



CHELMSFORD PUBLIC SCHOOLS

Comprehensive Facilities Assessment



Jan 24, 2017



l e a d e r s h i p t e a m

- 60+ person architectural firm
- 20+ year history
- specialize in public work
- expertise in educational projects



the value of a master plan is ...

- understand the facility and educational needs
- to identify priority project(s)
- develop a planning & communication tool



 facility & capacity assessment

 enrollment projections

 visioning

 options

 schedule



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Facility Assessments



Facility Assessments

		LEGEND													
		Excellent	Good Condition	Fair / Maintenance	Repair / Replace	Poor									
							BYAM	CENTER	HARRINGTON	SOUTH ROW	MCCARTHY	PARKER	C.H.S.	WESTLAND	101 MILL RD
1	Site & Civil														
2	Site Accessibility / Play Areas														
3	Exterior Building Elements														
4	Interior Architectural Elements														
5	Accessibility														
6	Structural Elements														
7	Mechanical Systems														
8	Electrical Systems														
9	Plumbing Systems														
10	Fire Protection Systems														
11	Hazardous Mat. Abatement														
12	Functional Use of Space														



Facility Assessments

SCHOOL	CAPITAL IMPROVEMENTS	BLDG SQ.FT.	CIP COST / SQ.FT (not including Haz / Mat)
CHELMSFORD HIGH SCHOOL	\$ 9,440,000	305,810	\$ 30.87
McCARTHY MIDDLE SCHOOL	\$ 9,037,000	185,614	\$ 48.68
PARKER MIDDLE SCHOOL	\$ 14,430,000	126,167	\$ 114.37
BYAM ELEMENTARY SCHOOL	\$ 7,593,000	60,442	\$ 125.63
CENTER ELEMENTARY SCHOOL	\$ 256,000	52,300	\$ 4.89
HARRINGTON ELEMENTARY SCHOOL	\$ 9,146,000	60,442	\$ 151.32
SOUTH ROW ELEMENTARY SCHOOL	\$ 4,729,000	42,000	\$ 112.60
WESTLANDS COMMUNITY CENTER	\$ 4,808,000	37,100	\$ 129.58
TOTAL	\$ 59,438,000		



 facility & capacity assessment

 enrollment projections

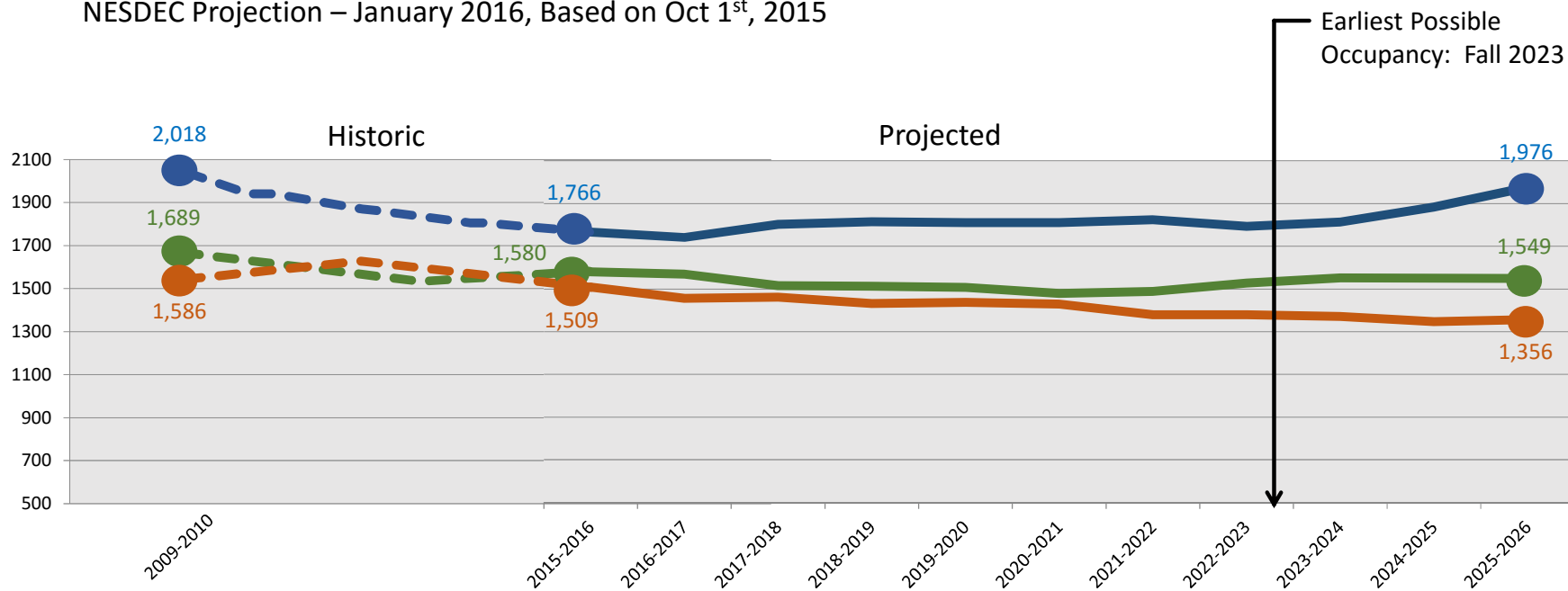
 visioning




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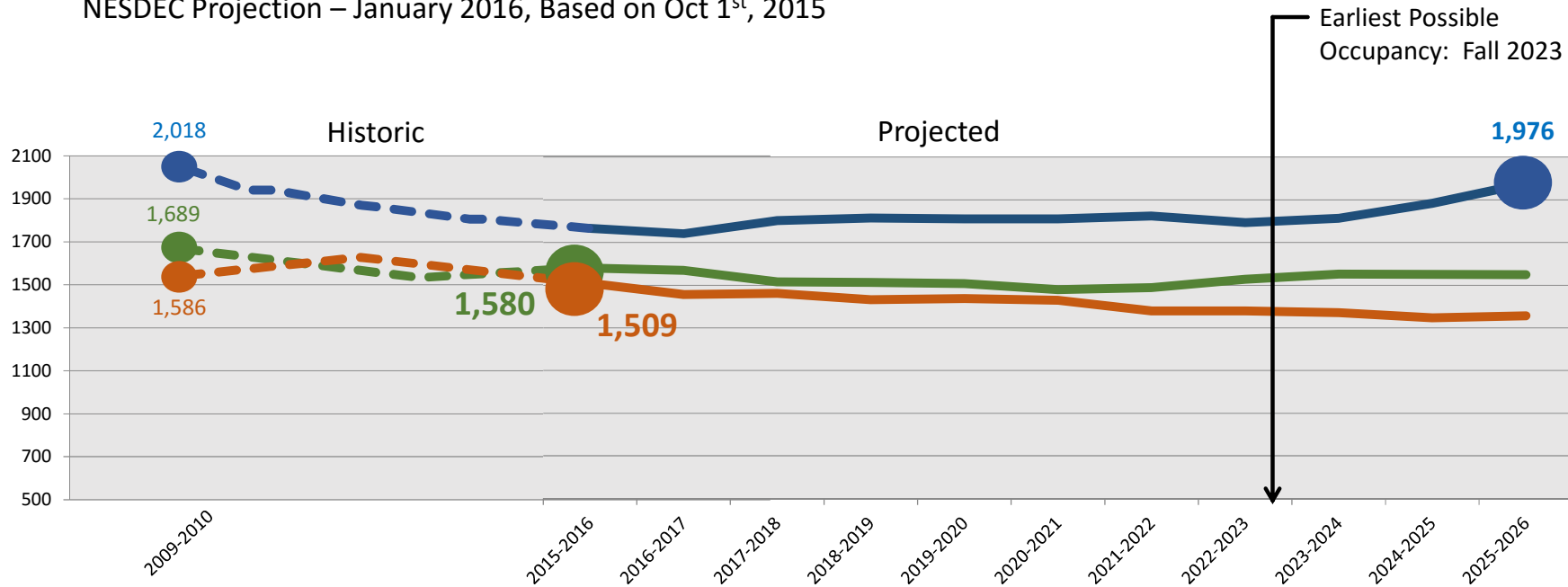
NESDEC Projection – January 2016, Based on Oct 1st, 2015






NESDEC July 14 th Projection		2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2022- 2023	2023- 2024	2024- 2025	2025- 2026
	K-4 Projection	1766	1741	1803	1814	1811	1811	1824	1793	1813	1884	1976
	5-8 Projection	1580	1570	1515	1513	1507	1479	1489	1528	1552	1551	1549
	9-12 Projection	1509	1456	1461	1432	1438	1430	1380	1379	1372	1347	1356
K-12 Projection		4855	4767	4779	4759	4756	4720	4693	4700	4737	4782	4881


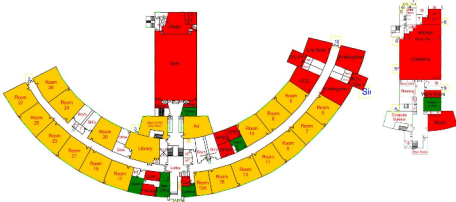

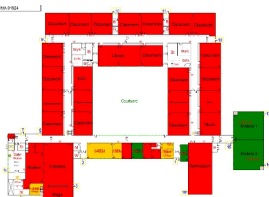


NESDEC Projection – January 2016, Based on Oct 1st, 2015







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K-12 Projection		4855	4767	4779	4759	4756	4720	4693	4700	4737	4782	4881



	Existing Enrollment	Target Enrollment	Capacity by GSF	Capacity by Classroom Count	MSBA Instructional Space Comparative Analysis – Room by Room
Byam ES	473	520	346	427	 <p>34% are under by 10% or more</p>
Center ES	430	488	310	404	 <p>35% are under by 10% or more</p>
Harrington ES	465	530	346	450	 <p>37% are under by 10% or more</p>
South Row ES	392	438	310	358	 <p>89% are under by 10% or more</p>



	Existing Enrollment	Target Enrollment	Capacity by GSF	Capacity by Classroom Count	MSBA Instructional Space Comparative Analysis – Room by Room
McCarthy MS	864	864	928	800	 <p>67% are under by 10% or more</p>
Parker MS	717	717	650	572	 <p>53% are under by 10% or more</p>
Chelmsford High School	1509	1509	1785	1470	 <p>84% are under by 10% or more</p>
Westlands School	132* *Pre-K only	142* *Pre-K only	206** ** Assumes K-4	330** ** Assumes K-4	 <p>95% are under by 10% or more</p>



 facility & capacity assessment

 enrollment projections

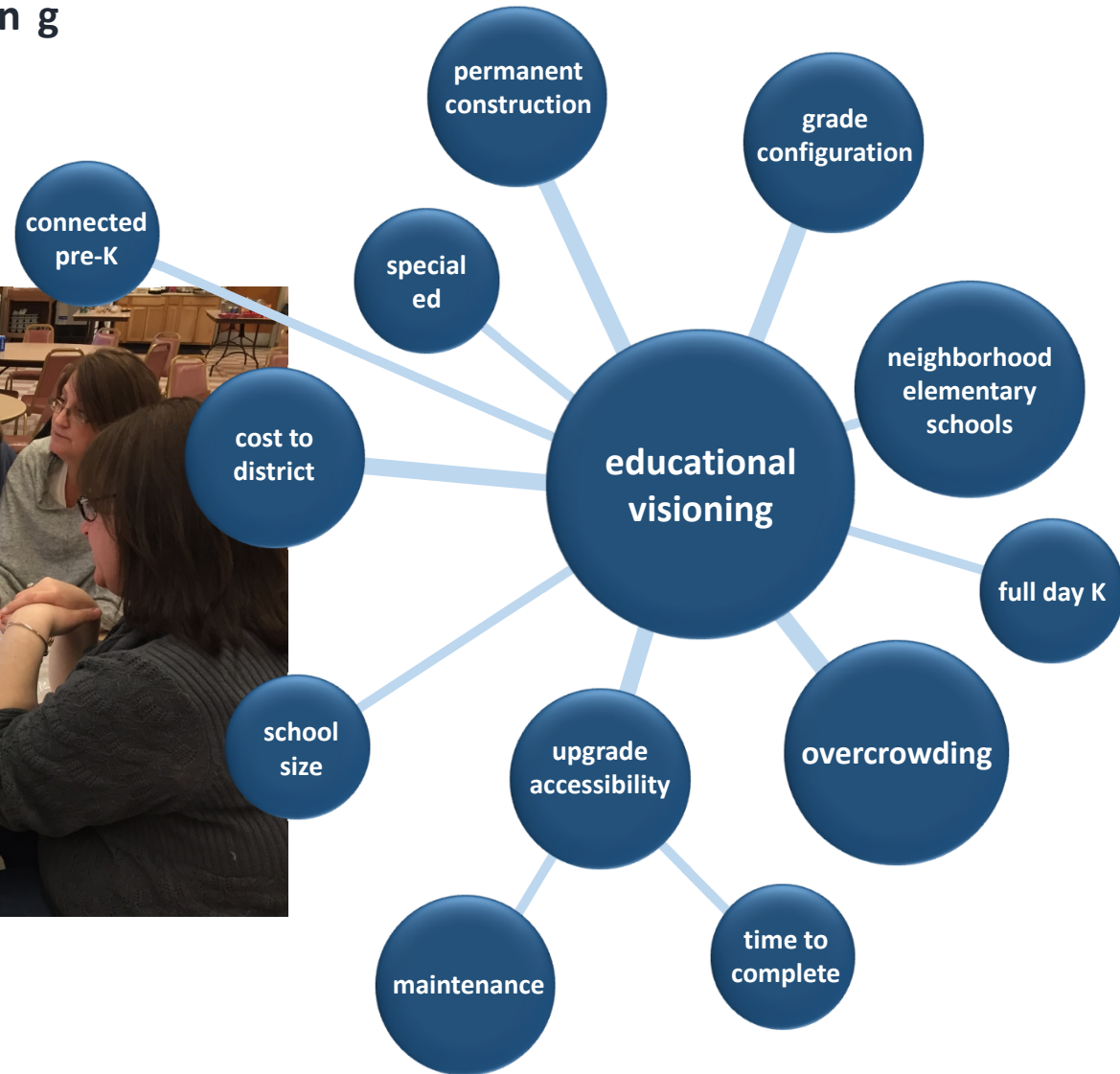
 **visioning**

 options

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education visioning



list of objectives to meet

- **Address Missing and Inappropriate Spaces**
 - **Special Education**
 - **Middle School Science Labs**
- **Accommodate Full-day Kindergarten**
- **Co-location of Pre-K with an Elementary School**
- **Address Overcrowding Conditions**
- **Address Temporary Construction**
- **Address Physical Building Conditions**



 facility & capacity assessment

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Options Development

Options Summary

	PK	PK-2	K-4	K-3	K-2	Center ES	South Row ES	PK-4	PK-5	PK-6
A	Westland Comm. ES		1/2 K-4	Bayan ES	Harrington ES	Center ES	South Row ES			5-6
B	Westland Comm. ES		K-4	Bayan ES	Harrington ES	Center ES	South Row ES			5-6
C	Westland Comm. ES		K-4	Bayan ES	Harrington ES	Center ES	South Row ES			5-6
D	Westland Comm. ES		1-4	Bayan ES	Harrington ES	Center ES	South Row ES	PK-K		5-6
E	Westland Comm. ES	PK-2		Bayan ES	Harrington ES	K-2	Center ES	South Row ES		6-8
F	Westland Comm. ES	PK-2		Bayan ES	Harrington ES	K-2	Center ES	South Row ES		6-8
G	Westland Comm. ES	K-2			Harrington ES	Center ES	South Row ES	3-5	Bayan Upper ES	6-8
H	Westland Comm. ES	PK-2		Bayan ES	Harrington ES	K-2	Center ES	South Row ES	3-5	6-8
I	Westland Comm. ES	K-3		Bayan ES	Harrington ES	Center ES	South Row ES	4-6	McCarthy MS	7-8
J	Westland Comm. ES	K-5		Bayan ES	Harrington ES	Center ES	South Row ES		McCarthy MS	6-8
J1	Westland Comm. ES	K-3		Bayan ES	Harrington ES	Center ES	South Row ES		McCarthy MS	6-8
J2	Westland Comm. ES	K-4		Bayan ES	Harrington ES	Center ES	South Row ES		McCarthy MS	5-8
J3	Westland Comm. ES	K-3		Bayan ES	Harrington ES	Center ES	South Row ES		McCarthy MS	6-8
J4	Westland Comm. ES	PK-2		Bayan ES	Harrington ES	K-2	Center ES	South Row ES	3-5	6-8
J5	Westland Comm. ES	1-5		Bayan ES	Harrington ES	Center ES	South Row ES		McCarthy MS	6-8



options development



Options Summary

A STATUS QUO

PK	Westland Comm. Ed.	1/2 K-4	Byam ES	Harrington ES	Center ES	South Row ES			5-8	Parker MS	McCarthy MS	9-12	Chelmsford HS
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D NEW EARLY CHILDHOOD CENTER

	Westland Comm. Ed.	1-4	Byam ES	Harrington ES	Center ES	South Row ES	PK-K	E..C.C.	5-6	Parker ES / MS	7-8	McCarthy MS	9-12	Chelmsford HS

E NEW 3-5 UPPER ELEMENARY SCHOOL

	Westland Comm. Ed.	PK-2	Byam ES	Harrington ES	K-2	Center ES	South Row ES	3-5	New Upper ES	6-8	Parker MS	6-8	McCarthy MS	9-12	Chelmsford HS
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H NEW 6-8 MIDDLE SCHOOL

	Westland Comm. Ed.	PK-2	Byam ES	Harrington ES	K-2	Center ES	South Row ES	3-5	Parker Upper ES		McCarthy Upper ES		6-8	New MS	9-12	Chelmsford HS
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I2 NEW 7-8 MIDDLE SCHOOL

	Westland Comm. Ed.	K-4	Byam ES	Harrington ES	Center ES	South Row ES	PK-4	Parker ES	5-6	McCarthy ES / MS	7-8	New Jr. High	9-12	Chelmsford HS
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J5 NEW PK-K/ HIGH SCHOOL

	Westland Comm. Ed.	1-5	Byam ES	Harrington ES	Center ES	South Row ES	1-5	Parker ES		McCarthy	6-8	MS @CHS		New ECC/ High School
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Over-crowded

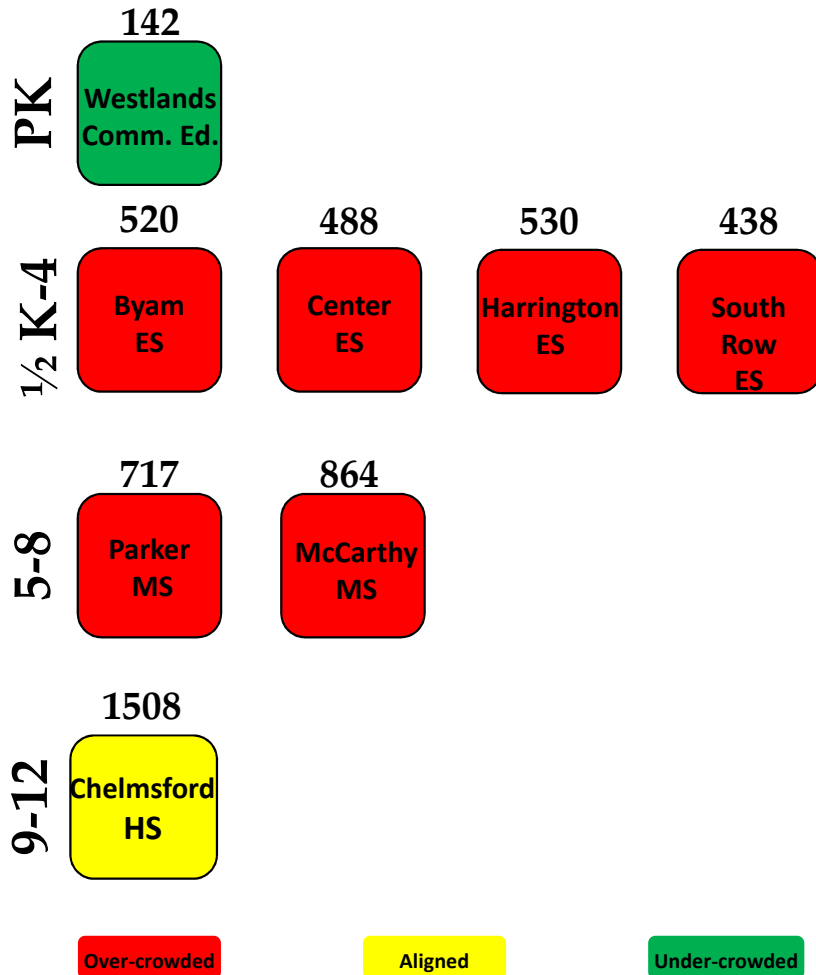
Aligned

Under-crowded

New Construction

OPTION A

Capital Improvement Cost: \$59.4m ***



*** All costs are estimates and in 2016 dollars (no escalation has been added)

EXISTING CONDITION OPTION

Repair Existing Facilities - Capital Improvements Only

Option A is a *de minimus* project that addresses immediate capital needs, largely focusing on systems that are at the end of their useful life. It does not address permanent full-day kindergarten, any overcrowding, or the location of pre-kindergarten.

Elementary Schools will experience increased overcrowding while middle and high schools will see a reduction in the over-crowding due to enrollment reduction

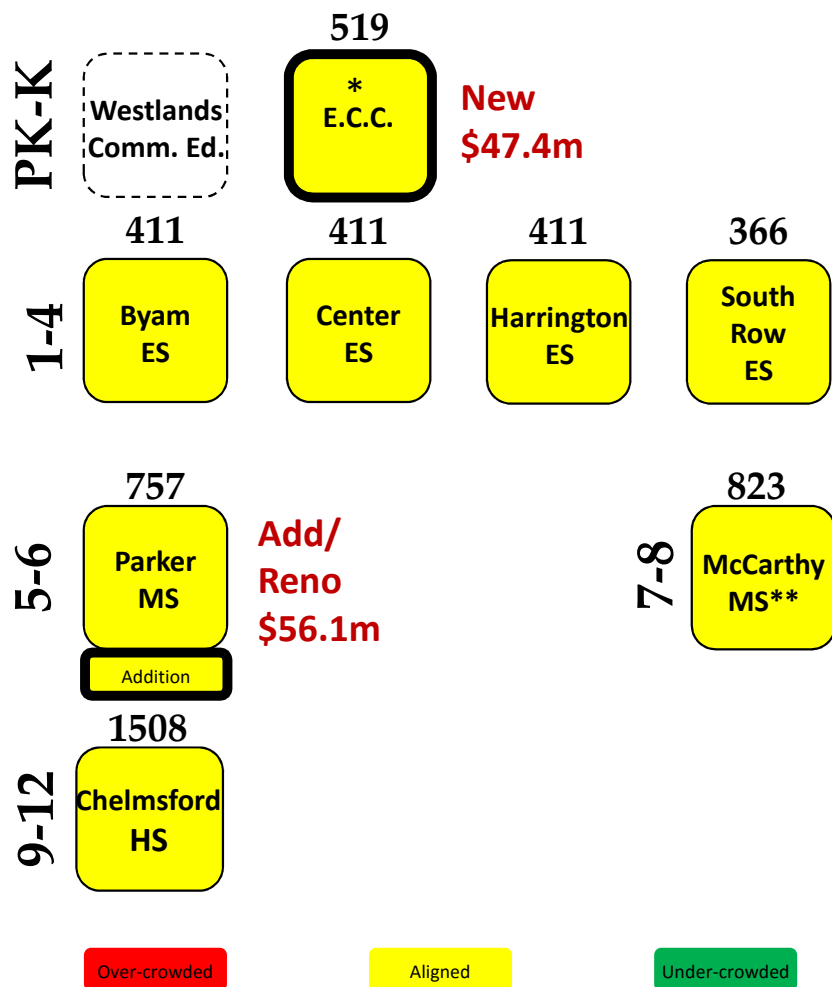
Objectives Met

- ☐ Full Day K
- ☐ Co-located Pre-K
- ☐ Right-sized facilities for:
 - ☐ Elementary schools
 - ☐ Middle Schools
 - ✓ ☒ High School
- ☐ Addresses inadequate program space
 - ☐ Special education space
 - ☐ Space for specials
 - ☐ MS science rooms
- ☐ Removes temporary construction at schools
- ✓ ☒ Addresses physical building conditions

OPTION D

Total new project cost: \$103.5m***

NEW EARLY CHILDHOOD CENTER



* Location of new construction yet to be determined.

** Renovations to existing science rooms at McCarthy would need to occur as separate project(s) over a number of years.

*** All costs are estimates and in 2016 dollars (no escalation has been added)

Option D builds a new early childhood center for PK and full-day kindergarten students. Westlands discontinues as a PK center and would be used for Community Ed. Byam, Center, Harrington, and South Row become grades 1-4 elementary schools. The Parker MS becomes a 5-6 middle school to serve all 5-6 students in the District and would require an addition and full school renovation. The McCarthy reconfigures to serve grades 7-8. The high school would remain.

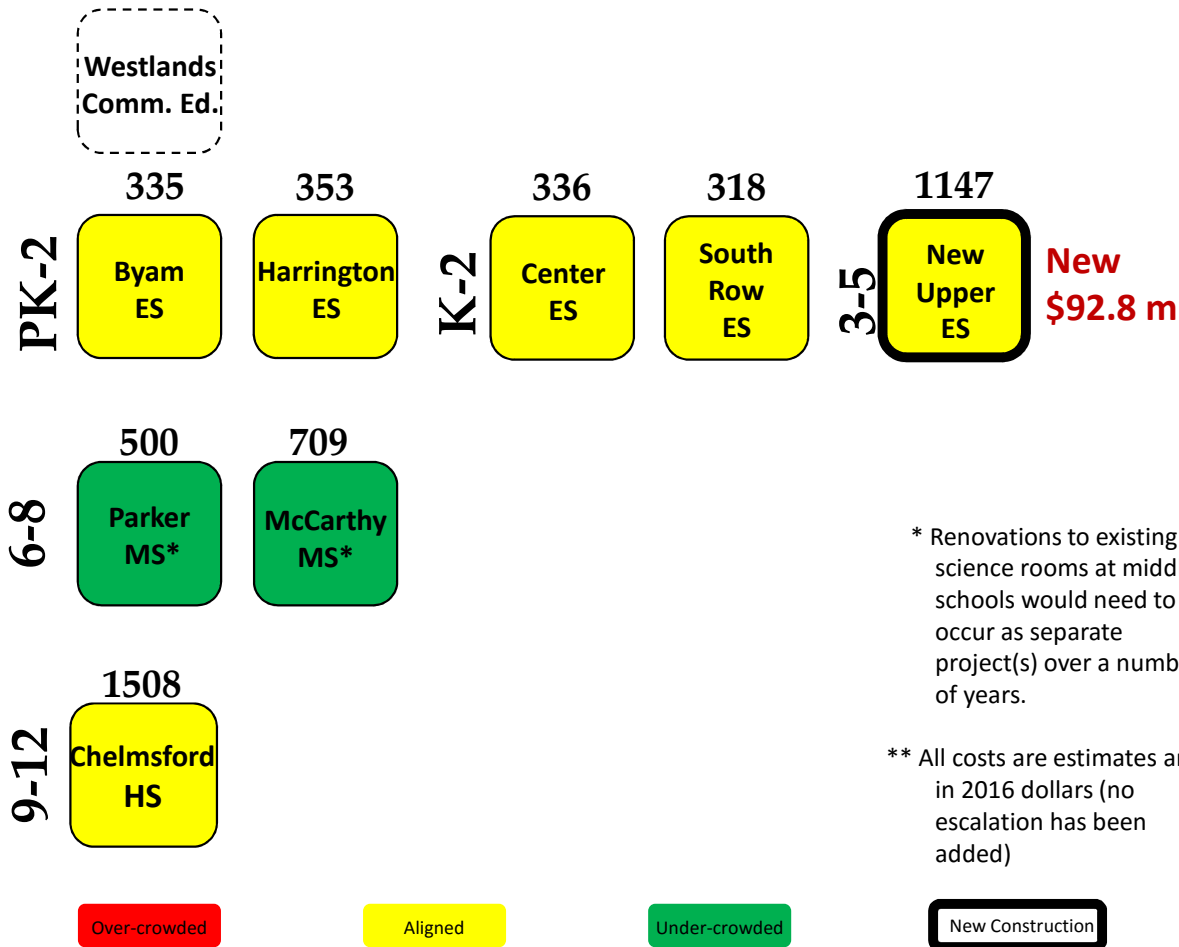
Objectives Met

- ✓ Full Day K
- ✓ Co-located Pre-K
- ✓ Right-sized facilities for:
 - ✓ Elementary schools
 - ✓ Middle Schools
 - ✓ High School
- ✓ Addresses inadequate program space
 - ✓ Special education space
 - ✓ Space for specials
 - ☐ MS science rooms
- ✓ Removes temporary construction at schools
- ✓ Addresses physical building conditions

OPTION E

Total new project cost: \$92.8m**

NEW UPPER ELEMENTARY SCHOOL



* Renovations to existing science rooms at middle schools would need to occur as separate project(s) over a number of years.

** All costs are estimates and in 2016 dollars (no escalation has been added)

Option E builds a new upper elementary school for all grade 3-5 students in the District. Westlands discontinues as a PK center and would be used for Community Ed. Byam and Harrington reconfigure to become PK-2 elementary schools and Center and South Row become K-2 elementary schools. The Parker and McCarthy Middle Schools reconfigure to serve grades 6-8. Chelmsford High School would remain.

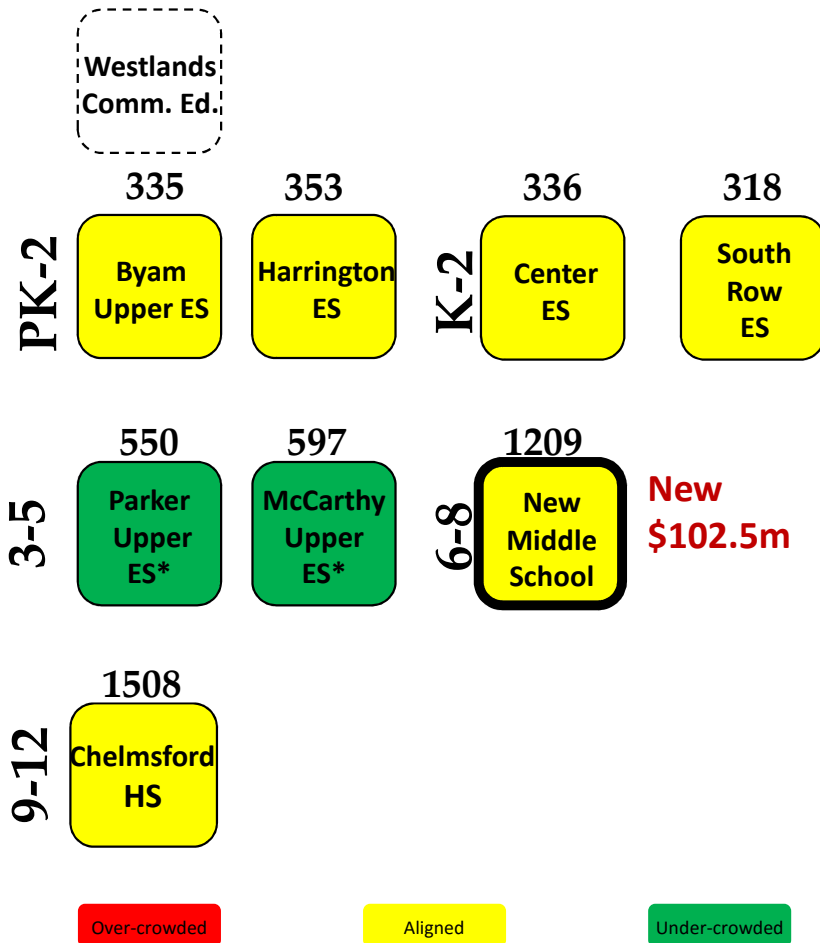
Objectives Met

- ✓ Full Day K
- ✓ Co-located Pre-K
- ✓ Right-sized facilities for:
 - ✓ Elementary schools
 - ☐ Middle Schools
 - ✓ High School
- ✓ Addresses inadequate program space
 - ✓ Special education space
 - ✓ Space for specials
 - ☐ MS science rooms
- ✓ Removes temporary construction at schools
- ✓ Addresses physical building conditions

OPTION H

Total new project cost: \$102.5m**

NEW MIDDLE SCHOOL



* Renovations should be considered for both Parker & McCarthy School

** All costs are estimates and in 2016 dollars (no escalation has been added)

Option H builds a new 6-8 middle school and reconfigures grades at the elementary level. Westlands discontinues as PK and would serve community ed. Byam and Harrington become PK-2 elementary schools and Center and South Row become K-2 elementary schools. Both Parker and McCarthy become 3-5 upper-elementary schools. The District builds a new middle school to serve grades 6-8. Chelmsford High School remains.

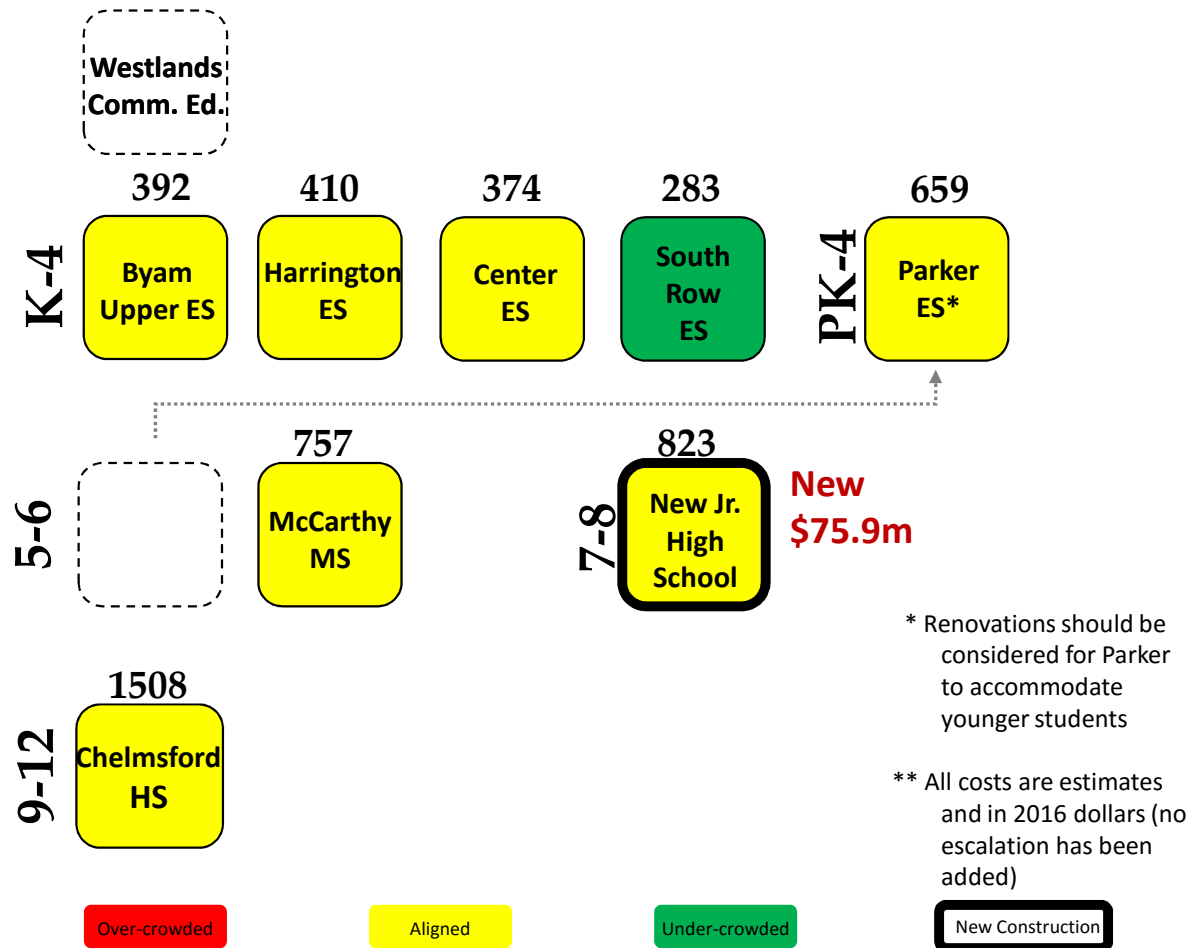
Objectives Met

- ✓ Full Day K
- ✓ Co-located Pre-K
- ✓ Right-sized facilities for:
 - ☐ Elementary schools
 - ✓ Middle Schools
 - ✓ High School
- ✓ Addresses inadequate program space
 - ✓ Special education space
 - ✓ Space for specials
 - ✓ MS science rooms
- ✓ Removes temporary construction at schools
- ✓ Addresses physical building conditions

OPTION I2

Total new project cost: \$75.9m**

NEW JR. HIGH SCHOOL



Option I builds a new Jr. high school and reconfigures grades at the elementary level. Westlands is discontinued as an educational facility. Byam, Harrington, Center, and South Row become K-4 elementary schools. Parker becomes a PK-4 elementary school. McCarthy becomes an 5-6 upper-elementary school. The District builds a new Jr. high school to serve grades 7-8. Chelmsford High School remains.

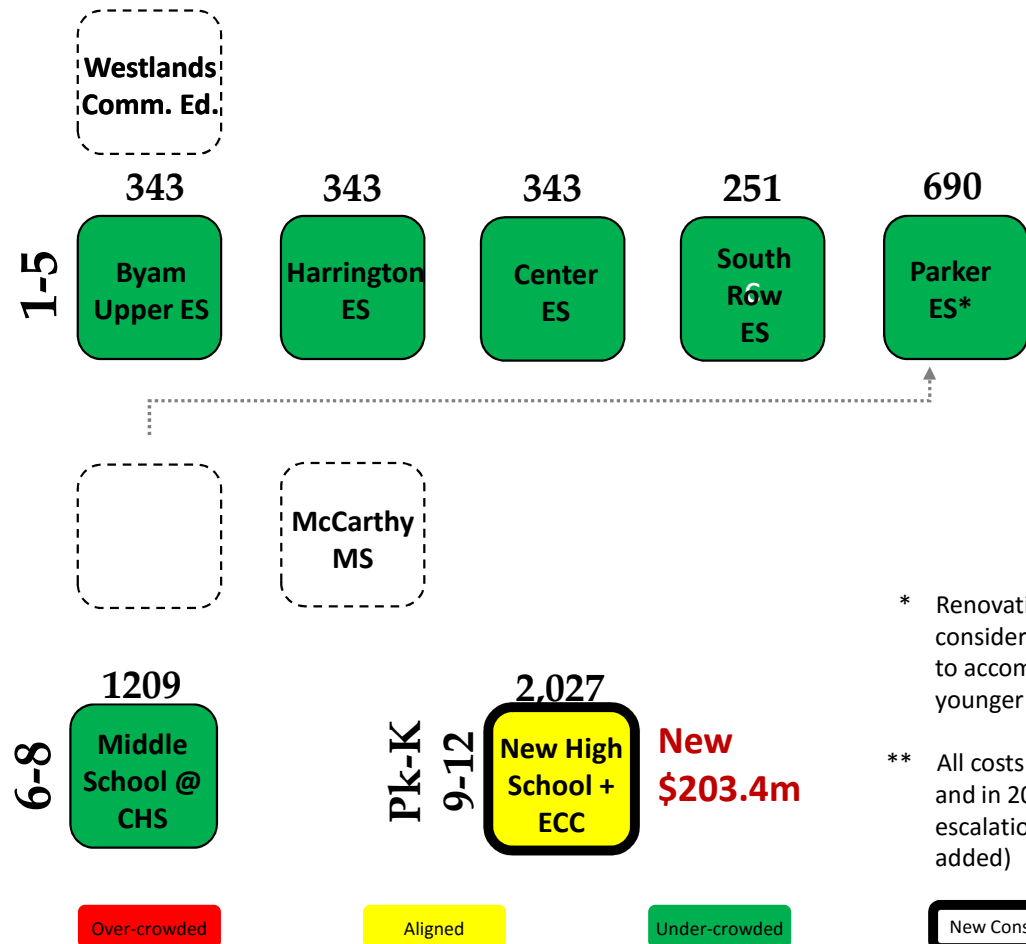
Objectives Met

- ✓ Full Day K
- ✓ Co-located Pre-K
- ✓ Right-sized facilities for:
 - ☐ Elementary schools
 - ✓ Middle Schools
 - ✓ High School
- ✓ Addresses inadequate program space
 - ✓ Special education space
 - ✓ Space for specials
 - ✓ MS science rooms
- ✓ Removes temporary construction at schools
- ✓ Addresses physical building conditions

OPTION J5

Total new project cost: \$203.4m**

NEW HIGH SCHOOL



Option J5 builds a new high school and early childhood center under one roof. The high school becomes a 6-8 middle school. Parker becomes a 1-5 elementary school and Byam, Harrington, Center, and South Row reconfigure to be 1-5 elementary schools. Both Westlands and McCarthy are discontinued as school buildings.

Objectives Met

- ✓ Full Day K
- ✓ Co-located Pre-K
- ✓ Right-sized facilities for:
 - ☐ Elementary schools
 - ☐ Middle Schools
 - ✓ High School
- ✓ Addresses inadequate program space
 - ✓ Special education space
 - ✓ Space for specials
 - ✓ MS science rooms
- ✓ Removes temporary construction at schools
- ✓ Addresses physical building conditions

Options Development

OPTION	Major Project #1	Major Project #2	subtotal
OPTION A - CIP ONLY			\$ 59.4 m
OPTION D - NEW ECC + ADD/ RENO @ PARKER	\$ 47.4 m	\$ 56.1 m	\$ 103.5 m
OPTION E - NEW 3-5 SCHOOL	\$ 92.8 m		\$ 92.8 m
OPTION H - NEW 6-8 SCHOOL	\$ 102.5 m		\$ 102.5 m
OPTION I2 - NEW 7-8 SCHOOL	\$ 75.9 m		\$ 75.9 m
OPTION J5 - NEW HS + ECC	\$ 203.4 m		\$ 203.4 m



Options Summary

A STATUS QUO

CIP: \$ 59.4 m	PK Westland Comm. Ed.	1/2 K-4	Byam ES	Harrington ES	Center ES	South Row ES			5-8 Parker MS	McCarthy MS	9-12 Chelmsford HS
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D NEW EARLY CHILDHOOD CENTER

Project: \$ 103.5m	Westland Comm. Ed.	1-4	Byam ES	Harrington ES	Center ES	South Row ES	PK-K E..C.C.		5-6 Parker ES /MS	7-8 McCarthy MS	9-12 Chelmsford HS
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E NEW 3-5 UPPER ELEMENARY SCHOOL

Project: \$ 92.8 m	Westland Comm. Ed.	PK-2	Byam ES	Harrington ES	K-2 Center ES	South Row ES		3-5 New Upper ES	6-8 Parker MS	6-8 McCarthy MS	9-12 Chelmsford HS
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H NEW 6-8 MIDDLE SCHOOL

Project: \$ 102.5 m	Westland Comm. Ed.	PK-2	Byam ES	Harrington ES	K-2 Center ES	South Row ES	3-5 Parker Upper ES	McCarthy Upper ES		6-8 New MS	9-12 Chelmsford HS
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I2 NEW 7-8 MIDDLE SCHOOL

Project: \$ 75.9 m	Westland Comm. Ed.	K-4	Byam ES	Harrington ES	Center ES	South Row ES	PK-4 Parker ES		5-6 McCarthy ES / MS	7-8 New Jr. High	9-12 Chelmsford HS
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J5 NEW PK-K/ HIGH SCHOOL

Project: \$ 203.5 m	Westland Comm. Ed.	1-5	Byam ES	Harrington ES	Center ES	South Row ES	1-5 Parker ES		McCarthy	6-8 MS @CHS	New ECC/ High School
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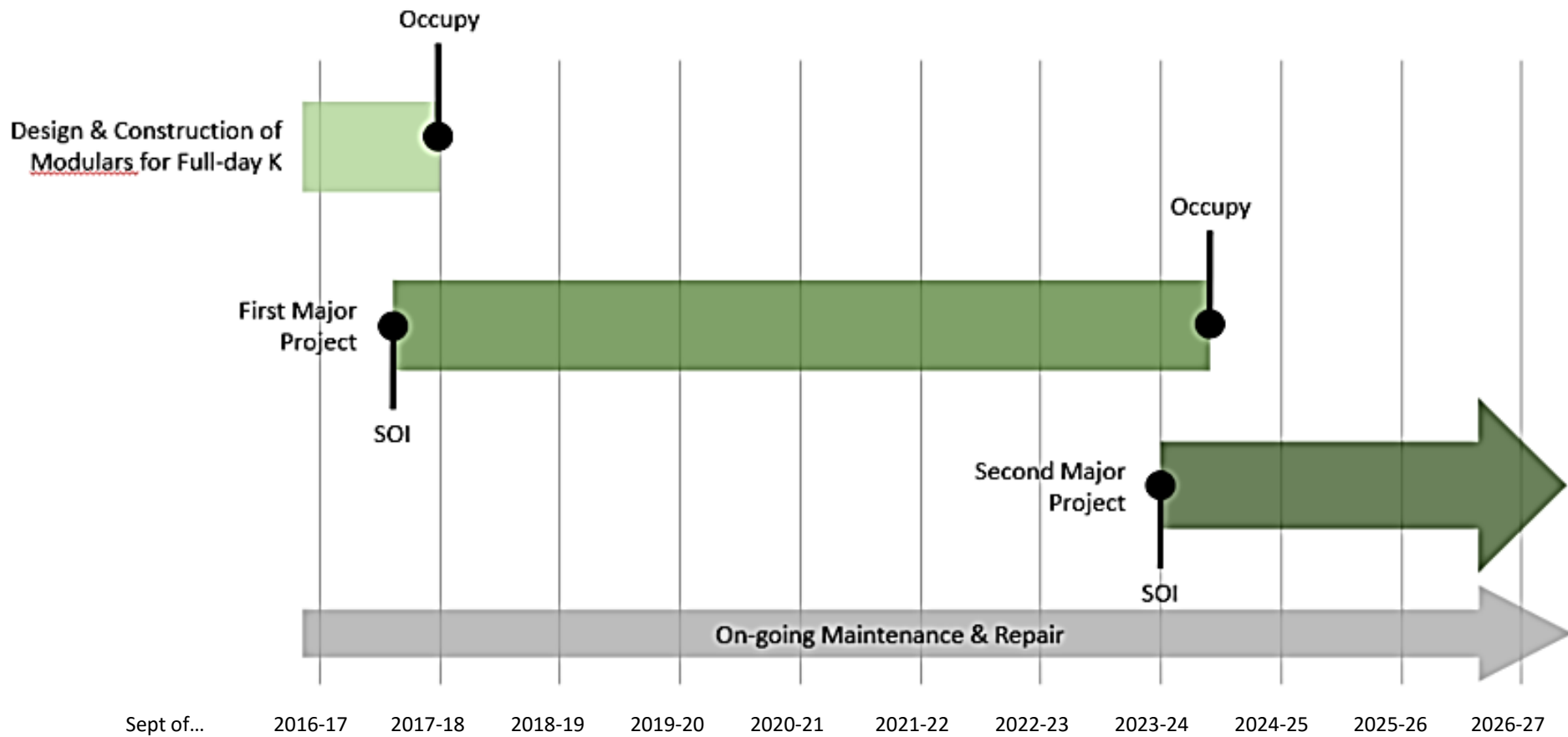
 visioning

 options

 schedule



Master Plan Timeline



Schedule

- February 2, 2017 : Further Review of Options
Opportunities, Constraint & Value
- February 7, 2017 : School Committee
- February 16, 2017: Public Presentations
- February 28, 2017: School Committee



Questions



Thank you

