

Town of Reading Elementary Schools Master Planning Report



November 7th, 2019
Reading School Committee

AGENDA



- (7) Project Purpose
- (7) Background and Assumptions
- (7) Existing Conditions
- (7) Enrollment and Space Needs
- (7) Planning Options
- (7) Conclusion and Next Steps



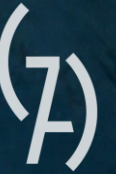
Project Purpose

- Enrollment projections
- Determine space needs:
 - For Enrollment
 - For Educational Program
- Develop multiple schemes for Town Evaluation
- Plan for next 20 years
- Acknowledge Pre-K program

Enrollment



- Modest Increases
- Data from NESDEC
 - Current Enrollment: 1854
 - Projected Enrollment: 1969
- Growth Distribution
 - Most growth at Killam, Birch Meadow (approx. 40-60 each)
 - Mild growth at Barrows, Eaton (8-10 each)
 - Negligible growth at Wood End (3 or fewer)



Background and Assumptions

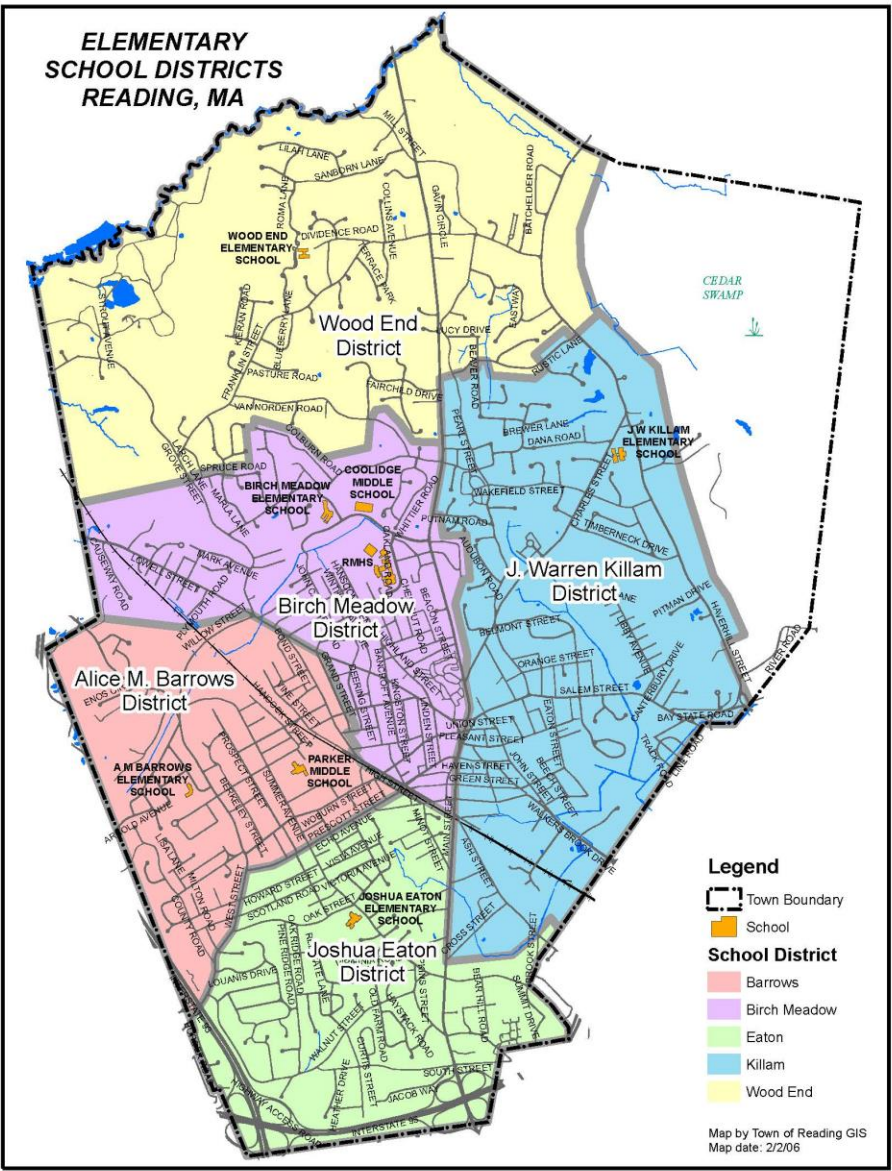
Schools and Districts



J.W. Killam
Elementary School



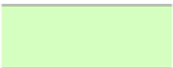
Birch Meadows
Elementary School



ows
chool



Joshua Eaton
Elementary School



Enrollment



	Town of Reading School Enrollment					
<i>School</i>	Killam	Birch Meadow	Wood End	Alice Barrows	Joshua Eaton	<i>Totals</i>
<i>Current (2019) Enrollment</i>	412	377	305	374	386	1854
<i>Projected (2029) Enrollment</i>	472	410	308	383	396	1969
<i>Net Change</i>	+60	+33	+3	+9	+10	+115

All numbers are based on projections from NESDEC

Program Standards



- Massachusetts School Building Authority standard:
 - 60 sf/student academic core spaces
 - 160 sf/student per gross building area
 - Town is, on average, 23 sf/student short:

$$\begin{array}{r} 1854 \text{ students} \\ \times 23 \text{ sf} \\ \hline 42,652 \text{ sf} \end{array}$$

- Space required for increased enrollment
- Additional space for program changes

Current Programmatic Status



	Town of Reading Square Footage per Student					
<i>School</i>	Killam	Birch Meadow	Wood End	Alice Barrows	Joshua Eaton	<i>Average</i>
<i>Current Enrollment</i>	412*	377	305	374*	386*	370
<i>Gross Building Area (sf.)</i>	58,000	58,000	60,000	57,000	50,000	56,600
<i>Sf. Per student (excl. W.E.)</i>	140	127	196	152	129	146

** Includes modular classrooms*

Pre-Kindergarten



- Approximately 110 Pre-K students
 - Currently at High School
 - Not Advantageous
- Expected to be ~175 over next 10 years
 - Growth of approx. 65 students
 - Projection not official, Pre-K enrollment is at will
- Proportionately, Pre-K growth is most extreme

Program Change	Classrooms Allocated in 2005	Classrooms allocated in 2013	Classrooms Allocated in 2019-20 School Year	Classrooms Needed in 2020-2021 School Year
Full Day Kindergarten	5	10	14	14
Special Education Programs (Not Including Learning Centers)	1	6	9 Full Size Classrooms 6 Inclusion Classrooms 3 Small Classrooms	10 Full Size Classrooms 6 Inclusion Classrooms 3 Small Classrooms
RISE Preschool	5	7	8	8

Program Changes Since 2005 and Future Needs

(Based on Current Trends)



Existing Conditions

All Schools

Total Enrollment: 1854*

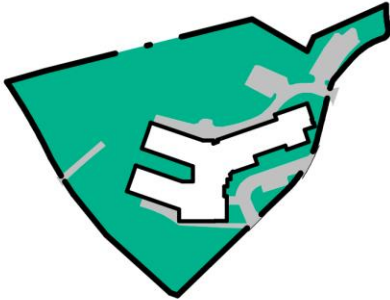
Total Classrooms: 91**



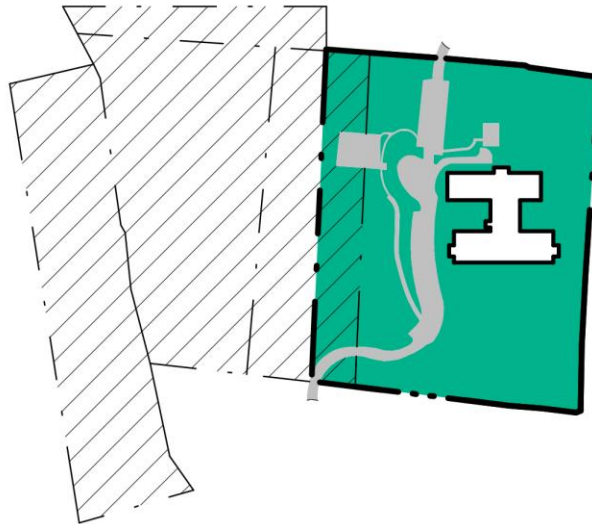
J.W. Killam
Elementary School



Birch Meadows
Elementary School



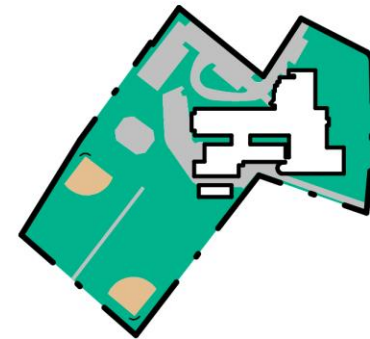
Wood End
Elementary School



Alice M. Barrows
Elementary School



Joshua Eaton
Elementary School

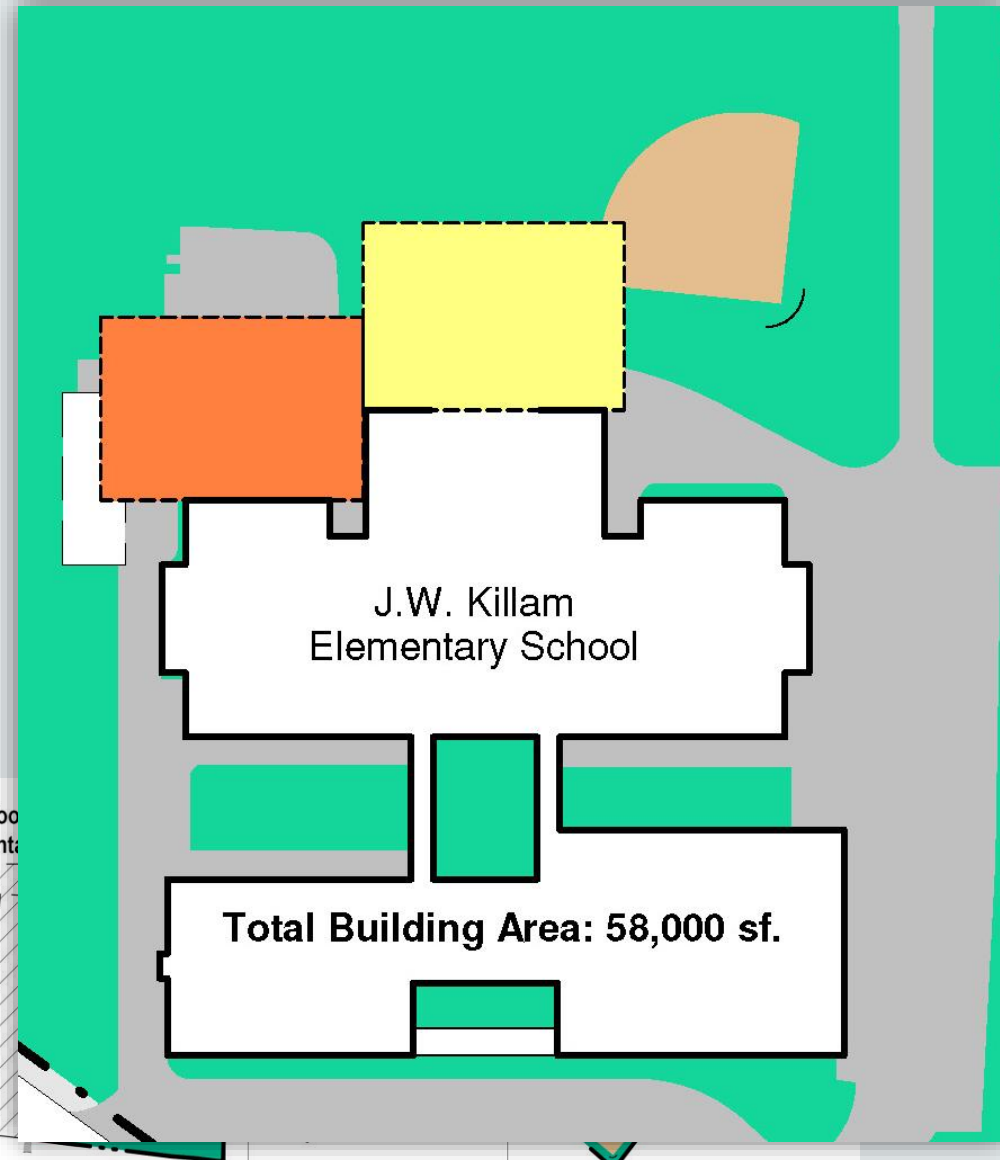
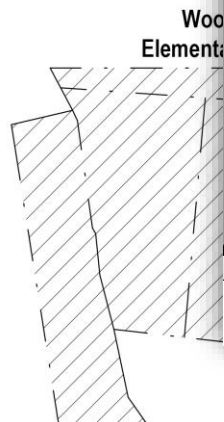
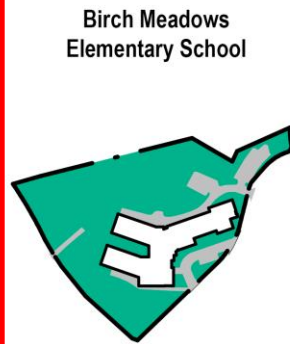
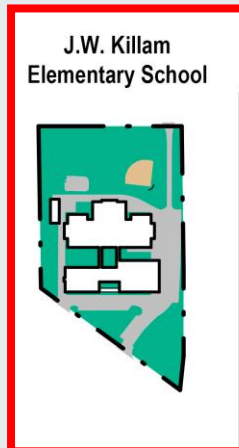


*excluding Pre-K students

** excluding modular classrooms

Killam School

Current Enrollment: 419
Pre-K Enrollment: 0
Capacity: 412
Constructed: 1969
Renovated: N/A



Birch Meadow School

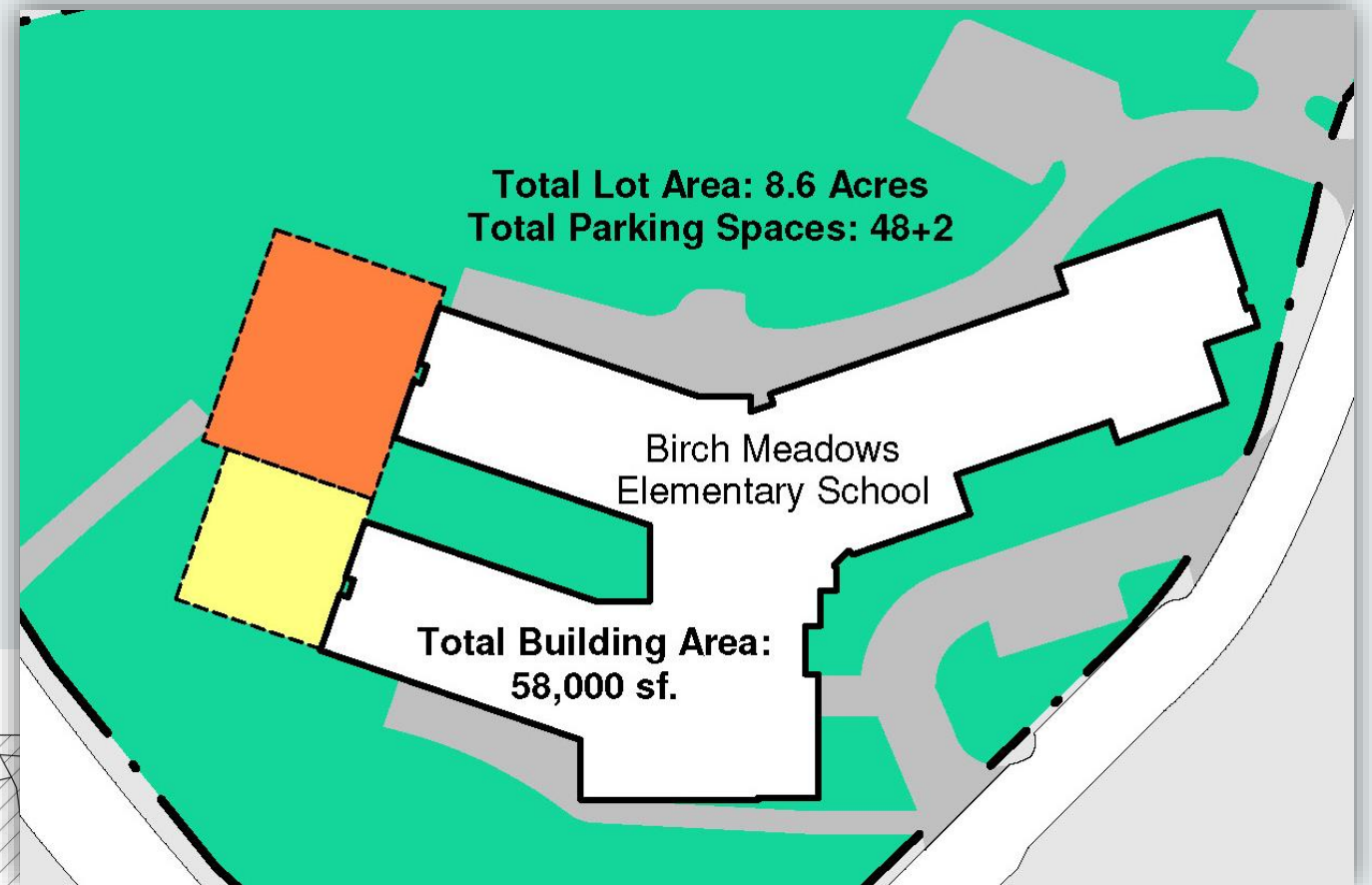


Current Enrollment: 391
Pre-K Enrollment: 0
Capacity: 400
Constructed: 1964
Renovated: 1994

J.W. Killam
Elementary School

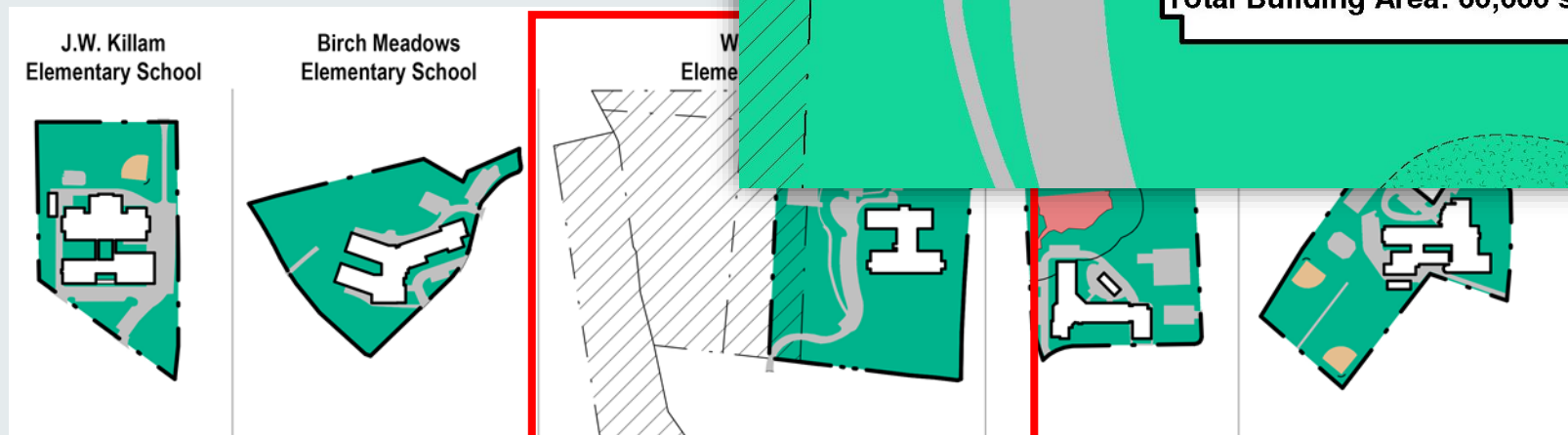
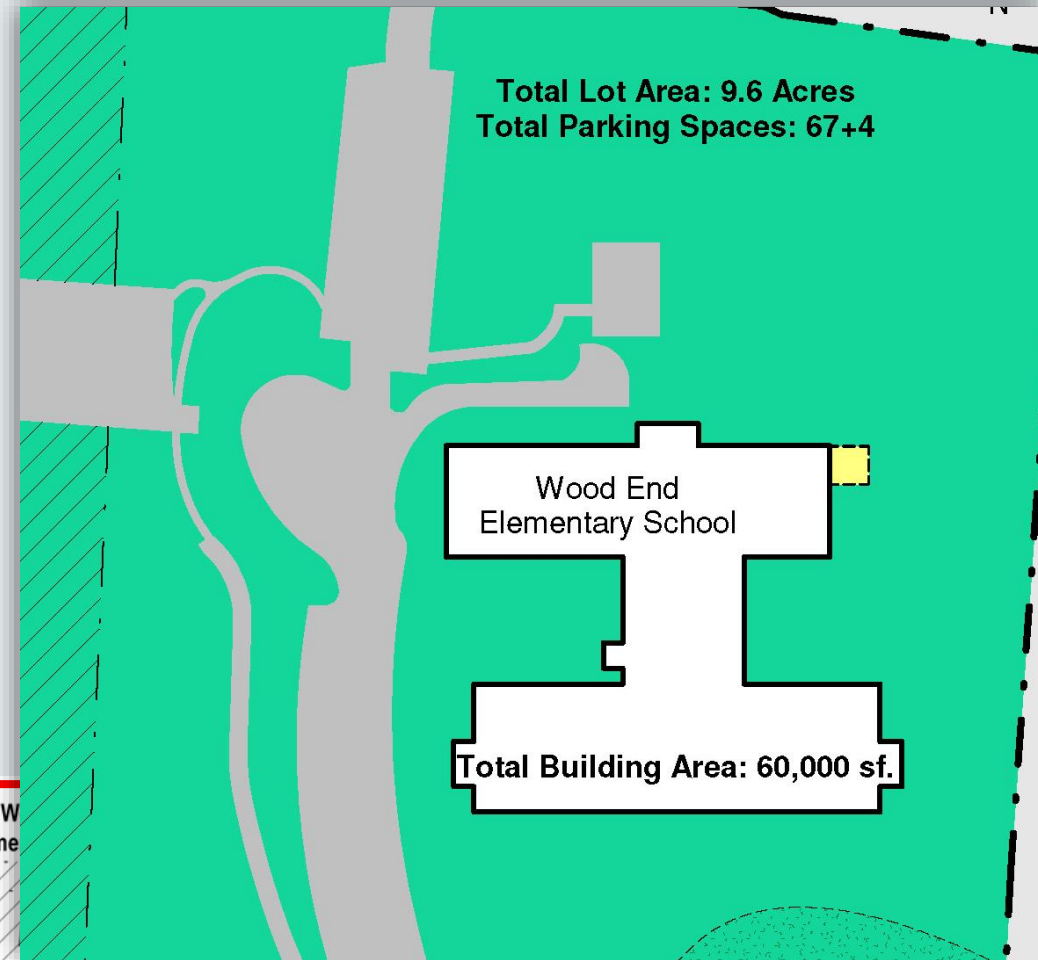


Birch Meadows
Elementary School



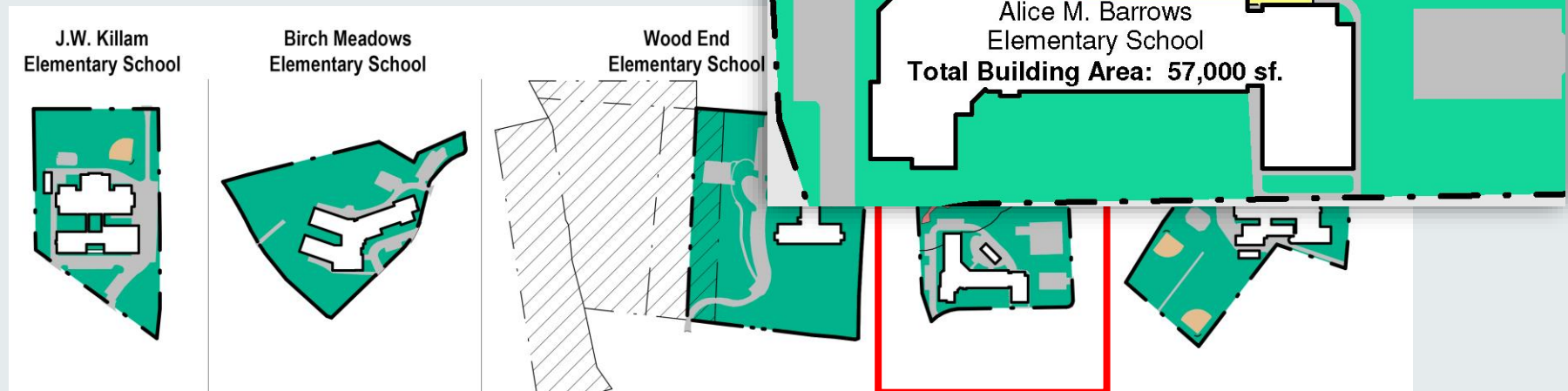
Wood End School

Current Enrollment: 308
Pre-K Enrollment: 30
Capacity: 359
Constructed: 2003
Renovated: N/A



Alice Barrows School

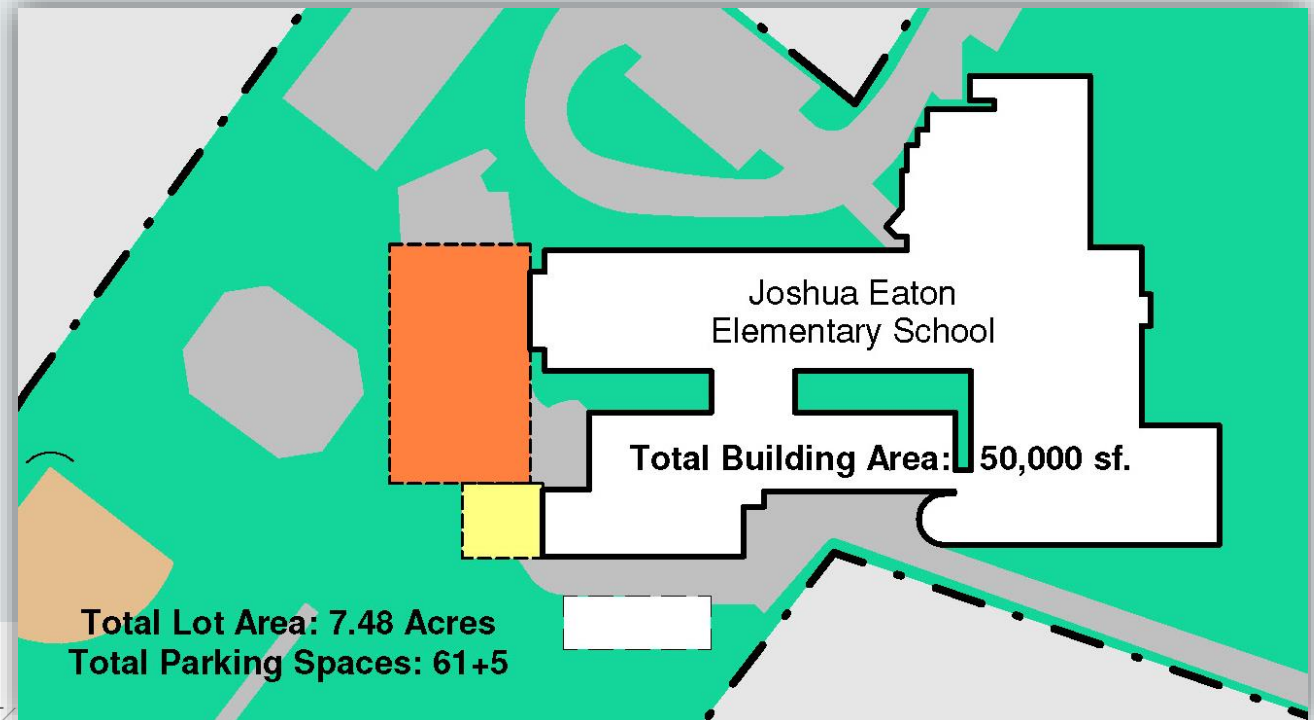
Current Enrollment: 384
Pre-K Enrollment: 0
Capacity: 380
Constructed: 1964
Renovated: 2005



Joshua Eaton School



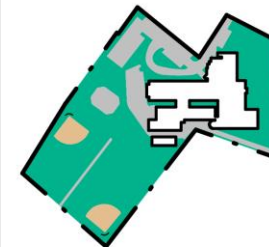
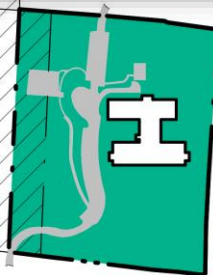
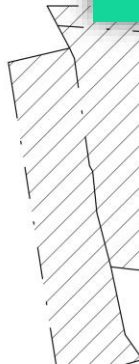
Current Enrollment: 396
Pre-K Enrollment: 0
Capacity: 402
Constructed: 1948
Renovated: 1994



J.W. Killam Elementary School

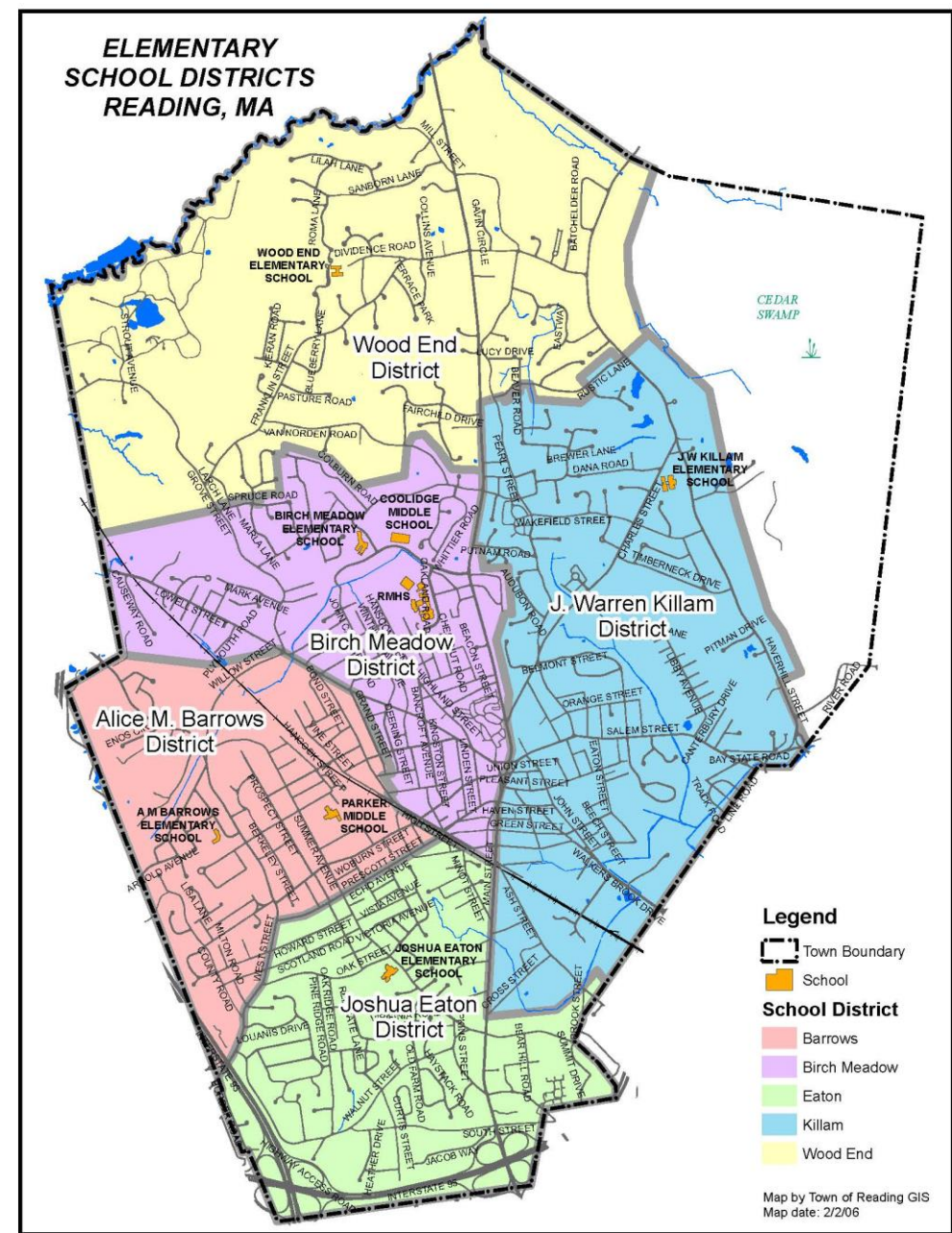


Birch Meadows Elementary School



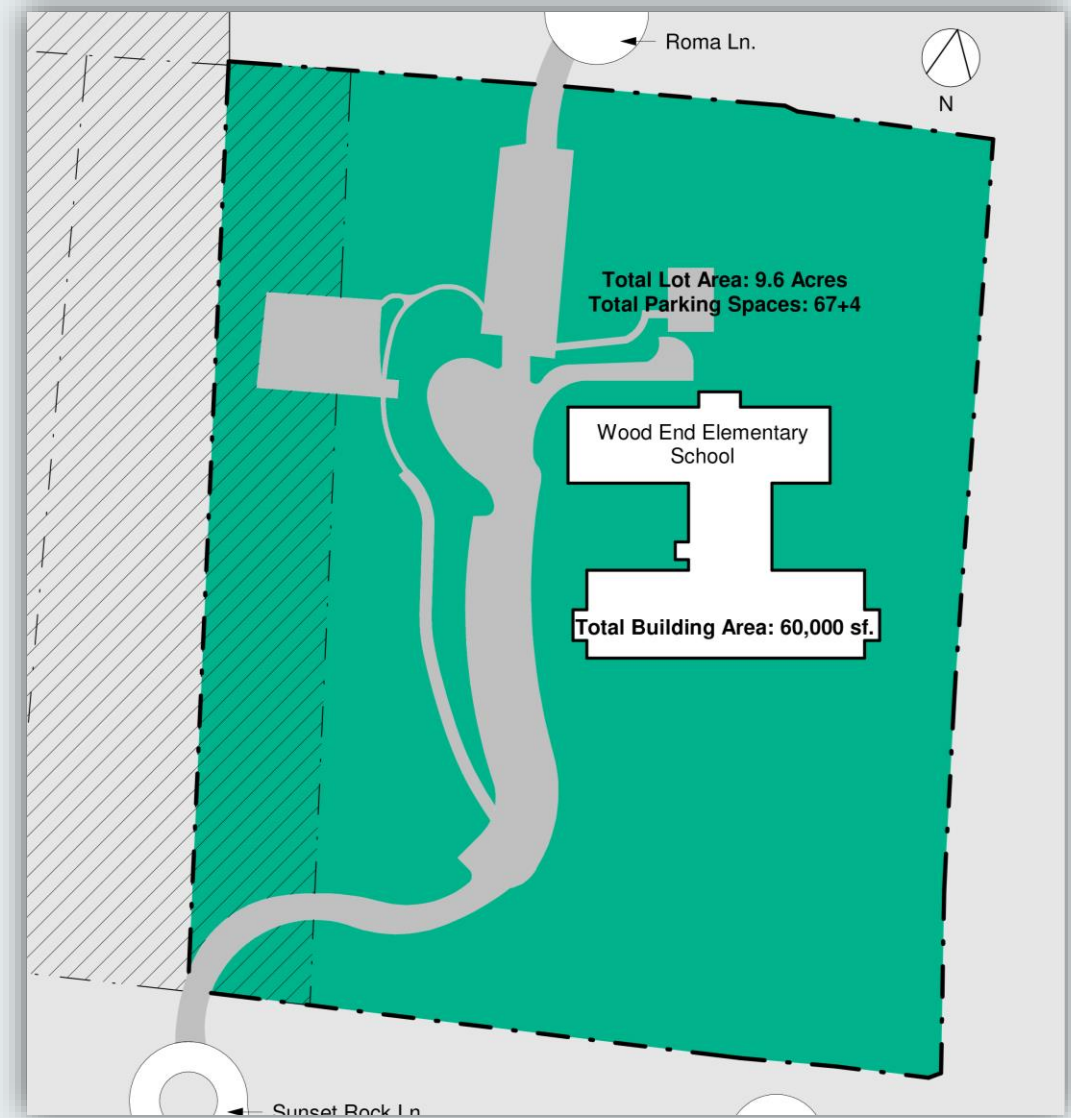
Constraints

- Limitations in current districts
- Cycle of building renovation/needs
- Awareness of middle school districting



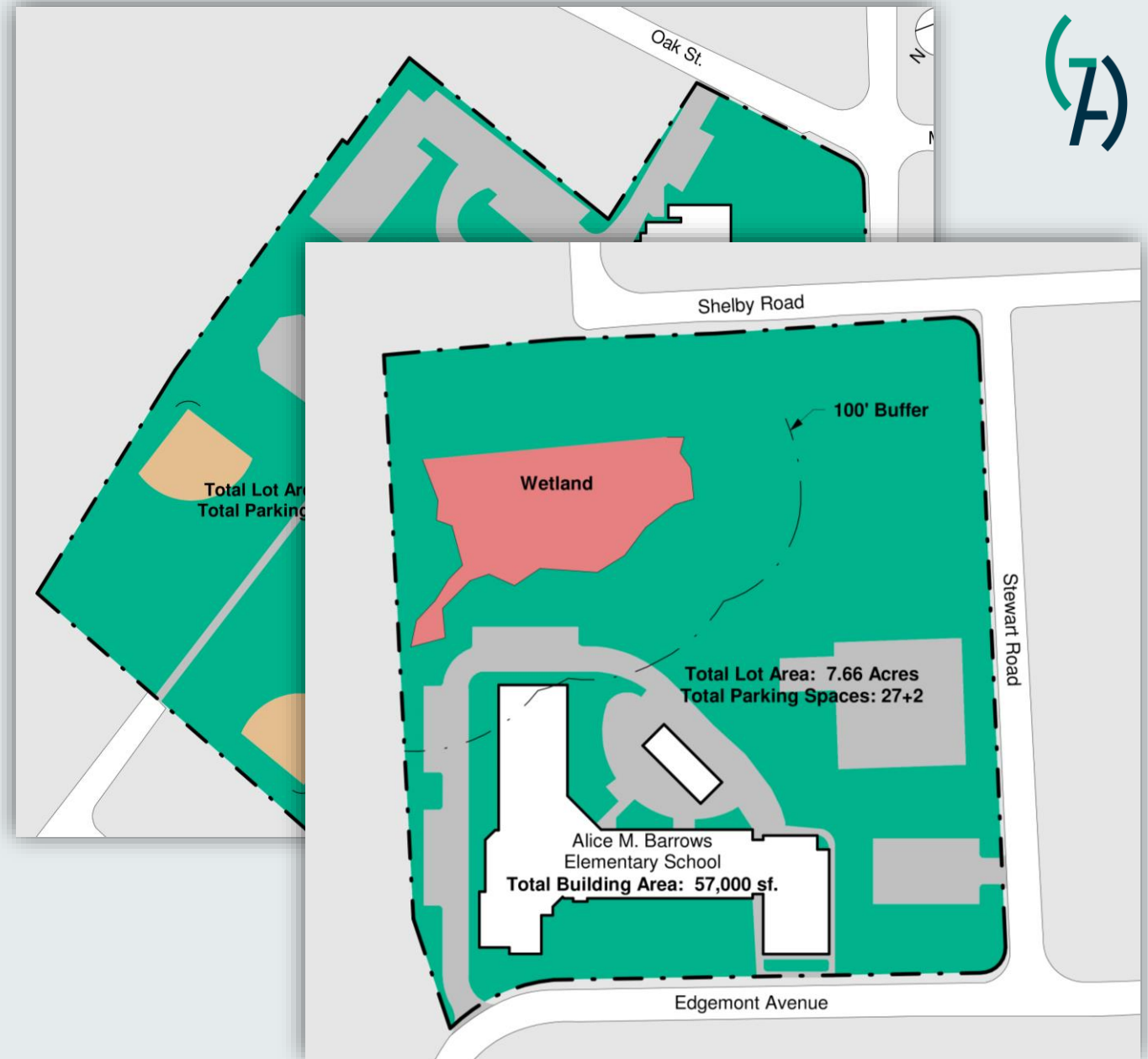
Constraints

- Wood End difficult to expand
 - Constraints on access roads
- Wood End is currently the only school that meets MSBA guidelines for sf./student



Constraints

- Not practical to expand at:
 - Joshua Eaton
 - Alice Barrows
- In order for these schools to meet recommended sf./student guidelines, it may be necessary to reduce current enrollment





Schemes



Assumptions

- Pre-K students at High School is not advantageous
 - Assumes 175 Pre-K students over next 10 years
- Modular classrooms are not a long-term solution
 - Used as necessary during construction period
- Redistricting is acceptable
 - Account for Middle School districts
- Interest in “downsizing” to four sites
- All graphics are representative areas, not design options
- All estimates are based on approximate cost/sf.
 - Estimates are in 2019 dollars, and have not been adjusted for inflation

Initial Findings



- Not practical to expand at all sites
- Structurally not feasible to add a 2nd floor to any school
- Only redistricting will not solve Town's problems
- Not advantageous to move 5th grade to middle schools
 - Would require additional staff to meet increased enrollment
 - Requires additional core and programmatic space
 - Additional classroom & facilities space
 - 10 classrooms at Parker
 - 8 classrooms at Coolidge

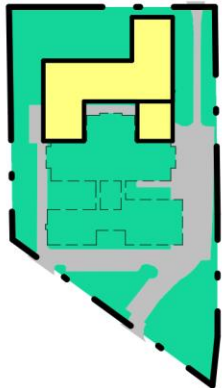
Scheme A



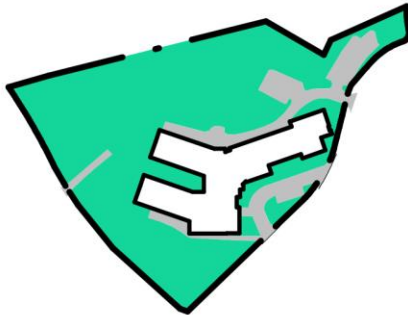
- 2-story, 725 student school on the Killam site
- Redistricting to absorb growth from other schools
- Scheme Cost
 - \$52 million ECC
 - \$69 million TPC
- Capacity total: 2,020 students

Does not address Pre-K

J.W. Killam
Elementary School

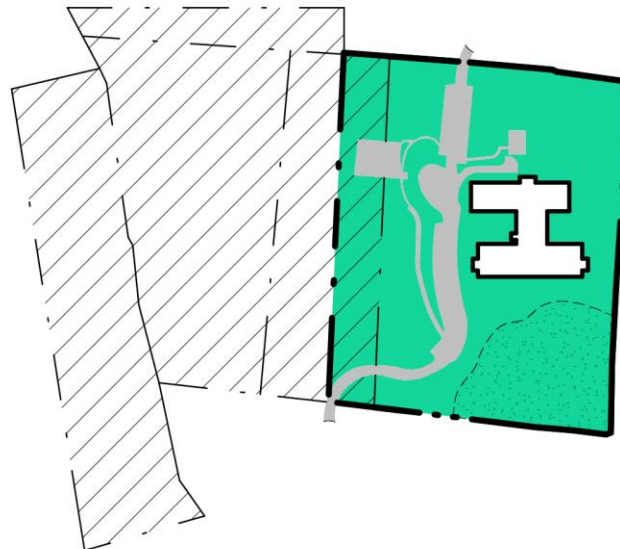


Birch Meadows
Elementary School



← +60 Killam

Wood End
Elementary School



Alice M. Barrows
Elementary School



← +23 Killam

Joshua Eaton
Elementary School



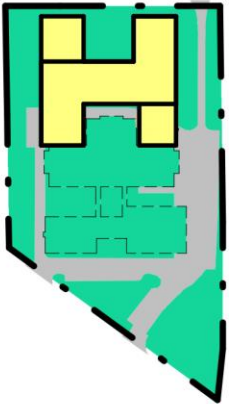
← +31 Killam

Scheme B



- 2-story 660 student school on Killam site
 - House Eaton growth, +150 Pre-K students
 - Addition to Birch Meadow school
 - Absorbs Barrows growth
- Scheme Cost:
 - \$66 million ECC
 - \$86 million TPC
 - Capacity Total: 2,000

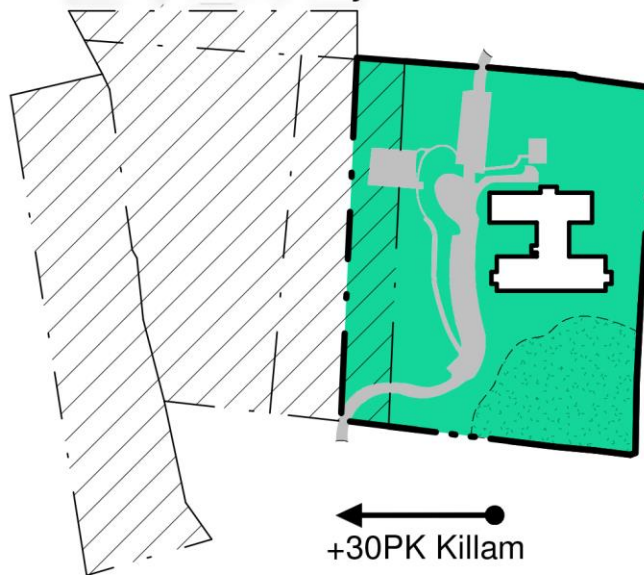
J.W. Killam
Elementary School



Birch Meadows
Elementary School



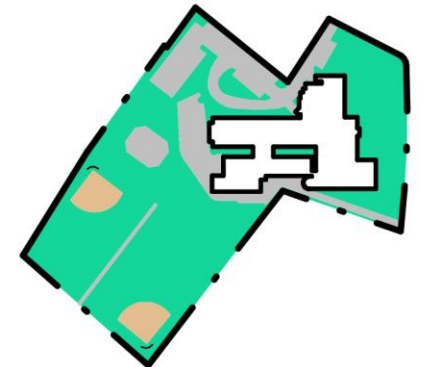
Wood End
Elementary School



Alice M. Barrows
Elementary School



Joshua Eaton
Elementary School



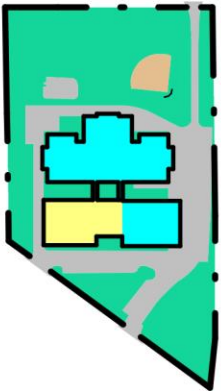
Scheme C



- Killam gutted, renovated into 500 student school
- Addition to Birch for additional growth
- Increase enrollment at Wood End, lower enrollment at Eaton

- Scheme Cost:
 - \$46 million ECC
 - \$60 million TPC
 - Capacity: 2,006 students
- Does not address Pre-K***

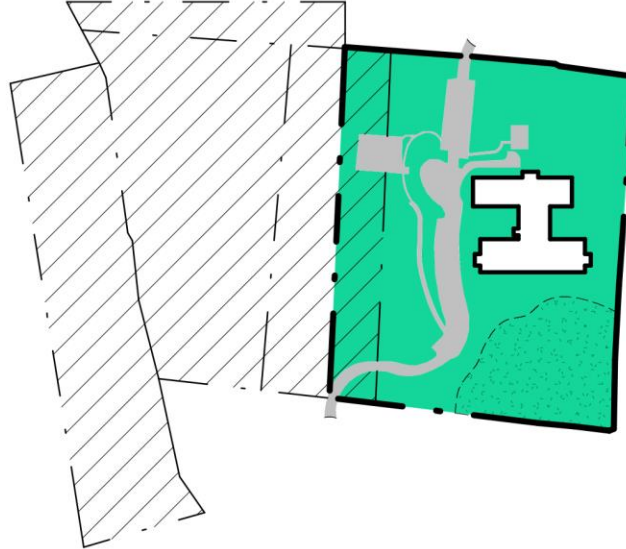
J.W. Killam
Elementary School



Birch Meadows
Elementary School



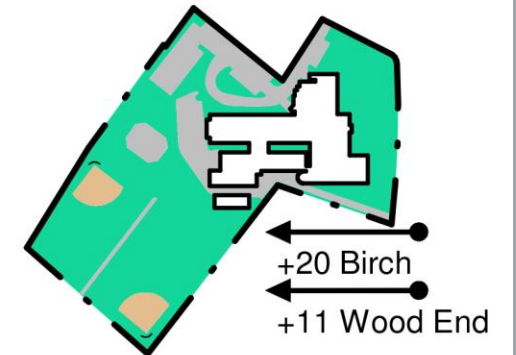
Wood End
Elementary School



Alice M. Barrows
Elementary School



Joshua Eaton
Elementary School



Scheme F

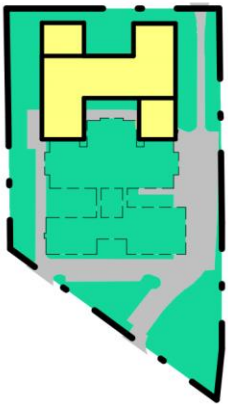


- Birch Meadow demolished/ vacated
- Killam demolished, new 650 student school
- Addition to Wood End for town growth, making it 630 student school
- Redistrict/lower enrollment at AB, JE

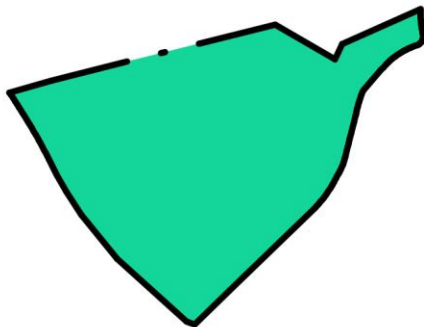
- Scheme Cost:
 - \$79 million ECC
 - \$102 million TPC
- Capacity Total: 1,971

Does not address Pre-K

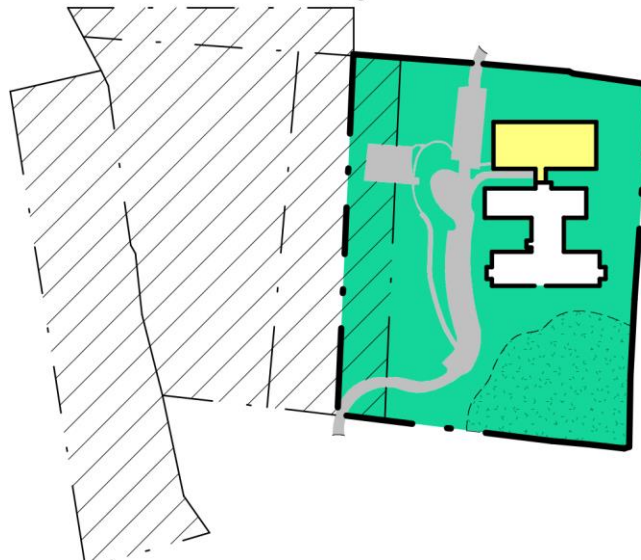
J.W. Killam
Elementary School



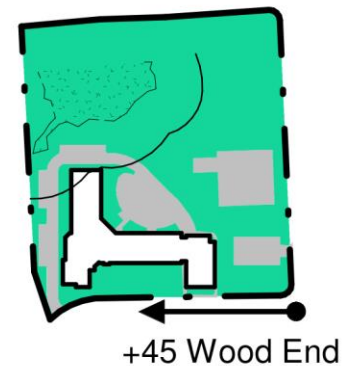
Birch Meadows
Elementary School



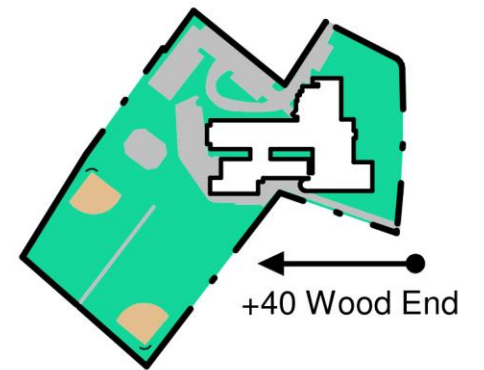
Wood End
Elementary School



Alice M. Barrows
Elementary School



Joshua Eaton
Elementary School

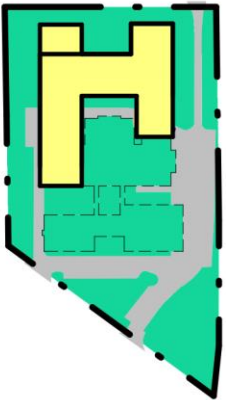


Scheme G



- New 750 student school at Killam
- Addition to Wood End to become a 660 student school
- Demolish Birch Meadow and redistrict
- Pre-K classrooms at Killam, Wood End
- Scheme Cost
 - \$92 million ECC
 - \$120 million TPC
- Capacity: 2,100 students

J.W. Killam
Elementary School



Birch Meadows
Elementary School



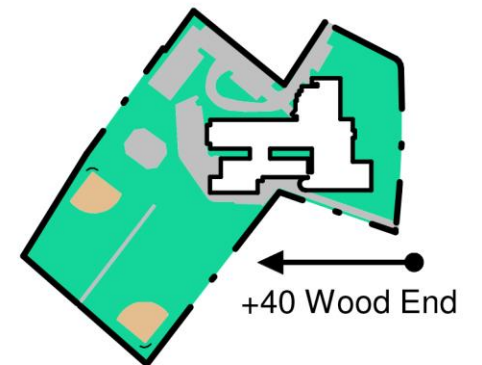
Wood End
Elementary School



Alice M. Barrows
Elementary School



Joshua Eaton
Elementary School

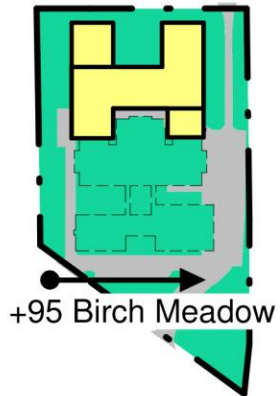


Scheme H

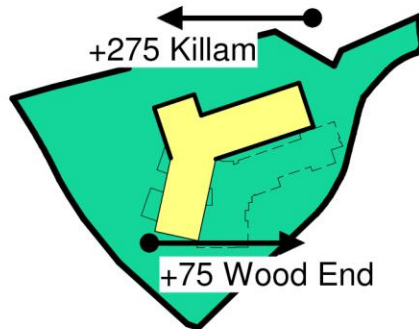


- Demolish Birch Meadow, new 430 student Pre-K and K school
 - Killam becomes new 650 student school
- Scheme Cost:
 - \$99 million ECC
 - \$128 million TPC

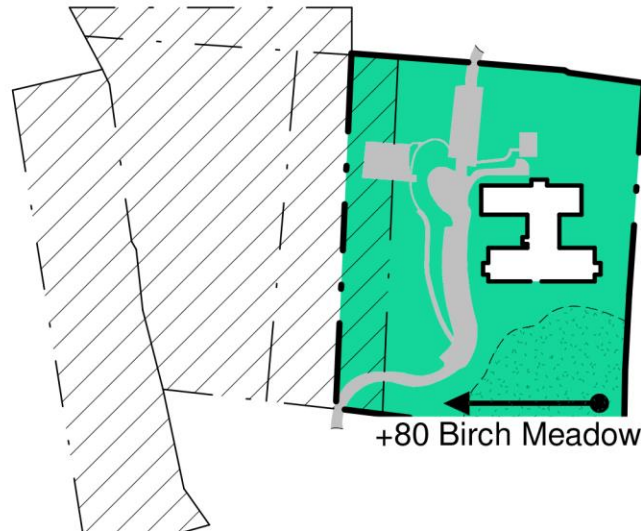
J.W. Killam
Elementary School



Birch Meadows
Elementary School



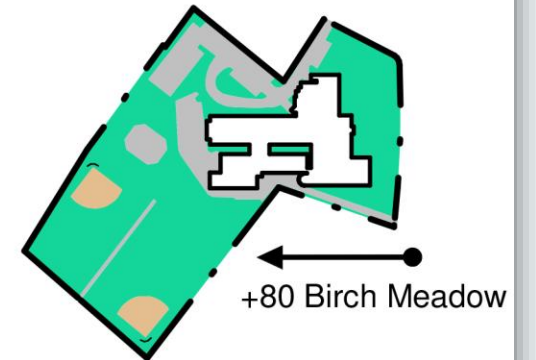
Wood End
Elementary School



Alice M. Barrows
Elementary School



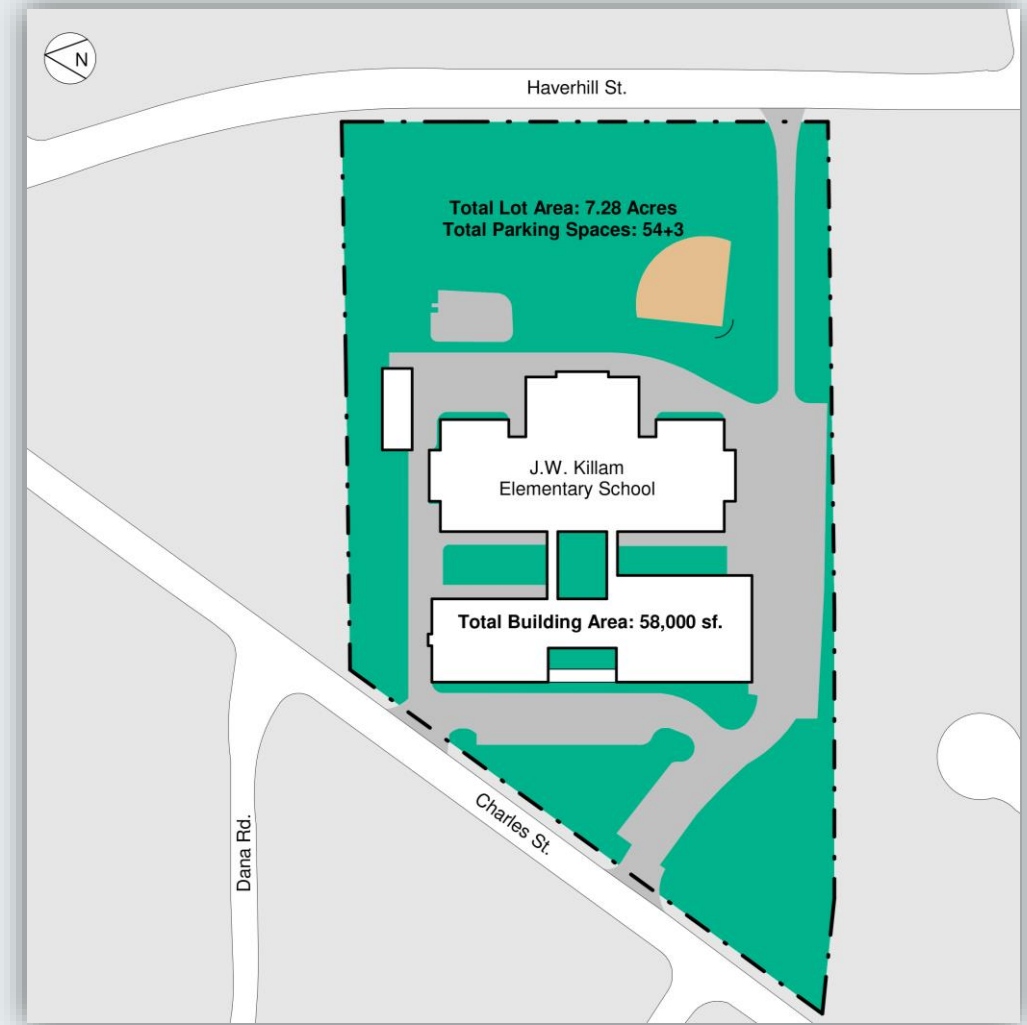
Joshua Eaton
Elementary School

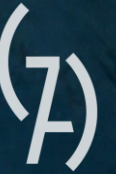


Use of the Killam Site



- Appears to be the most logical site for development
- Features prominently in all schemes
 - Largest enrollment increase in Killam District
 - Only school on East side of town
 - Centrally Located
 - Only school with no renovation.
 - Built in 1969
 - Existing systems issues





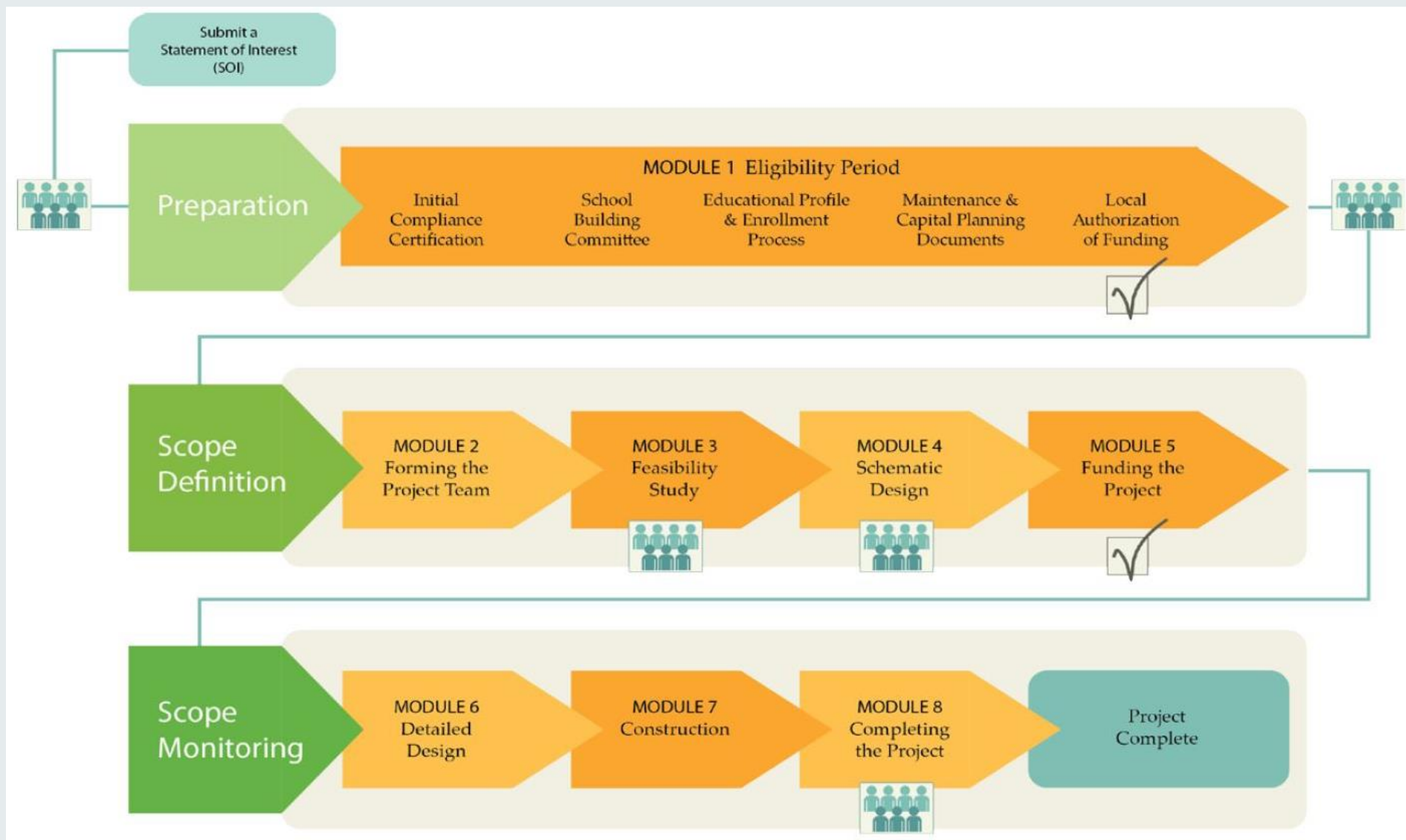
Conclusions and Next Steps

Conclusions



- Not advantageous to rent space
- Not possible to exclusively re-district
- Not practical to build an addition onto each building
 - Multiple sites cannot accommodate more construction
- Expanding at a single site creates an overly large school

MSBA Process



Timeline



- Eligibility Period/Preparation 270 days
- Project Team (OPM, Designer) 150 days
- Feasibility Study 300 days
- Schematic Design 75 days
- Project Scope & Funding 90 days
- Final Design 1 year
- Construction 1.5 year

Total= 3.5 years

Next Steps



- Select the Town's preferred option
- File a Letter of Interest
 - Direction Town intends to go
 - Ranked priorities to consider



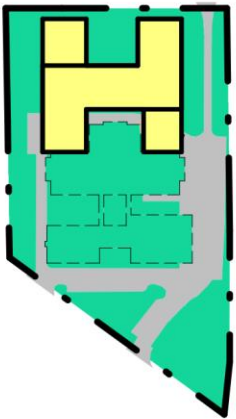


Appended Material

Scheme B



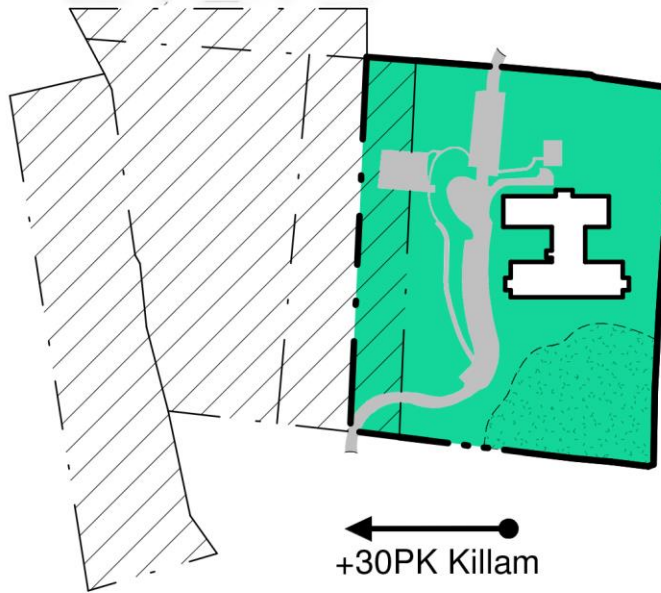
J.W. Killam
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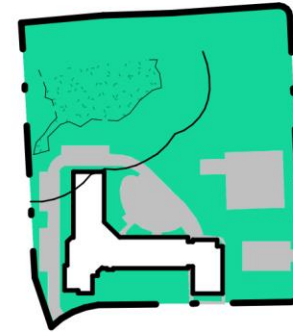
Birch Meadows
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Alice M. Barrows
Elementary School



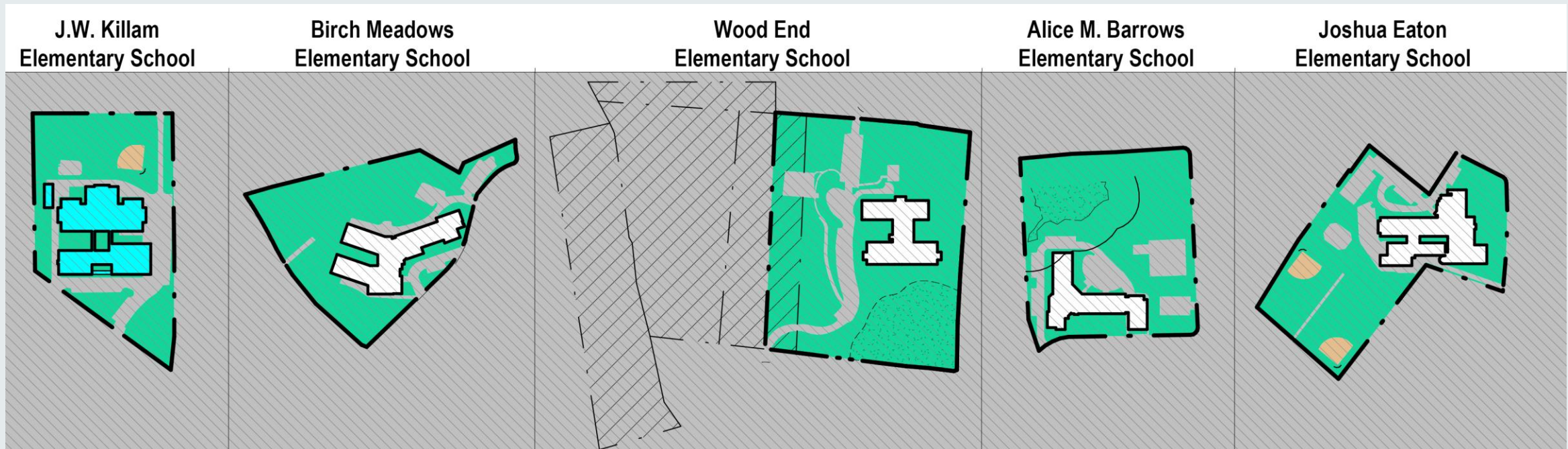
Joshua Eaton
Elementary School



Non-Advantageous Schemes—D



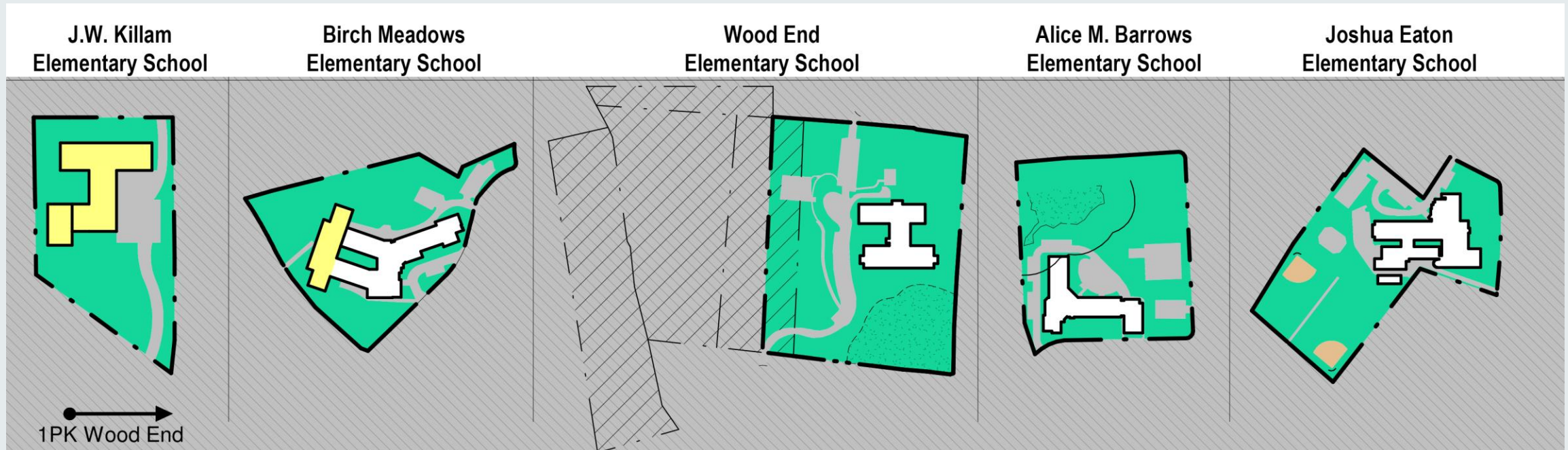
- Renovate Killam, move Pre-K & K to new site
- All current elementary schools become grade 1-5
- 6 sites for the Town to manage
 - Additional staffing required for a new site
 - The cost of bussing and of utilities would also increase



Non-Advantageous Schemes—E



- Killam demolished, 660 student 3PK-1st grade school
 - Other 3PK classes housed at Wood End
 - 20,000 sf. Addition to Birch Meadow to accommodate growth
- Large amount of redistricting
 - Requires increased number of administrative/custodial staff



CONTACT US



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