



**PERKINS —
EASTMAN**

Photo courtesy of TripAdvisor



DENNIS-YARMOUTH SCHOOL PROJECT

**JOINT D/Y BOARD OF SELECTMEN
JOINT D/Y FINANCE COMMITTEES
DYRSD SCHOOL COMMITTEE**

January 3, 2018



**BIRCHWOOD
DESIGN GROUP**



newvistadesign
Envisioning 21st Century Schools



PMA Consultants

PROCESS/SCHEDULE

| | | |
|---|--|--|
| Feasibility Study (Two Major MSBA Submissions) | | Schematic Design |
| Preliminary Design Program | Preferred <u>Schem.</u> Report | |
| <ul style="list-style-type: none"> Existing Cond's/Site Assessments Educational/Sustainability Visioning Educational Program (by District) Educ Specifications/Space Needs Develop & Assess Prelim. Options Select Preferred Site/Plan Options | <ul style="list-style-type: none"> Refinement of Plan Options Scope/Systems Comparisons Massing/Design Studies Final Assessment & Select (1) | <u>Schem.</u> Design Report |
| | | <ul style="list-style-type: none"> Exterior/Interior Design Detailed Room Layouts Finalize Scope & Budget |

June '17

- Team Formed

Nov. '17

- Educ-Program
- Space Summary
- Options/Sites

Mar. '18

- Update Space Summ.
- Select Final Option
MSBA FAS Approval

Sept. '18

- Scope Fixed
- Budget Fixed
MSBA BD Approval

SCHEDULE AND DECISIONS

Wednesday, Jan. 3 – Joint BoS, Finance, School Comm. (update)

Wednesday, Jan. 10 – SBC (review options on preferred site)

Wednesday, Jan. 31 – SBC (option refinements, massing & shadow studies)

Thursday, Feb. 15 – SBC (options refinements + systems & energy modeling)

Wednesday, Feb. 28 - SBC Selection of Preferred Solution

Wednesday, Mar. 7- SBC (final scope review, what's in/what's out)

Wednesday, Mar. 7 - Local Actions & Approvals of Solution (BoS/Fin Com/SC)

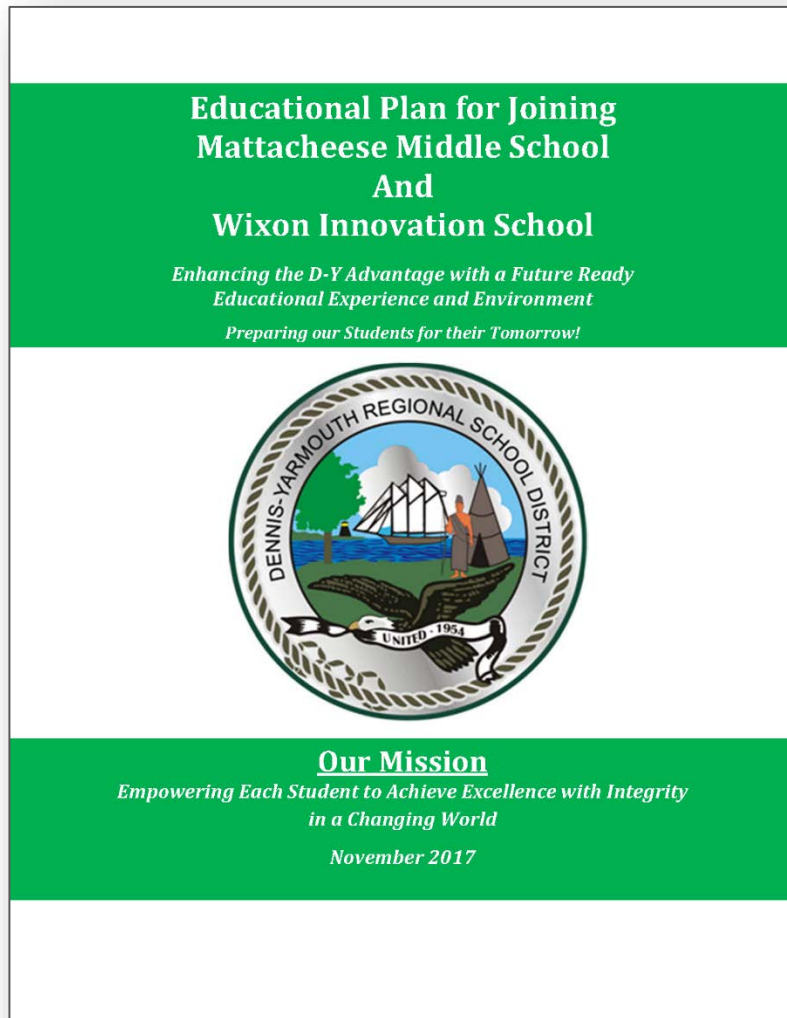
Wednesday, Apr. 11 - SBC (cost discussion)

Monday, Apr 23 - Joint BoS, Finance, School Committee (update)

Wednesday, May 9 - Compile & Submit PSR

Wednesday, May 23 - MSBA Facilities Assessment Subcommittee Meeting

Wednesday, Jun. 27 - MSBA Board of Directors Approval of PSR



RECAP - EDUCATIONAL PLAN

- Desire to Extend MMS Day (match Wixon)
- Combined Grade Configuration and Central Location Preferred
- Small School Feel (separate zones)
- Zoned for Community Use/Access
- Academic Clusters
- Support Co-Teaching
- Flexible/Agile Spaces (incl. folding walls)
- Small Group / Pull-out Spaces Needed
- Transparency
- Small Class Sizes (20)
- Robust Music Needs
- Substantial Special Education
- 2 Lunch Seatings
- Outdoor Learning

RECAP - EDUCATIONAL PROGRAM

| Dennis-Yarmouth | EXISTING SCHOOLS COMBINED | | | | | | | | |
|--|---------------------------|----------|-------------|-----------------------|----------|-------------|--------------------|----|---------|
| | WIXON INTERMEDIATE | | | MATTACHEESE MIDDLE | | | COMBINED totals | | |
| ROOM TYPE | ROOM NFA ¹ | # OF RMS | area totals | ROOM NFA ¹ | # OF RMS | area totals | | | |
| CORE ACADEMIC SPACES | | | 24,275 | | | 24,260 | | | 48,535 |
| Classroom - General | 848 | 24 | 20,363 | 857 | 17 | 14,561 | 852 | 41 | 34,924 |
| Health | 717 | 1 | 717 | 852 | 1 | 852 | 785 | 2 | 1,569 |
| World Language | | | 0 | 853 | 3 | 2,560 | 853 | 3 | 2,560 |
| | | 25 | | | 21 | | | 46 | |
| Sm. Grp/Resource (1 ELL/gr. w/ 5-10 stu) | 889 | 1 | 889 | 691 | 1 | 691 | 790 | 2 | 1,580 |
| Science Classroom / Lab | 1,153 | 2 | 2,306 | 1,298 | 3 | 3,894 | 1,240 | 5 | 6,200 |
| | | | | 851 | 2 | 1,702 | 851 | 2 | 1,702 |
| Prep Room | | 2 | | | 5 | | | 7 | |
| | | | 0 | | | 0 | | | 0 |
| SPECIAL EDUCATION | Wixon has 19% IEPs | | | MMS has 21% IEP | | | District = 56% FRL | | |
| | | | 8,840 | | | 11,613 | | | 21,453 |
| Self-Contained (SAILS/STAR2/NECC) | 968 | 2 | 1,935 | 875 | 2 | 1,750 | 921 | 4 | 3,685 |
| Self-Contained SPED Toilet | | | 0 | | | 0 | | | 0 |
| Classroom / Academic Support | 756 | 2 | 1,512 | 853 | 5 | 4,265 | 825 | 7 | 5,777 |
| Resource Room (Rdg/Lit & Math) + Stor | 628 | 3 | 1,883 | 774 | 4 | 3,094 | 711 | 7 | 4,977 |
| Small Group Room | 205 | 3 | 616 | 268 | 1 | 268 | 221 | 4 | 884 |
| Behavioral Support / Stor | 611 | 1 | 611 | 1,606 | 1 | 1,606 | 1,109 | 2 | 2,217 |
| OT/PT (incl. Visual Impaired Services) | 1,797 | 1 | 1,797 | | | 0 | 1,797 | 1 | 1,797 |
| Storage (OT/PT, Soc Work, Rdg) | 198 | 3 | 594 | | | 0 | 198 | 3 | 594 |
| Office/Mtg (Spch, Psych, Soc & Tm Chr) | 297 | 3 | 892 | 210 | 3 | 630 | 761 | 2 | 1,522 |
| CoTeaching Space within Classrooms | | | 0 | | | 0 | | | 0 |
| Adaptive PE (MP/Co-Locate w/ Gym) | | | | | | | | | |
| ART & MUSIC | | | 5,812 | | | 4,563 | | | 10,375 |
| Art Classroom | 1,258 | 2 | 2,515 | 1,439 | 1 | 1,439 | 1,318 | 3 | 3,954 |
| Art Workroom w/ Storage & kiln | 181 | 1 | 181 | 327 | 1 | 327 | 254 | 2 | 508 |
| Band / Chorus - 100 seats | 1,417 | 2 | 2,834 | 1,107 | 2 | 2,213 | 1,262 | 4 | 5,047 |
| Music Practice / Ensemble | | | 0 | 329 | 1 | 329 | 329 | 1 | 329 |
| Music Storage | 141 | 2 | 282 | 128 | 2 | 255 | 134 | 4 | 533 |
| VOCATIONS & TECHNOLOGY | | | 1,677 | | | 3,331 | | | 5,008 |
| Tech Ctr. - (computer labs) | 839 | 2 | 1,677 | 858 | 4 | 2,631 | 718 | 6 | 4,308 |
| Tech Shop - (incl. Maker Space / Stor.) | | | 0 | 700 | 1 | 700 | 700 | 1 | 700 |
| HEALTH & PHYSICAL EDUCATION | | | 13,155 | | | 13,733 | | | 26,888 |
| Gymnasium | 4,750 | 2 | | 7,059 | 1 | 7,059 | 5,520 | 3 | 18,559 |
| Fitness Room | | | 0 | 1,591 | 2 | 3,182 | 1,591 | 2 | 3,182 |
| Gym Storeroom | 193 | 6 | 1,150 | 163 | 5 | 816 | 189 | 11 | 2,074 |
| Hlth Instructor Office w/ Shower & Toilet | 142 | 2 | 284 | 152 | 2 | 304 | 147 | 4 | 598 |
| Locker Rooms - Boys / Girls w/ Toilets | 1,107 | 2 | 2,213 | 1,135 | 2 | 2,272 | 1,121 | 4 | 4,485 |
| MEDIA CENTER | | | 3,534 | | | 3,064 | | | 6,598 |
| DINING & FOOD SERVICE | | | 8,650 | | | 11,172 | | | 19,822 |
| Cafetorium / Dining (incl. Dolphin Diner) | 4,746 | 1 | 4,746 | 5,937 | 1 | 5,937 | 5,342 | 2 | 10,683 |
| Stage | 1,018 | 1 | 1,018 | 1,140 | 1 | 1,140 | 1,079 | 2 | 2,159 |
| Chair / Table / Equipment Storage | 176 | 1 | 176 | 227 | 1 | 227 | 202 | 2 | 403 |
| Kitchen | 2,488 | 1 | 2,488 | 3,620 | 1 | 3,620 | 3,054 | 2 | 6,108 |
| Staff Lunch Room | 222 | 1 | 222 | 248 | 1 | 248 | 235 | 2 | 470 |
| MEDICAL | | | 744 | | | 709 | | | 953 |
| ADMINISTRATION & GUIDANCE | | | 3,094 | | | 4,314 | | | 7,408 |
| CUSTODIAL & MAINTENANCE | | | 2,465 | | | 3,494 | | | 5,959 |
| OTHER | | | 5,092 | | | 7,909 | | | 13,001 |
| Auditorium + Stage (453 WIS/734 MMS) | 5,092 | 1 | 5,092 | 7,269 | 1 | 7,269 | 6,181 | 2 | 12,361 |
| Dressing Rooms | | | 0 | 225 | 2 | 450 | | | 450 |
| SRO Office | | | 0 | 95 | 2 | 190 | 95 | 2 | 190 |
| Total Building Net Floor Area (NFA) | | | 78,338 | | | 87,662 | | | 166,000 |
| Proposed Student Capacity / Enrollment | (90 total staff) | | 545 | (80 total staff) | | 455 | (170 total staff) | | 1,000 |
| Total Building Gross Floor Area (GFA) ² | | | 116,090 | | | 115,880 | | | 231,970 |
| Grossing factor (GFA/NFA) | | | 1.48 | | | 1.32 | | | |

| PROPOSED | | | | | |
|-----------------------|----------|-------------|-----------------------------|----------|-------------|
| SEPARATE GR.6-7 (455) | | | COMBINED GR.4-7 (940) | | |
| ROOM NFA ¹ | # OF RMS | area totals | ROOM NFA ¹ | # OF RMS | area totals |
| | | 21,650 | | | 44,690 |
| 850 | 13 | 11,050 | 850 | 35 | 29,750 |
| 850 | 1 | 850 | 850 | 2 | 1,700 |
| 850 | 3 | 2,550 | 850 | 4 | 3,400 |
| | 17 | | | 41 | |
| 500 | 4 | 2,000 | 500 | 4 | 2,000 |
| 1,200 | 4 | 4,800 | 1,200 | 6 | 7,200 |
| 80 | 5 | 400 | 80 | 8 | 640 |
| | | 9,680 | | | 21,100 |
| 950 | 3 | 2,850 | 950 | 5 | 4,750 |
| 60 | 3 | 180 | 60 | 5 | 300 |
| | | 0 | 900 | 3 | 2,700 |
| | | 0 | 500 | 5 | 2,500 |
| | | 0 | 250 | 3 | 750 |
| 900 | 1 | 900 | | | 0 |
| | | 0 | 450 | 2 | 900 |
| 150 | 3 | 450 | 150 | 5 | 750 |
| 150 | 4 | 600 | 150 | 9 | 1,350 |
| 100 | 17 | 1,700 | 100 | 41 | 4,100 |
| 3,000 | 1 | 3,000 | 3,000 | 1 | 3,000 |
| | | 4,750 | | | 8,000 |
| 1,200 | 1 | 1,200 | 1,200 | 2 | 2,400 |
| 150 | 1 | 150 | 150 | 2 | 300 |
| 1,500 | 2 | 3,000 | 1,500 | 3 | 4,500 |
| 300 | 1 | 300 | 300 | 2 | 600 |
| 100 | 1 | 100 | 200 | 1 | 200 |
| | | 1,700 | | | 3,400 |
| 1,200 | 0 | 0 | 1,200 | 0 | 0 |
| 1,700 | 1 | 1,700 | 1,700 | 2 | 3,400 |
| | | 8,550 | | | 11,650 |
| 3,000 | 2 | 6,000 | 3,000 | 3 | 9,000 |
| | | 0 | | | 0 |
| 150 | 1 | 150 | 150 | 1 | 150 |
| 200 | 2 | 400 | 250 | 2 | 500 |
| 1,000 | 2 | 2,000 | 1,000 | 2 | 2,000 |
| | | 2,996 | | | 5,785 |
| | | 7,334 | | | 11,738 |
| 3,413 | 1 | 3,413 | 7,050 | 1 | 7,050 |
| 1,600 | 1 | 1,600 | 1,600 | 1 | 1,600 |
| 352 | 1 | 352 | 513 | 1 | 513 |
| 1,755 | 1 | 1,755 | 2,240 | 1 | 2,240 |
| 214 | 1 | 214 | 335 | 1 | 335 |
| | | 570 | | | 770 |
| | | 2,956 | | | 3,890 |
| | | 1,930 | | | 2,850 |
| | | 8,650 | | | 8,700 |
| 8,500 | 1 | 8,500 | 8,500 | 1 | 8,500 |
| | | 0 | | | 0 |
| 150 | 1 | 150 | 200 | 1 | 200 |
| | | 70,766 | | | 122,573 |
| + 13k (4k spd/9k aud) | | 455 | + 23k (1.1 spd/3 per/9 aud) | | 940 |
| | | 106,149 | | | 183,860 |
| | | 1.50 | | | 1.50 |

| MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines) | | | | | |
|--|----------|-------------|-----------------------|----------|-------------|
| SEPARATE GR.6-7 (455) | | | COMBINED GR.4-7 (940) | | |
| ROOM NFA ¹ | # OF RMS | area totals | ROOM NFA ¹ | # OF RMS | area totals |
| | | 21,770 | | | 44,820 |
| 950 | 17 | 16,150 | 950 | 34 | 32,300 |
| | 0 | | | 0 | |
| | 17 | | | 34 | |
| 500 | 1 | 500 | 500 | 2 | 1,000 |
| 1,200 | 4 | 4,800 | 1,200 | 9 | 10,800 |
| 80 | 4 | 320 | 80 | 9 | 720 |
| | | 5,540 | | | 10,570 |
| 950 | 4 | 3,800 | 950 | 7 | 6,550 |
| 60 | 4 | 240 | 60 | 7 | 420 |
| 500 | 2 | 1,000 | 500 | 5 | 2,500 |
| 500 | 1 | 500 | 500 | 2 | 1,000 |
| | | | | | |
| 1,200 | 1 | 1,200 | 1,200 | 2 | 2,400 |
| 150 | 1 | 150 | 150 | 2 | 300 |
| 1,500 | 1 | 1,500 | 1,500 | 1 | 1,500 |
| 200 | 1 | 200 | 200 | 3 | 600 |
| 200 | 1 | 200 | 200 | 1 | 200 |
| | | 3,250 | | | 5,000 |
| 1,200 | 1 | 1,200 | 1,200 | 2 | 2,400 |
| 2,000 | 1 | 2,000 | 2,000 | 2 | 4,000 |
| | | 8,400 | | | 8,400 |
| 6,000 | 1 | 6,000 | 6,000 | 1 | 6,000 |
| | | | | | |
| 150 | 1 | 150 | 150 | 1 | 150 |
| 250 | 1 | 250 | 250 | 1 | 250 |
| 1,000 | 2 | 2,000 | 1,000 | 2 | 2,000 |
| | | 2,996 | | | 5,785 |
| | | 7,333 | | | 11,738 |
| 3,413 | 1 | 3,413 | 7,050 | 1 | 7,050 |
| 1,600 | 1 | 1,600 | 1,600 | 1 | 1,600 |
| 352 | 1 | 352 | 513 | 1 | 513 |
| 1,755 | 1 | 1,755 | 2,240 | 1 | 2,240 |
| 214 | 1 | 214 | 335 | 1 | 335 |
| | | 510 | | | 710 |
| | | 2,955 | | | 3,890 |
| | | 1,930 | | | 2,415 |
| | | 0 | | | 0 |
| | | | | | |
| | | 57,884 | | | 99,728 |
| | | 455 | | | 940 |
| | | 84,305 | | | 150,400 |
| | | 1.46 | | | 1.51 |

RECAP - EDUCATIONAL PROGRAM

Proposed Space Summary v8 (for PDP submission)

EXISTING SCHOOLS COMBINED

| Dennis-Yarmouth | | WIXOM INTERMEDIATE | | | MATTACHEESE MIDDLE | | | COMBINED totals | | |
|--|--------------------------|--------------------|-------------|------------------------|--------------------|-------------|---------------------------|-----------------|---------|--|
| ROOM TYPE | ROOM NFA ¹ | # OF RMS | area totals | ROOM NFA ¹ | # OF RMS | area totals | | | | |
| CORE ACADEMIC SPACES | | | 24,275 | | | 24,260 | | | 48,535 | |
| Classroom - General | 848 | 24 | 20,363 | 857 | 17 | 14,561 | 852 | 41 | 34,924 | |
| Health | 717 | 1 | 717 | 852 | 1 | 852 | 785 | 2 | 1,569 | |
| World Language | | | 0 | 850 | 3 | 2,560 | 853 | 3 | 2,560 | |
| | | 25 | 0 | | 21 | | | 46 | | |
| Sm. Grp/Resource (1 ELL/gr. w/ 5-10 stu) | 889 | 1 | 889 | 691 | 1 | 691 | 790 | 2 | 1,481 | |
| Science Classroom / Lab | 1,153 | 2 | 2,306 | 1,298 | 3 | 3,394 | 1,240 | 5 | 6,000 | |
| | | 2 | 0 | 851 | 2 | 2,702 | 851 | 2 | 2,702 | |
| Prep Room | | | 0 | | 5 | | | 7 | | |
| | | | 0 | | | | | | 55 | |
| SPECIAL EDUCATION | Wixom has 19% IEPs 9,840 | | | MMS has 21% IEP 11,611 | | | District = 56% FRL 21,453 | | | |
| Self-Contained (SAILS/STAR2/NECC) | 968 | 2 | 1,935 | 875 | 2 | 1,750 | 921 | 4 | 3,685 | |
| Self-Contained SPED Toilet | | | 0 | | | 0 | | | 0 | |
| Behavioral Support / Stor | 611 | 1 | 611 | 1,605 | 1 | 1,606 | 1,109 | 2 | 2,219 | |
| Resource Room (Rdg/Lit. & Math) +Stor | 679 | 5 | 3,395 | 818 | 9 | 7,359 | 768 | 14 | 10,754 | |
| Small Group Room (IEP/TO & Spch/Lng) | 205 | 3 | 616 | 268 | 1 | 268 | 221 | 4 | 884 | |
| OT/PT (incl. Visual Impaired Services) | 1,797 | 1 | 1,797 | | | 0 | 1,797 | 1 | 1,797 | |
| Storage (OT/PT, Soc Work, Rgd) | 198 | 3 | 594 | | | 0 | 198 | 3 | 594 | |
| Office/Mtg (Psy, Soc, Trn-Chr) | 297 | 3 | 892 | 210 | 3 | 630 | 254 | 6 | 1,522 | |
| CoTeaching Space within Classrooms | | | 0 | | | 0 | | | 0 | |
| Adaptive PE (MP/Co-locate w/ Gym) | | | 0 | | | 0 | | | 0 | |
| ART & MUSIC | | | 5,812 | | | 4,563 | | | 10,375 | |
| Art Classroom | 1,258 | 2 | 2,515 | 1,439 | 1 | 1,439 | 1,318 | 3 | 3,954 | |
| Art Workroom w/ Storage & kiln | 181 | 1 | 181 | 327 | 1 | 327 | 254 | 2 | 508 | |
| Band / Chorus - 100 seats | 1,417 | 2 | 2,834 | 1,107 | 2 | 2,213 | 1,262 | 4 | 5,047 | |
| Music Practice / Ensemble | | | 0 | 329 | 1 | 329 | 329 | 1 | 329 | |
| Music Storage | 141 | 2 | 282 | 128 | 2 | 255 | 134 | 4 | 531 | |
| VOCATIONS & TECHNOLOGY | | | 1,677 | | | 3,331 | | | 5,008 | |
| Tech Cirm. - (computer labs) | 839 | 2 | 1,677 | 858 | 2 | 2,631 | 718 | 6 | 4,308 | |
| Tech Shop - (incl. Maker Space / Stor.) | | | 0 | 700 | | 700 | 700 | 1 | 700 | |
| HEALTH & PHYSICAL EDUCATION | | | 13,155 | | | 13,733 | | | 26,888 | |
| Gymnasium | 4,750 | 2 | 9,500 | 7,059 | 1 | 7,059 | 5,520 | 3 | 16,559 | |
| Fitness Room | | | 0 | 1,591 | 2 | 3,182 | 1,591 | 2 | 3,182 | |
| Gym Storeroom | 193 | 6 | 1,158 | 183 | 5 | 916 | 189 | 11 | 2,074 | |
| Hth Instructor Office w/ Shower & Toilet | 142 | 2 | 284 | 152 | 2 | 304 | 147 | 4 | 595 | |
| Locker Rooms - Boys / Girls w/ Toilets | 1,107 | 2 | 2,213 | 1,138 | 2 | 2,272 | 1,121 | 4 | 4,489 | |
| MEDIA CENTER | | | 3,534 | | | 3,064 | | | 6,598 | |
| DINING & FOOD SERVICE | | | 8,650 | | | 11,172 | | | 19,822 | |
| Cafetorium / Dining (incl. Dolphin Diner) | 4,746 | 1 | 4,746 | 5,937 | 1 | 5,937 | 5,342 | 2 | 10,689 | |
| Stage | 1,018 | 1 | 1,018 | 1,140 | 1 | 1,140 | 1,079 | 2 | 2,159 | |
| Chair / Table / Equipment Storage | 176 | 1 | 176 | 227 | 1 | 227 | 202 | 2 | 403 | |
| Kitchen | 2,488 | 1 | 2,488 | 3,620 | 1 | 3,620 | 3,054 | 2 | 6,109 | |
| Staff Lunch Room | 222 | 1 | 222 | 248 | 1 | 248 | 235 | 2 | 473 | |
| MEDICAL | | | 744 | | | 209 | | | 953 | |
| ADMINISTRATION & GUIDANCE | | | 3,094 | | | 3,414 | | | 7,408 | |
| CUSTODIAL & MAINTENANCE | | | 2,465 | | | 3,494 | | | 5,959 | |
| OTHER | | | 5,092 | | | 7,909 | | | 13,001 | |
| Auditorium+Stage (453 WIS/734 MMS) | 5,092 | 1 | 5,092 | 7,269 | 1 | 7,269 | 6,181 | 2 | 12,360 | |
| Dressing Rooms | | | 0 | 225 | 2 | 450 | | | | |
| SRO Office | | | 0 | 95 | 2 | 190 | 95 | 2 | 190 | |
| School Store | | | | | | | | | | |
| Total Building Net Floor Area (NFA) | | | 78,338 | | | 87,662 | | | 166,000 | |
| Proposed Student Capacity / Enrolment | (90 total staff) | | 545 | (80 total staff) | | 455 | (170 total staff) | | 1,000 | |
| Total Building Gross Floor Area (GFA) ² | | | 116,090 | | | 115,880 | | | 231,970 | |
| Grossing factor (GFANFA) | | | 1.48 | | | 1.32 | | | | |

| PROPOSED | | | | | |
|-----------------------|----------|-------------|---------------------------|----------|-------------|
| SEPARATE GR.6-7 (455) | | | COMBINED GR.4-7 (940) | | |
| ROOM NFA ¹ | # OF RMS | area totals | ROOM NFA ¹ | # OF RMS | area totals |
| | | 21,650 | | | 44,690 |
| 850 | 13 | 11,050 | 850 | 35 | 29,750 |
| 850 | 1 | 850 | 850 | 2 | 1,700 |
| 850 | 3 | 2,550 | 850 | 4 | 3,400 |
| | 17 | | | 41 | |
| 500 | 4 | 2,000 | 500 | 4 | 2,000 |
| 1,200 | 4 | 4,800 | 1,200 | 6 | 7,200 |
| 80 | 5 | 400 | 80 | 8 | 640 |
| | | 12,580 | | | 29,400 |
| 900 | 3 | 2,700 | 900 | 5 | 4,500 |
| 600 | 3 | 180 | 600 | 5 | 3,000 |
| 900 | 1 | 900 | 900 | 1 | 900 |
| 450 | 5 | 2,250 | 450 | 9 | 4,050 |
| 250 | 2 | 500 | 250 | 4 | 1,000 |
| 450 | 1 | 450 | 450 | 2 | 900 |
| 150 | 3 | 450 | 150 | 5 | 750 |
| 150 | 3 | 450 | 150 | 6 | 900 |
| 100 | 17 | 1,700 | 100 | 41 | 4,100 |
| 3,000 | 1 | 3,000 | 3,000 | 1 | 3,000 |
| | | 4,750 | | | 8,000 |
| 1,200 | 1 | 1,200 | 1,200 | 2 | 2,400 |
| 150 | 1 | 150 | 150 | 2 | 300 |
| 1,500 | 2 | 3,000 | 1,500 | 3 | 4,500 |
| 300 | 1 | 300 | 300 | 2 | 600 |
| 100 | 1 | 100 | 200 | 1 | 200 |
| | | 0 | | | 3,400 |
| 1,200 | 0 | 0 | 1,200 | 0 | 0 |
| 1,700 | 1 | 1,700 | 1,700 | 2 | 3,400 |
| | | 8,550 | | | 11,650 |
| 3,000 | 2 | 6,000 | 3,000 | 3 | 9,000 |
| | 0 | 0 | | 0 | 0 |
| 150 | 1 | 150 | 150 | 1 | 150 |
| 200 | 2 | 400 | 250 | 2 | 500 |
| 1,000 | 2 | 2,000 | 1,000 | 2 | 2,000 |
| | | 2,996 | | | 5,785 |
| | | 7,334 | | | 11,738 |
| 3,413 | 1 | 3,413 | 7,050 | 1 | 7,050 |
| 1,600 | 1 | 1,600 | 1,600 | 1 | 1,600 |
| 352 | 1 | 352 | 513 | 1 | 513 |
| 1,755 | 1 | 1,755 | 2,240 | 1 | 2,240 |
| 214 | 1 | 214 | 335 | 1 | 335 |
| | | 570 | | | 770 |
| | | 2,956 | | | 2,956 |
| | | 1,930 | | | 2,850 |
| | | 8,650 | | | 8,700 |
| 8,500 | 1 | 8,500 | 8,500 | 1 | 8,500 |
| | | 0 | | | 0 |
| 150 | 1 | 150 | 200 | 1 | 200 |
| within net/gross | | | within net/gross | | |
| + 10% (7% spd/9% auc) | | 73,666 | +22% (10 spd/3% pe/9 auc) | | 121,873 |
| | | 455 | | | 940 |
| | | 110,499 | | | 182,810 |
| | | 1.50 | | | 1.50 |

[illegible]

MATTACHEESE ONLY

Existing 27 CRs/Sci (1 Sm Grp)

25 CRs/Sci vs 22 MSBA
(4 Sm Grp vs 1 MSBA)

13k SPED vs 6k MSBA

Art/Mus/Tech Balance

Seeking 8k Auditorium (aside from Cafetorium)

Totals +16k net/26 gsf

RECAP - EDUCATIONAL PROGRAM

Proposed Space Summary v8 (for PDP submission)

| Dennis-Yarmouth | EXISTING SCHOOLS COMBINED | | | | | | COMBINED totals | | |
|--|---------------------------|------------------|-------------|-----------------------|------------------|-------------|--------------------|-------------------|---------|
| | WIXON INTERMEDIATE | | | MATTA CHEESE MIDDLE | | | | | |
| ROOM TYPE | ROOM NFA ¹ | # OF RMS | area totals | ROOM NFA ¹ | # OF RMS | area totals | | | |
| CORE ACADEMIC SPACES | | | 24,275 | | | 24,260 | | | 48,535 |
| Classroom - General | 848 | 24 | 20,363 | 857 | 17 | 14,561 | 852 | 41 | 34,924 |
| Health | 717 | 1 | 717 | 852 | 1 | 852 | 785 | 2 | 1,569 |
| World Language | | | 0 | 853 | 3 | 2,560 | 853 | 3 | 2,560 |
| | | 25 | | | 21 | | | 46 | |
| Sm. Grp/Resource (1 ELL/gr. w/ 5-10 stu) | 889 | 1 | 889 | 691 | 1 | 691 | 790 | 2 | 1,580 |
| Science Classroom / Lab | 1,153 | 2 | 2,306 | 1,298 | 3 | 3,894 | 1,240 | 5 | 6,100 |
| | | | | 851 | 2 | 702 | 851 | 2 | 702 |
| | | 2 | | | 5 | | | 7 | |
| Prep Room | | | 0 | | | 0 | | | 0 |
| SPECIAL EDUCATION | Wilson has 19% IEPs | | 9,840 | MMS has 21% IEP | | 11,613 | District = 56% FRL | | 21,453 |
| Self-Contained (SAILS/STAR2/NECC) | 968 | 2 | 1,935 | 875 | 2 | 1,750 | 921 | 4 | 3,685 |
| Self-Contained SPED Toilet | | | 0 | | | 0 | | | 0 |
| Behavioral Support / Stor | 611 | 1 | 611 | 1,605 | 1 | 1,606 | 1,109 | 2 | 2,217 |
| Resource Room (Rdg/Lit. & Math) +Stor | 679 | 5 | 3,395 | 818 | 9 | 7,359 | 768 | 14 | 10,754 |
| Small Group Room (IEP/TO & Spch/Lng) | 205 | 3 | 616 | 268 | 1 | 268 | 221 | 4 | 884 |
| OT/PT (incl. Visual Impaired Services) | 1,797 | 1 | 1,797 | | | 0 | 1,797 | 1 | 1,797 |
| Storage (OT/PT, Soc Work, Rdg) | 198 | 3 | 594 | | | 0 | 198 | 3 | 594 |
| Office/Mtg (Psy, Soc, Trn-Chr) | 297 | 3 | 892 | 210 | 3 | 630 | 254 | 6 | 1,522 |
| CoTeaching Space within Classrooms | | | 0 | | | 0 | | | 0 |
| Adaptive PE (MP/Co-Locate w/ Gym) | | | | | | | | | |
| ART & MUSIC | | | 5,812 | | | 4,563 | | | 10,375 |
| Art Classroom | 1,258 | 2 | 2,515 | 1,439 | 1 | 1,439 | 1,318 | 3 | 3,954 |
| Art Workroom w/ Storage & kiln | 181 | 1 | 181 | 327 | 1 | 327 | 254 | 2 | 508 |
| Band / Chorus - 100 seats | 1,417 | 2 | 2,834 | 1,107 | | 2,213 | 1,262 | 4 | 5,047 |
| Music Practice / Ensemble | | | 0 | 329 | 1 | 329 | 329 | 1 | 329 |
| Music Storage | 141 | 2 | 282 | 128 | 2 | 255 | 134 | 4 | 537 |
| VOCATIONS & TECHNOLOGY | | | 1,677 | | | 3,331 | | | 5,008 |
| Tech Cmn. - (computer labs) | 839 | 2 | 1,677 | 858 | | 2,631 | 718 | 6 | 4,308 |
| Tech Shop - (incl. Maker Space / Stor.) | | | 0 | 700 | | 700 | 700 | 1 | 700 |
| HEALTH & PHYSICAL EDUCATION | | | 13,155 | | | 13,733 | | | 26,888 |
| Gymnasium | 4,750 | 2 | 9,500 | 7,059 | 1 | 7,059 | 5,520 | 3 | 16,559 |
| Fitness Room | | | 0 | 1,591 | 2 | 3,182 | 1,591 | 2 | 3,182 |
| Gym Storeroom | 193 | 6 | 1,158 | 183 | 5 | 916 | 189 | 11 | 2,074 |
| Hlth Instructor Office w/ Shower & Toilet | 142 | 2 | 284 | 152 | 2 | 304 | 147 | 4 | 588 |
| Locker Rooms - Boys / Girls w/ Toilets | 1,107 | 2 | 2,213 | 1,138 | 2 | 2,272 | 1,121 | 4 | 4,489 |
| MEDIA CENTER | | | 3,534 | | | 3,964 | | | 6,598 |
| DINING & FOOD SERVICE | | | 8,650 | | | 11,172 | | | 19,822 |
| Cafetorium / Dining (incl. Dolphin Diner) | 4,746 | 1 | 4,746 | 5,937 | 1 | 5,937 | 5,342 | 2 | 10,683 |
| Stage | 1,018 | 1 | 1,018 | 1,140 | 1 | 1,140 | 1,079 | 2 | 2,158 |
| Chair / Table / Equipment Storage | 176 | 1 | 176 | 227 | 1 | 227 | 202 | 2 | 403 |
| Kitchen | 2,488 | 1 | 2,488 | 3,620 | 1 | 3,620 | 3,054 | 2 | 6,108 |
| Staff Lunch Room | 222 | 1 | 222 | 248 | 1 | 248 | 235 | 2 | 473 |
| MEDICAL | | | 744 | | | 209 | | | 953 |
| ADMINISTRATION & GUIDANCE | | | 3,094 | | | 4,314 | | | 7,408 |
| CUSTODIAL & MAINTENANCE | | | 2,465 | | | 3,494 | | | 5,959 |
| OTHER | | | 5,092 | | | 7,909 | | | 13,001 |
| Auditorium+Stage (453 WIS/734 MMS) | 5,092 | 1 | 5,092 | 7,269 | 1 | 7,269 | 6,181 | 2 | 12,361 |
| Dressing Rooms | | | 0 | 225 | 2 | 450 | | | |
| SRO Office | | | 0 | 95 | 2 | 190 | 95 | 2 | 190 |
| School Store | | | | | | | | | |
| Total Building Net Floor Area (NFA) | | | 78,338 | | | 87,662 | | | 166,000 |
| Proposed Student Capacity / Enrolment | | (90 total staff) | 545 | | (80 total staff) | 455 | | (170 total staff) | 1,000 |
| Total Building Gross Floor Area (GFA) ² | | | 116,090 | | | 115,880 | | | 231,970 |
| Grossing factor (GFA/NFA) | | | 1.48 | | | 1.32 | | | |

| PROPOSED | | | | | |
|-----------------------|----------|-------------|-----------------------|----------|-------------|
| SEPARATE GR.6-7 (455) | | | COMBINED GR.4-7 (940) | | |
| ROOM NFA ¹ | # OF RMS | area totals | ROOM NFA ¹ | # OF RMS | area totals |
| | | 21,650 | | | 44,690 |
| 850 | 13 | 11,050 | 850 | 35 | 29,750 |
| 850 | 1 | 850 | 850 | 2 | 1,700 |
| 850 | 3 | 2,550 | 850 | 4 | 3,400 |
| | 17 | | | 41 | |
| 500 | 4 | 2,000 | 500 | 4 | 2,000 |
| | | | | | |
| 1,200 | 4 | 4,800 | 1,200 | 6 | 7,200 |
| | | | | | |
| 80 | 5 | 400 | 80 | 8 | 640 |
| | | 12,580 | | | 20,400 |
| 900 | 3 | 2,700 | 900 | 5 | 4,500 |
| 60 | 3 | 180 | 60 | 5 | 300 |
| 900 | 1 | 900 | 900 | 1 | 900 |
| 450 | 5 | 2,250 | 450 | 9 | 4,050 |
| 250 | 2 | 500 | 250 | 4 | 1,000 |
| 450 | 1 | 450 | 450 | 2 | 900 |
| 150 | 3 | 450 | 150 | 5 | 750 |
| 150 | 3 | 450 | 150 | 6 | 900 |
| 100 | 17 | 1,700 | 100 | 41 | 4,100 |
| 3,000 | 1 | 3,000 | 3,000 | 1 | 3,000 |
| | | 4,750 | | | 8,000 |
| 1,200 | 1 | 1,200 | 1,200 | 2 | 2,400 |
| 150 | 1 | 150 | 150 | 2 | 300 |
| 1,500 | 2 | 3,000 | 1,500 | 3 | 4,500 |
| 200 | 1 | 200 | 200 | 2 | 400 |
| 100 | 1 | 100 | 100 | 1 | 100 |
| | | 1,700 | | | 2,400 |
| 1,200 | 0 | 0 | 1,200 | 0 | 0 |
| 1,700 | 1 | 1,700 | 1,700 | 2 | 3,400 |
| | | 8,550 | | | 11,650 |
| 3,000 | 2 | 6,000 | 3,000 | 3 | 9,000 |
| | 0 | 0 | | 0 | 0 |
| 150 | 1 | 150 | 150 | 1 | 150 |
| 200 | 2 | 400 | 250 | 2 | 500 |
| 1,000 | 2 | 2,000 | 1,000 | 2 | 2,000 |
| | | 2,996 | | | 5,785 |
| | | 7,334 | | | 11,738 |
| 3,413 | 1 | 3,413 | 7,050 | 1 | 7,050 |
| 1,600 | 1 | 1,600 | 1,600 | 1 | 1,600 |
| 352 | 1 | 352 | 513 | 1 | 513 |
| 1,755 | 1 | 1,755 | 2,240 | 1 | 2,240 |
| 214 | 1 | 214 | 335 | 1 | 335 |
| | | 570 | | | 770 |
| | | 2,956 | | | 3,890 |
| | | 1,930 | | | 2,850 |
| | | 8,650 | | | 8,700 |
| 8,500 | 1 | 8,500 | 8,500 | 1 | 8,500 |
| | | 0 | | | 0 |
| 150 | 1 | 150 | 200 | 1 | 200 |
| | | 73,666 | | | 121,873 |
| | | 455 | | | 940 |
| | | 110,499 | | | 182,810 |
| | | 1.50 | | | 1.50 |

| MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines) | | | | | |
|--|----------|-------------|-----------------------|----------|-------------|
| SEPARATE GR.6-7 (455) | | | COMBINED GR.4-7 (940) | | |
| ROOM NFA ¹ | # OF RMS | area totals | ROOM NFA ¹ | # OF RMS | area totals |
| | | 21,770 | | | 44,820 |
| 950 | 17 | 16,150 | 950 | 34 | 32,300 |
| | 0 | | | 0 | |
| | 17 | | | 34 | |
| 500 | 1 | 500 | 500 | 2 | 1,000 |
| | | | | | |
| 1,200 | 4 | 4,800 | 1,200 | 9 | 10,800 |
| | | | | | |
| 80 | 4 | 320 | 80 | 9 | 720 |
| | | 5,540 | | | 10,570 |
| 950 | 4 | 3,800 | 950 | 7 | 6,850 |
| 60 | 4 | 240 | 60 | 7 | 420 |
| 500 | 2 | 1,000 | 500 | 5 | 2,500 |
| 500 | 1 | 500 | 500 | 2 | 1,000 |
| | | | | | |
| | | 3,250 | | | 5,000 |
| 1,200 | 1 | 1,200 | 1,200 | 2 | 2,400 |
| 150 | 1 | 150 | 150 | 2 | 300 |
| 1,500 | 1 | 1,500 | 1,500 | 1 | 1,500 |
| 200 | 1 | 200 | 200 | 3 | 600 |
| 200 | 1 | 200 | 200 | 1 | 200 |
| | | 1,200 | | | 6,400 |
| 1,200 | 1 | 1,200 | 1,200 | 2 | 2,400 |
| 2,000 | 1 | 2,000 | 2,000 | 2 | 4,000 |
| | | 8,400 | | | 8,400 |
| 6,000 | 1 | 6,000 | 6,000 | 1 | 6,000 |
| | | | | | |
| | | 2,996 | | | 5,785 |
| | | 7,333 | | | 11,738 |
| 3,413 | 1 | 3,413 | 7,050 | 1 | 7,050 |
| 1,600 | 1 | 1,600 | 1,600 | 1 | 1,600 |
| 352 | 1 | 352 | 513 | 1 | 513 |
| 1,755 | 1 | 1,755 | 2,240 | 1 | 2,240 |
| 214 | 1 | 214 | 335 | 1 | 335 |
| | | 510 | | | 710 |
| | | 2,956 | | | 3,890 |
| | | 1,980 | | | 2,415 |
| | | 0 | | | 0 |
| | | | | | |
| | | 57,884 | | | 99,728 |
| | | 455 | | | 940 |
| | | 84,305 | | | 150,400 |
| | | 1.46 | | | 1.51 |

COMBINED SCHOOLS

Existing 55 CRs/Sci (2 Sm Grp)

51 CR/Sci vs 45 MSBA
(4 Sm Grp vs 2 MSBA)

21k SPED vs 11k MSBA

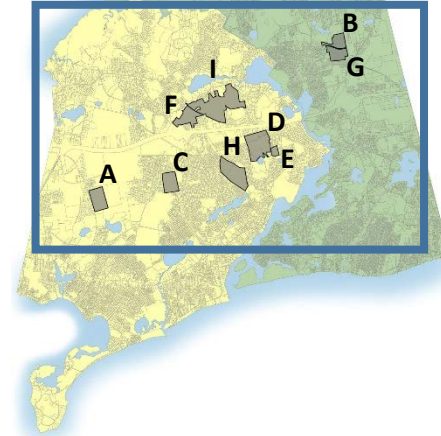
Art/Mus/Tech Balance

9k Gym vs 6k MSBA

Seeking 8k Auditorium
(aside from Cafetorium)

Totals +22k net/32k gsf

RECAP - ALTERNATIVE SITES

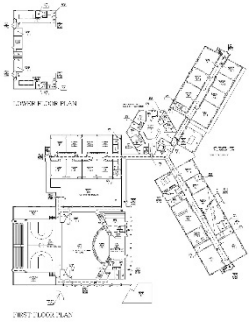


| | A | B | C | D | E | F | G | H | I |
|---------------------------------------|--------------------------------|------------|---------------|------------------------------|----------------------|---------------------------|---------------|--------------------------------|-------------------------|
| | Existing Site (Mattacheese) | Wixon Site | 450 Forest Rd | Flax Pond Recreation Area | 340 North Main St | 245 W Great Western Rd | 815 Route 134 | 286 Station Ave (Elem/High) | 200-236 W Great W Rd |
| CONSIDERATIONS | | | | | | | | | |
| SITE / LOCATION | Y | D | Y | Y | Y | Y | D | Y | Y |
| 1 Available + Town/Distr. Owned | T | T | T | T | T | T | T | T/D | X |
| 2 Legal Restrictions, Park etc. | | | | X | | | X | | |
| 3 Wellfield Sites (Restricted) | N | N | X | X | X | N | N | N | N |
| 4 Overall Size of Site (acres) | 70.0 | 34.4 | 61.4 | 117.7 | 114.2 | 67.6 | 40.0 | 147.9 | 215.5 |
| 5 Approx. Buildable Area (acres) | 40 | 30 | | | | | | 57 | |
| 6 Shape of Site (fits all program) | Y | Y | | | | | | Y | |
| 7 Remoteness (miles to Distr Ctr) | 6.1 | 4.3 | 3.2 | 1.0 | 0.5 | 1.5 | 3.5 | 2.2 | 1.5 |
| 8 Time from District Center (minutes) | 11 | 8 | 7 | 3 | 1 | 3 | 8 | 5 | 3 |
| 9 Proximity to Police/Fire* | 0.4/1.4 | 0.9/3.6 | 1.7/3.0 | 5.9/3.6 | 4.8/2.1 | 5.4/1.9 | 0.6/3.2 | 4.4/2.0 | 5.4/1.9 |
| 10 Proximity to C.C. Rail Trail | 0.4 | 1.8 | 0.6 | 0.1 | 0.5 | 0.7 | 1.6 | 0.7 | 0.7 |
| 11 Walkable (sidewalks leading) | N | Y | Y | Y/N | N | N | Y | Y | N |
| 11 Range of Travel Time on Buses | TBD** | TBD** | | | | | | TBD** | |
| 13 Access & Traffic Issues | REMOTE | REMOTE | | | | X | | TRAFFIC | X |
| COST FACTORS | | | | | | | | | |
| 14 Site Development | TBD | TBD | | | | X | | TBD | X |
| 15 Site Remediation | TBD | TBD | | | | | | TBD | |
| 16 Access to Utilities | | | | | | | | | |
| 17 Phasing/Swing Space Required | N | N | | | | | | N | |
| 18 Busing Increase | TBD** | TBD** | | | | | | TBD** | |
| RECREATIONAL IMPACT | | | | | | | | | |
| 19 Field Replication Required | MAYBE | MAYBE | | | | | | MAYBE | |
| 20 Temporary Loss of Use | MAYBE | MAYBE | | | | | | MAYBE | |

* per respective town

**staggered school schedule(s) might mitigate bussing increase or travel time

RECAP - OPTIONS (455, GRADE 6-7)



MRX MATTACHEESE SITE CODE + REPAIRS ONLY

Relatively Flat Site, 70 acres
(40 useable)

Limited Constraints
- Aquafer Protection Distr.
- Adjacent Wetland

Building assessed value vs. repair cost triggers 30% threshold requiring full accessibility compliance & Renovation

Waffle slab construction difficult to renovate – limited room for modern mechanical systems

Will not meet educational program – MSBA Core Program will not support (separate, limited repairs possible under a separate MSBA program)

Occupied phased renovation cost prohibitive & disruptive

MR1 MATTACHEESE SITE ADD/RENO(GR. 6-7)

Relatively Flat Site, 70 acres
(40 useable, 21 developed)

Limited Constraints
- Aquafer Protection Distr.
- Adjacent Wetland

Able to satisfy educational program

Reuses existing lrg gym and auditorium located near fields (outdoor theater)

Limits impact to school

Develops previously disturbed areas

May prohibit use of more cost effective chapter 149 procurement due to phasing requirements

Does not address existing deficiencies at Wixon as outlined in SOI

M1 MATTACHEESE SITE ALL NEW (GR. 6-7)

Relatively Flat Site, 70 acres
(40 useable, 21 developed)

Limited Constraints
- Aquafer Protection Distr.
- Adjacent Wetland

Able to satisfy educational program

Virtually no impact to school

Allows use of more cost effective chapter 149 procurement

Does not address existing deficiencies at Wixon as outlined in SOI

W1 WIXON SITE ALL NEW (GR. 6-7)

Partial Sloping Site, 34.4 a
(30 useable, 23 developed)

Several Constraints
- Wellhead Protection Distr
- Old King Highway Historic
- Adjacent Wetland

Able to satisfy educational program

Access to bikeway, existing playground

Limits impact to school

Allows use of more cost effective chapter 149 procurement

Eliminates track and field

Does not address existing deficiencies at Wixon as outlined in SOI

Not centrally located

S1 STATION AVE. SITE ALL NEW (GR. 6-7)

Relatively Flat Site, 148 acre
(57 useable, 20 developed)

Limited Constraints
- part Aquafer Protect Distr.
- Wetlands

Able to satisfy educational program

Limits impact to school

Allows use of more cost effective chapter 149 procurement

Centrally located

Campus setting

Tight proximity to residential

Does not address existing deficiencies at Wixon as outlined in SOI

S3 STATION AVE. SITE ALL NEW (GR. 6-7)

Relatively Flat Site, 148 acre
(57 useable, 23 developed)

Limited Constraints
- part Aquafer Protect Distr.
- Wetlands, but not adjacent

Able to satisfy educational program

Virtually no impact to school(s)

Allows use of more cost effective chapter 149 procurement

Centrally located

Campus setting; connects to HS + fields

Does not address existing deficiencies at Wixon as outlined in SOI

Approach dominated by solar array

Loss of athletic field

S5 STATION AVE. SITE ALL NEW (GR. 6-7)

Relatively Flat Site, 148 acre
(57 useable, 22 developed)

Limited Constraints
- part Aquafer Protect Distr.
- Wetlands, but not adjacent

Able to satisfy educational program

Virtually no impact to school(s)

Allows use of more cost effective chapter 149 procurement

Centrally located

Campus setting, Street presence

Does not address existing deficiencies at Wixon as outlined in SOI

Dependent upon cost and terms of relocating existing solar panel array

G1 W. GREAT WESTERN ALL NEW (GR. 6-7)

Relatively Flat Site

Limited Constraints

Able to satisfy educational program

No impact to existing school(s)

Allows use of more cost effective chapter 149 procurement

Hilly, narrow access road and potential traffic issues










Extensive clearing required

Station Ave is more viable

Does not address existing deficiencies at Wixon as outlined in SOI

X

RECAP - OPTIONS (940, GRADE 4-7)

| | | | | | | | |
|---|--|--|--|--|--|--|--|
|  <p>MR2 October 2017</p> |  <p>WR2 October 2017</p> |  <p>M2 October 2017</p> |  <p>W2 October 2017</p> |  <p>S2 October 2017</p> |  <p>S4 October 2017</p> |  <p>S6 October 2017</p> |  <p>G2 October 2017</p> |
| MR2 MATTACHEESE SITE ADD/RENO (GR. 4-7) | WR2 WIXON SITE ADD/RENO (GR. 4-7) | M2 MATTACHEESE SITE ALL NEW (GR. 4-7) | W2 WIXON SITE ALL NEW (GR. 4-7) | S2 STATION AVE. SITE ALL NEW (GR. 4-7) | S4 STATION AVE. SITE ALL NEW (GR. 4-7) | S6 STATION AVE. SITE ALL NEW (GR. 4-7) | G2 W. GREAT WESTERN ALL NEW (GR. 4-7) |
| <p>Relatively Flat Site, 70 acres (40 useable, 23 developed)</p> <p>Limited Constraints - Aquafer Protection Distr. - Adjacent Wetland</p> <p>Able to satisfy educational program</p> <p>Reuses existing lrg gym and auditorium located near fields (outdoor theater)</p> <p>Limits impact to school</p> <p>Develops previously disturbed areas</p> <p>Limits use of more cost effective chapter 149 procurement</p> <p>Not centrally located</p> | <p>Partial Sloping Site, 34.4 a (30 useable, 17 developed)</p> <p>Several Constraints - Wellhead Protection Distr - Old King Highway Historic - Adjacent Wetland</p> <p>Able to satisfy educational program</p> <p>Access to bikeway, existing playground</p> <p>Not centrally located</p> <p>More disruptive to school than other options</p> | <p>Relatively Flat Site, 70 acres (40 useable, 25 developed)</p> <p>Limited Constraints - Aquafer Protection Distr. - Adjacent Wetland</p> <p>Able to satisfy educational program</p> <p>Virtually no impact to school</p> <p>Allows use of more cost effective chapter 149 procurement</p> <p>Will require demolition of existing buildings – Should be reimbursable</p> <p>Not centrally located</p> | <p>Partial Sloping Site, 34.4 a (30 useable, 23 developed)</p> <p>Several Constraints - Wellhead Protection Distr - Old King Highway Historic - Adjacent Wetland</p> <p>Able to satisfy educational program</p> <p>Access to bikeway, existing playground</p> <p>Limits impact to school</p> <p>Allows use of more cost effective chapter 149 procurement</p> <p>Not centrally located</p> | <p>Relatively Flat Site, 148 acre (57 useable, 21 developed)</p> <p>Limited Constraints - part Aquafer Protect Distr. - Wetlands</p> <p>Able to satisfy educational program</p> <p>Limits impact to school</p> <p>Allows use of more cost effective chapter 149 procurement</p> <p>Centrally located</p> <p>Campus setting</p> <p>Tight proximity to residential</p> | <p>Relatively Flat Site, 148 acre (57 useable, 24 developed)</p> <p>Limited Constraints - part Aquafer Protect Distr. - Wetlands, but not adjacent</p> <p>Able to satisfy educational program</p> <p>Limits impact to schools</p> <p>Allows use of more cost effective chapter 149 procurement</p> <p>Does address existing deficiencies at Wixon as outlined in SOI</p> <p>Centrally located</p> <p>Tight to existing maintenance buildings</p> <p>Loss of athletic field</p> | <p>Relatively Flat Site, 148 acre (57 useable, 22 developed)</p> <p>Limited Constraints - part Aquafer Protect Distr. - Wetlands, but not adjacent</p> <p>Able to satisfy educational program</p> <p>Virtually no impact to school(s)</p> <p>Allows use of more cost effective chapter 149 procurement</p> <p>Centrally located</p> <p>Campus setting, Street presence</p> <p>Dependent upon cost and terms of relocating existing solar panel array</p> | <p>Relatively Flat Site, Limited Constraints</p> <p>Able to satisfy educational program</p> <p>No impact to existing school(s)</p> <p>Allows use of more cost effective chapter 149 procurement</p> <p>Does address existing deficiencies at Wixon as outlined in SOI</p> <p>Hilly, narrow access road and potential traffic issues</p> <p>Extensive clearing required</p> <p>Station Ave is more viable</p> |
| | | | | | | |  |

What's Missing if We Repair?

- **Extra Transitions Will Remain** (transitions have been shown to negatively impact learning)
- **Inefficient Building Envelope** (continued thermal discomfort which also impacts leaning and wasted energy/operating cost)
- **Keeps Bad Solar Orientation** (vs proper daylight which is tied to improved test scores)
- **Low Floor Height** (limits ability to provide modern air systems and more effective lighting)
- **Classrooms Kept Undersized** (larger rooms are necessary to support current best practices including Co-Teaching and Project Based Learning within)
- **Inadequate Science Labs** (current standards require more flexible/adaptable labs)
- **Special Education Space** are not purpose-built and not configured to serve each program well. More space, properly configured is needed
- **Unable to Cluster Classrooms with Good Visibility + Pull-Out** (collaborative clusters allow far more educational opportunity, supports varied group work & small learning communities, which are linked to improved educational outcomes.

Why Not Just Repair the School(s)?

Why Not Do a Little at a Time?

Why Address Both Schools Now?

Can We Afford to Do This?

Why are the Costs So High, What are They Based On?

REPAIR, RENOVATE OR BUILD NEW?

- **Repairs Alone Will Not Address the Educational Plan** (a requirement for core program funding).
Repairs will Also Trigger Code Required Upgrades and may Cost the District More Than Doing an Addition/Renovation or Building a New Facility
- **Even Individual Repairs** (like heating/ventilating systems) **Would Trigger Upgrades, and would be Slow/Disruptive** (not all can be done off-hours)
- Both Mattacheese and Wixon are in Need of Major Repairs & System Replacements that will Need to be Addressed within the Next Decade
- **Overall Costs are Far Less to the District when Addressing Both Schools Now, Rather Than the Combined Cost of Doing Them Separately**
- Estimated Costs are In-Line with State Averages, are Escalated as Required for Future Work and Represents Appropriate School Design Standards

What's Missing if We Repair?

- **Extra Transitions Will Remain** (transitions have been shown to negatively impact learning)
- **Inefficient Building Envelope** (continued thermal discomfort which also impacts leaning and wasted energy/operating cost)
- **Keeps Bad Solar Orientation** (vs proper daylight which is tied to improved test scores)
- **Low Floor Height** (limits ability to provide modern air systems and more effective lighting)
- **Classrooms Kept Undersized** (larger rooms are necessary to support current best practices including Co-Teaching and Project Based Learning within)
- **Inadequate Science Labs** (current standards require more flexible/adaptable labs)
- **Special Education Space** are not purpose-built and not configured to serve each program well. More space, properly configured is needed
- **Unable to Cluster Classrooms with Good Visibility + Pull-Out** (collaborative clusters allow far more educational opportunity, supports varied group work & small learning communities, which are linked to improved educational outcomes.

Why Not Just Repair the School(s)?

REPAIR, RENOVATE OR BUILD NEW?

Transitions Can Cause a Drop in Learning Before & After

Center for Applied Research Educational Improvement,
“Stillwater Public Schools; Review of Literature on Grade Configuration and School Transitions,” 2011

What's Missing if We Repair?

- **Extra Transitions Will Remain** (transitions have been shown to negatively impact learning)
- **Inefficient Building Envelope** (continued thermal discomfort which also impacts leaning and wasted energy/operating cost)
- **Keeps Bad Solar Orientation** (vs proper daylight which is tied to improved test scores)
- **Low Floor Height** (limits ability to provide modern air systems and more effective lighting)
- **Classrooms Kept Undersized** (larger rooms are necessary to support current best practices including Co-Teaching and Project Based Learning within)
- **Inadequate Science Labs** (current standards require more flexible/adaptable labs)
- **Special Education Space** are not purpose-built and not configured to serve each program well. More space, properly configured is needed
- **Unable to Cluster Classrooms with Good Visibility + Pull-Out** (collaborative clusters allow far more educational opportunity, supports varied group work & small learning communities, which are linked to improved educational outcomes.

Why Not Just Repair the School(s)?

REPAIR, RENOVATE OR BUILD NEW?

Proper Daylight/HVAC/Air Systems Can Improve Outcomes



Students in **DAYLIT CLASSROOMS** progress

20% FASTER on math tests & **26% FASTER** on reading tests

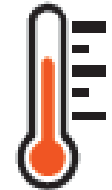


In classrooms with higher **MECHANICAL VENTILATION RATES**



students scored **14-15%** higher on standardized tests [13] & the health and productivity of **TEACHERS IMPROVED.**

For every 1.8°F drop between 77°F and 68°F,



students speed performance on tests was **IMPROVED** from **2-4% IN ALL TASKS** [9].

Heschong-Mahone, 'Daylighting in Schools: An Investigation between Daylight and Human Performance,' PG&E, 1999; Wyon & Wargocki, 'Indoor Env Effects on the Performance of School Work by Children,' ASHRAE, pp 1257-TRP, 2007; Shaughnessy, 'The Association Between Ventilation Rates in Classrooms and Student Performance,' p465-468, 2006

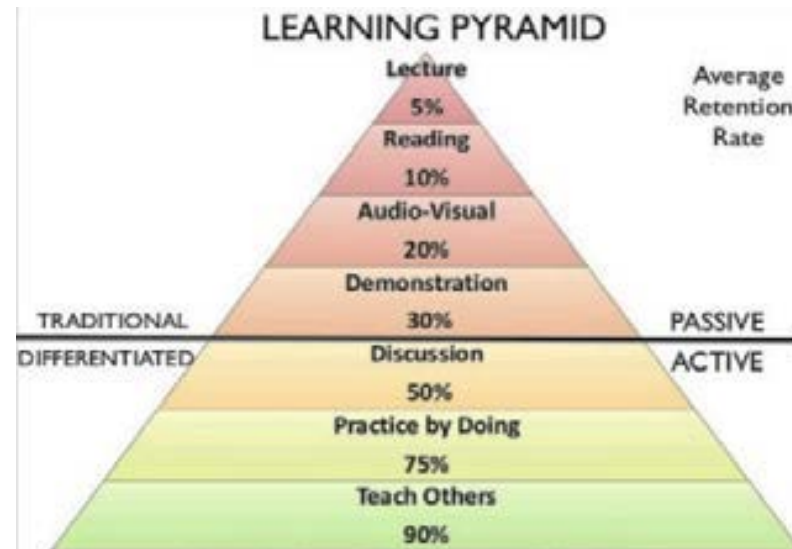
What's Missing if We Repair?

- **Extra Transitions Will Remain** (transitions have been shown to negatively impact learning)
- **Inefficient Building Envelope** (continued thermal discomfort which also impacts leaning and wasted energy/operating cost)
- **Keeps Bad Solar Orientation** (vs proper daylight which is tied to improved test scores)
- **Low Floor Height** (limits ability to provide modern air systems and more effective lighting)
- **Classrooms Kept Undersized** (larger rooms are necessary to support current best practices including Co-Teaching and Project Based Learning within)
- **Inadequate Science Labs** (current standards require more flexible/adaptable labs)
- **Special Education Space** are not purpose-built and not configured to serve each program well. More space, properly configured is needed
- **Unable to Cluster Classrooms with Good Visibility + Pull-Out** (collaborative clusters allow far more educational opportunity, supports varied group work & small learning communities, which are linked to improved educational outcomes.

Why Not Just Repair the School(s)?

REPAIR, RENOVATE OR BUILD NEW?

We Learn Best By Doing, Collaborating and Connecting



National Training Lab Research, ME

Schools That Work

“Research-Supported PBL Practices,”
Edutopia, 2012.

Shown to develop students’ critical thinking skills, long-term retention of content + experience of satisfaction (see Ravitz 2009 for review)

What's Missing if We Repair?

- **Extra Transitions Will Remain** (transitions have been shown to negatively impact learning)
- **Inefficient Building Envelope** (continued thermal discomfort which also impacts leaning and wasted energy/operating cost)
- **Keeps Bad Solar Orientation** (vs proper daylight which is tied to improved test scores)
- **Low Floor Height** (limits ability to provide modern air systems and more effective lighting)
- **Classrooms Kept Undersized** (larger rooms are necessary to support current best practices including Co-Teaching and Project Based Learning within)
- **Inadequate Science Labs** (current standards require more flexible/adaptable labs)
- **Special Education Space** are not purpose-built and not configured to serve each program well. More space, properly configured is needed
- **Unable to Cluster Classrooms with Good Visibility + Pull-Out** (collaborative clusters allow far more educational opportunity, supports varied group work & small learning communities, which are linked to improved educational outcomes.

Why Not Just Repair the School(s)?

REPAIR, RENOVATE OR BUILD NEW?

Higher Sense of Community Results in Higher Test Scores

M. Whiting, D. Nesbit and L. Spaulding, “Relationship Between Sense of Community and Academic Achievement: A Comparison Among High School Students,” 2009, (Online).

Dept. of Education Employment and Workplace

Relations, “Belonging, Being and Becoming: The Early Years Framework for Australia,” Comm. of Australia. Barton, 2009.

K. Osterman, “Students Need Belonging in the School Community,” Review of Educ. Research, pp 323-367, 2009.

REPAIR SCOPE – 30% THRESHOLD

5.21 CMR Section 3.3.1 (1/2)

If the work being performed amounts to less than 30% of the full and fair cash value of the building and

- a. If the work costs less than \$100,000- then only the work being performed must comply or
- b. If the work costs more than \$100,000 but less the 30% - then the work being done and in addition an accessible entrance, toilet room, telephone and drinking fountain shall also be provided.

Exception: General Maintenance and on-going upkeep do not trigger upgrades **unless the project cost exceeds \$500,000.**

Exception: Whether performed alone or in combination with each other, the following type of alterations are not subject to 521 CMR 3.3.1 **unless the cost exceeds \$500,000.**

- a. Curb cuts
- b. Alteration work which is related solely to Electrical, Mechanical or Plumbing systems, hazardous materials abatement or retrofit of sprinklers.
- c. Roof repair or replacement, window repair or replacement, repointing masonry repair work.
- d. Septic System Repairs.

MATTACHEESE REPAIR SCOPE – PERKINS VS. KBA

5.21 CMR Section 3.3.1 (2/2)

ADA / MAAB Scope

- All bathrooms are non-compliant – rooms and fixture locations are not accessible, rooms must be enlarged to be brought into compliance with current code, masonry walls need to be removed and re-built and entire areas reconfigured. **KBA report carries 108K, the cost for full compliance is roughly 40K per location.**
- Access to the locker rooms or the bleachers – (2) lifts will be required to access the locker rooms at either side of the Gym.
- Access to the stage – Current AAB requires that access to a platform or stage be provided within the Auditorium, a lift would be required.
- Accessible seats at bleachers and auditorium – accessible areas for seating to be provided at the assembly areas
- The **KBA report notes 13 locations for doors to be widened – there are 50 locations in the current building** where the entry to a room or space is not in compliance
- The KBA report notes the ramp to gym is too steep and a lift is to be provided, we suggest re-pouring the ramp to comply and providing new handrails.
- Install accessible drinking fountains, both reports have this line item
- Replace one elevator and install a new elevator, PE carried the price of replacement of the existing elevator – unsure of why a second would be required.
- Make classroom sinks accessible – both reports have this line item
- New accessible hardware – the doors are not machined to accept hardware replacement retrofits are possible but PE recommends and carried \$173,065 – **KBA has carried \$5000**
- New signage – **KBA does not carry**, it is required
- Access to control room – the current control room is a wood platform built into a former coat closet – the platform is not accessible.
- Kitchen servery, library circulation desk, main admin (breakroom, desk, mailboxes), science lab casework and other misc. items are not accessible – **Not in KBA estimate** – in PE estimate

MATTACHEESE REPAIR SCOPE – PERKINS VS. KBA

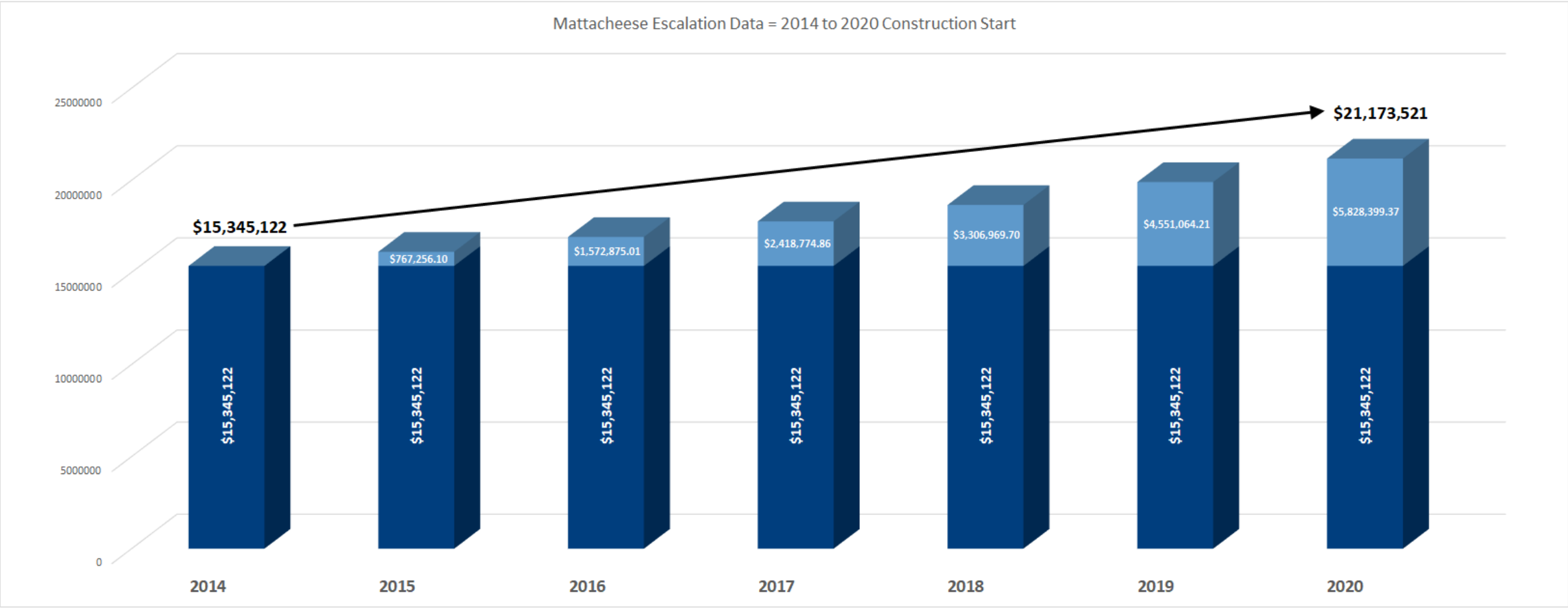
| SECTION | SCOPE | KBA COST | PE COST | DELTA | COMMENTS |
|--------------------------------|---|-------------|-------------|--------------|---|
| SITEWORK | Misc Site repairs, sidewalks, parking areas, additional curb cuts etc | \$457,300 | \$1,031,151 | -\$573,851 | The base cost for the sitework in the PE estimate is \$493,895, roughly equal to the KBA report, however, the KBA report does not address replacement of the Septic System (\$353,000) or design contingency |
| HAZARDOUS MATERIALS - BUILDING | Removal of hazardous materials, including asbestos tile, insulation and fittings as well as addressing potential PCB contamination | \$0 | \$1,549,200 | -\$1,549,200 | Not addressed or included in KBA report |
| HAZARDOUS MATERIALS - SITE | Removal of contaminated soils, abandoned or non-compliant underground tanks found during the Phase 1 site environmental study | \$0 | \$67,500 | -\$67,500 | Not addressed or included in KBA report |
| DEMOLITION | Misc work required to complete the scopes of work noted within the report, for example replacement of toilet fixtures and drinking fountains requires the disconnection, removal and | \$0 | \$764,404 | -\$764,404 | Not addressed or included in KBA report |
| ROOFING | Replacement of the PVC roofing system | \$705,500 | \$1,262,384 | -\$556,884 | The PE estimate includes re-roofing the entire building as well as demounting and re-mounting the solar array, the KBA estimate of work excludes the gym and any solar array work - the roof the gym was installed about 2008 - by 2018 it will |
| INTERIOR FINISHES | | | | | |
| | Flooring replacement - VCT and Carpet | \$7,000 | \$467,995 | -\$460,995 | The KBA report does not carry replacement of any flooring or base - the VCT was replaced around the year 2000, the accepted life cycle for VCT is 15 years, at the time of construction the VCT will be 18 to 19 years old |
| | Painting | \$0 | \$146,548 | -\$146,548 | Painting is being treated in the KBA report as a maintenance item - PE has carried costs for repainting the building interior |
| | Auditorium Seating | \$84,000 | \$257,250 | -\$173,250 | It is generally accepted that good quality Auditorium seats cost more then \$120 per seat |
| | New rigging for auditorium | \$0 | \$90,000 | -\$90,000 | Not Included in KBA report |
| | Replace Casework - most in non-accessible and perimeter casework is supplied by the Unit Vent manufacturer when changes are made to mechanical the casework will be effected | \$0 | \$211,650 | -\$211,650 | Not Included in KBA report |
| | ACT ceiling | \$24,750 | \$375,295 | -\$350,545 | KBA report only addresses the existing current ACT in the facility and not the additional ACT that will be required due to changes in the mechanical systems |
| | Replacement of the following, Lockers, Toilet Partitions, FE cabinets, Fume Hoods, Appliances, Marker and Tack, display cases | \$109,000 | \$433,202 | -\$324,202 | KBA report carries cost for future locker replacement only |
| | Interior doors and hardware | \$10,000 | \$187,065 | -\$177,065 | KBA report only carries a minimal amount for repairs to doors and frames and a very small amount for hardware, PE included replacemnt and upgrade of all doors and hardware throughout for security and continuity |
| EQUIPMENT | Kitchen equipment and serving lines | \$0 | \$568,125 | -\$568,125 | KBA report does not address Kitchen Equipment |
| FIRE PROTECTION | Fully sprinkler building | \$705,000 | \$579,400 | \$125,600 | Agree this must be done per MGL section 26G |
| PLUMBING | Replace all fixtures and piping | \$144,000 | \$880,131 | -\$736,131 | KBA report leaves 50 year old distribution in place |
| HVAC | replace all systems and controls | \$5,197,575 | \$3,933,766 | \$1,263,809 | Agree this must be done |
| ELECTRICAL | replace all systems and infrastructure - add tech/data and security | \$556,125 | \$4,628,425 | -\$4,072,300 | KBA report leaves 50 year old distribution in place |
| PHASING | Cost incurred to work in an occupied building, includes temp walls, fire watches, shut downs, overtime etc. | \$0 | \$1,610,344 | -\$1,610,344 | KBA carries no swing space, phasing costs or premiums |
| BOND & INSURANCE | | \$0 | \$513,500 | -\$513,500 | KBA carries no bonds or insurance costs |
| OPM / Clerk | Professional fees for Owners Project Manager and on -site daily site supervision during construction | \$0 | \$1,300,000 | -\$1,300,000 | KBA carries no OPM costs or Clerk of the Works as required by MGL |
| SOFT COSTS | There are a number of "soft costs" associated with a construction project such as, legal, bonding agents, insurance (builders risk), printing, air monitoring, construction testing, | \$0 | \$597,955 | -\$597,955 | KBA carries no soft costs in their estimates |
| FFE | Furniture (classrooms, offices, library etc - all non-fixed furniture), Fixtures (Appliances), Equipment (Science lab accessories, gym equipment, phones, projectors, computers etc) & | \$0 | \$1,194,778 | -\$1,194,778 | KBA does not address furniture or equipment |

MATTACHEESE REPAIR SCOPE - ESCALATION

KBA 2013 Study

| Year | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Escalation Rate | 6.42% | 6.67% | 5.00% | 5.00% | 5.00% | 5.00% | 0.00% |
| 2014 Cost | \$ 15,345,122 | \$ 15,345,122 | \$ 15,345,122 | \$ 15,345,122 | \$ 15,345,122 | \$ 15,345,122 | \$ 15,345,122 |
| 2020 Cost | \$ 15,345,122 | \$ 16,112,378 | \$ 16,917,997 | \$ 17,763,897 | \$ 18,652,092 | \$ 19,896,186 | \$ 21,173,521 |

Mattacheese Escalation Data = 2014 to 2020 Construction Start



WIXON REPAIR SCOPE – PERKINS VS. KBA

5.21 CMR Section 3.3.1 (2/2)

AAB / MMAB Scope

- All bathrooms are non-compliant – rooms and fixture locations are not accessible, rooms must be enlarged to be brought into compliance with current code, masonry walls need to be removed and re-built and entire areas reconfigured. KBA report carries 50K, the cost for full compliance is roughly 40K or greater per location.
- Access to the stage – Current AAB requires that access to a platform or stage be provided within the Auditorium, a lift would be required.

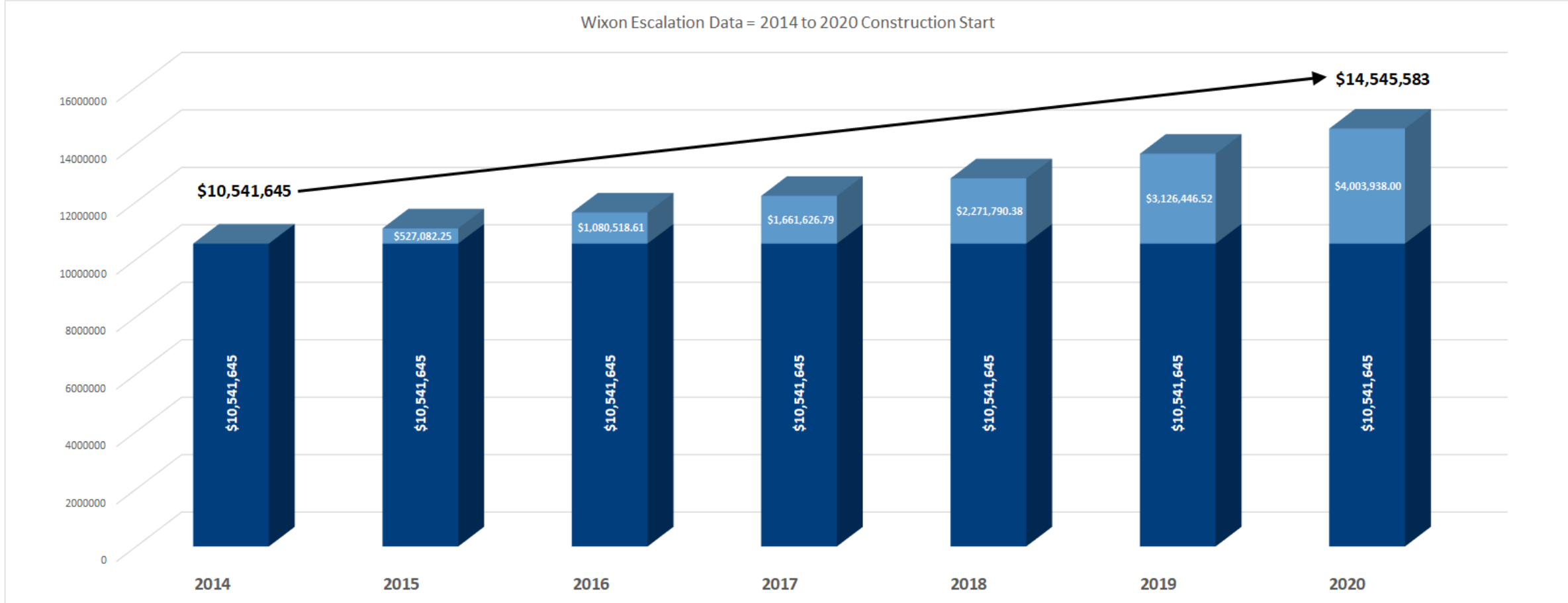
WIXON REPAIR SCOPE – PERKINS VS. KBA

| SECTION | SCOPE | KBA COST | PE COST | DELTA | COMMENTS |
|--------------------------------|--|-----------------|-----------------|-------------------|--|
| SITWORK | Misc Site repairs, sidewalks, parking areas, additional curb cuts etc | \$ 1,439,925.00 | \$ 990,817.00 | \$ 449,108.00 | The KBA report carries significant funds for tennis court and running track repair but does not address the antiquated septic system - the PE report includes replacing septic but does not assume the track/field or tennis courts to be critical to the base repair |
| HAZARDOUS MATERIALS - BUILDING | Removal of hazardous materials, including asbestos tile, insulation and fittings as well as addressing potential PCB contamination | \$ - | \$ 1,406,790.00 | \$ (1,406,790.00) | Not addressed or included in KBA report |
| HAZARDOUS MATERIALS - SITE | Removal of contaminated soils, abandoned or non-compliant underground tanks found during the Phase 1 site environmental study | \$ - | \$ 67,500.00 | \$ (67,500.00) | Not addressed or included in KBA report |
| DEMOLITION | Misc work required to complete the scopes of work noted within the report, for example replacement of toilet fixtures and drinking fountains requires the disconnection, removal and carting away of the items - | \$ - | \$ 897,927.00 | \$ (897,927.00) | Not addressed or included in KBA report |
| WINDOWS AND DOORS | | \$ 704,000.00 | \$ 1,651,209.00 | \$ (947,209.00) | KBA report retains window systems installed in the 1990 renovation, PE estimate carries full window replacement throughout - window systems could be retained but the Town would be retaining a 30 Year old window system in a fully renovated building a cost benefit analysis would need to be performed - the KBA escalated window replacement is 891K - |
| INTERIOR FINISHES | See below | | | | |
| | 1) Flooring replacement - VCT and Carpet | \$ 19,520.00 | \$ 629,492.00 | \$ (609,972.00) | The KBA report does not carry replacement of any flooring or base - |
| | 4) Auditorium Seating | \$ - | \$ 159,950.00 | \$ (159,950.00) | KBA report does not carry costs for replacing seats |
| | 5) New rigging for auditorium | \$ - | \$ 180,000.00 | \$ (180,000.00) | Not included in KBA report |
| | 6) Replace Casework - most in non-accessible and perimeter casework is supplied by the Unit Vent manufacturer when changes are made to mechanical the casework will be effected | \$ - | \$ 342,450.00 | \$ (342,450.00) | Not included in KBA report - perimeter cabinetry at Wixon was originally provided by the UV and Fan unit manufacturer and is sized and tailored to fit the current HVAC equipment scheduled by both estimates to be replaced |
| | 8) Replacement of the following, Lockers, Toilet Partitions, FE cabinets, Fume Hoods, Appliances, Marker and Tack, display cases | \$ 113,000.00 | \$ 433,202.00 | \$ (320,202.00) | KBA report carries cost for future locker replacement only |
| | 10) Stair Handrails and Nosings | \$ - | \$ 179,832.00 | \$ (179,832.00) | Replacement of the handrails and upgrades to guardrails would be required by code, adjustments to the stair nosings would also be required. |
| EQUIPMENT | Kitchen equipment and serving lines | \$ - | \$ 550,480.00 | \$ (550,480.00) | KBA report does not address Kitchen Equipment |
| PLUMBING | Replace all fixtures and piping | \$ 88,500.00 | \$ 865,337.00 | \$ (776,837.00) | KBA report leaves 50 year old distribution in place |
| ELECTRICAL | replace all systems and infrastructure - add tech/data and security | \$ 772,750.00 | \$ 4,570,128.00 | \$ (3,797,378.00) | KBA report leaves 50 year old distribution in place |
| GENERAL CONDITIONS | | \$ 1,051,165.00 | \$ 2,428,873.00 | \$ (1,377,708.00) | KBA carries 10% - PMA and PE suggest 12% for GC's |
| PHASING | Cost incurred to work in an occupied building, includes temp walls, fire watches, shut downs, overtime etc. | \$ - | \$ 1,586,864.00 | \$ (1,586,864.00) | KBA carries no phasing costs or premiums |
| BOND & INSURANCE | | \$ - | \$ 506,015.00 | \$ (506,015.00) | KBA carries no bonds or insurance costs |
| OPM / Clerk | Professional fees for Owners Project Manager and on -site daily site supervision during construction | \$ - | \$ 1,304,055.00 | \$ (1,304,055.00) | KBA carries no OPM costs or Clerk of the Works as required by MGL |
| SOFT COSTS | There are a number of "soft costs" associated with a construction project such as, legal, bonding agents, insurance (builders risk), printing, air monitoring, construction testing, permits, moving, storage, utility service back charges - etc | \$ - | \$ 597,955.00 | \$ (597,955.00) | KBA carries no soft costs in their estimates |
| FFE | Furniture (classrooms, offices, library etc - all non-fixed furniture), Fixtures (Appliances), Equipment (Science lab accessories, gym equipment, phones, projectors, computers etc) & Professional Fees for design and procurement | \$ - | \$ 1,374,778.00 | \$ (1,374,778.00) | KBA does not address furniture or equipment |

WIXON REPAIR SCOPE - ESCALATION

KBA 2013 Study

| Year | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Escalation Rate | 6.42% | 6.67% | 5.00% | 5.00% | 5.00% | 5.00% | 0.00% |
| 2014 Cost | \$ 10,541,645 | \$ 10,541,645 | \$ 10,541,645 | \$ 10,541,645 | \$ 10,541,645 | \$ 10,541,645 | \$ 10,541,645 |
| 2020 Cost | \$ 10,541,645 | \$ 11,068,727 | \$ 11,622,164 | \$ 12,203,272 | \$ 12,813,435 | \$ 13,668,092 | \$ 14,545,583 |



SCOPE - OPTIONS (455, GRADE 6-7)

| | | | | | | | |
|---|--|---|--|--|--|--|---|
|  MRX MATTACHEESE SITE CODE + REPAIRS ONLY |  MR1 MATTACHEESE SITE ADD/RENO(GR. 6-7) |  M1 MATTACHEESE SITE ALL NEW (GR. 6-7) |  W1 WIXON SITE ALL NEW (GR. 6-7) |  S1 STATION AVE. SITE ALL NEW (GR. 6-7) |  S3 STATION AVE. SITE ALL NEW (GR. 6-7) |  S5 STATION AVE. SITE ALL NEW (GR. 6-7) |  G1 W. GREAT WESTERN ALL NEW (GR. 6-7) |
| Relatively Flat Site, 70 acres (40 useable) | Relatively Flat Site, 70 acres (40 useable, 21 developed) | Relatively Flat Site, 70 acres (40 useable, 21 developed) | Partial Sloping Site, 34.4 a (30 useable, 23 developed) | Relatively Flat Site, 148 acre (57 useable, 20 developed) | Relatively Flat Site, 148 acre (57 useable, 23 developed) | Relatively Flat Site, 148 acre (57 useable, 22 developed) | Relatively Flat Site |
| Limited Constraints - Aquafer Protection Distr. - Adjacent Wetland | Limited Constraints - Aquafer Protection Distr. - Adjacent Wetland | Limited Constraints - Aquafer Protection Distr. - Adjacent Wetland | Several Constraints - Wellhead Protection Distr - Old King Highway Historic | Limited Constraints - part Aquafer Protect Distr. - Wetlands | Limited Constraints - part Aquafer Protect Distr. - Wetlands, but not adjacent | Limited Constraints - part Aquafer Protect Distr. - Wetlands, but not adjacent | Limited Constraints |
| Building assessed value vs. repair cost triggers 30% threshold requiring full accessibility compliance & Renovation | Able to satisfy educational program Reuses existing auditorium located in fields (outdoor theater) | Reuses existing auditorium located in fields (outdoor theater) | Reuses existing auditorium located in fields (outdoor theater) | Reuses existing auditorium located in fields (outdoor theater) | Reuses existing auditorium located in fields (outdoor theater) | Reuses existing auditorium located in fields (outdoor theater) | Reuses existing auditorium located in fields (outdoor theater) |
| Waffle slab construction difficult to renovate – limited room for modern mechanical systems | Limits impact to school | Limits impact to school | Limits impact to school | Limits impact to school | Limits impact to school | Limits impact to school | Limits impact to school |
| Develops previously disturbed areas | Develops previously disturbed areas | Develops previously disturbed areas | Develops previously disturbed areas | Develops previously disturbed areas | Develops previously disturbed areas | Develops previously disturbed areas | Develops previously disturbed areas |
| May prohibit use of more cost effective chapter 149 procurement due to phasing requirements | May prohibit use of more cost effective chapter 149 procurement due to phasing requirements | May prohibit use of more cost effective chapter 149 procurement due to phasing requirements | May prohibit use of more cost effective chapter 149 procurement due to phasing requirements | May prohibit use of more cost effective chapter 149 procurement due to phasing requirements | May prohibit use of more cost effective chapter 149 procurement due to phasing requirements | May prohibit use of more cost effective chapter 149 procurement due to phasing requirements | May prohibit use of more cost effective chapter 149 procurement due to phasing requirements |
| Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI |
| Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI | Does not address existing deficiencies at Wixon as outlined in SOI |
| Occupied phased renovation cost prohibitive & disruptive | Occupied phased renovation cost prohibitive & disruptive | Occupied phased renovation cost prohibitive & disruptive | Occupied phased renovation cost prohibitive & disruptive | Occupied phased renovation cost prohibitive & disruptive | Occupied phased renovation cost prohibitive & disruptive | Occupied phased renovation cost prohibitive & disruptive | Occupied phased renovation cost prohibitive & disruptive |
|  |  |  |  |  |  |  |  |

NOT PREFERRED GRADE CONFIGURATION (AND LONG-TERM HIGHER COSTS)
PER 12/13/17 SBC MEETING

SCOPE - OPTIONS (940, GRADE 4-7)



**MR2 MATTACHEESE SITE
ADD/RENO (GR. 4-7)**

Relatively Flat Site, 70 acres
(40 useable, 23 developed)

Limited Constraints

- Aquafer Protection Distr.
- Adjacent Wetland



**WR2 WIXON SITE
ADD/RENO (GR. 4-7)**

Partial Sloping Site, 34.4 a
(30 useable, 17 developed)

Several Constraints

- Wellhead Protection Distr
- Old King Highway Historic
- Adjacent Wetland



**M2 MATTACHEESE SITE
ALL NEW (GR. 4-7)**

Relatively Flat Site, 70 acres
(40 useable, 25 developed)

Limited Constraints

- Aquafer Protection Distr.
- Adjacent Wetland



**W2 WIXON SITE
ALL NEW (GR. 4-7)**

Partial Sloping Site, 34.4 a
(30 useable, 23 developed)

Several Constraints

- Wellhead Protection Distr
- Old King Highway Historic
- Adjacent Wetland



**S2 STATION AVE. SITE
ALL NEW (GR. 4-7)**

Relatively Flat Site, 148 acre
(57 useable, 21 developed)

Limited Constraints

- part Aquafer Protect Distr.
- Wetlands



**S4 STATION AVE. SITE
ALL NEW (GR. 4-7)**

Relatively Flat Site, 148 acre
(57 useable, 24 developed)

Limited Constraints

- part Aquafer Protect Distr.
- Wetlands, but not adjacent



**S6 STATION AVE. SITE
ALL NEW (GR. 4-7)**

Relatively Flat Site, 148 acre
(57 useable, 22 developed)

Limited Constraints

- part Aquafer Protect Distr.
- Wetlands, but not adjacent



**G2 W. GREAT WESTERN
ALL NEW (GR. 4-7)**

Relatively Flat Site,
Limited Constraints

Able to satisfy educational program

No impact to existing school(s)

Allows use of more cost effective chapter 149 procurement

Does address existing deficiencies at Wixon as outlined in SOI

Hilly, narrow access road and potential traffic issues

Extensive clearing required

Station Ave is more viable

**NOT PREFERRED WITH
COSTS & COMPROMISES
PER 12/13/17 SBC MTG**

Develops previously disturbed areas

Limits use of more cost effective chapter 149 procurement

Not centrally located

More disruptive to school than other options

Able to satisfy educational program

Virtually no impact to school

Allows use of more cost effective chapter 149 procurement

Will require demolition of existing buildings – Should be reimbursable

Not centrally located

Able to satisfy educational program

Access to bikeway, existing playground

Limits impact to school

Allows use of more cost effective chapter 149 procurement

Not centrally located

Able to satisfy educational program

Limits impact to school

Allows use of more cost effective chapter 149 procurement

Centrally located

Campus setting

Tight proximity to residential

Able to satisfy educational program

Limits impact to schools

Allows use of more cost effective chapter 149 procurement

Does address existing deficiencies at Wixon as outlined in SOI

Centrally located

Tight to existing maintenance buildings

Loss of athletic field

Able to satisfy educational program

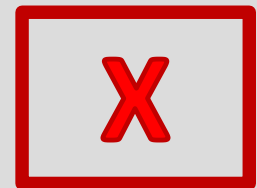
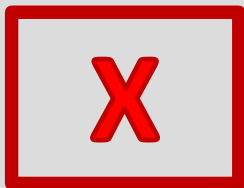
Virtually no impact to school(s)

Allows use of more cost effective chapter 149 procurement

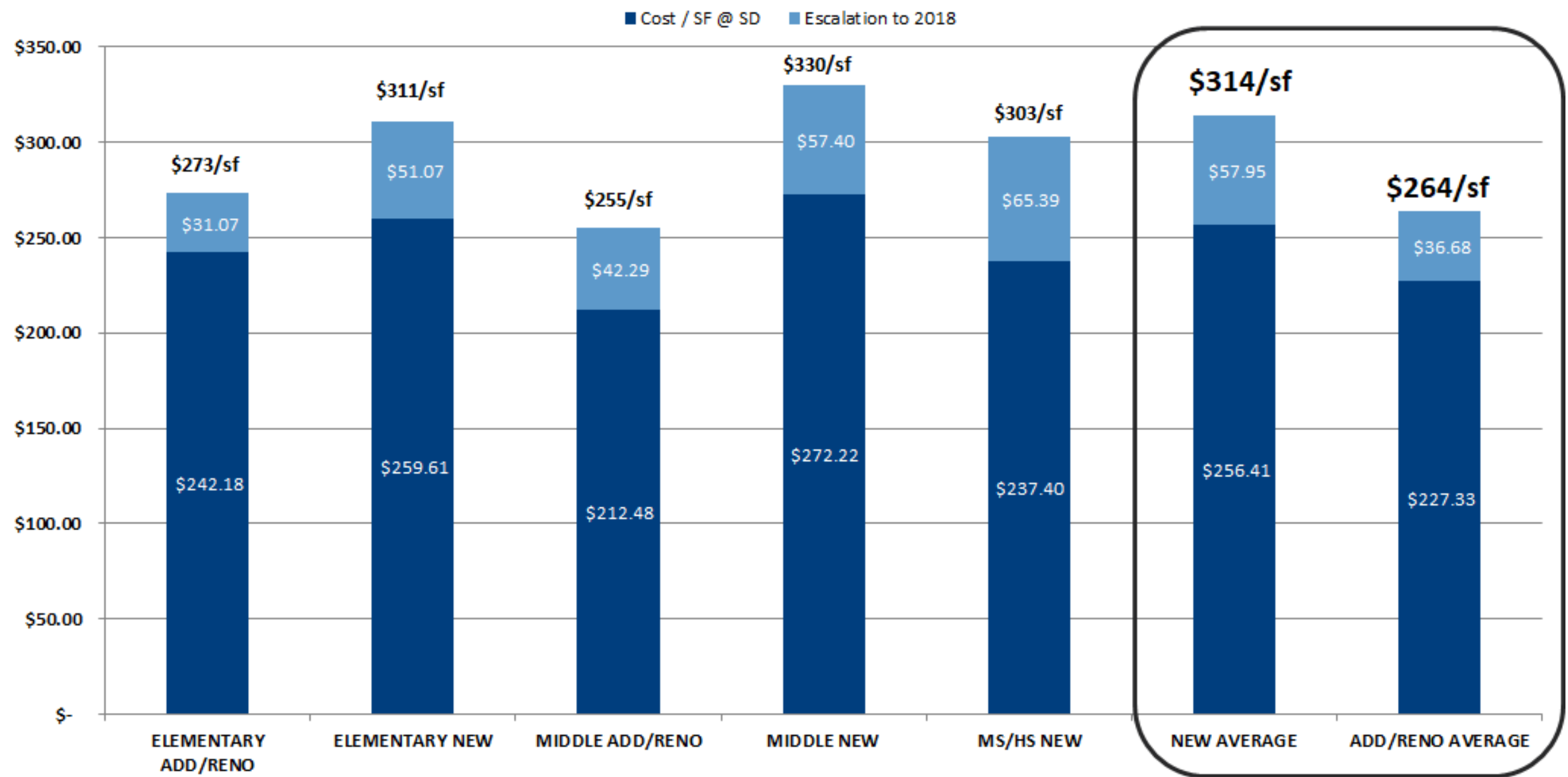
Centrally located

Campus setting, Street presence

Dependent upon cost and terms of relocating existing solar panel array



AVERAGE SCHOOL COSTS



MSBA REIMBURSEMENT RATE*

*NOT APPLICABLE TO "INELIGIBLE SCOPE"

MSBA Reimbursement Rate Calculation

| | |
|------------------------|-------|
| Base Points | 31.00 |
| Income Factor | 7.58 |
| Property Wealth Factor | - |
| Poverty Factor | 5.67 |

Subtotal: Reimbursement Rate Before Incentives

44.25

Incentive Points

| | |
|---|---------------------|
| Maintenance (0-2) | - |
| CM @ Risk (0-1) | No Longer Available |
| Newly Formed Regional District (0-6) | N/A |
| Major Reconstruction or Reno/Reuse (0-5) | - |
| Overlay Zoning 40R & 40S (0-1) | N/A |
| Overlay Zoning 100 units or 50% of units for 1, 2 or 3 family | N/A |
| Energy Efficiency - "Green Schools" (0 or 2) | - |

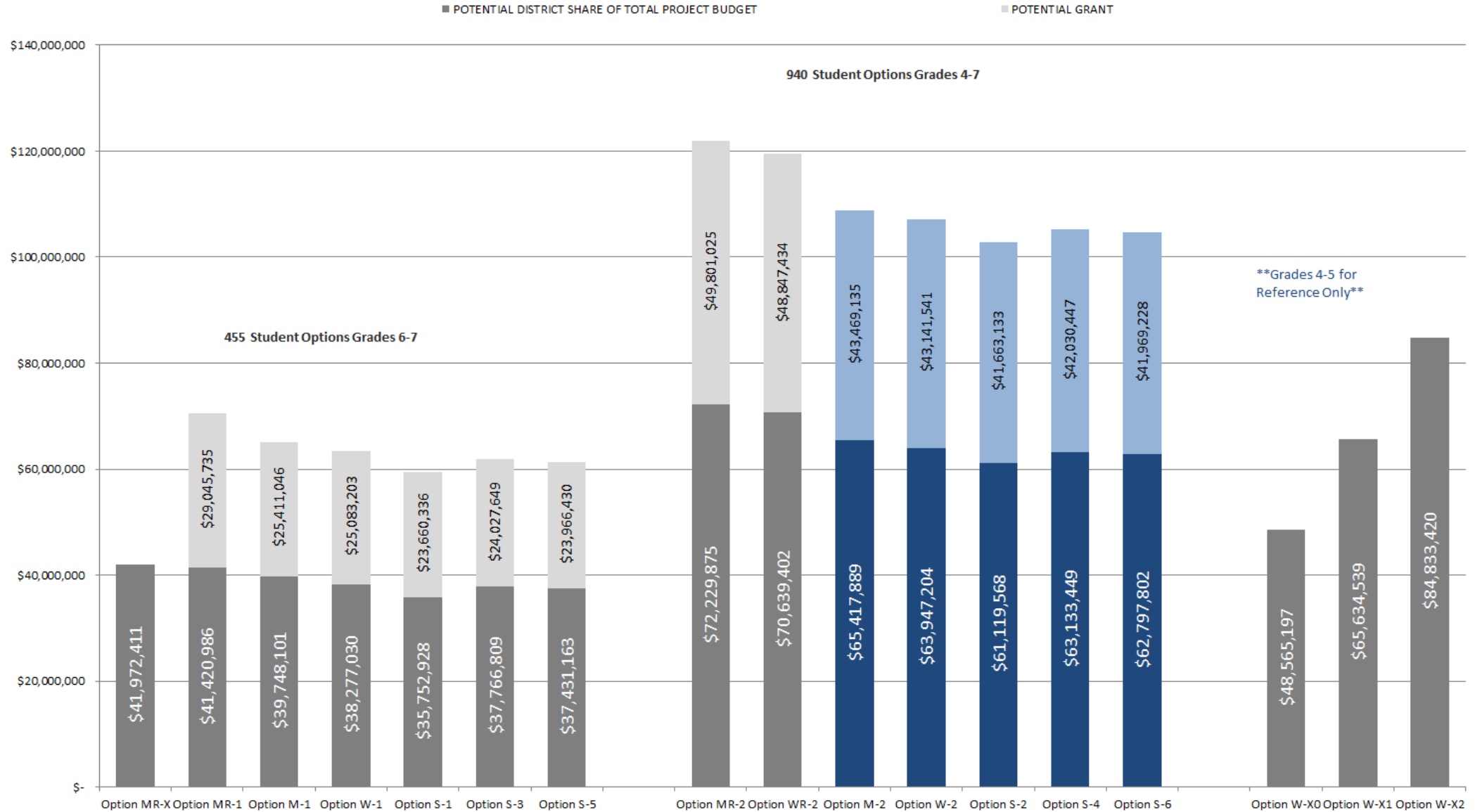
Ineligible Scope Examples:

- \$333/SF Reimbursable Cost Cap in 2018
- Site Costs over 8% of Building Cost
- SF Exceeding Net to Gross Ratio
- Asbestos Tile Abatement
- Moving Costs
- Swing Space Costs
- Legal Fees
- Land Acquisition Costs
- Offsite Costs (ie demo of building on separate site)
- Furniture/Tech over \$2400/student
- Soft Costs over 20% of Construction Cost
- Auditoriums
- Gymnasiums over 6,000SF

COST SCENARIO ASSUMPTIONS & QUALS

- **MSBA allowable SF is assumed to be 150,400 SF in 940 scenario and 84,305 SF in 455 scenario.** Lower enrollment has 1.48 grossing factor vs. 1.50 for larger enrollment
- **Construction Manager at Risk** (MGL Chapter “149a”) procurement methodology utilized in all renovation & add/reno scenarios. Design-Bid-Build Lump Sum General Contract methodology utilized in all new scenarios
- **Demo & Abatement:** Demolition and abatement (or selective demo) only carried in scenarios where project is located on Mattacheese or Wixon site
- **Utilities:** New septic system carried on all Mattacheese and Wixon project sites. All scenarios on Station Avenue are factored in to tie into existing waste water treatment plant (WWTP)
- **Relocation of Solar Array and/or Garage** carried in options M-1, M-2, S-3, S-4, S-5, S-6
- **Soils** remediation carried in all Mattacheese and Wixon project Sites
- **Potential Cost Recovery** from sale of existing land/assets is not factored in

PRELIMINARY OPTIONS COSTS





**PERKINS —
EASTMAN**

Photo courtesy of TripAdvisor



DENNIS-YARMOUTH SCHOOL PROJECT

**JOINT D/Y BOARD OF SELECTMEN
JOINT D/Y FINANCE COMMITTEES
DYRSD SCHOOL COMMITTEE**

January 3, 2018



**BIRCHWOOD
DESIGN GROUP**



newvistadesign
Envisioning 21st Century Schools



PMA Consultants