



Tecton
ARCHITECTS

SCHOOL FACILITIES

MASTER PLAN & RECONFIGURATION STUDY

PRESENTATION TO
BOARD OF EDUCATION

11.12.2019

AGENDA

1. Summary of the goals ~ “THE WHY””

2. Project History & Our Process

3. Outlining the Options

- Brief summary options considered
- Outline the process and effort
- Present the strategy & “best thinking” to date
- Key objectives of the Options
- Solicit Feedback & Comments





GOALS OF THE PROJECT / MASTER PLAN FOR THE FUTURE

- Analyze existing conditions & assess educational needs
- 10 to 15 year prioritized plan (Capital & Maintenance)
- Employ a sustainable approach to address facility & educational needs of the community
- Explore impact of demographics & population projections
- Develop alternative configurations & options
- Engage community & explore responsive solutions
- **Produce a Long Range Master Plan for community**

PROJECT HISTORY

OUR PROCESS



PROJECT TIMELINE

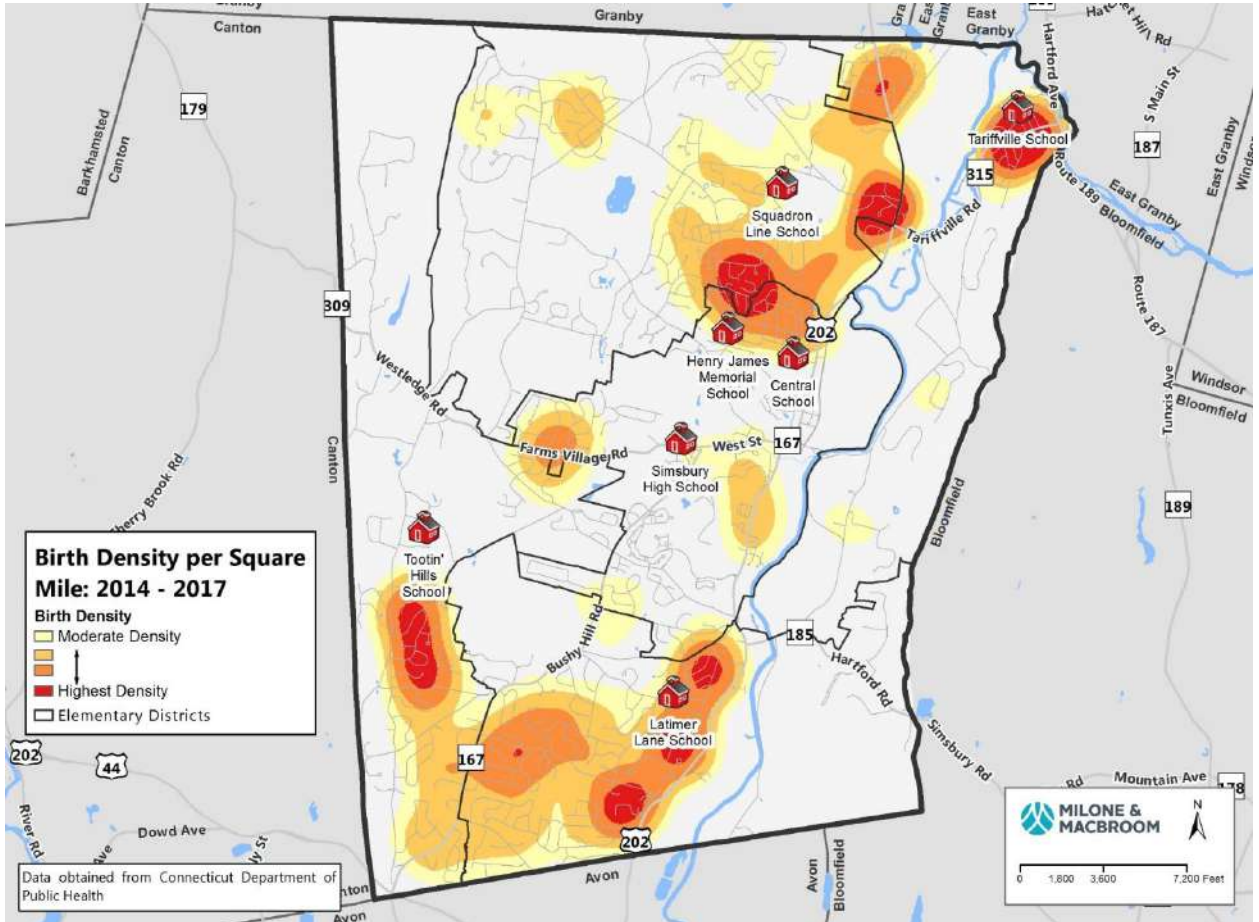


Today

Key points from the first Forum

- New housing development was analyzed as a part of the enrollment projections. Findings conclude:
 - A steady increase in elementary enrollment over the next five years (~300 students in K-6).
 - Fastest growth at Latimer Lane (21.3%), Squadron Line (17.4%) and Central (15.3%).

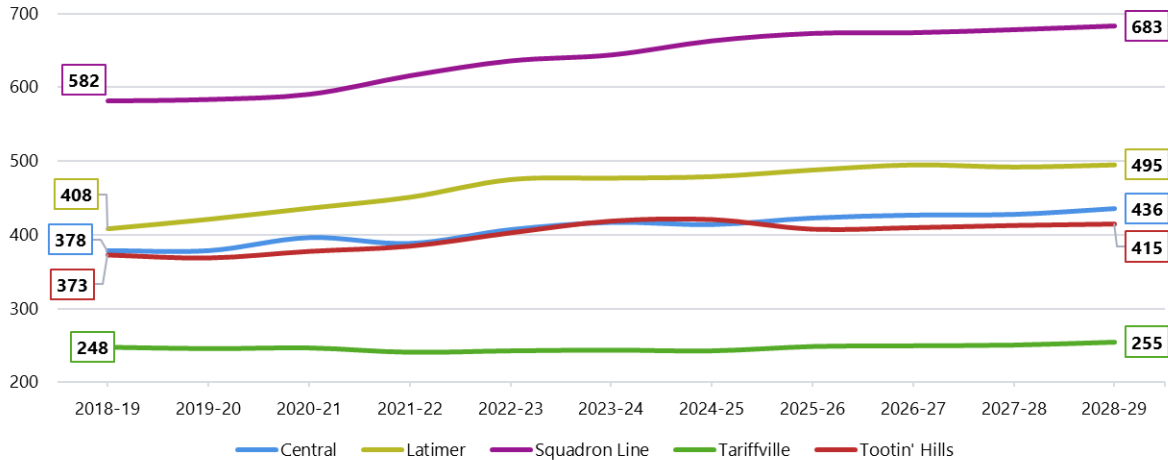
BIRTH HOT SPOTS





ELEMENTARY PROJECTIONS / BASED ON MEDIUM

Elementary School Projections (K-6): 2018-19 to 2028-29



- **Fastest growth projected at Latimer (21.3%), Squadron Line (17.4%) and Central (15.3%), the three districts with the greatest housing construction activity.**
- Modest growth projected at Tootin' Hills over the first five years of the projections.
- Tariffville projected to stay generally stable over the next decade, growing by just 2.8%.

Key points from the first Forum

- Town has taken a methodical approach to building upgrades, **though none have been comprehensive renovations.**
- Facilities are well-maintained and community has received solid value on their investment.
- Most of the need is found in the elementary schools.

EXISTING SCHOOLS / TAKING STOCK OF WHAT YOU HAVE

EXISTING CONDITIONS INVENTORY & ANALYSIS

TARIFFVILLE SCHOOL (TS) K-6

B. SUMMARY & ANALYSIS

B.1 School & Facility Data

The School:

Type:	Elementary
Enrollment (2018):	248
Staff (approx):	70
Enrollment (10yr projection):	240
Net enrollment change:	+12
Location (in town):	northeast end

The Facility:

Total Building Area (SF):	37,398 SF
Site Area (acres):	4.41 acres
Stories (above grade):	2
Building / Framing Materials:	masonry, steel, concrete, wood
Spill-level / ramps (interior):	ramp, ADA
Stairs (interior):	yes
Elevator:	no
Rosemount:	no
Mezzanine (mechanical):	no
Crawl Space / Tunnels:	yes
Modular Classrooms:	yes, 2, 564 SF
Auxiliary Buildings:	yes, storage
Full ADA Compliance:	no

Athletic Fields:	baseball, track, soccer
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EXISTING CONDITIONS INVENTORY & ANALYSIS

TARIFFVILLE SCHOOL (TS) K-6

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.3.3 CHECKLIST & RANKINGS

Ranking:	1 Very Poor (VP) Requires prompt action
	2 Fair (F) May require attention
	3 Fair (F) May require attention
	4 Good (G) May require attention
	5 Very Good (VG) Does not require action

Exterior

Roofing	Asph/Flt EPDM membrane PVC membrane Flashing / joints Aluminum gutters / downspouts
Walls	masonry - brick Cladding - vinyl siding Trim Joints (Building orie) Wall mounted fixtures Foundations - aspx
Entrances	Aluminum Doors & Frames Highway Metal Doors Softly / Canopy
Windows	Aluminum, thermal Window Screens (p)
Walkways / site stairs	Concrete walks & curbs Bituminous walks & curbs
Drives / parking lots	Bituminous pavement Line striping Fluorescent illumination
Landscaping	Lawn Planting Mulch beds
Recreation	Playscopes / Shrub Paved play surface Paved play surface Diamond fields Soccer fields
Other Structures	Auxiliary Buildings Loading area Dumpster Enclosure Site lighting (fixtures) Catch basin traps Catch basin structure

EXISTING CONDITIONS INVENTORY & ANALYSIS

TARIFFVILLE ELEMENTARY SCHOOL (TS) K-6

D. PHOTO LOG

D.2 Site



D.2.1: Walkways / Site Stairs



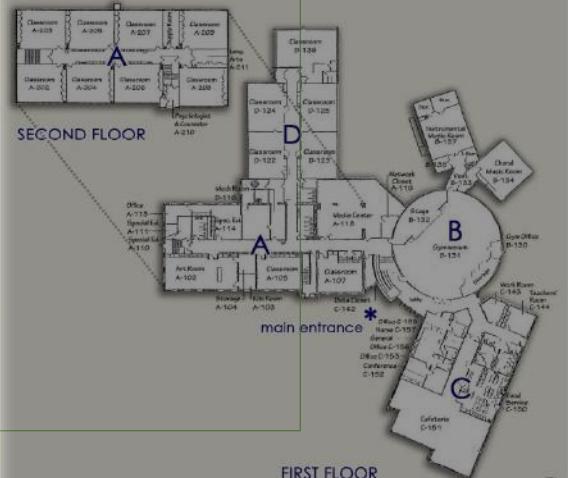
D.2.2: Walkways / Site Stairs

EXISTING CONDITIONS INVENTORY & ANALYSIS

TARIFFVILLE SCHOOL (TS) K-6

E. APPENDIX

E.1 PLAN DIAGRAMS



FIRST FLOOR

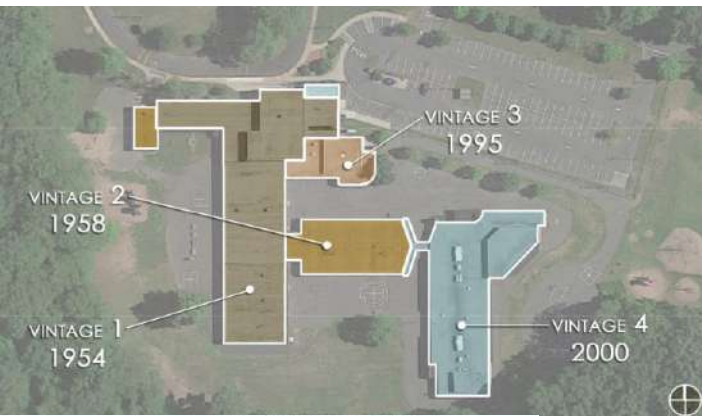
Key points from the first Forum

Specific to the Elementary Schools....

- Facilities have been added to and/or partially renovated, leaving a complex composition of new and old, **inefficient layouts** and various vintages (exception: Squadron Line).
- Renovations to **core facilities** are needed (bathrooms, cafeterias, kitchens, gymnasiums, media centers).



EXISTING SCHOOLS / TAKING STOCK OF WHAT YOU HAVE



BUILDING	YEAR BUILT	CURRENT AGE	CUR. ENROLL	GRADE CONFIG.	(E) SF AREA
TOOTIN' HILLS	1954, 1958, 1995, 2000	65, 61, 24, 19	370	K-6	67,184



BUILDING	YEAR BUILT	CURRENT AGE	CUR. ENROLL	GRADE CONFIG.	(E) SF AREA
LAMFVILLE	1925, 1959, 1986, 2009	94, 40, 33, 10	246	K-6	39,398



BUILDING	YEAR BUILT	CURRENT AGE	CUR. ENROLL	GRADE CONFIG.	(E) SF AREA
LATIMER LANE	1962, 1996	57, 23	405	K-6	45,839



BUILDING	YEAR BUILT	CURRENT AGE	CUR. ENROLL	GRADE CONFIG.	(E) SF AREA
CENTRAL SCHOOL	1913, 1950, 1997	104, 49, 22	375	K-6	60,909

Latimer Lane



Area/Level	Footprint / Area	Non Educ. Space
Lower Floor	2,494	2,494
Ground Floor	46,057	17,226
Subtotal	48,551	19,720
Efficiency Factor	40.62%	
Typ. Eff. Factor	25-30%	
Loss of Ed. Space	4,800 - 7,300 sf	



Key points from the first Forum

Specific to the Elementary Schools....

- No facility has received a **comprehensive renovation** since its original construction.
- Programmatically, the faculty has made use of **every space possible**.
- **The average age of the original elementary schools is 74.4 years.**



EXISTING SCHOOLS / TAKING STOCK OF WHAT YOU HAVE

BUILDING	YEAR BUILT	CURRENT AGE	CUR. ENROLL.	GRADE CONFIG.	(E) SF AREA
TARIFFVILLE	1925, 1959, 1986, 2009	94, 60, 33, 10	246	K-6	39,398
TOOTIN' HILLS	1954, 1958, 1995, 2000	65, 61, 24, 19	370	K-6	57,184
SQUADRON LINE	1969	50	578	PK-6	91,361
LATIMER LANE	1962, 1996	57, 23	405	K-6	45,839
CENTRAL SCHOOL	1913, 1950, 1997	106, 69, 22	375	K-6	60,909
HENRY JAMES MEMORIAL	1957, 1959, 2000, 2019	62, 60, 19	610	7-8	146,020
SIMSBUURY HIGH SCHOOL	1968, 1982, 2005	51, 37, 14	1419	9-12	303,541

NOTES:

[1] YEAR BUILT ~ COMPLETION DATE

[2] SF AREA IS BASED UPON ASSESSOR INFORMATION AND EXISTING CONDITIONS DOCUMENTS PROVIDED

What we heard at the first Forum

- Most existing condition issues were not a surprise, either in the buildings or the sites. **It is time to look at it comprehensively.**
- **Sustainability** is important: implementation new technologies, curriculum/practices that support the environment, using the building as a teaching tool, no fossil fuels, net-zero
- **Agreed that schools are being used to their maximum potential.**

What we heard at the first Forum

- Spaces should be flexible and not oversized: encouraged to research trends.
- Site schemes should address security, accessibility and clear traffic flow.
- **No preconceived ideas** for the options: the metrics for evaluating them should be clear and quantitative.
- Designs must be **fiscally responsible**, balancing life cycle costs vs. initial costs.

HISTORY OF OPTIONS CONSIDERED

INTERACTIVE SESSIONS (FETFC & Admin. Council)



N.B. 8 schools changed on the plan but not completely

23: Keeping next neighborhoods looking to a class



SCHOOL FACILITIES MASTER PLAN & RECONFIGURATION STUDY

School	Year Built	Current Enroll
Rock School	1962	452
Common Line	1962	452
Chardon Line	1962	452
Common School	1962	452
Rock Hills	1962	452
Henry James	1962	452

OPTION 1

All Existing Elementary Schools Renovated as New

Grade Config	Future Enroll	Prop. Const.
K-5	405	Renovate/Asst
K-5	405	Renovate/Asst
K-5	405	Renovate/Asst
K-5	405	Renovate/Asst
K-5	405	Renovate/Asst
K-5	405	Renovate/Asst
K-5	405	Renovate/Asst
K-5	405	Renovate/Asst
K-5	405	Renovate/Asst
K-5	405	Renovate/Asst

OPTION 2A

New Lower Middle (5-6) @ Henry James
Three K-4 Schools

Grade Config	Future Enroll	Prop. Const.
K-4	308	New
K-4	308	New
K-4	308	New
K-4	308	Renovate
K-4	308	Renovate
K-4	308	Renovate
K-4	308	Renovate
K-4	308	Renovate
K-4	308	Renovate
K-4	308	Renovate

OPTION 2B

New Lower Middle (5-6) @ Henry James
Four K-4 Schools

Grade Config	Future Enroll	Prop. Const.
K-4	308	New
K-4	308	Renovate/Asst
K-4	308	New
K-4	308	Renovate
K-4	308	Renovate
K-4	308	Renovate
K-4	308	Renovate
K-4	308	Renovate
K-4	308	Renovate
K-4	308	Renovate

OPTION 3A

Add 6th Grade to Henry James
Three K-5 Schools

Grade Config	Future Enroll	Prop. Const.
K-5	301	New
K-5	301	New
K-5	301	New
K-5	301	Renovate
K-5	301	Renovate
K-5	301	Renovate
K-5	301	Renovate
K-5	301	Renovate
K-5	301	Renovate
K-5	301	Renovate

OPTION 3B

Add 6th Grade to Henry James
Four K-5 Schools

Grade Config	Future Enroll	Prop. Const.
K-5	301	New
K-5	301	New
K-5	301	New
K-5	301	New
K-5	301	Renovate
K-5	301	Renovate
K-5	301	Renovate
K-5	301	Renovate
K-5	301	Renovate
K-5	301	Renovate

athletic needs are sufficient
counting down buildings to road delta may be a better point

Should consider the hills as a diff. program because of its location

SHARIS CANFLY NOT SAME NEIGHBORHOOD

CONSERVATIVE + NO CHANGES - NO CHANGES

Benefits:
Option 1
The major benefit of this option is that it would allow for the renovation of all existing schools, which would provide a more modern learning environment for all students.

Benefits:
Option 2A
The major benefit of this option is that it would allow for the renovation of all existing schools, which would provide a more modern learning environment for all students.

Benefits:
Option 2B
The major benefit of this option is that it would allow for the renovation of all existing schools, which would provide a more modern learning environment for all students.

Benefits:
Option 3A
The major benefit of this option is that it would allow for the renovation of all existing schools, which would provide a more modern learning environment for all students.

Benefits:
Option 3B
The major benefit of this option is that it would allow for the renovation of all existing schools, which would provide a more modern learning environment for all students.

Challenges:
Option 1
The major challenge of this option is that it would require the renovation of all existing schools, which would be a significant cost.

Challenges:
Option 2A
The major challenge of this option is that it would require the renovation of all existing schools, which would be a significant cost.

Challenges:
Option 2B
The major challenge of this option is that it would require the renovation of all existing schools, which would be a significant cost.

Challenges:
Option 3A
The major challenge of this option is that it would require the renovation of all existing schools, which would be a significant cost.

Challenges:
Option 3B
The major challenge of this option is that it would require the renovation of all existing schools, which would be a significant cost.

2A
2B
2 lane road on Firetown (circulation)

goes from 7 buildings to 8

No option 1
No option 3A

516
Public not interested in (S) last road

10 / 1A
Traffic
Stagnant
worst

using the fields may be a concern for some parents

why 2 schools affected

23
Elev. Right Side

INTERACTIVE SESSIONS (FETFC & Admin. Council)

- 6.19.19 Met with Leadership & discussed five options
- 7.25.19 Superintendent Cab. revised to six options
- 8.15.19 Admin. Council revised options, dropped PK 2
- 8.21.19 Admin Council revised options, dropped maintaining existing grade structure
- 9.18.19 Admin Council refined options
- 10.1.19 FETFC refined options down to 2 a/b, 3 a/b
- 10.16.19 Admin Council focused on two options: 5 6, 6 8
- 10.30.19 FETFC debated & refined two options

REFINING THE OPTIONS

ANALYZING THE NEED

Capacity Analysis – Latimer Lane

1 Capacity Analysis

Item Description	Projected Enrollment (2026-27)							Subtl.
	K	1	2	3	4	5	6	
Grade Level	K	1	2	3	4	5	6	
Student Pop. (10/1/18)	62	66	64	74	70	79	80	495
SF/Student (Max.)	120	120	120	120	120	152	152	156
SF/Grade Level (Max.)	7,440	7,920	7,680	8,880	8,400	12,008	12,160	64,488

2 State Standard Space Specifications Grades

Projected Enrollment	Pre-K and K	1	2	3	4	5	6	7	8	9	10	11	12
	Allowable Square Footage per Pupil												
0 - 350	124	124	124	124	124	156	156	180	180	180	194	194	194
351 - 750	120	120	120	120	120	152	152	176	176	176	190	190	190
751 - 1500	116	116	116	116	116	148	148	170	170	170	184	184	184
Over 1500	112	112	112	112	112	142	142	164	164	164	178	178	178

Sec. 10-287c-15. Standards (Reference: Section 10-283a)

(a) **State standard space specifications.** The standard space specifications identified in this section shall apply to all school building project grants except code and health violations, roof replacements, site acquisitions, site improvements, leasing projects, plant purchases, vocational agriculture equipment, and administrative facilities. For any building constructed prior to 1950, the standard space specifications identified in this section shall be increased by twenty-five per cent.

Analysis

- 1 Take highest student enrollment from 8 year projection.
- 2 Multiple by max. allowable as per state standard Space Specifications by grade level & total size of school
- 3 Compare projected maximum allowable to existing areas to determine overall basic need.

MAX. ALLOWED **EXISTING BUILDING**
 (64,488 SF 45, 839 SF)

3 DELTA
 18,649 SF

Existing Building needs to expand by 40.7%

Capacity of what you have Today

BUILDING	GRADE CONFIG.	CUR. ENROLL.	FUTURE ENROLL.	EXISTING AREA	PER STATE STD.	DELTA
LATIMER LANE	K-6	406	495 (Yr. 2026-27)	45,839	64,488	<u>18,649</u>
SQUADRON LINE	PK-6	580 (+101)	683 (+101) (Yr. 2028-29)	91,361	100,800	<u>9,439</u>
CENTRAL SCHOOL	K-6	377	436 (Yr. 2028-29)	60,909	70,880*	<u>9,971</u>
TARIFFVILLE	K-6	248	255 (Yr. 2028-29)	39,398	42,285*	<u>2,287</u>
TOOTIN' HILLS	K-6	370	421 (Yr. 2024-25)	57,184	54,936	2,248

* Increase allowable by 25% for buildings constructed prior to 1950

Impact of Demographic Analysis

How Many & When?

Elementary & Middle School Enrollment Projection (Year by School)																			
School Name	2019-20	2020-21	Δ	2021-22	Δ	2022-23	Δ	2023-24	Δ	2024-25	Δ	2025-26	Δ	2026-27	Δ	2027-28	Δ	2028-29	Δ
Latimer	421	436	15	451	30	475	54	477	56	479	58	488	67	495	74	492	71	495	74
Squadron Line	584	591	7	616	32	636	52	644	60	663	79	673	89	674	90	678	94	683	99
Central	378	396	18	388	10	407	29	417	39	414	36	423	45	427	49	428	50	436	58
Tootin' Hills	369	378	9	385	16	403	34	419	50	421	52	408	39	410	41	413	44	415	46
Tariffville	246	247	1	241	-5	243	-3	244	-2	243	-3	249	3	250	4	251	5	255	9
K-6 Summary	1,998	2,048	50	2,081	83	2,164	166	2,201	203	2,220	222	2,241	243	2,256	258	2,262	264	2,284	286
Henry James	630	620	-10	603	-17	574	-29	593	-14	653	23	656	26	666	36	687	57	695	65
Δ = Delta of students compared to existing school year 2019-20																			
Highest Projected (28-29)	2,284																		
Existing (2019-20)	1,998																		
Delta	286																		
Highest Projected (28-29)	14.3%																		

Impact of Demographic Analysis

How Many & When?

Elementary & Middle School Enrollment Projection (Year by School)																			
School Name	2019-20	2020-21	Δ	2021-22	Δ	2022-23	Δ	2023-24	Δ	2024-25	Δ	2025-26	Δ	2026-27	Δ	2027-28	Δ	2028-29	Δ
Latimer	421	436	15	451	30	475	54	477	56	479	58	488	67	495	74	492	71	495	74
Squadron Line	584	591	7	616	32	636	52	644	60	663	79	673	89	674	90	678	94	683	99
Central	378	396	18	388	10	407	29	417	39	414	36	423	45	427	49	428	50	436	58
Footin' Hills	367	378	9	385	16	403	34	419	50	421	52	408	39	410	41	413	44	415	46
Tariffville	246	247	1	241	-5	243	-3	244	-2	243	-3	249	3	250	4	251	5	255	9
K-6 Summary	1,998	2,048	50	2,081	83	2,164	166	2,201	203	2,220	222	2,241	243	2,256	258	2,262	264	2,284	286
Henry James	630	620	10	603	27	574	-56	593	-37	653	23	656	26	666	36	687	57	695	65

Δ = Delta of students compared to existing school year 2019-20	
Highest Projected (28-29)	2,284
Existing (2019-20)	1,998
Delta	286
Highest Projected (28-29)	14.3%

In 3 Years... +166 Students, 8 to 9 classrooms
In 4 Years... +203 Students, 10 to 11 classrooms

KEY ASPECTS of refined options

- 1. Future Proof the plan, built-in flexibility over time**
2. Free up space in the existing elementary schools early in the plan
3. Some redistricting regardless of the option
4. Create space for improved curriculum
5. Strategically address immediate needs to allow for phased implementation of capital improvements

Option 1

Step 1 - Construct New Lower Middle Academy (5-6) at the Henry James Middle School site and reconfigure Elementary Schools to K-4; repurpose Tariffville as PK and Board of Education space.

Step 2 - Option to add/renovate/rebuild 3 Elementary Schools and repurpose Tootin Hills or add/renovate/rebuild all 4 remaining Elementary Schools.

BUILDING	GRADE CONF.	CUR. ENROLL.	FUTURE ENROLL.	CONSTR.
NEW LOWER MS @ HENRY JAMES	5-6	-	679	NEW
LATIMER LANE	K-4	406	490	NEW
SQUADRON LINE	K-4	580 (+101)	672	NEW
CENTRAL SCHOOL	K-4	377	474	RENO
TARIFFVILLE	PK	248	101	RENO/ DEMO

BUILDING	GRADE CONF.	CUR. ENROLL.	FUTURE ENROLL.	CONSTR.
NEW LOWER MS @ HENRY JAMES	5-6	-	679	NEW
LATIMER LANE	K-4	406	409	RENO/ ADD
SQUADRON LINE	K-4	580 (+101)	409	NEW
CENTRAL SCHOOL	K-4	377	409	RENO/ DEMO
TOOTIN HILLS	K-4	370	409	NEW
TARIFFVILLE	PK	248	101	RENO/ DEMO

Option 2

Step 1 - Add on to Henry James to accommodate 6th Grade and Build New K 5 at Latimer Lane, reconfigure Elementary Schools to K 5, and repurpose Tariffville as PK and Board of Education space.

Step 2 - Renovate and/or rebuild 3 remaining Elementary Schools.

BUILDING	GRADE CONFIG.	CUR. ENROLL.	FUTURE ENROLL.	CONSTR.
HENRY JAMES	6-8	610	1,039	RENO/ADD
LATIMER LANE	K-5	406	485	NEW
SQUADRON LINE	K-5	580 (+101)	486	NEW
CENTRAL SCHOOL	K-5	377	485	RENOVATE
TOOTIN HILLS	K-5	370	485	NEW
TARIFFVILLE	PK	248	101	RENO/DEMO

PROPOSED OPTIONS – STEP 1

Option 1

Construct a New Lower Middle Academy(5 6) at Henry James and reconfigure Elementary Schools to K 4 Maintain 3 or 4 Elem. Schools.

Project Summary

New School @HJMS Site: 679 Students
Area: 100,492 sf, Site Development 9 acres

Costs

Site & Building	\$48,118,980
Soft Costs:	\$8,781,714
Total Project Costs	\$56,900,694

State Reimb. @24.64%	(\$14,020,331)
Ineligibles	\$2,276,028

Cost to Simsbury **\$45,156,391**

Option 2

Construct 6th grade addition /core spaces to Henry James and build new K 5 @ Latimer, and reconfigure Elementary Schools to K 5;

Project Summary

6th Grade Addition: 344 Students (1,039)
Addition: 35,152 sf, Site Development 8 acres
New School @ Latimer: 485 Students
Area: 60,440 sf

Combined Costs

Site & Building	\$52,886,922
Soft Costs:	\$9,651,863
Total Project Costs	\$62,538,785

State Reimb. @24.64%	(\$15,409,557)
Ineligibles	\$2,501,551

Cost to Simsbury **\$49,630,780**



OPTION 1 / NEW LOWER MIDDLE (5-6) @ HENRY JAMES





OPTION 2 / 6TH GRADE ADDITION @ HENRY JAMES





OPTION 2 / 6TH GRADE ADDITION TO HENRY JAMES



BENEFITS & OPPORTUNITIES

Improves all K-6 Environments in the first step.
Maintains a majority of current neighborhoods
Schools are similarly and appropriately sized
“Buys time” at the Elementary Schools

Option 1

- **Creates swing space for 640 students**
 - Central ~ 124
 - Latimer ~ 143
 - Squadron Line ~ 173
 - Tariffville ~ 61
 - Tootin' Hills ~ 139

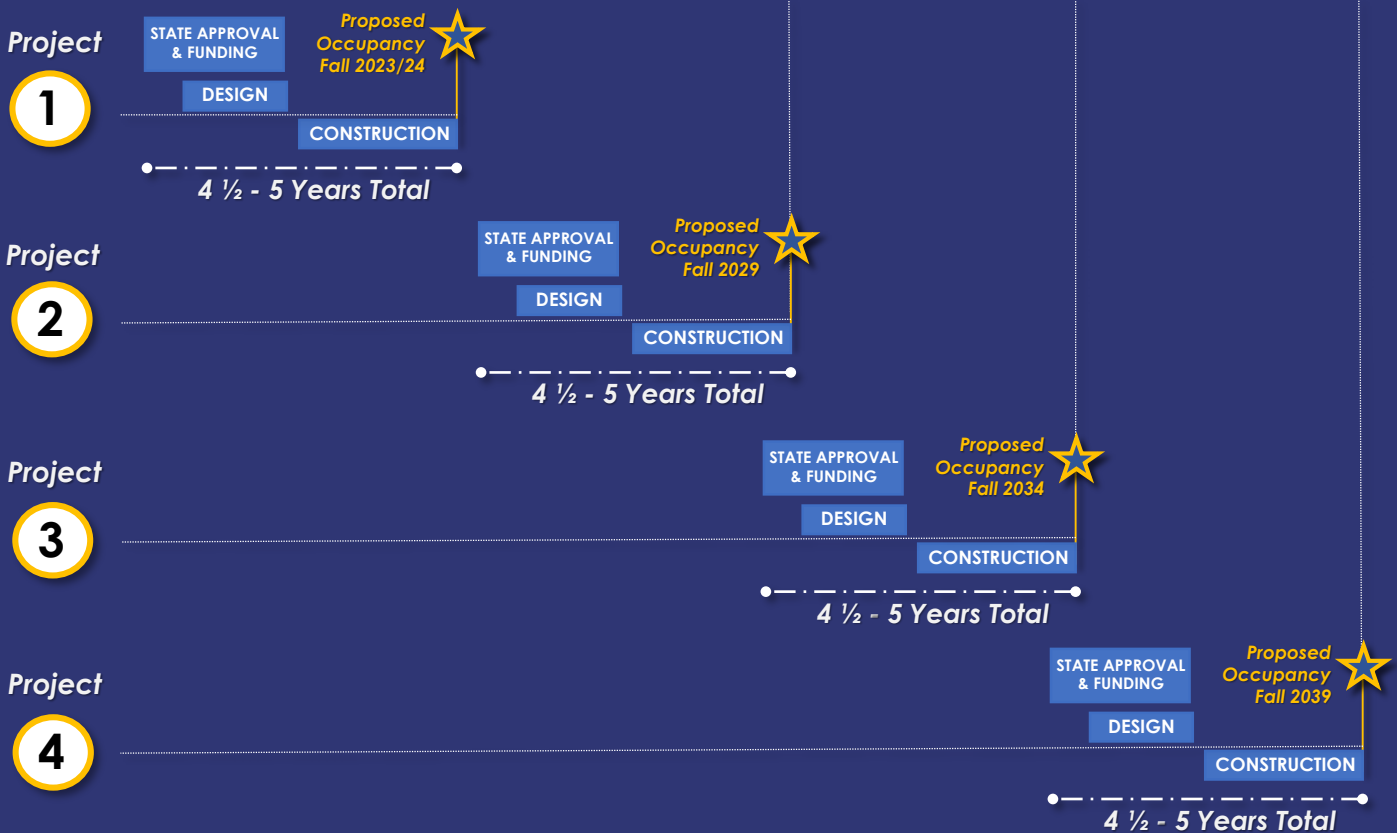
Option 2

- **Creates swing space 316 students**
 - Central ~ 67
 - Latimer ~ 72
 - Squadron Line ~ 83
 - Tariffville ~ 33
 - Tootin' Hills ~ 62

Note: School year 2023-24 need ~ 240+/-

MILESTONE SCHEDULE OVERALL TIMELINE

2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039



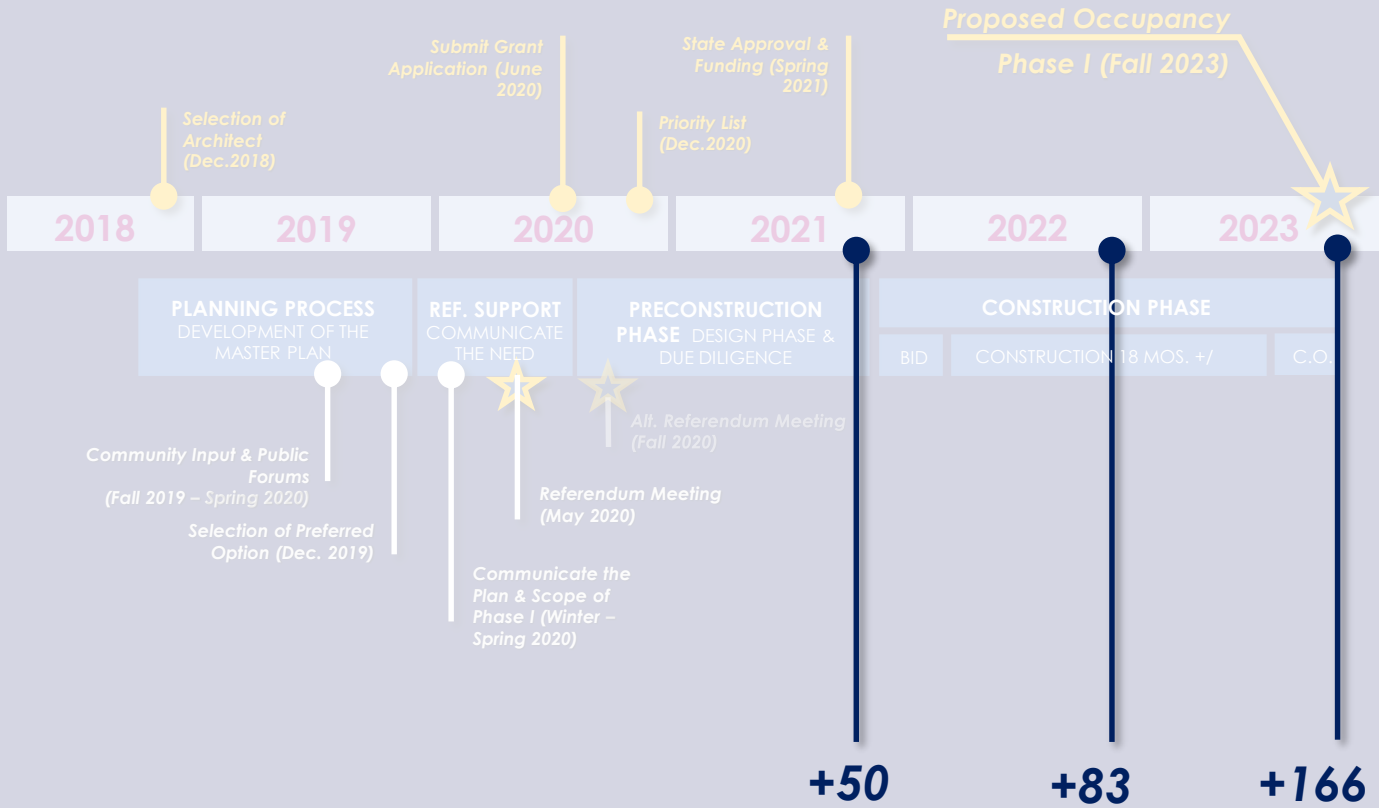
MILESTONE SCHEDULE PHASE 1



BEST CASE SCENARIO

Based upon M&M
Medium Projection

MILESTONE SCHEDULE PHASE 1



Based upon M&M
Medium Projection

MILESTONE SCHEDULE PHASE 1



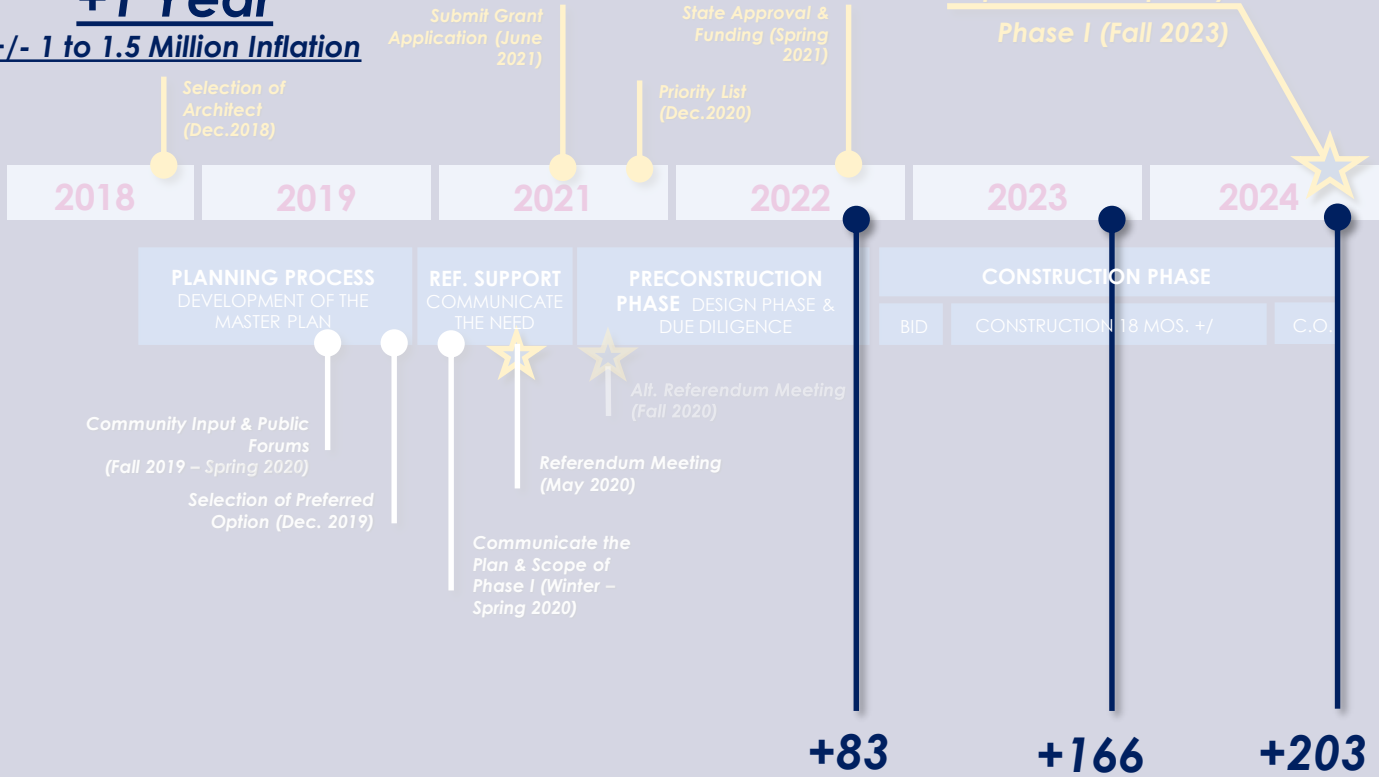
ALTERNATE OPTION



MILESTONE SCHEDULE PHASE 1

+1 Year

+/- 1 to 1.5 Million Inflation



Based upon M&M
Medium Projection



SCHEDULE/TIMELINE / FOR 2019/2020

1. June: Informal presentation to Matt & Burke, public forum
2. July: Superintendent's Cabinet meeting
3. August: Administrative Council meeting
4. September: BOE and FETFC (addressing comments received)
5. October: BOE and FETFC (finalized Option or Options), in preparation for public forum
6. November: BOE, public forum, revisions to documents afterwards, review project with State of CT
7. December: submission of completed documents to Town

Thank You!

Questions?



Tecton
ARCHITECTS

SCHOOL FACILITIES

MASTER PLAN & RECONFIGURATION STUDY

PRESENTATION TO
BOARD OF EDUCATION

11.12.2019