Phase 2 – Elementary Schools scope comprises three distinct tasks as follows:

1. Study the impact of relocating one Pre-K program space from the Harrington Elementary School into the Central Administration Building (Old Harrington),
2. Study the impact of relocating the entire Pre-K program from the Harrington Elementary School to the Central Administration Building (Old Harrington), and once relocated, repurpose the former Pre-K space in the Harrington Elementary School to K-5 space,
3. Study the impact of leasing two classroom-size modular units at each of the Fiske, Bowman and Bridge Elementary Schools.

1.3 OPTIONS SUMMARY

Relocate One Pre-K Program Space from the Harrington Elementary School into the Central Administration Building (Old Harrington)

The intent of relocating one Pre-K program space from the Harrington Elementary School is to create additional program space for the K-5 program in the Harrington Elementary School in the short term.

The gross motor (OT/PT) space will be relocated from the Harrington Elementary School into the lower level of the Central Administration Building (Old Harrington). The gross motor (OT/PT) space has been located in the west end of the lower level wing, which allows for direct access from the rear parking lot. Further, the existing spaces in this area are of sufficient size and have access to adjacent toilet room facilities. The existing space will be renovated to include a reception and waiting area, the gross motor (OT/PT) space and accessible toilet room facilities.

The work, if selected, is scheduled to be completed for August 2015 and the estimated cost is \$420,000*.

Relocate the entire Pre-K Program from the Harrington Elementary School to the Central Administration Building (Old Harrington)

There are two distinct options to the relocation of the entire Pre-K program into the Central Administration Building (Old Harrington). Option 1 locates the entire Pre-K program within the existing permanent structure of the Central Administration Building (Old Harrington) with resultant displacement of existing functions.

Option 2 locates the majority of the Pre-K program within the existing permanent structure of the Central Administration Building (Old Harrington) with the remaining being located in a prefabricated addition. Option 2 reduces the extent of displacement of existing functions.

In Option 1, the entire Pre-K program is located within the existing permanent structure of the Central Administration Building (Old Harrington). The parking lot will be expanded and the play ground structure will be relocated. The renovated space will be upgraded with new roofing, exterior windows and doors, as well as renovated to meet accessibility requirements and refinished with new floor, wall and ceiling finishes. The spaces will be provided with air conditioning. The displaced administration spaces will be located in a prefabricated addition located in the rear parking lot. The professional development spaces will be located in the converted existing gymnasium on the second floor. The existing non-renovated space of the Central Administration Building (Old Harrington) will be upgraded for full accessibility compliance and full fire sprinklering.

The work, if selected, is scheduled to be completed for August 2016 and the estimated cost is \$13,700,000*.

In Option 2, the majority of the Pre-K program is located within existing permanent structure of the Central Administration Building (Old Harrington) with the remaining being located in a prefabricated addition. The parking lot will be expanded and the play ground structure will be relocated. The renovated space will be upgraded with new roofing, exterior windows and doors, as well as renovated to meet accessibility requirements and refinished with new floor, wall and ceiling finishes. The spaces will be provided with air conditioning. The displaced professional development and training room spaces will be located in the converted existing gymnasium on the second floor. The existing non-renovated space of the Central Administration Building (Old Harrington) will be upgraded for full accessibility compliance and full fire sprinklering.

The work, if selected, is scheduled to be completed for August 2016 and the estimated cost is \$12,100,000*.

Repurpose the Former Pre-K Space in the Harrington Elementary School to K-5 Education Space

Once the Pre-K program is relocated to the Central Administration Building (Old Harrington), the former Pre-K program space in the Harrington Elementary School will be repurposed to K-5 program space for the long term. Four sections per grade can be accommodated. The former Pre-K pod will become the classrooms for the third grade. The toilet rooms will be renovated as appropriate for this grade structure.

The work, if selected, is scheduled to be completed for March 2017 and the estimated cost is \$330,000*.

Lease Two Classroom-Size Modular Units at Each of the Fiske, Bowman and Bridge Elementary Schools**Fiske Elementary School**

Two classroom sized modular units will be leased for three years and be located on the east side of the school. An enclosed corridor connector will be constructed from the cafeteria to the modular units. Two geo-thermal wells will be relocated to accommodate the modular units' installation. The modular units will be inter-connected to the existing fire sprinkler, electrical, telephone, data, paging and security systems in the existing Fiske Elementary School.

The work, if selected, is scheduled to be completed for August 2015 and the estimated cost is \$980,000*.

Bowman Elementary School

Two classroom sized modular units will be leased for three years and be located on the north side of the school in the rear parking lot and attached to the existing modular classroom corridor connector. The modular units will be provided with two toilet rooms. The modular units will be inter-connected to the existing water, fire sprinkler, electrical, telephone, data, paging and security systems in the existing Bowman Elementary School. The toilet rooms in the modular units will be connected to the existing site sanitary system.

The work, if selected, is scheduled to be completed for August 2015 and the estimated cost is \$690,000*.

Bridge Elementary School

Two classroom sized modular units will be leased for three years and be located on the south side of the school in the rear parking lot. An enclosed corridor connector will be constructed from the existing corridor within the Bridge School to the modular units. The modular units will be provided with two toilet rooms. The modular units will be inter-connected to the existing water, fire sprinkler, electrical, telephone, data, paging and security systems in the existing Bridge Elementary School. The toilet rooms in the modular units will be connected to the existing site sanitary system.

The work, if selected, is scheduled to be completed for August 2015 and the estimated cost is \$730,000*.

Note: Leasing the modulars at Fiske, Bowman or Bridge for six years would be the equivalent cost of purchasing the modulars. The incremental increase in cost would be between \$120,000 and \$150,000 for each school.

**Cost model based on conceptual plans and schedule. Apply 3.5% compounded escalation factor for each year past schedule. The total project cost includes the construction cost, design and engineering fees, reimbursable expenses, permitting, bid document printing, furniture and equipment relocation /protection and contingencies.*

Section 2

Relocate One Pre-K Program Space
from the Harrington Elementary School
into the Central Administration Building
(Old Harrington)

LEXINGTON PUBLIC SCHOOLS MASTER PLAN

Phase 2 – Elementary Schools

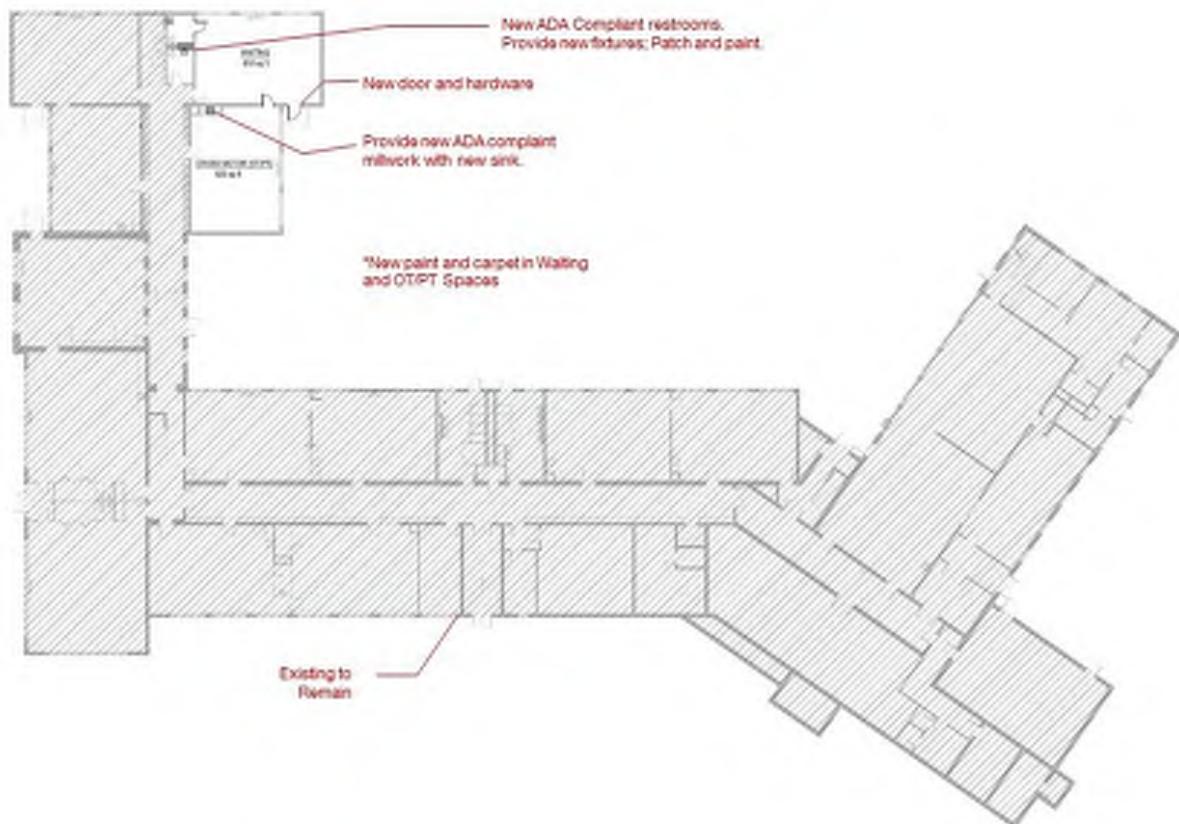
SECTION 2

RELOCATE ONE PRE-K PROGRAM SPACE FROM THE HARRINGTON ELEMENTARY SCHOOL INTO THE CENTRAL ADMINISTRATION BUILDING (OLD HARRINGTON)

2.1 SPACE PLAN

The intent of relocating one Pre-K program space from the Harrington Elementary School is to create additional K-5 program space in the Harrington Elementary School in the short term.

The gross motor (OT/PT) space will be relocated from the Harrington Elementary School into the lower level of the Central Administration Building (Old Harrington). The gross motor (OT/PT) space has been located in the west end of lower level wing, which allows for direct access from the parking rear parking lot. Further, the existing spaces in this area are of sufficient size and have access to adjacent toilet room facilities. The existing space will be renovated to include a reception and waiting area, the gross motor (OT/PT) space and toilet facilities.



Central Administration Building (Old Harrington), Ground Floor – Gross Motor (OT/PT)

The interior spaces will be renovated to meet accessibility requirements and refinished with new floor, wall and ceiling finishes. The spaces will be provided with air conditioning.

2.2 SCHEDULE COMMENTARY

The schedule for the relocation of the one Pre-K program space from the New Harrington is as follows:

1. Commence Design Documents – March 2015
2. Complete Design Documents – April 2015
3. Commence Bidding – April 2015
4. Receive Bids – May 2015
5. Award Construction Contract – May 2015
6. Commence Renovation – June 2015
7. Complete and ready for Occupancy – August 2015

2.3 COST MODEL

The construction cost is estimated to be \$280,000 and the total project cost is estimated to be \$420,000.

The construction costs noted above are delineated in the Study Estimate, dated 10/29/14 and prepared by Daedalus Projects, which is appended to this report.

Should the project not be implemented in the summer of 2015, an escalation factor of 3.5% compounded, needs to be applied to the figures for each year past the summer of 2015.

The total project cost includes the construction cost, design and engineering fees, reimbursable expenses, hazardous material testing and abatement related to flooring and potentially piping insulation, permitting, bid document printing, furniture and equipment relocation /protection and contingencies.

Section 3

Relocate the Entire Pre-K Program
from the Harrington Elementary School
to the Central Administration Building
(Old Harrington)

LEXINGTON PUBLIC SCHOOLS MASTER PLAN
Phase 2 – Elementary Schools

SECTION 3

RELOCATE THE ENTIRE PRE-K PROGRAM FROM THE HARRINGTON ELEMENTARY SCHOOL TO THE CENTRAL ADMINISTRATION BUILDING (OLD HARRINGTON)

There are two distinct options to the relocation of the entire Pre-K program into the Central Administration Building (Old Harrington). Option 1 locates the entire Pre-K program within the existing permanent structure of the Central Administration Building (Old Harrington). Option 2 locates the majority of the Pre-K program within the existing permanent structure of the Central Administration Building (Old Harrington) with the remaining Pre-K program being located in a prefabricated addition. Option 2 reduces the extent of displacement of existing functions.

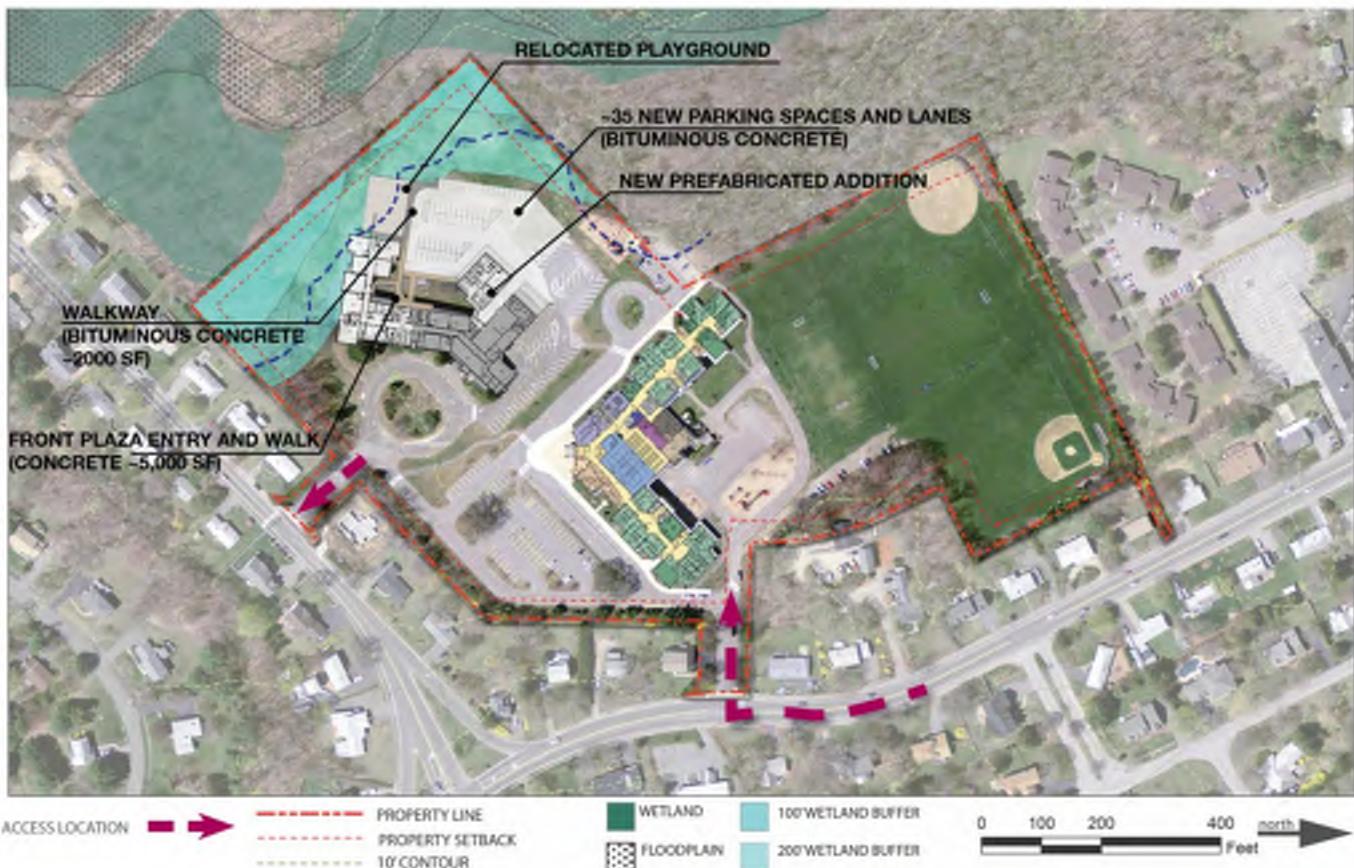
3.1 SPACE PLAN – OPTION 1

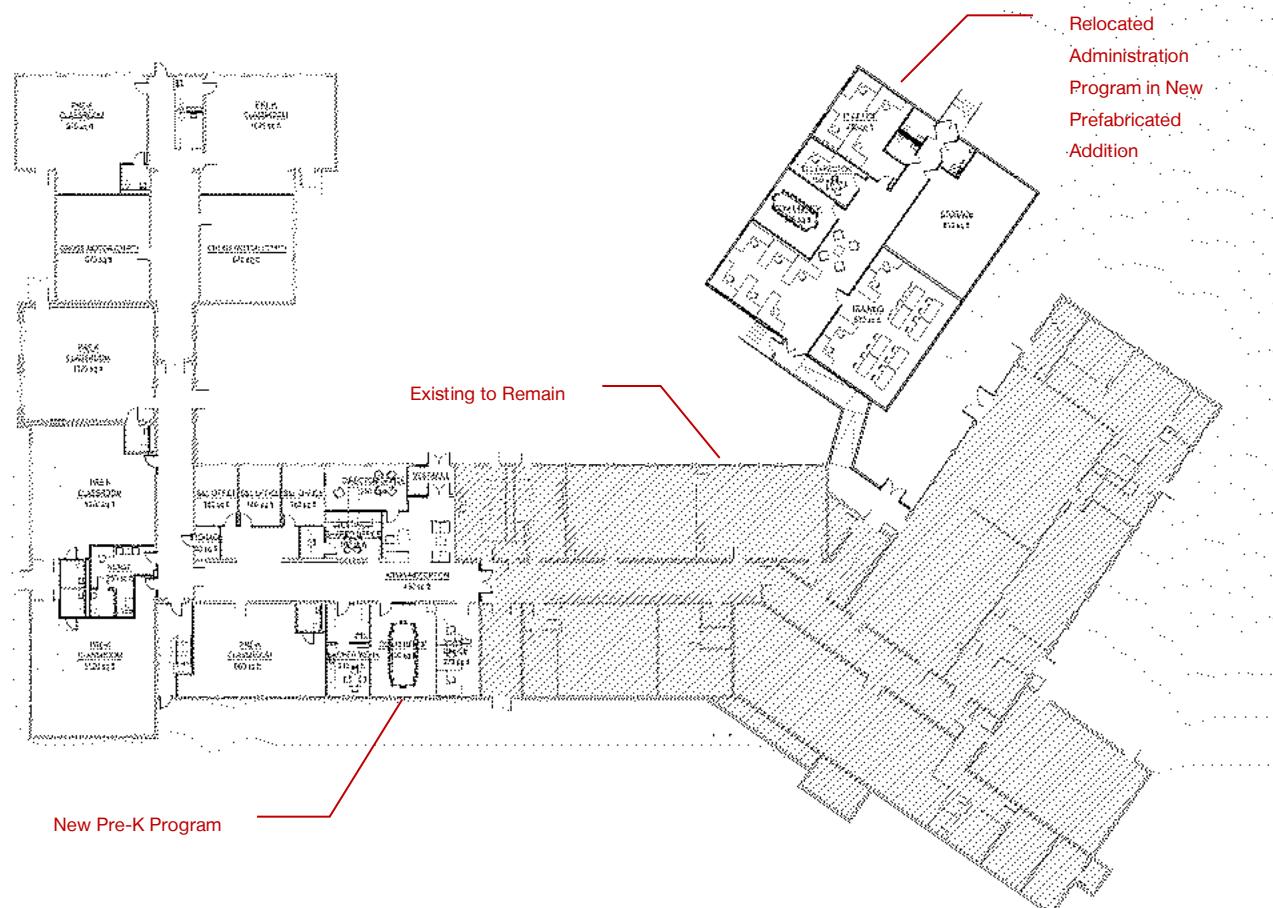
The intent of relocating the entire Pre-K program space from the Harrington Elementary School is to create additional K-5 program space in the Harrington Elementary School for the long term.

The entire Pre-K program is located within existing permanent structure of the Central Administration Building (Old Harrington). The parking lot will be expanded and the play ground structure will be relocated.

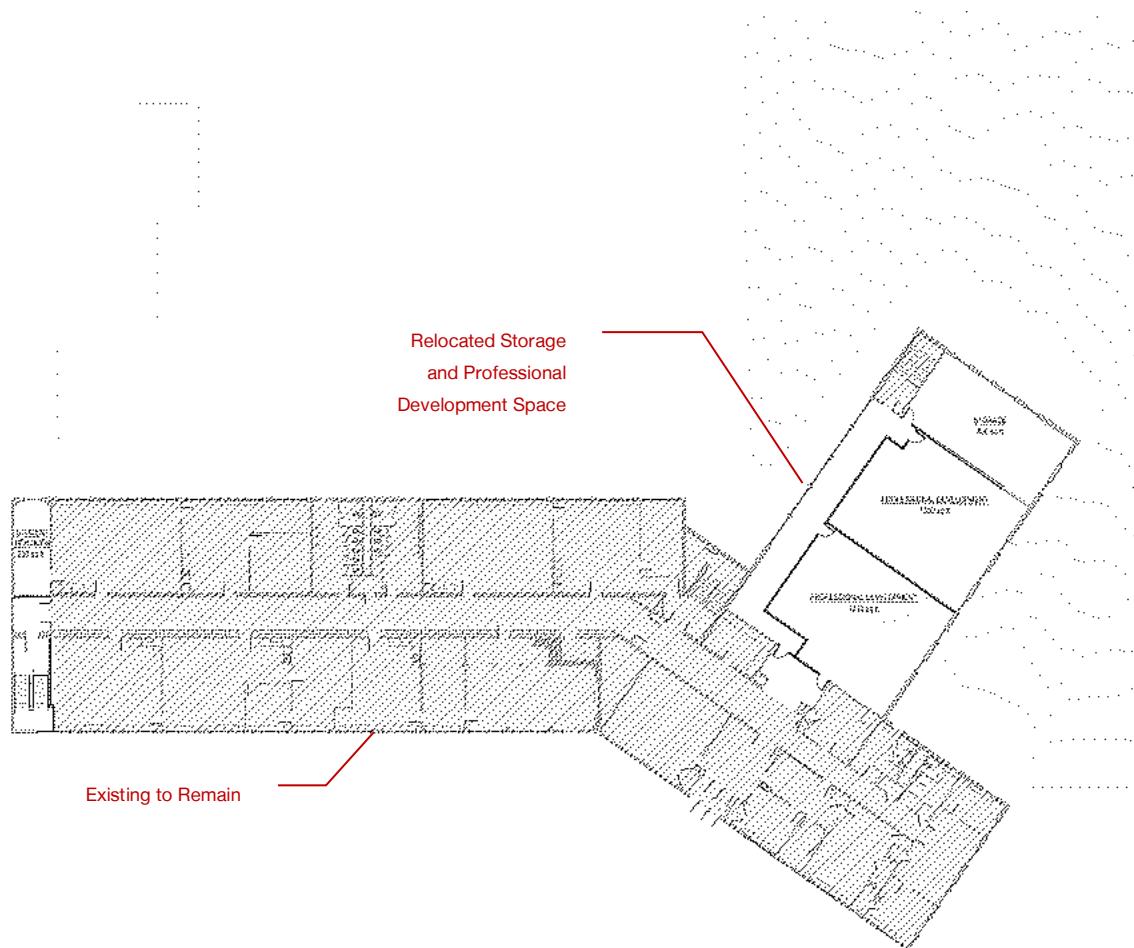


Existing Site Plan





OPTION 1: Ground Floor – Central Administration Building (Old Harrington)



OPTION 1: First Floor – Central Administration Building (Old Harrington)

3.2 SCHEDULE COMMENTARY

The schedule for the relocation of the entire Pre-K program space from the Harrington Elementary School is as follows:

1. Commence Design Documents – May 2015
2. Complete Design Documents – December 2015
3. Commence Bidding – December 2015
4. Receive Bids – January 2016
5. Award Construction Contract – February 2016
6. Commence Renovation – February 2016
7. Complete and ready for Occupancy – August 2016

3.3 COST MODEL

The construction cost is estimated to be \$11,200,000 and the total project cost is estimated to be \$13,700,000.

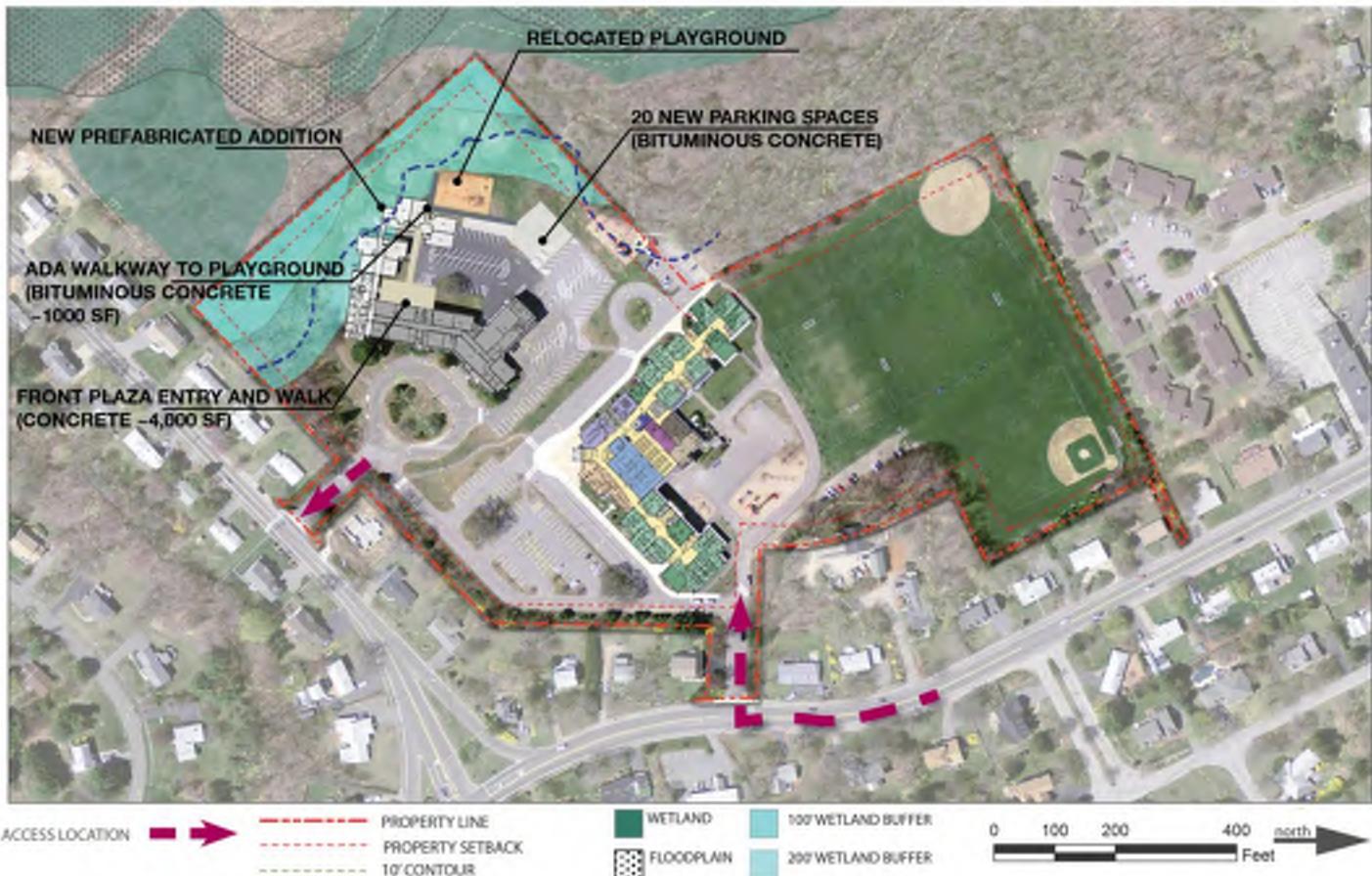
The construction costs noted above are delineated in the Study Estimate, dated 10/29/14 and prepared by Daedalus Projects, which is appended to this report.

Should the project not be implemented in the summer of 2016, an escalation factor of 3.5% compounded, needs to be applied to the figures for each year past the summer of 2016.

The total project cost includes the construction cost, design and engineering fees, reimbursable expenses, hazardous material testing and abatement related to flooring and potentially piping insulation, permitting, bid document printing, furniture and equipment relocation /protection and contingencies.

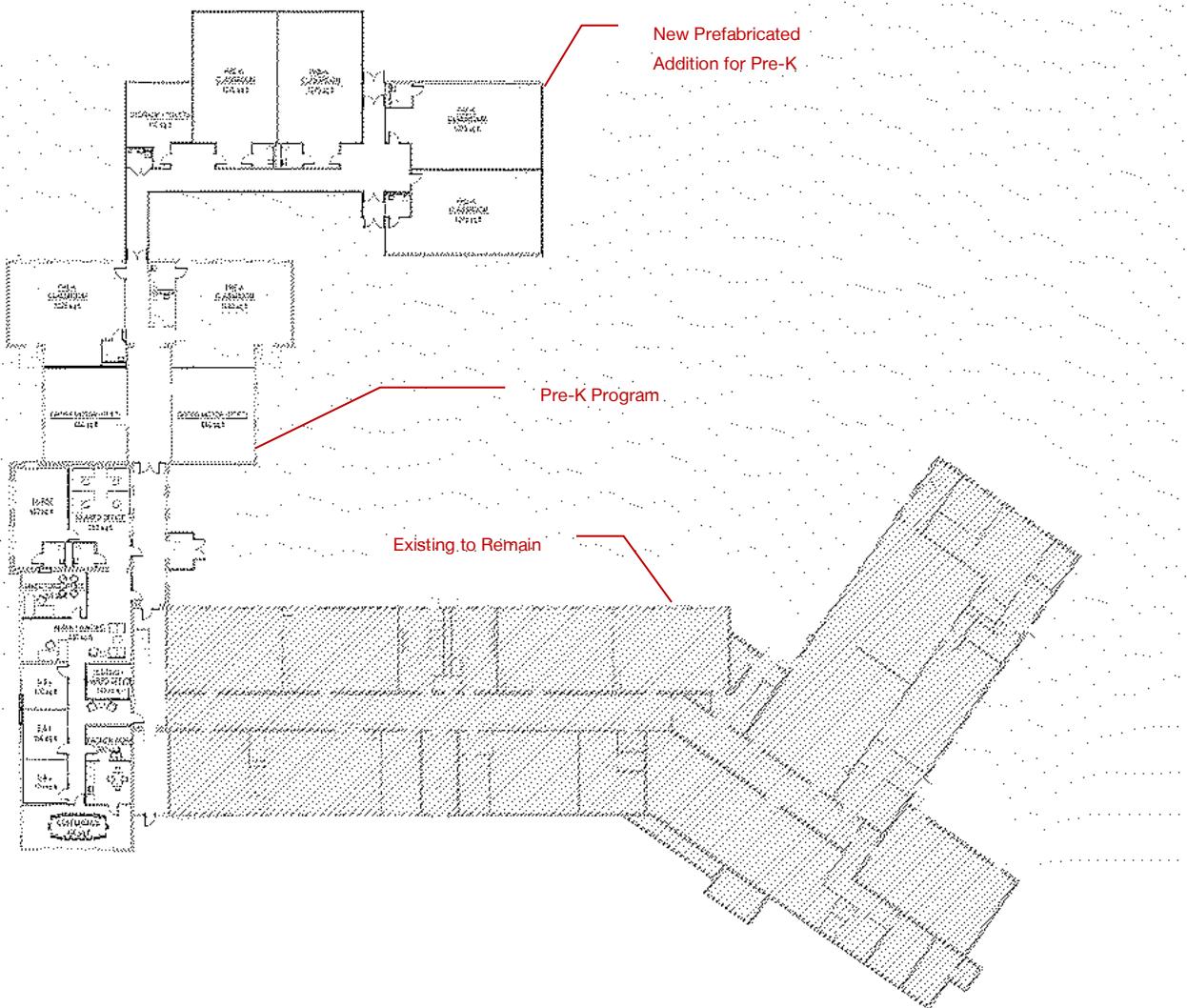
3.4 SPACE PLAN – OPTION 2

The majority of the Pre-K program is located within existing permanent structure of the Central Administration Building (Old Harrington) with the remaining being located in a prefabricated addition. The parking lot will be expanded and the play ground structure will be relocated.

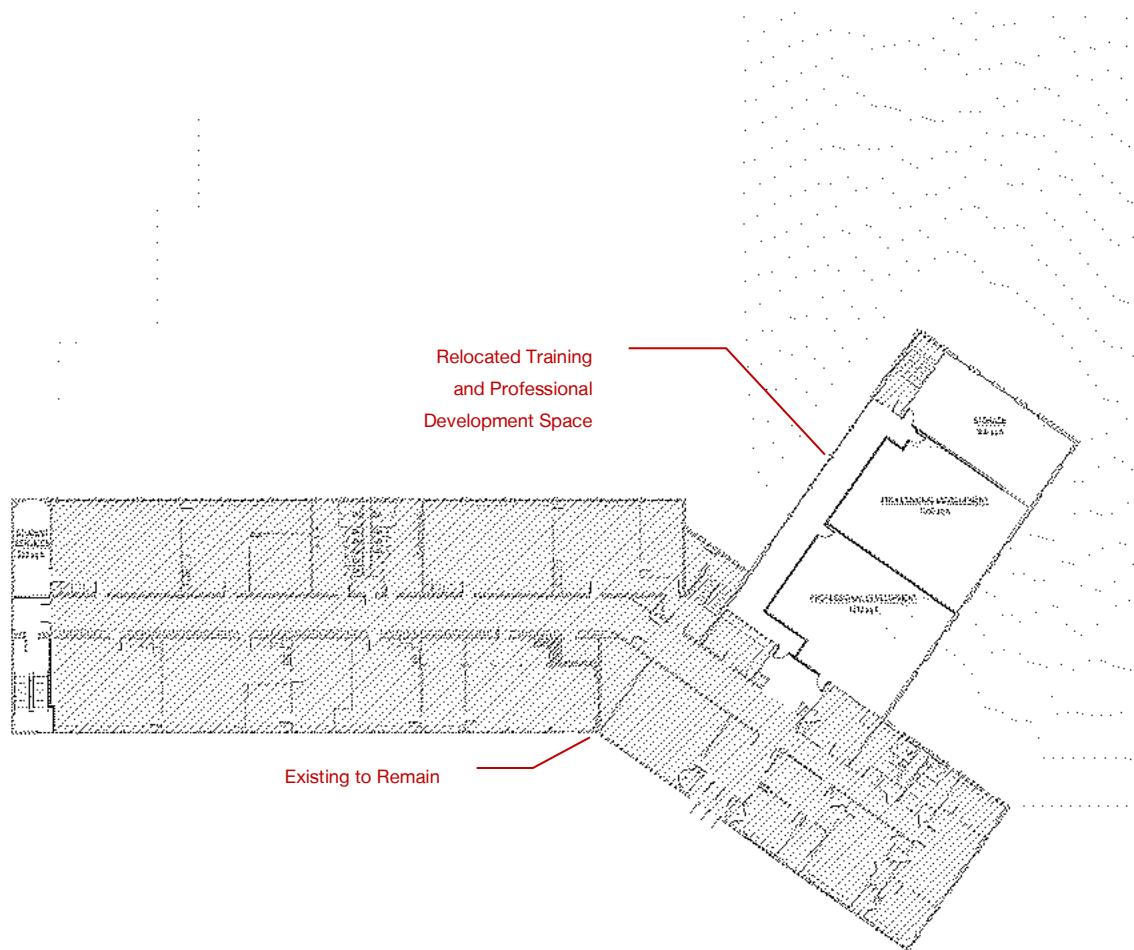


OPTION 2: Site Plan

The renovated space will be upgraded with new roofing, exterior windows and doors, as well as renovated to meet accessibility requirements and refinished with new floor, wall and ceiling finishes. The spaces will be provided with air conditioning. The displaced professional development and training room spaces will be located in the repurposed existing gymnasium on the second floor. The existing non-renovated space of the Central Administration Building (Old Harrington) will be upgraded for full accessibility compliance and full fire sprinklering.



OPTION 2: Ground Floor – Central Administration Building (Old Harrington)



OPTION 2: First Floor – Central Administration Building (Old Harrington)

3.5 SCHEDULE COMMENTARY

The schedule for the relocation of the entire Pre-K program space from the Harrington Elementary School is as follows:

1. Commence Design Documents – May 2015
2. Complete Design Documents – December 2015
3. Commence Bidding – December 2015
4. Receive Bids – January 2016
5. Award Construction Contract – February 2016
6. Commence Renovation – February 2016
7. Complete and ready for Occupancy – August 2016

3.6 COST MODEL

The construction cost is estimated to be \$9,900,000 and the total project cost is estimated to be \$12,100,000.

The construction costs noted above are delineated in the Study Estimate, dated 10/29/14 and prepared by Daedalus Projects, which is appended to this report.

Should the project not be implemented in the summer of 2016, an escalation factor of 3.5% compounded, needs to be applied to the figures for each year past the summer of 2016.

The total project cost includes the construction cost, design and engineering fees, reimbursable expenses, hazardous material testing and abatement related to flooring and potentially piping insulation, permitting, bid document printing, furniture and equipment relocation/protection and contingencies.

Section 4

Repurpose the Former Pre-K Space in
the Harrington Elementary School to
K-5 Education Space

LEXINGTON PUBLIC SCHOOLS MASTER PLAN

Phase 2 – Elementary Schools

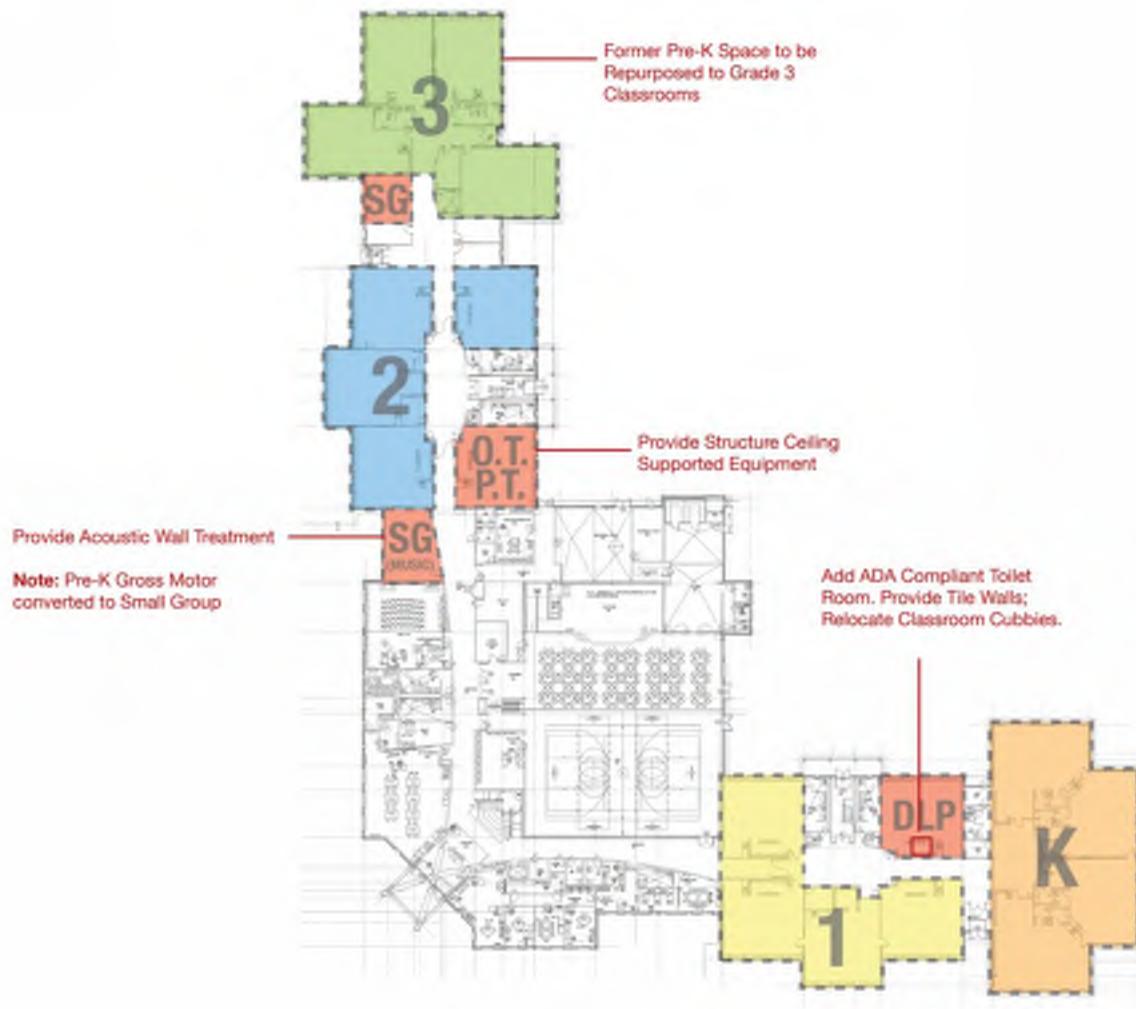
SECTION 4

REPURPOSE THE FORMER PRE-K SPACE IN THE HARRINGTON ELEMENTARY SCHOOL TO K-5 PROGRAM SPACE

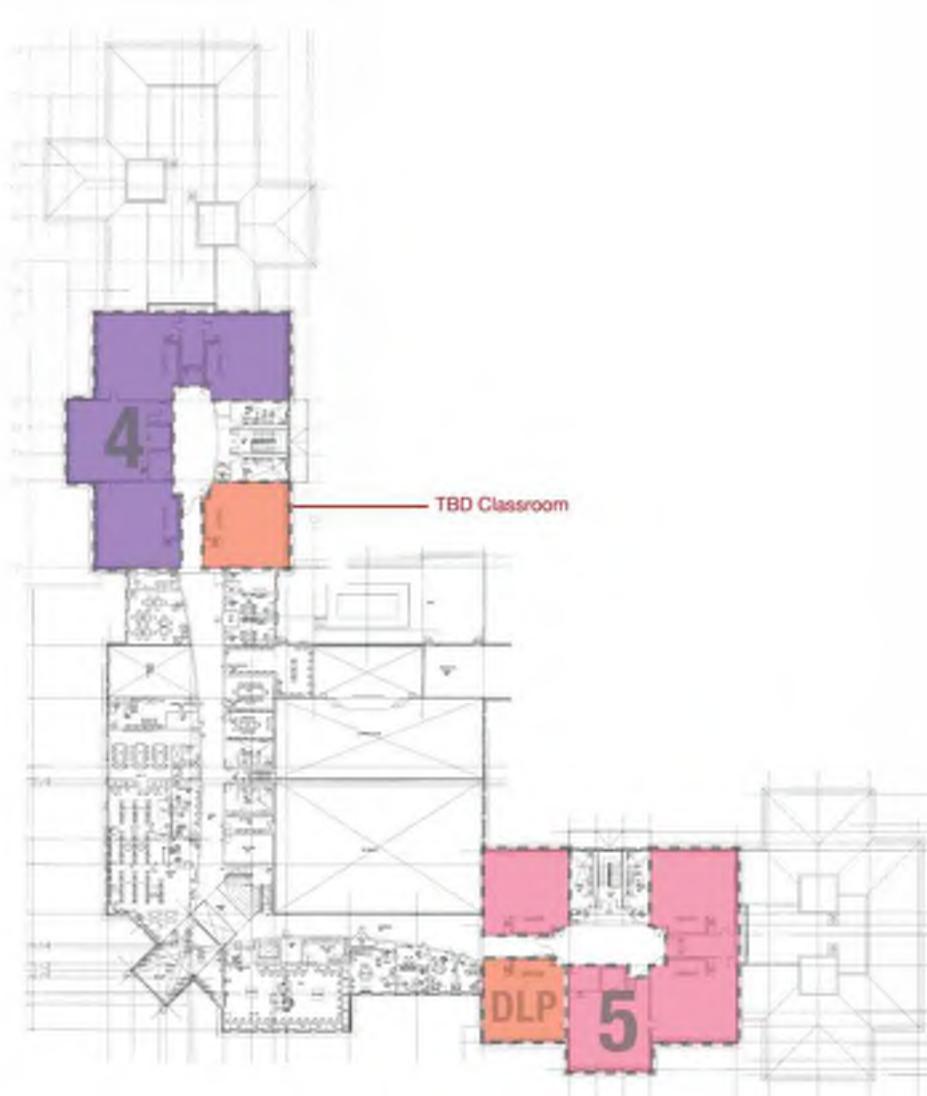
4.1 SPACE PLAN

Once the Pre-K program is relocated to the Central Administration Building (Old Harrington), the former Pre-K program space in the Harrington Elementary School will be repurposed to K-5 program space for the long term. The school can then accommodate four sections per grade.

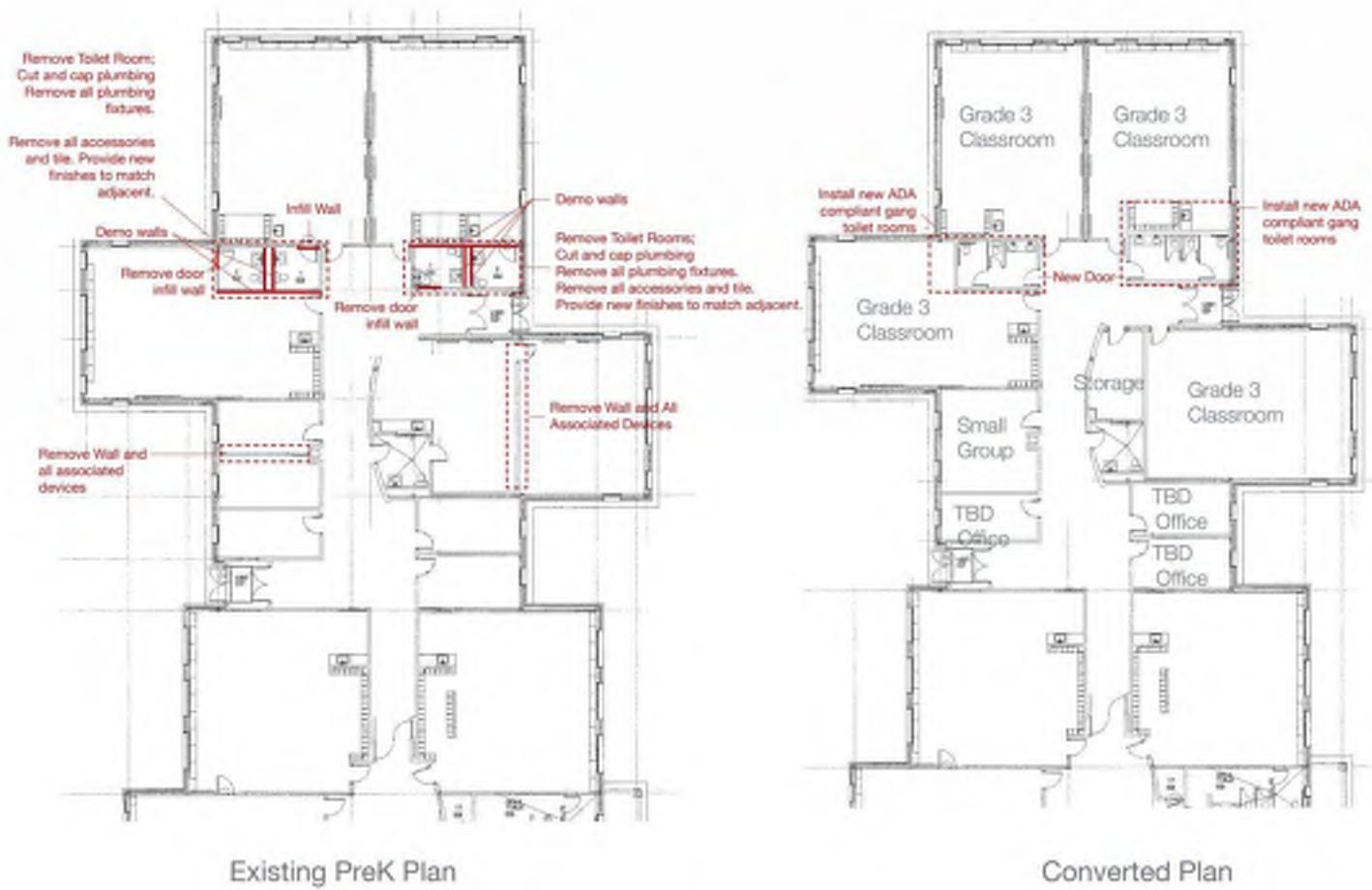
The former Pre-K pod will become the classrooms for the third grade. The toilet rooms will be renovated as appropriate for this grade structure.



Harrington Elementary School – K-5 School, First Floor (Grade Level Pods)



Harrington Elementary School – K-5 School, Second Floor (Grade Level Pods)



4.2 SCHEDULE COMMENTARY

The schedule for repurposing the former Pre-K program spaces in the New Harrington School is as follows:

1. Commence Design Documents – January 2015
2. Complete Design Documents – June 2016
3. Commence Bidding – June 2016
4. Receive Bids – July 2016
5. Award Construction Contract – August 2016
6. Commence Renovation – September 2016
7. Complete and ready for Occupancy – March 2017

4.3 COST MODEL

The construction cost is estimated to be \$200,000 and the total project cost is estimated to be \$330,000.

The construction costs noted above are delineated in the Study Estimate, dated 10/29/14 and prepared by Daedalus Projects, which is appended to this report.

Should the project not be implemented in the summer of 2017, an escalation factor of 3.5% compounded, needs to be applied to the figures for each year past the summer of 2017.

The total project cost includes the construction cost, design and engineering fees, reimbursable expenses, permitting, bid document printing, furniture and equipment relocation /protection and contingencies.

Section 5

Lease Two Classroom-Sized Modular Units at Each of the Fiske, Bowman and Bridge Elementary Schools

LEXINGTON PUBLIC SCHOOLS MASTER PLAN
Phase 2 – Elementary Schools

SECTION 5

LEASE TWO CLASSROOM-SIZED MODULAR UNITS AT EACH OF THE FISKE, BOWMAN AND BRIDGE ELEMENTARY SCHOOLS

5.1 SPACE PLAN – FISKE ELEMENTARY SCHOOL

Two classroom sized modular units will be leased for three years and be located on the east side of the school. An enclosed corridor connector will be constructed from the cafeteria to the modular units. Two geothermal wells will be relocated to accommodate the modular units' installation. The modular units will be interconnected to the existing fire sprinkler, electrical, telephone, data, paging and security systems in the existing Fiske Elementary School. The modular units could be new or re-used based on manufacturer inventory.



Fiske Elementary School Existing Site Plan



Fiske Elementary School - Modular Plan

5.2 COST MODEL

The construction cost is estimated to be \$750,000 and the total project cost is estimated to be \$980,000.

The construction costs noted above are delineated in the Study Estimate, dated 10/29/14 and prepared by Daedalus Projects, which is appended to this report.

Should the project not be implemented in the summer of 2015, an escalation factor of 3.5% compounded, needs to be applied to the figures for each year past the summer of 2015.

The total project cost includes the construction cost, design and engineering fees, reimbursable expenses, permitting, bid document printing, furniture and equipment relocation /protection and contingencies.

5.3 SPACE PLAN – BOWMAN ELEMENTARY SCHOOL

Two classroom sized modular units will be leased for three years and be located on the north side of the school in the hard top play area and attach to the existing modular classroom corridor connector. The modular units will be provided with two toilet rooms. The modular units will be inter-connected to the existing water, fire sprinkler, electrical, telephone, data, paging and security systems in the existing Bowman Elementary School. The toilet rooms in the modular units will be connected to the existing site sanitary system. The modular units could be new or re-used based on manufacturer inventory.



Bowman Elementary School Existing Site Plan



Bowman Elementary School – Modular Plan

5.4 COST MODEL

The construction cost is estimated to be \$510,000 and the total project cost is estimated to be \$690,000.

The construction costs noted above are delineated in the Study Estimate, dated 10/29/14 and prepared by Daedalus Projects, which is appended to this report.

Should the project not be implemented in the summer of 2015, an escalation factor of 3.5% compounded, needs to be applied to the figures for each year past the summer of 2015.

The total project cost includes the construction cost, design and engineering fees, reimbursable expenses, permitting, bid document printing, furniture and equipment relocation /protection and contingencies

5.5 SPACE PLAN – BRIDGE ELEMENTARY SCHOOL

Two classroom sized modular units will be leased for three years and be located on the south side of the school in the rear parking lot. An enclosed corridor connector will be constructed from the existing corridor within the Bridge School to the modular units. The modular units will be provided with two toilet rooms. The modular units will be inter-connected to the existing water, fire sprinkler, electrical, telephone, data, paging and security systems in the existing Bridge Elementary School. The toilet rooms in the modular units will be connected to the existing site sanitary system. The modular units could be new or re-used based on manufacturer inventory.



Bridge Elementary School Existing Site Plan



Bridge Elementary School – Modular Plan

5.6 COST MODEL

The construction cost is estimated to be \$540,000 and the total project cost is estimated to be \$730,000.

The construction costs noted above are delineated in the Study Estimate, dated 10/29/14 and prepared by Daedalus Projects, which is appended to this report.

Should the project not be implemented in the summer of 2015, an escalation factor of 3.5% compounded, needs to be applied to the figures for each year past the summer of 2015.

The total project cost includes the construction cost, design and engineering fees, reimbursable expenses, permitting, bid document printing, furniture and equipment relocation /protection and contingencies

5.7 SCHEDULE COMMENTARY

The schedule for all three elementary schools' modular installation is as follows:

1. Commence RFP Documents – January 15, 2015
2. Complete RFP Documents – February 15, 2015
3. Issue RFP Documents – February 15, 2015
4. Vendor Submit Proposals – March 8, 2015
5. Review Proposals, Sign Contract and Issue NTP – March 22, 2015
6. Commence Install – July 1, 2015
7. Complete Install and ready for Occupancy – August 15, 2015

Note: Leasing the modulars at Fiske, Bowman or Bridge for six years would be the equivalent cost of purchasing the modulars. The incremental increase in cost would be between \$120,000 and \$150,000 for each school.

Section 6

Appendix

Detailed Cost Estimates

Study Drawings Package (Appended Separately)

LEXINGTON PUBLIC SCHOOLS MASTER PLAN

Phase 2 – Elementary Schools

Relocate one Pre-K Program Space from the Harrington Elementary School into the Central Administration Building (Old Harrington)

Construction Cost (includes 20% estimating contingency)		\$280,000
Construction Contingency	10.00%	\$28,000
Design Fee	10.00%	\$28,000
FFE		\$25,000
FFE for repurposed space		\$25,000
Permitting		\$0
Hazardous Material Monitoring	5.00%	\$14,000
Miscellaneous Expenses (moving, printing, legal)	2.00%	\$5,600
Owner's Contingency	5.00%	\$14,000
	Total	\$419,600
		\$420,000 say

Relocate the Entire Pre-K Program from the Harrington Elementary School to the Central Administration Building (Old Harrington)

OPTION 1

Construction Cost (includes 20% estimating contingency)		\$11,200,000
Construction Contingency	10.00%	\$1,120,000
Design Fee	10.00%	\$1,120,000
FFE		\$50,000
Permitting		\$0
Hazardous Material Monitoring	0.50%	\$56,000
Materials Testing	0.50%	\$56,000
Commissioning	0.50%	\$56,000
Miscellaneous Expenses (moving, printing, legal)	0.20%	\$22,400
Owner's Contingency	0.25%	\$28,000
	Total	\$13,708,400
		\$13,700,000 say

Relocate the Entire Pre-K Program from the Harrington Elementary School to the Central Administration Building (Old Harrington)

OPTION 2

Construction Cost (includes 20% estimating contingency)		\$9,900,000
Construction Contingency	10.00%	\$990,000
Design Fee	10.00%	\$990,000
FFE		\$50,000
Permitting		\$0
Hazardous Material Monitoring	0.50%	\$49,500
Materials Testing	0.50%	\$49,500
Commissioning	0.50%	\$49,500
Miscellaneous Expenses (moving, printing, legal)	0.20%	\$19,800
Owner's Contingency	0.25%	\$24,750
	Total	\$12,123,050
		\$12,100,000 say

Repurpose the former Pre-K Space in the Harrington Elementary School to K-5 Program Space

Construction Cost (includes 20% estimating contingency)		\$200,000
Construction Contingency	10.00%	\$20,000
Design Fee	10.00%	\$20,000
FFE		\$80,000
Permitting		\$0
Miscellaneous Expenses (moving, printing, legal)	2.00%	\$4,000
Owner's Contingency	5.00%	\$10,000
	Total	\$334,000
		\$330,000 say

Lease Two Classroom-Sized Modular Units at Fiske Elementary School

Construction Cost (includes 20% estimating contingency)		\$750,000
Construction Contingency	10.00%	\$75,000
Design Fee	10.00%	\$75,000
FFE		\$50,000
Permitting		\$0
Materials Testing	2.00%	\$15,000
Miscellaneous Expenses (moving, printing, legal)	1.00%	\$7,500
Owner's Contingency	2.00%	\$15,000
	Total	\$987,500
		\$980,000 say

Lease Two Classroom-Sized Modular Units at Bowman Elementary School

Construction Cost (includes 20% estimating contingency)		\$510,000
Construction Contingency	10.00%	\$51,000
Design Fee	10.00%	\$51,000
FFE		\$50,000
Permitting		\$0
Hazardous Material Monitoring	2.00%	\$10,200
Materials Testing	2.00%	\$10,200
Miscellaneous Expenses (moving, printing, legal)	1.00%	\$5,100
Owner's Contingency	2.00%	\$10,200
	Total	\$697,700
		\$690,000 say

Lease Two Classroom-Sized Modular Units at Bridge Elementary School

Construction Cost (includes 20% estimating contingency)		\$540,000
Construction Contingency	10.00%	\$54,000
Design Fee	10.00%	\$54,000
FFE		\$50,000
Permitting		\$0
Hazardous Material Monitoring	2.00%	\$10,800
Materials Testing	2.00%	\$10,800
Miscellaneous Expenses (moving, printing, legal)	1.00%	\$5,400
Owner's Contingency	2.00%	\$10,800
	Total	\$735,800
		\$730,000 say

Lexington Public Schools
Master Plan
Phase 2 - Elementary Schools
Short and Long Term Options Study

October 29, 2014

Construction Cost Estimating

Architect:
SMMA
1000 Massachusetts Avenue
Cambridge, MA

Cost Estimator:
Daedalus Projects Incorporated
112 South Street
Boston, MA 02111
(617) 451 2717

INTRODUCTION

Project Description:

- The project consists various studies of the existing schools in Lexington, MA. Those schools are:
 - Bowman
 - Bridge
 - Fiske
 - Central Administration Building (Old Harrington)
 - Harrington Elementary School

Project Particulars:

- Drawings and information provided by SMMA at a meeting at their office October 22, 2014
- Assumed construction start dates vary
- Daedalus Projects, Inc. experience with similar projects of this nature

Project Assumptions:

- The project will be publicly bid to General Contractors under Chapter 149 or thru an RFP process for the leased modulars
- Our costs assume that there will be at least three subcontractors submitting unrestricted bids in each sub-trade
- The Total Construction Cost reflects the fair construction value of this project in a competitive bidding market
- Unit rates are based on current dollars
- An allowance for escalation to start of construction at a rate of 3.5% per year has been carried
- Subcontractor's markups have been included in each unit rate. Markups cover the cost of field overhead, home office overhead and subcontractor's profit
- General Conditions and Requirements value covers Sub-Contractor's bond, site office overheads, and building permit applications
- Fee markup is calculated on a percentage basis of direct construction costs. The value covers Contractor's bond, insurance and profit
- Design and Pricing Contingency markup is an allowance for unforeseen design issues, design detail development and specification clarifications

Project Exclusions:

- Design fees and other soft costs
- Interest expense
- Owner's project administration
- Construction of temporary facilities
- Relocation expenses
- AV equipment excluded
- Printing and advertising
- Site or existing condition surveys and investigations
- Utility company back charges during construction
- Police details and street/sidewalk permits
- Work beyond the boundary of the site
- Testing & commissioning
- Specialties, loose furnishings, fixtures and equipment beyond those noted

DESCRIPTION	TOTAL
<u>LEASED MODULARS</u>	
Fiske Elementary: 2 Leased Modular Classrooms for 3 Year Term	\$754,822
Bridge Elementary: 2 Leased Modular Classrooms for 3 Year Term	\$545,216
Bowman Elementary: 2 Leased Modular Classrooms for 3 Year Term	\$516,808
<u>CENTRAL ADMINISTRATION BUILDING (OLD HARRINGTON)</u>	
Relocate One (1) Pre-K Space From Harrington Elementary School to Central Administration	\$287,275
Option 1: "L" Relocate Entire Pre K and Modular	\$11,192,411
Option 2: "Bar" Relocate Entire Pre K	\$9,886,063
<u>HARRINGTON ELEMENTARY SCHOOL</u>	
Repurpose Pre-K Space to K-5 Space	\$204,440

LEASED MODULAR CLASSROOMS

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
7	Fiske Elementary: 2 Leased Modular Classrooms for 3 Year Term				
9	Modular Classrooms	2	EA	\$39,039.00	\$78,078
10	Foundations - Concrete piers to 4'6" depth				Included
11	Enclosed connectors	581	SF	\$200.00	\$116,200
12	Installation	1,859	SF	\$45.00	\$83,655
13	Exterior ramps and stairs	1	LS	\$35,000.00	\$35,000
14	Tele/Data/Security/FA tie-in	1	LS	\$15,000.00	\$15,000
15	Electrical service	1	LS	\$20,000.00	\$20,000
16	FP Connection	1	LS	\$10,000.00	\$10,000
17	Site demolition and improvements	1	LS	\$30,000.00	\$30,000
18	New geothermal wells	2	EA	\$75,000	\$150,000
19	Decommission existing geothermal wells	2	EA	\$5,000	\$10,000
20	Allow for piping	100	LF	\$85	\$8,500
21	Restore site after lease	1	LS	\$60,000.00	\$60,000
22	Subtotal				\$616,433
24	Design Contingency	20.00%		\$616,433	\$123,287
25	Escalation to Spring 2015	2.04%		\$739,720	\$15,103
26	Fiske Elementary: 2 Leased Modular Classrooms for 3 Year Term Total				
29	Bridge Elementary: 2 Leased Modular Classrooms for 3 Year Term				
31	Modular Classrooms	2	EA	\$44,268.00	\$88,536
32	Add for plumbing fixtures	1	LS	\$20,000.00	\$20,000
33	Foundations - Concrete piers to 4'6" depth				Included
34	Enclosed connectors	512	SF	\$200.00	\$102,400
35	Installation	2,108	SF	\$40.00	\$84,320
36	Exterior ramps and stairs	1	LS	\$35,000.00	\$35,000
37	Tele/Data/Security/FA tie-in	1	LS	\$10,000.00	\$10,000
38	Electrical service	1	LS	\$20,000.00	\$20,000
39	FP Connection	1	LS	\$15,000.00	\$15,000
40	Water Supply	1	LS	\$15,000.00	\$15,000
41	Sewer Connection	1	LS	\$20,000.00	\$20,000
42	Site demolition and improvements	1	LS	\$15,000.00	\$15,000
43	Restore site after lease	1	LS	\$20,000.00	\$20,000
44	Subtotal				\$445,256
46	Design Contingency	20.00%		\$445,256	\$89,051
47	Escalation to Spring 2015	2.04%		\$534,307	\$10,909
48	Bridge Elementary: 2 Leased Modular Classrooms for 3 Year Term Total				
51	Bowman Elementary: 2 Leased Modular Classrooms for 3 Year Term				
53	Modular Classrooms	2	EA	\$44,268.00	\$88,536
54	Add for plumbing fixtures	1	LS	\$20,000.00	\$20,000
55	Foundations - Concrete piers to 4'6" depth				Included

Lexington Public Schools

Master Plan

48,000 GSF

LEASED MODULAR CLASSROOMS

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
56	Enclosed connectors	196	SF	\$200.00	\$39,200
57	Installation	2,108	SF	\$40.00	\$84,320
58	Exterior ramps and stairs	1	LS	\$35,000.00	\$35,000
59	Tele/Data/Security/FA tie-in	1	LS	\$10,000.00	\$10,000
60	Electrical service	1	LS	\$20,000.00	\$20,000
61	FP Connection	1	LS	\$15,000.00	\$15,000
62	Water Supply	1	LS	\$15,000.00	\$15,000
63	Sewer Connection	1	LS	\$60,000.00	\$60,000
64	Site demolition and improvements	1	LS	\$15,000.00	\$15,000
65	Restore site after lease	1	LS	\$20,000.00	\$20,000
66	Subtotal				\$422,056
67					
68	Design Contingency	20.00%		\$422,056	\$84,411
69	Escalation to Spring 2015	2.04%		\$506,467	\$10,340
70	Bowman Elementary: 2 Leased Modular Classrooms for 3 Year Term Total				\$516,808
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Main Summary: Relocate Pre-K Space Harrington Elementary School to Central Administration

		TOTAL	COST/SF
<u>Relocate One (1) Pre-K Space Harrington Elementary to Central Administration (Old Harrington)</u>			
PreK Relocation	1,990 SF	\$160,233	\$80.52
Direct Trade Cost SubTotal		\$160,233	\$80.52
Design and Pricing Contingency	20.00%	\$160,233	\$32,047
Trade Cost SubTotal		\$192,280	\$96.62
General Conditions and Markups			
General Conditions and Requirements		\$192,280	\$75,000
Insurance	1.25%	\$267,280	\$3,341
GC Bonds	1.00%	\$270,621	\$2,706
Building Permit			Waved
Fee	3.00%	\$273,327	\$8,200
Estimated Construction Cost Total		\$281,527	\$141.47
Escalation to Spring 2015	2.04%	\$281,527	\$5,748
Estimated Construction Cost Total, Including Escalation		\$287,275	\$144.36
<u>Option 1: Relocate Entire Pre-K from Harrington Elementary School to Central Administration</u>			
Site		\$503,050	
PreK Relocation at Ground Level	29,334 SF	\$3,696,632	\$126.02
Permanent Modular	4,140 SF	\$1,660,100	\$400.99
Renovation to 1st Floor	20,400 SF	\$1,600,860	\$78.47
Direct Trade Cost SubTotal		53,874 GSF	\$138.48
Design and Pricing Contingency	20.00%	\$7,460,642	\$1,492,128
Trade Cost SubTotal		\$8,952,770	\$166.18
General Conditions and Markups			
General Conditions and Requirements	15.00%	\$8,952,770	\$1,342,916
Insurance	1.25%	\$10,295,686	\$128,696
GC Bonds	1.00%	\$10,424,382	\$104,244
Building Permit			Waved
Fee	3.00%	\$10,528,625	\$315,859
Estimated Construction Cost Total		\$10,844,484	\$201.29
Escalation to Fall 2015	3.21%	\$10,844,484	\$347,927
Estimated Construction Cost Total, Including Escalation		\$11,192,411	\$207.75

Main Summary: Relocate Pre-K Space Harrington Elementary School to Central Administration

		TOTAL	COST/SF
Option 2: Relocate Entire Pre-K from Harrington Elementary School to Central Administration			
Site		\$423,050	
PreK Relocation at Ground Level	29,334 SF	\$2,273,556	\$77.51
Permanent Modular	6,079 SF	\$2,234,275	\$367.54
Renovation to 1st Floor	20,400 SF	\$1,658,975	\$81.32
Direct Trade Cost SubTotal	55,813 SF	\$6,589,856	\$118.07
Design and Pricing Contingency	20.00%	\$6,589,856	\$23.61
Trade Cost SubTotal		\$7,907,827	\$141.68
General Conditions and Markups			
General Conditions and Requirements	15.00%	\$7,907,827	\$21.25
Insurance	1.25%	\$9,094,001	\$113,675
GC Bonds	1.00%	\$9,207,676	\$92,077
Building Permit			Waved
Fee	3.00%	\$9,299,753	\$278,993
			\$5.00
Estimated Construction Cost Total		\$9,578,745	\$171.62
Escalation to Fall 2015	3.21%	\$9,578,745	\$307,318
Estimated Construction Cost Total, Including Escalation		\$9,886,063	\$177.13

Lexington Public Schools

Master Plan

1,990 GSF

Relocate One (1) Pre-K Space Harrington Elementary to Central Administration (Old Harrington)

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
8	Interior demolition in existing Old Harrington	1,990	SF	\$6.50	\$12,935
9	Sawcut for new openings	66	LF	\$15.00	\$990
10	Miscellaneous metals	1,990	SF	\$2.00	\$3,980
11	Rough carpentry	1,990	SF	\$1.50	\$2,985
12	Perimeter casework	64	LF	\$200.00	\$12,800
13	Millwork	5	LF	\$550.00	\$2,750
14	Finish casework, millwork, etc.	1,990	SF	\$3.00	\$5,970
15	Joint sealant	1	LS	\$1,000.00	\$1,000
16	Exterior egress door	1	EA	\$2,000.00	\$2,000
17	Interior doors; complete	2	EA	\$1,200.00	\$2,400
18	Access doors	2	EA	\$350.00	\$700
19	Windows			NIC	
20	Louvers	1	LS	\$500.00	\$500
21	Glazing	1	LS	\$500.00	\$500
22	Chasewall	140	SF	\$20.00	\$2,800
23	ACT for wet areas	180	SF	\$5.00	\$900
24	Prep floors	1,990	SF	\$1.25	\$2,488
25	Flooring	1,830	SF	\$6.50	\$11,895
26	Base	248	LF	\$2.50	\$620
27	Tile flooring	160	SF	\$17.00	\$2,720
28	Tile base	72	LF	\$12.00	\$864
29	Tile walls	648	SF	\$17.00	\$11,016
30	Threshold	2	EA	\$150.00	\$300
31	Paint to walls	3,840	SF	\$1.00	\$3,840
32	Visual display boards	1	LS	\$1,400.00	\$1,400
33	Signage	1,990	SF	\$0.50	\$995
34	Toilet accessories	2	RMS	\$350.00	\$700
35	Sink soap including installation	1	EA	\$85.00	\$85
36	Sink paper towel dispenser including installation	1	EA	\$200.00	\$200
37	Plumbing fixtures	5	EA	\$4,500.00	\$22,500
38	HVAC; Split DX system	2	EA	\$10,000.00	\$20,000
39	Vents in bathrooms	2	EA	\$1,200.00	\$2,400
40	Electrical	1	LS	\$25,000.00	\$25,000
41	Relocate One (1) Pre-K Space Harrington Elementary to Central				\$160,233
42					
43					

Option 1: "L" Site work

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
<u>Option 1A Sitework</u>					
10	Relocate playground structure	1	AL	\$75,000.00	\$75,000
11	New playground surface	3,250	SF	\$18.00	\$58,500
12	Fence to new playground surface	230	LF	\$35.00	\$8,050
13	Gate to playground area	1	EA	\$3,500.00	\$3,500
14	New ADA walkway to playground	1,000	SF	\$3.00	\$3,000
15	New expanded parking area including utilities, curbs, markings	35	SPACE	\$4,000.00	\$140,000
16	New front plaza entry and walk	5,000	SF	\$20.00	\$100,000
17	Subsurface drainage, paving and markings	1	LS	\$100,000.00	\$100,000
18	Site lighting	1	LS	\$15,000.00	\$15,000
19	Option 1: "L" Site work Total				\$503,050
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Option 1: "L" Ground Floor Relocation Of Entire PreK From New To Old Harrington

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
<u>Ground Floor Renovation Including Unrenovated Spaces</u>					
10	Interior demolition in existing Old Harrington	14,100	SF	\$6.50	\$91,650
11	Hazmat related abatement allowance	1	LS	\$28,200.00	\$28,200
12	Sawcut for new openings	135	LF	\$15.00	\$2,025
13	Demolish existing stairs	1	LOC	\$5,000.00	\$5,000
14	Sawcut existing floor/ceiling for new egress stairs	110	LF	\$15.00	\$1,650
15	Demolish floor/ceilings	700	SF	\$10.00	\$7,000
16	Patch concrete due to new stairs	1	LS	\$10,000.00	\$10,000
17	New concrete infill	1,500	SF	\$10.00	\$15,000
18	New metal deck infill	1,500	SF	\$10.00	\$15,000
19	New egress stairs	1	EA	\$25,000.00	\$25,000
20	Allow for new structure due to new stairs and new infilled floor	1	LS	\$20,000.00	\$20,000
21	Miscellaneous metals	14,100	SF	\$3.00	\$42,300
22	Blocking at windows	1,752	LF	\$3.00	\$5,256
23	Rough carpentry	14,100	SF	\$2.50	\$35,250
24	Perimeter casework	256	LF	\$200.00	\$51,200
25	Millwork	5	LF	\$550.00	\$2,750
26	Millwork at teacher workroom	13	LF	\$550.00	\$7,150
27	Millwork at teacher workroom (base only)	13	LF	\$400.00	\$5,200
28	Window sill and apron	252	LF	\$35.00	\$8,820
29	Finish casework, millwork, etc.	14,100	SF	\$5.00	\$70,500
30	Remove and replace new roofing	10,285	SF	\$20.00	\$205,700
31	Flashing at windows	586	LF	\$22.00	\$12,892
32	Joint sealant	1	LS	\$7,000.00	\$7,000
33	Exterior egress door	3	EA	\$1,500.00	\$4,500
34	Entry vestibule doors	1	PR	\$7,000.00	\$7,000
35	Ditto; interior	1	PR	\$7,000.00	\$7,000
36	Interior doors; complete	20	EA	\$1,200.00	\$24,000
37	Ditto; pair complete	1	PR	\$1,800.00	\$1,800
38	Access doors	8	EA	\$350.00	\$2,800
39	Remove and replace existing windows	3,372	SF	\$93.50	\$315,282
40	Louvres	1	LS	\$3,525.00	\$3,525
41	Glazing	1	LS	\$25,000.00	\$25,000
42	Chasewall	1,120	SF	\$15.00	\$16,800
43	Partitions	15,792	SF	\$10.00	\$157,920
44	Soffits	1	LS	\$35,000.00	\$35,000
45	ACT ceilings	14,100	SF	\$4.50	\$63,450
46	Premium to ACT for wet areas	640	SF	\$0.50	\$320
47	Patch existing gypsum ceilings	15,234	SF	\$4.00	\$60,936
48	Prep floors	14,100	SF	\$1.25	\$17,625
49	Flooring	13,460	SF	\$6.50	\$87,490
50	Base	1	LS	\$5,000.00	\$5,000
51	Tile flooring	640	SF	\$17.00	\$10,880
52	Tile base	288	LF	\$12.00	\$3,456
53	Tile walls	2,592	SF	\$17.00	\$44,064
54	Threshold	8	EA	\$150.00	\$1,200
55	Paint to walls	14,100	SF	\$2.50	\$35,250
56	Visual display boards	1	LS	\$14,000.00	\$14,000

Lexington Public Schools

Master Plan

29,334 GSF

Option 1: "L" Ground Floor Relocation Of Entire PreK From New To Old Harrington

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
57	Signage	14,100	SF	\$0.50	\$7,050
58	Toilet accessories	8	RMS	\$350.00	\$2,800
59	Sink soap including installation	2	EA	\$85.00	\$170
60	Sink paper towel dispenser including installation	2	EA	\$200.00	\$400
61	Manual projection screens	8	EA	\$250.00	\$2,000
62	Window treatment	3,372	SF	\$7.00	\$23,604
63	Sprinkler system	14,100	SF	\$5.50	\$77,550
64	Sprinkler system throughout unrenovated areas at ground floor	15,234	SF	\$5.50	\$83,787
65	Plumbing fixtures	18	EA	\$4,500.00	\$81,000
66	Plumbing to existing unrenovated areas	15,234	SF		NIC
67	HVAC	14,100	SF	\$43.00	\$606,300
68	Electrical	14,100	SF	\$36.00	\$507,600
69	Allow for ADA upgrades	15,234	SF	\$45.00	\$685,530
70	Option 1: "L" Ground Floor Relocation Of Entire PreK From New To Old				\$3,696,632
71					

Option 1: Relocate Administration From Ground Floor to Permanent Modular

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
Relocate Administration From Ground Floor to Permanent Modular					
10	Modular Classrooms	4,140	SF	\$130.00	\$538,200
11	Add for plumbing fixtures	1	LS	\$20,000.00	\$20,000
12	Foundations - Concrete piers to 4'6" depth				Included
13	Enclosed connectors	473	SF	\$200.00	\$94,600
14	Installation	4,140	SF	\$195.00	\$807,300
15	Exterior ramps and stairs	1	LS	\$35,000.00	\$35,000
16	Tele/Data/Security/FA tie-in	1	LS	\$15,000.00	\$15,000
17	Electrical service	1	LS	\$20,000.00	\$20,000
18	FP Connection	1	LS	\$20,000.00	\$20,000
19	Water Supply	1	LS	\$15,000.00	\$15,000
20	Sewer Connection	1	LS	\$80,000.00	\$80,000
21	Site demolition and improvements	1	LS	\$15,000.00	\$15,000
22	Relocate Administration From Ground Floor to Permanent Modular Total				\$1,660,100
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Renovate Existing: 15,030 SF + 5,370 SF = 20,400 GSF

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
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Relocate Administration From Ground Floor to 1st Floor

10	Interior demolition in existing Old Harrington	5,370	SF	\$6.50	\$34,905
11	Hazmat related abatement allowance	1	LS	\$10,740.00	\$10,740
12	Miscellaneous metals	5,370	SF	\$2.00	\$10,740
13	Rough carpentry	5,370	SF	\$3.00	\$16,110
14	Finish casework, millwork, etc.	5,370	SF	\$15.00	\$80,550
15	Remove and replace new roofing			Not over new Admistration Area	
16	Joint sealant	1	LS	\$3,000.00	\$3,000
17	Interior doors; complete	7	EA	\$1,200.00	\$8,400
18	Ditto; pair complete	1	PR	\$1,800.00	\$1,800
19	Remove and replace existing windows			Included in Ground Floor Reno	
20	Louvers	1	LS	\$1,342.50	\$1,343
21	Glazing	1	LS	\$5,000.00	\$5,000
22	Chasewall	140	SF	\$12.00	\$1,680
23	Partitions	6,014	SF	\$8.00	\$48,115
24	Soffits	1	LS	\$8,000.00	\$8,000
25	ACT ceilings	5,370	SF	\$5.00	\$26,850
26	Patch existing gypsum ceiling	15,030	SF	\$4.00	\$60,120
27	Prep floors	5,370	SF	\$1.25	\$6,713
28	Flooring	5,370	SF	\$6.50	\$34,905
29	Base	1	LS	\$2,000.00	\$2,000
30	Paint to walls	5,370	SF	\$2.50	\$13,425
31	Visual display boards	1	LS	\$5,000.00	\$5,000
32	Signage	5,370	SF	\$0.50	\$2,685
33	Window treatment			Included in Ground Floor Reno	
34	Sprinkler system	5,370	SF	\$5.50	\$29,535
35	Sprinkler system throughout unrenovated areas	15,030	SF	\$5.50	\$82,665
36	Allow for sink in new administation area	1	EA	\$6,000.00	\$6,000
37	HVAC	5,370	SF	\$43.00	\$230,910
38	Electrical	5,370	SF	\$36.00	\$193,320
39	ADA Upgrade to First Floor	15,030	SF	\$45.00	\$676,350
40	Option 1: Relocate Administration From Ground Floor to First Floor Total				\$1,600,860

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Option 2: Site work

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
<u>Option 2 Sitework</u>					
10	Relocate playground structure	1	AL	\$75,000.00	\$75,000
11	New playground surface	3,250	SF	\$18.00	\$58,500
12	Fence to new playground surface	230	LF	\$35.00	\$8,050
13	Gate to playground area	1	EA	\$3,500.00	\$3,500
14	New ADA walkway to playground	1,000	SF	\$3.00	\$3,000
15	New expanded parking area	20	SPACE	\$4,000.00	\$80,000
16	New front plaza entry and walk	4,000	SF	\$20.00	\$80,000
17	Subsurface drainage, paving and markings	1	LS	\$100,000.00	\$100,000
18	Site lighting	1	LS	\$15,000.00	\$15,000
19	Option 2: Site work Total				\$423,050
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Option 2: "Bar" Ground Floor Relocation Administration at Central Administration (Old Harrington)

Master Plan

29,334 GSF

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
Ground Floor Relocation Administration at Central Administration (Old Harrington)					
10	Interior demolition in existing Old Harrington	9,600	SF	\$6.50	\$62,400
11	Hazmat related abatement allowance	1	LS	\$19,200.00	\$19,200
12	Sawcut for new openings	116	LF	\$15.00	\$1,740
13	Miscellaneous masonry: patching and infill	1	LS	\$40,000.00	\$40,000
14	Miscellaneous metals	9,600	SF	\$2.00	\$19,200
15	Blocking at windows	1,752	LF	\$3.00	\$5,256
16	Rough carpentry	9,600	SF	\$1.50	\$14,400
17	Millwork at teacher workroom	15	LF	\$550.00	\$8,250
18	Millwork at teacher workroom (base only)	25	LF	\$400.00	\$10,000
19	Window sill and apron	252	LF	\$35.00	\$8,820
20	Finish casework, millwork, etc.	9,600	SF	\$5.00	\$48,000
21	Remove and replace new roofing	10,285	SF	\$20.00	\$205,700
22	Flashing at windows	586	LF	\$22.00	\$12,892
23	Joint sealant	1	LS	\$5,000.00	\$5,000
24	Exterior egress door	2	EA	\$1,500.00	\$3,000
25	Entry vestibule doors	1	PR	\$7,000.00	\$7,000
26	Ditto; interior	1	PR	\$7,000.00	\$7,000
27	Ditto; single	1	EA	\$3,500.00	\$3,500
28	Interior doors; complete	17	EA	\$1,200.00	\$20,400
29	Ditto; pair complete	1	PR	\$1,800.00	\$1,800
30	Access doors	5	EA	\$350.00	\$1,750
31	Remove and replace existing windows	3,372	SF	\$93.50	\$315,282
32	Louvres	1	LS	\$2,400.00	\$2,400
33	Glazing	1	LS	\$15,000.00	\$15,000
34	Chasewall	700	SF	\$15.00	\$10,500
35	Partitions	10,752	SF	\$10.00	\$107,520
36	Soffits	1	LS	\$24,000.00	\$24,000
37	ACT ceilings	9,600	SF	\$4.50	\$43,200
38	Premium to ACT for wet areas	400	SF	\$0.50	\$200
39	Patch existing gypsum ceiling at exposed sprinkler system	19,734	SF	\$4.00	\$78,936
40	Prep floors	9,600	SF	\$1.25	\$12,000
41	Flooring	9,200	SF	\$6.50	\$59,800
42	Base	1	LS	\$3,000.00	\$3,000
43	Tile flooring	400	SF	\$17.00	\$6,800
44	Tile base	180	LF	\$12.00	\$2,160
45	Tile walls	1,620	SF	\$17.00	\$27,540
46	Threshold	5	EA	\$150.00	\$750
47	Paint to walls	15,984	SF	\$1.00	\$15,984
48	Visual display boards	1	LS	\$10,000.00	\$10,000
49	Signage	9,600	SF	\$0.50	\$4,800
50	Toilet accessories	5	RMS	\$350.00	\$1,750
51	Sink soap including installation	1	EA	\$85.00	\$85
52	Sink paper towel dispenser including installation	1	EA	\$200.00	\$200
53	Manual projection screens	8	EA	\$250.00	\$2,000
54	Window treatment	3,372	SF	\$7.00	\$23,604
55	Sprinkler system	9,600	SF	\$5.50	\$52,800
56	Sprinkler system throughout unrenovated areas	19,734	SF	\$5.50	\$108,537

Lexington Public Schools

Option 2: "Bar" Ground Floor Relocation Administration at Central Administration (Old Harrington)

Master Plan

29,334 GSF

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
57	Plumbing fixtures	18	EA	\$4,500.00	\$81,000
58	HVAC	9,600	SF	\$43.00	\$412,800
59	Electrical	9,600	SF	\$36.00	\$345,600
60	ADA Upgrade to First Floor	19,734	SF	\$45.00	\$888,030
61	Option 2: "Bar" Ground Floor Relocation Administration at Central				\$2,273,556
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Option 2: Pre-K Modulars

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
Pre-K Modulars					
10	Modular Classrooms	6,079	SF	\$130.00	\$790,270
11	Add for plumbing fixtures	1	LS	\$40,000.00	\$40,000
12	Foundations - Concrete piers to 4'6" depth				Included
13	Enclosed connectors	143	SF	\$200.00	\$28,600
14	Installation	6,079	SF	\$195.00	\$1,185,405
15	Exterior ramps and stairs	1	LS	\$35,000.00	\$20,000
16	Tele/Data/Security/FA tie-in	1	LS	\$15,000.00	\$20,000
17	Electrical service	1	LS	\$20,000.00	\$20,000
18	FP Connection	1	LS	\$20,000.00	\$20,000
19	Water Supply	1	LS	\$15,000.00	\$10,000
20	Sewer Connection	1	LS	\$80,000.00	\$60,000
21	Site demolition and improvements	1	LS	\$15,000.00	\$40,000
22	Pre-K Modulars Total				\$2,234,275
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Option 2: Relocate Professional Development and Training Room & Unrenovated Areas

Master Plan

20,400 GSF

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
Relocate Administration From Ground Floor to 1st Floor				
10 Interior demolition in existing Old Harrington	4,640	SF	\$6.50	\$30,160
11 Demolish existing ceilings at unrenovated areas for sprinklers	15,760	SF	\$2.00	\$31,520
12 Miscellaneous metals	4,640	SF	\$2.00	\$9,280
13 Rough carpentry	4,640	SF	\$3.00	\$13,920
14 Finish casework, millwork, etc.	4,640	SF	\$15.00	\$69,600
15 Remove and replace new roofing				Not over 1st Level
16 Joint sealant	1	LS	\$10,000.00	\$10,000
17 Interior doors; complete	2	EA	\$1,200.00	\$2,400
18 Ditto; pair complete	0	PR	\$1,800.00	\$0
19 Remove and replace existing windows				Included in Ground Floor Reno
20 Louvers	1	LS	\$1,160.00	\$1,160
21 Glazing	1	LS	\$500.00	\$500
22 Chasewall	140	SF	\$12.00	\$1,680
23 Partitions	12,240	SF	\$8.00	\$97,920
24 Soffits	1	LS	\$31,000.00	\$31,000
25 ACT ceilings	4,640	SF	\$5.00	\$23,200
26 Patch existing gypsum ceiling at exposed sprinkler system	15,760	SF	\$4.00	\$63,040
27 Prep floors	4,640	SF	\$1.25	\$5,800
28 Flooring	4,640	SF	\$6.50	\$30,160
29 Base	194	LF	\$2.50	\$485
30 Paint to walls	15,948	SF	\$2.50	\$39,870
31 Visual display boards	1	LS	\$1,000.00	\$1,000
32 Signage	4,640	SF	\$0.50	\$2,320
33 Window treatment				Included in Ground Floor Reno
34 Sprinkler system	4,640	SF	\$5.50	\$25,520
35 Sprinkler system throughout unrenovated areas	15,760	SF	\$5.50	\$86,680
36 Allow for sink in new administration area	1	EA	\$6,000.00	\$6,000
37 HVAC	4,640	SF	\$43.00	\$199,520
38 Electrical	4,640	SF	\$36.00	\$167,040
39 ADA Upgrade to First Floor	15,760	SF	\$45.00	\$709,200
40 Option 2: Relocate Professional Development and Training Room &				\$1,658,975
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Repurpose The Former Pre-K Space In The New Harrington School For General Space

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
Repurpose The Former Pre-K Space In The New Harrington School For General Space					
10	Interior demolition in existing New Harrington	660	SF	\$6.50	\$4,290
11	Hazmat related abatement allowance				NIC
12	Demolish existing ceilings at unrenovated areas for sprinklers				NIC
13	Structural steel	1	LS	\$10,000.00	\$10,000
14	Miscellaneous metals	660	SF	\$2.00	\$1,320
15	Rough carpentry	660	SF	\$3.00	\$1,980
16	Finish casework, millwork, etc.	660	SF	\$15.00	\$9,900
17	Remove and replace new roofing				NIC
18	Joint sealant	1	LS	\$250.00	\$250
19	Access doors	2	EA	\$350.00	\$700
20	Interior doors; complete	2	EA	\$1,200.00	\$2,400
21	Ditto; pair complete				NIC
22	Remove and replace existing windows				NIC
23	Louvers	1	LS	\$100.00	\$100
24	Glazing	1	LS	\$400.00	\$400
25	Chasewall	448	SF	\$12.00	\$5,376
26	Partitions		SF	\$8.00	\$0
27	Soffits				NIC
28	ACT ceilings	430	SF	\$5.00	\$2,150
29	Prep floors	430	SF	\$1.25	\$538
30	Tile flooring	660	SF	\$17.00	\$11,220
31	Tile base	108	LF	\$12.00	\$1,296
32	Tile walls	972	SF	\$17.00	\$16,524
33	Threshold	3	EA	\$150.00	\$450
34	Paint to walls	0	SF	\$1.00	\$0
35	Visual display boards	2	EA	\$225.00	\$450
36	Signage	430	SF	\$0.50	\$215
37	Toilet accessories	3	RMS	\$5,000.00	\$15,000
38	Window treatment				NIC
39	Sprinkler system				NIC
40	Plumbing fixtures	12	EA	\$4,500.00	\$54,000
41	Vents in bathrooms	3	EA	\$1,200.00	\$3,600
42	Minor ADA redo due to removal	1	LS	\$5,000.00	\$5,000
43	Electrical	660	SF	\$30.00	<u>\$19,800</u>
44	Repurpose The Former Pre-K Space In The New Harrington School For				\$166,959
45	Design and Pricing Contingency	20.00%		\$166,959	<u>\$33,392</u>
46	Trade Cost SubTotal				\$200,350
47					
48	General Conditions and Markups				
49	General Conditions and Requirements				\$0
50	Insurance	1.25%		\$0	\$0
51	GC Bonds	1.00%		\$0	\$0
52	Building Permit				Waved
53	Fee	3.00%		\$0	<u>\$0</u>
54					
55	Estimated Construction Cost Total				\$200,350
56					
57	Escalation to Fall 2015	2.04%		\$200,350	<u>\$4,090</u>
58	Estimated Construction Cost Total, Including Escalation				\$204,440
59					

| SMMA

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