



HAMILTON-WENHAM REGIONAL SCHOOL DISTRICT

SCHOOL COMMITTEE MEETING

Buker Elementary School
Multi-Purpose Room

Wednesday, March 28, 2018

7:00 PM

1. **Call to Order** 7:00
2. **Pledge of Allegiance**
3. **Citizens' Comments**
4. **Chair's Report**
5. **Superintendent's Report**
6. **Consent Agenda**
 - a. **Warrants**
 - o February 28, 2018 Exhibit A
 - o March 14, 2018 Exhibit B
7. **New Business**
 - a. **Student Enrollment Report Presentation** Exhibit C
 - b. **Review Administrative Priority List for 2017-2018** Exhibit D
 - c. **Vote to submit SOI for Cutler School** Exhibit E
 - d. **Donations** Exhibit F
 - o Firehouse Center for the Arts \$200
 - o Lacrosse Boosters \$2,703
 - o EdFund \$22,268.25
8. **Other**
 - a. **Topics for next meeting**
9. **Vote to Adjourn** 9:30

Secretary: Kerry Gertz, HWRSC

DMB

Knowledge • Responsibility • Respect • Excellence

The District does not discriminate in its programs, activities or employment practices based on race, color, national origin, religion, gender, gender identity, sexual orientation, age or disability.

Warrant meeting 2/28/18
6:38 meeting called to order
6:58 end

Attendance: Stacey Metternick, David Polito, Jeanise Bertrand

PR

Voucher 1083, 1084, 84

#45 Voucher Incorrectly Listed as #84
in Submitted minutes

AP

Voucher 2478, 2479

No real questions for current warrants. Noticed warrants for 2/14 were missing a 3rd signature. Josh Liebow had called in for Warrants, but had forgotten to sign.

Respectfully submitted,

Stacey Metternick



5 School St Wenham, MA 01984

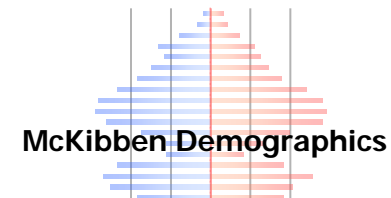
March 28, 2018

McKibben Demographic Research, LLC

**Jerome McKibben, Ph.D.
Rock Hill, SC**

j.mckibben@mckibbendemographics.com

978-501-7069



Hamilton-Wenham Regional School District Forecast Assumptions

1. The national, state or regional economy does not go into deep recession at anytime during the 10 years of the forecasts; (Deep recession is defined as four consecutive quarters where the GDP contracts greater than 1% per quarter)
2. Interest rates have reached a historic low and will not fluctuate more than one percentage point in the short term; the interest rate for a 30 year fixed home mortgage stays below 5.0%;
3. The rate of mortgage approval stays at 1999-2003 levels and lenders do not return to “sub-prime” mortgage practices;
4. There are no additional restrictions placed on home mortgage lenders or additional bankruptcies of major credit providers;
5. The rate of housing foreclosures does not exceed 125% of the 2005-2007 average of Essex County for any year in the forecasts;

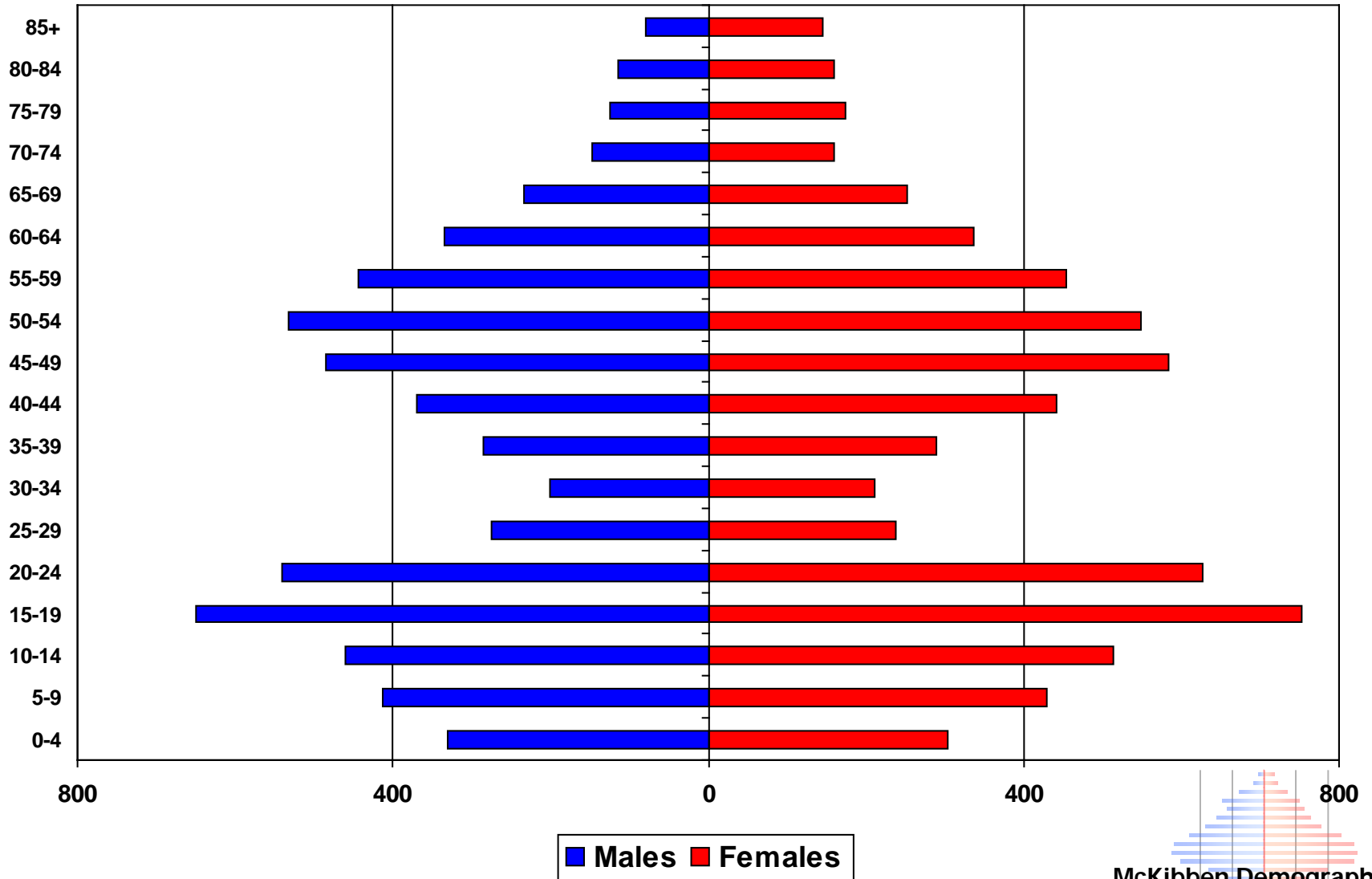
Hamilton-Wenham Regional School District Forecast Assumptions

6. All currently planned, platted, and approved housing developments are built out and completed by 2026. All housing units constructed are occupied by 2027;
7. The unemployment rates for the Essex County will remain below 6.0% for the 10 years of the forecasts;
8. The intra-district student transfer policy remains unchanged over the next 10 years;
9. The rate of students transferring out of the Hamilton-Wenham Regional School District will remain at the 2011-12 to 2017-18 average;
10. The inflation rate for gasoline will stay below 5% per year for the 10 years of the forecasts;
11. The state of Massachusetts does not change the current policy on open enrollment or school vouchers anytime in the next 10 years;

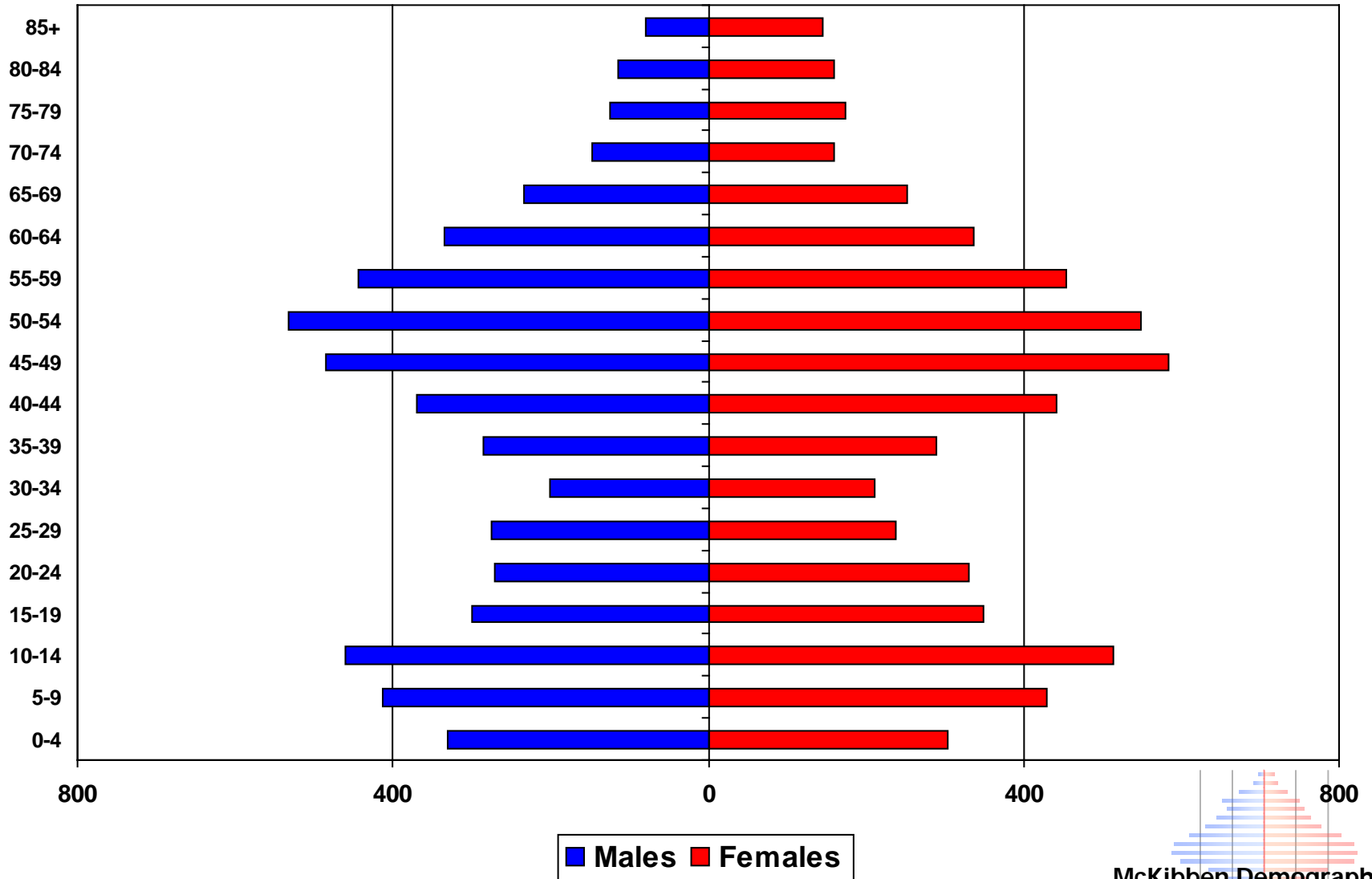
Hamilton-Wenham Regional School District Forecast Assumptions

12. There will be no building moratorium within the district;
13. Businesses within the district and the Hamilton-Wenham Regional School District area will remain viable;
14. The number of existing home sales in the district that are a result of “distress sales” (homes worth less than the current mortgage value) will not exceed 20% of total homes sales in the district for any given year;
15. Housing turnover rates (sale of existing homes in the district) will remain at their current levels. The majority of existing home sales are made by home owners over the age of 60;
16. No new charter schools open in the area any time in the next 10 years;
17. Private school and home school attendance rates will remain constant;
18. The rate of foreclosures for commercial property remains at the 2004-2008 average for Essex County;

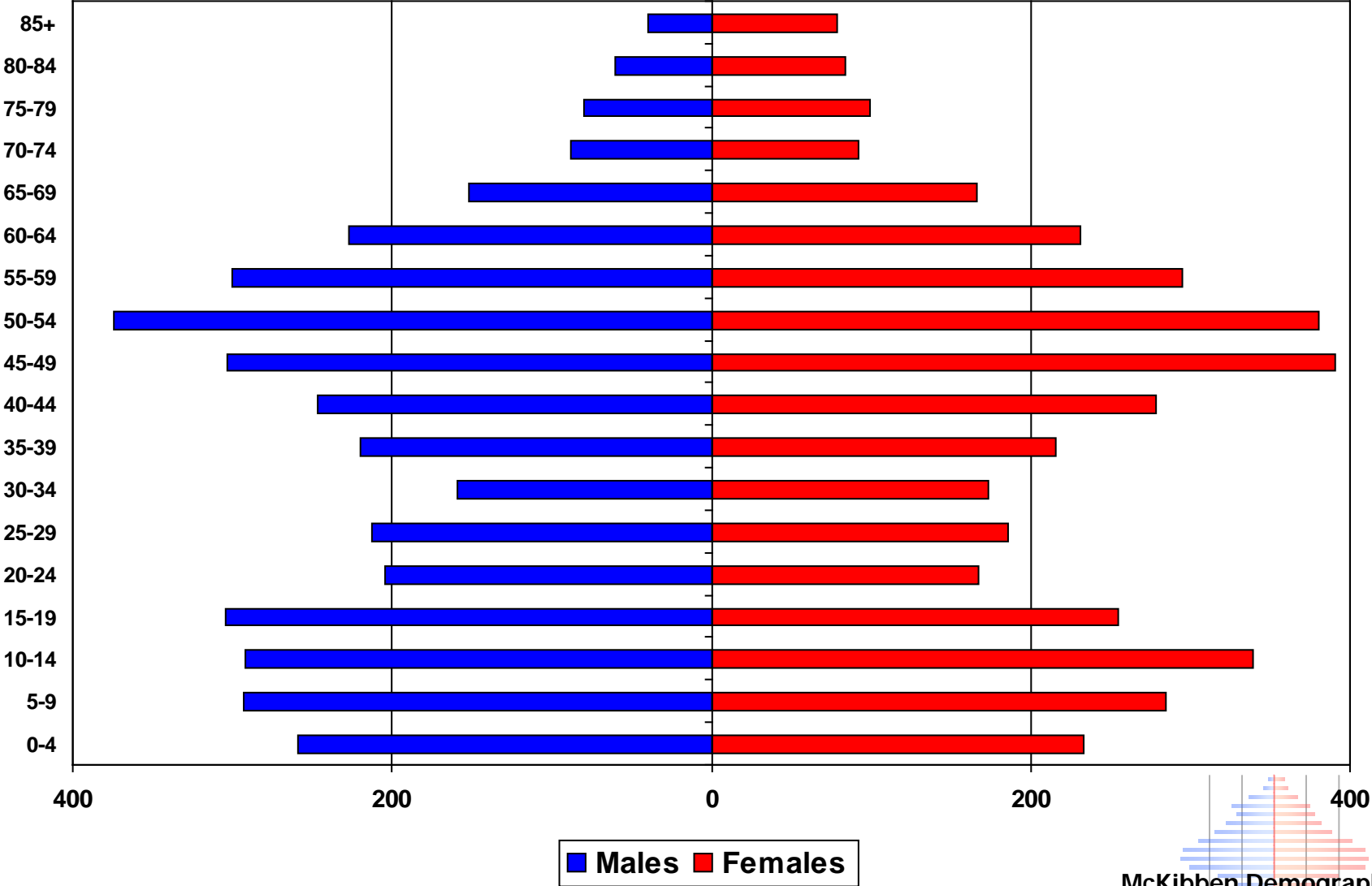
Hamilton and Wenham Total 2010 Census



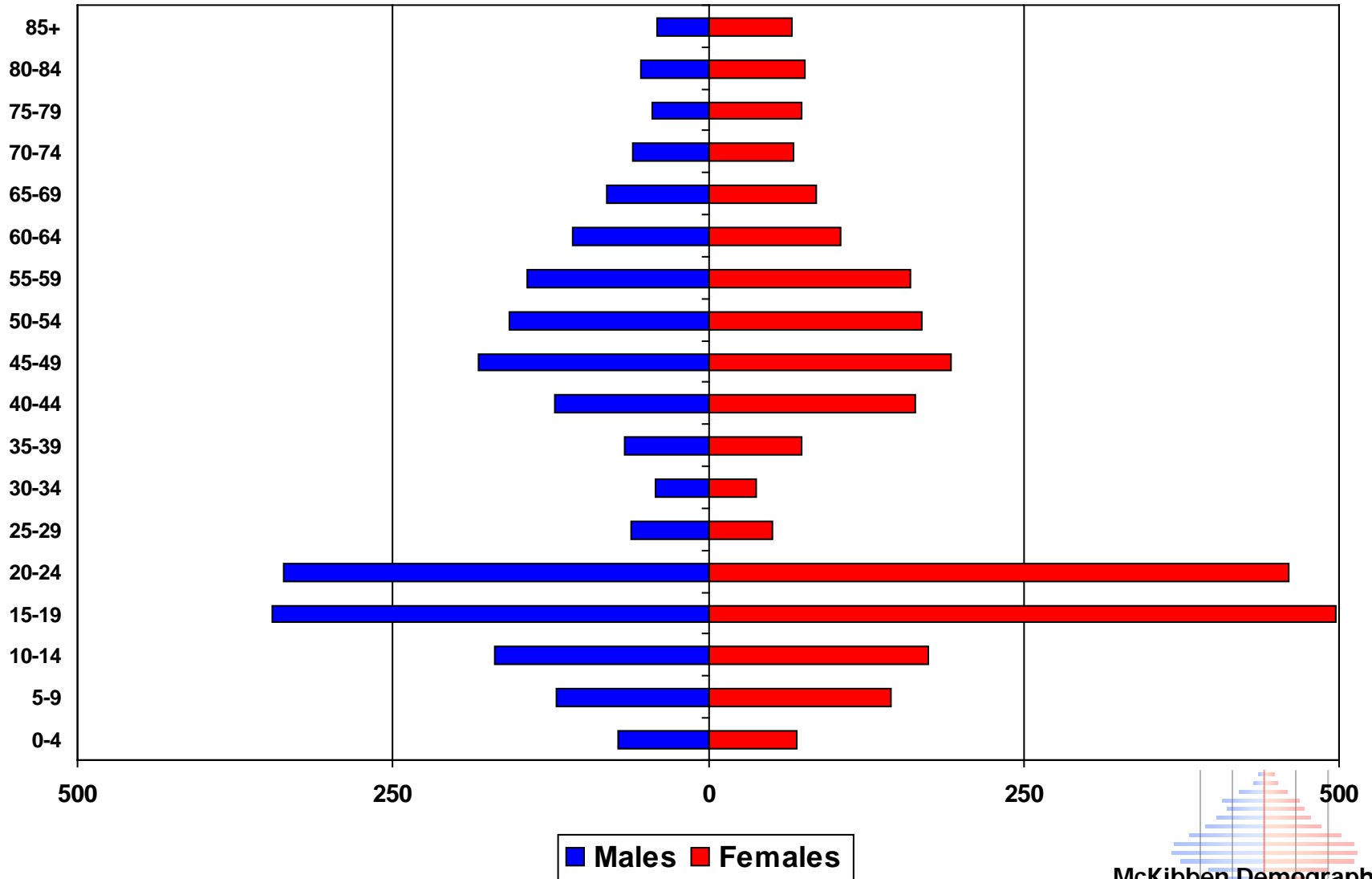
Hamilton and Wenham Total 2010 Census- Without College Population



Town of Hamilton 2010 Census



Town of Wenham 2010 Census



Wenham Town 2010 Census- Without College Population

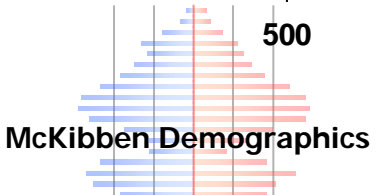
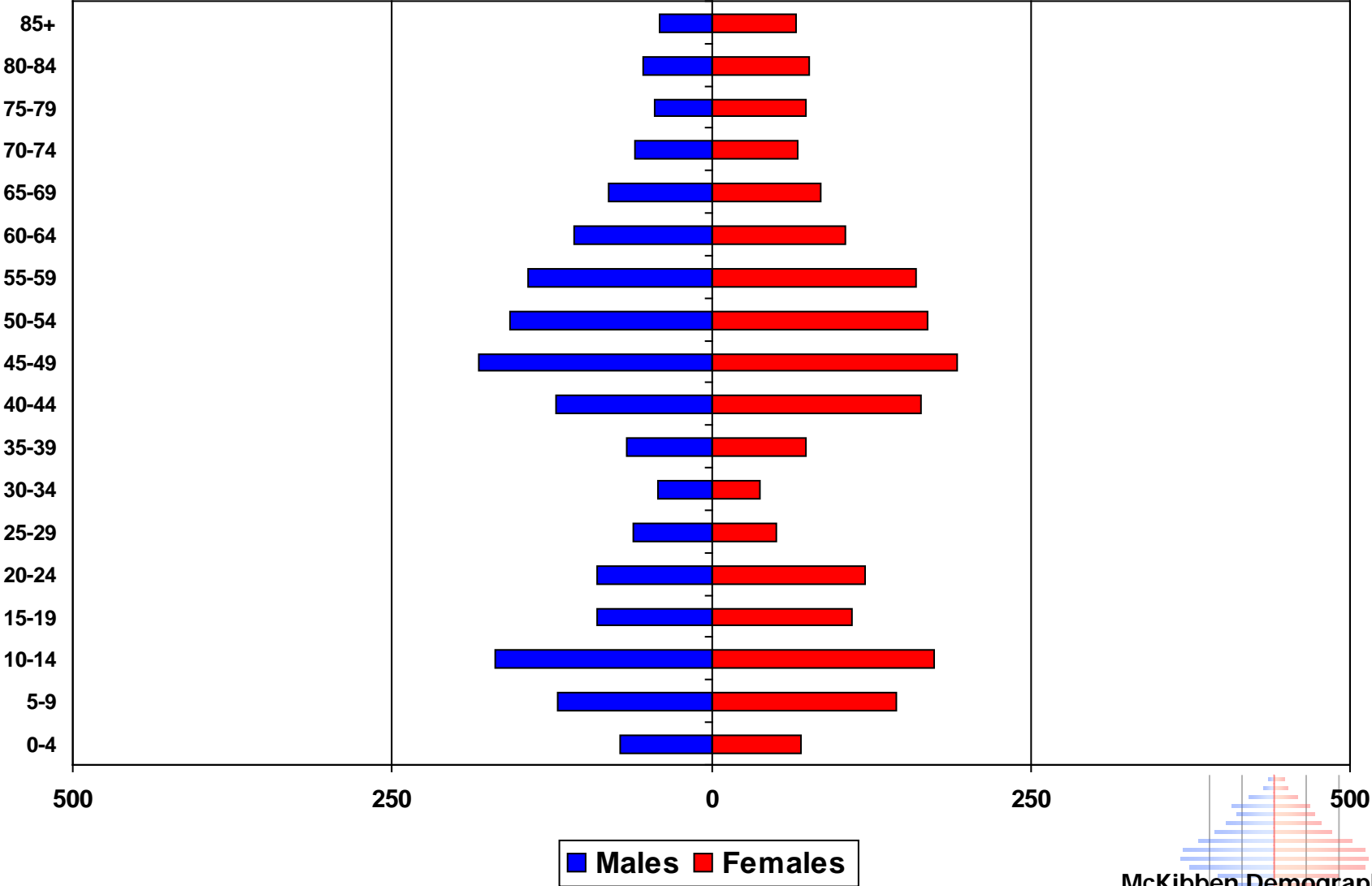


Table 1: Forecasted District Population Change, 2010 to 2020

| | 2010 | 2015 | 2010-2015 Change | 2020 | 2015-2020 Change | 2010-2020 Change |
|-----------------------|--------|--------|---------------------|--------|---------------------|---------------------|
| Hamilton town | 7,764 | 7,730 | -0.4% | 7,700 | -0.4% | -0.8% |
| Wenham town | 4,875 | 4,740 | -2.8% | 4,660 | -1.7% | -4.4% |
| Total District | 12,639 | 12,470 | -1.4% | 12,360 | -0.9% | -2.2% |

Table 2: Household Characteristics by Elementary Area, 2010 Census

| | HH w/ Pop Under 18 | % HH w/ Pop Under 18 | Total Households | Household Population | Persons Per Household |
|-----------------------|---------------------------|-----------------------------|-------------------------|-----------------------------|------------------------------|
| Hamilton town | 1125 | 41.8% | 2692 | 7616 | 2.83 |
| Wenham town | 508 | 37.4% | 1358 | 3622 | 2.67 |
| Total District | 1633 | 40.3% | 4050 | 11238 | 2.77 |

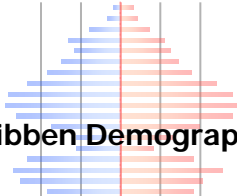


Table 3: Householder Characteristics by Elementary Area, 2010 Census

| | Percentage of Householders aged 35-54 | Percentage of Householders aged 65+ | Percentage of Householders who own homes |
|----------------|---------------------------------------|-------------------------------------|--|
| Hamilton town | 45.7% | 21.8% | 81.5% |
| Wenham town | 42.1% | 32.5% | 84.8% |
| Total District | 44.5% | 25.4% | 82.6% |

Table 4: Percentage of Households that are Single Person Households and Single Person Households that are over age 65 by Elementary Area , 2010 Census

| | Percentage of Single Person Households | Percentage of Single Person Households and are 65+ |
|-----------------------|---|---|
| Hamilton town | 15.7% | 7.3% |
| Wenham town | 23.2% | 14.2% |
| Total District | 18.2% | 9.6% |

Table 5: Elementary Enrollment (K-4), 2017, 2022, 2027

| | 2017 | 2022 | 2016-2021 Change | 2027 | 2021-2026 Change | 2016-2026 Change |
|-----------------------|-------------|-------------|-----------------------------|-------------|-----------------------------|-----------------------------|
| Hamilton town | 552 | 578 | 4.7% | 518 | -10.4% | -6.2% |
| Wenham town | 285 | 281 | -1.4% | 271 | -3.6% | -4.9% |
| Total District | 837 | 859 | 2.6% | 789 | -8.1% | -5.7% |

Table 6: Age Under One to Age Ten Population Counts, by Year of Age, by Elementary Area: 2010 Census

| | Under 1 year | 1 year | 2 years | 3 years | 4 years | 5 years | 6 years | 7 years | 8 years | 9 years | 10 years |
|-----------------------|--------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Hamilton town | 109 | 88 | 90 | 101 | 104 | 98 | 134 | 110 | 117 | 119 | 114 |
| Wenham town | 18 | 23 | 39 | 28 | 34 | 45 | 53 | 62 | 54 | 51 | 72 |
| Total District | 127 | 111 | 129 | 129 | 138 | 143 | 187 | 172 | 171 | 170 | 186 |

Table 7: Comparison of District Resident Enrollment by Grade with 2010 Census Counts by Age, 2011-2016

| 2010 Census | Under 1 year | 1 year | 2 years | 3 years | 4 years | 5 years | 6 years | 7 years | 8 years | 9 years | 10 years | 11 years | 12 years | 13 years |
|--------------------------------------|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|
| Hamilton Wenham Total | 127 | 111 | 129 | 129 | 138 | 143 | 187 | 172 | 171 | 170 | 186 | 192 | 186 | 215 |
| 2017 Enrollment | 130 | 150 | 151 | 134 | 157 | 151 | 160 | 178 | 178 | 172 | 152 | | | |
| | 102.36% | 135.14% | 117.05% | 103.88% | 113.77% | 105.59% | 85.56% | 103.49% | 104.09% | 101.18% | 81.72% | | | |
| 2016 Enrollment | 126 | 151 | 149 | 135 | 158 | 138 | 152 | 183 | 172 | 170 | 163 | 135 | | |
| | 99.21% | 136.04% | 115.50% | 104.65% | 114.49% | 96.50% | 81.28% | 106.40% | 100.58% | 100.00% | 87.63% | 70.31% | | |
| 2015 Enrollment | 137 | 150 | 156 | 137 | 154 | 139 | 152 | 181 | 180 | 167 | 164 | 148 | 161 | |
| | 107.87% | 135.14% | 120.93% | 106.20% | 111.59% | 97.20% | 81.28% | 105.23% | 105.26% | 98.24% | 88.17% | 77.08% | 86.56% | |
| 2014 Enrollment | | 152 | 160 | 134 | 162 | 140 | 159 | 183 | 189 | 191 | 168 | 157 | 181 | 166 |
| | | 88.7% | 91.1% | 95.5% | 90.6% | 90.1% | 93.3% | 87.9% | 103.3% | 81.2% | 122.5% | 113.5% | 117.2% | 109.5% |
| 2013 Enrollment | | | 157 | 142 | 156 | 148 | 154 | 179 | 192 | 180 | 176 | 154 | 181 | 162 |
| | | | 93.7% | 96.6% | 91.7% | 91.8% | 89.9% | 89.1% | 105.5% | 83.8% | 98.6% | 114.1% | 119.4% | 107.0% |
| 2012 Enrollment | | | | 142 | 150 | 154 | 150 | 180 | 192 | 172 | 173 | 160 | 192 | 168 |
| | | | | 88.8% | 86.7% | 85.4% | 91.6% | 82.2% | 102.2% | 84.3% | 95.7% | 91.9% | 118.3% | 107.5% |

Hamilton Wenham Regional Schools Population Forecasts

| | 2010 | 2015 | 2020 | 2025 |
|-------------------------|--------|--------|--------|--------|
| 0-4 | 634 | 600 | 590 | 570 |
| 5-9 | 843 | 770 | 780 | 770 |
| 10-14 | 974 | 850 | 790 | 800 |
| 15-19 | 1,401 | 1,430 | 1,310 | 1,240 |
| 20-24 | 1,168 | 1,190 | 1,210 | 1,070 |
| 25-29 | 511 | 510 | 540 | 560 |
| 30-34 | 412 | 560 | 570 | 610 |
| 35-39 | 576 | 490 | 660 | 660 |
| 40-44 | 811 | 610 | 520 | 670 |
| 45-49 | 1,069 | 800 | 590 | 520 |
| 50-54 | 1,081 | 1,060 | 790 | 590 |
| 55-59 | 899 | 1,050 | 1,030 | 770 |
| 60-64 | 671 | 820 | 940 | 910 |
| 65-69 | 485 | 560 | 690 | 810 |
| 70-74 | 307 | 390 | 470 | 580 |
| 75-79 | 298 | 260 | 350 | 400 |
| 80-84 | 274 | 230 | 220 | 290 |
| 85+ | 225 | 290 | 310 | 310 |
| Total | 12,639 | 12,470 | 12,360 | 12,130 |
| Median Age | 38.3 | 38.3 | 38.0 | 38.4 |
| Births | | 490 | 480 | 460 |
| Deaths | | 460 | 490 | 530 |
| Natural Increase | | 30 | -10 | -70 |
| Net Migration | | -140 | -150 | -160 |
| Change | | -110 | -160 | -230 |

Differences between period Totals may not equal Change due to rounding.

Town of Hamilton Population Forecasts

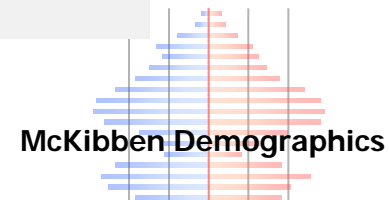
| | 2010 | 2015 | 2020 | 2025 |
|-------------------------|-------|-------|-------|-------|
| 0-4 | 492 | 450 | 430 | 410 |
| 5-9 | 578 | 530 | 530 | 510 |
| 10-14 | 631 | 590 | 550 | 550 |
| 15-19 | 559 | 590 | 550 | 500 |
| 20-24 | 371 | 370 | 390 | 330 |
| 25-29 | 399 | 390 | 390 | 410 |
| 30-34 | 332 | 430 | 430 | 440 |
| 35-39 | 436 | 380 | 490 | 490 |
| 40-44 | 525 | 440 | 380 | 480 |
| 45-49 | 694 | 520 | 420 | 380 |
| 50-54 | 754 | 690 | 510 | 420 |
| 55-59 | 595 | 730 | 670 | 500 |
| 60-64 | 458 | 540 | 650 | 580 |
| 65-69 | 318 | 380 | 450 | 550 |
| 70-74 | 180 | 260 | 320 | 380 |
| 75-79 | 179 | 150 | 230 | 270 |
| 80-84 | 144 | 140 | 130 | 190 |
| 85+ | 119 | 150 | 180 | 180 |
| Total | 7,764 | 7,730 | 7,700 | 7,570 |
| Median Age | 40.8 | 41.5 | 41.2 | 41.5 |
| Births | | 360 | 350 | 320 |
| Deaths | | 270 | 300 | 330 |
| Natural Increase | | 90 | 50 | -10 |
| Net Migration | | -90 | -100 | -110 |
| Change | | 0 | -50 | -120 |

Differences between period Totals may not equal Change due to rounding.

Town of Wenham Population Forecasts

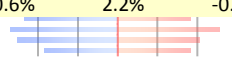
| | 2010 | 2015 | 2020 | 2025 |
|-------------------------|-------|-------|-------|-------|
| 0-4 | 142 | 150 | 160 | 160 |
| 5-9 | 265 | 240 | 250 | 260 |
| 10-14 | 343 | 260 | 240 | 250 |
| 15-19 | 842 | 840 | 760 | 740 |
| 20-24 | 797 | 820 | 820 | 740 |
| 25-29 | 112 | 120 | 150 | 150 |
| 30-34 | 80 | 130 | 140 | 170 |
| 35-39 | 140 | 110 | 170 | 170 |
| 40-44 | 286 | 170 | 140 | 190 |
| 45-49 | 375 | 280 | 170 | 140 |
| 50-54 | 327 | 370 | 280 | 170 |
| 55-59 | 304 | 320 | 360 | 270 |
| 60-64 | 213 | 280 | 290 | 330 |
| 65-69 | 167 | 180 | 240 | 260 |
| 70-74 | 127 | 130 | 150 | 200 |
| 75-79 | 119 | 110 | 120 | 130 |
| 80-84 | 130 | 90 | 90 | 100 |
| 85+ | 106 | 140 | 130 | 130 |
| Total | 4,875 | 4,740 | 4,660 | 4,560 |
| Median Age | 27.2 | 27.5 | 28.3 | 29.3 |
| Births | | 130 | 130 | 140 |
| Deaths | | 190 | 190 | 200 |
| Natural Increase | | -60 | -60 | -60 |
| Net Migration | | -50 | -50 | -50 |
| Change | | | | |

Differences between period Totals may not equal Change due to rounding.



Hamilton Wenham Regional Schools Enrollment Forecasts

| | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 2025-26 | 2026-27 | 2027-28 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| PK | 23 | 18 | 28 | 31 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| K | 117 | 142 | 119 | 124 | 146 | 137 | 136 | 137 | 134 | 133 | 129 | 127 | 125 | 123 | 125 |
| 1 | 120 | 128 | 146 | 121 | 127 | 148 | 139 | 138 | 136 | 133 | 132 | 129 | 127 | 124 | 122 |
| 2 | 115 | 123 | 123 | 141 | 124 | 126 | 147 | 139 | 138 | 136 | 133 | 132 | 129 | 127 | 124 |
| 3 | 133 | 121 | 129 | 130 | 141 | 124 | 126 | 147 | 139 | 138 | 136 | 133 | 132 | 129 | 127 |
| 4 | 136 | 135 | 125 | 126 | 134 | 142 | 125 | 127 | 148 | 140 | 139 | 137 | 133 | 132 | 129 |
| 5 | 137 | 135 | 141 | 127 | 135 | 137 | 144 | 126 | 128 | 149 | 141 | 140 | 137 | 133 | 132 |
| Total: K-5 | 781 | 802 | 811 | 800 | 837 | 844 | 847 | 844 | 853 | 859 | 840 | 828 | 813 | 798 | 789 |
| 6 | 135 | 136 | 132 | 130 | 116 | 131 | 135 | 141 | 124 | 126 | 146 | 138 | 138 | 135 | 131 |
| 7 | 145 | 139 | 135 | 134 | 133 | 118 | 133 | 137 | 144 | 126 | 128 | 149 | 141 | 141 | 138 |
| 8 | 134 | 153 | 135 | 137 | 131 | 132 | 118 | 133 | 137 | 144 | 126 | 128 | 149 | 141 | 141 |
| Total: 6-8 | 414 | 428 | 402 | 401 | 380 | 381 | 386 | 411 | 405 | 396 | 400 | 415 | 428 | 417 | 410 |
| 9 | 131 | 128 | 143 | 124 | 131 | 125 | 126 | 113 | 128 | 133 | 139 | 121 | 124 | 144 | 136 |
| 10 | 129 | 128 | 128 | 142 | 126 | 128 | 123 | 123 | 111 | 125 | 131 | 136 | 119 | 122 | 141 |
| 11 | 142 | 129 | 125 | 119 | 140 | 124 | 126 | 121 | 121 | 109 | 123 | 129 | 134 | 117 | 120 |
| 12 | 158 | 136 | 127 | 123 | 120 | 138 | 123 | 125 | 120 | 120 | 108 | 122 | 128 | 133 | 116 |
| Total: 9-12 | 560 | 521 | 523 | 508 | 517 | 515 | 498 | 482 | 480 | 487 | 501 | 508 | 505 | 516 | 513 |
| OOD | 22 | 32 | 32 | 33 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| Total: K-12 | 1777 | 1783 | 1768 | 1742 | 1772 | 1778 | 1769 | 1775 | 1776 | 1780 | 1779 | 1789 | 1784 | 1769 | 1750 |
| Total: K-12 | 1777 | 1783 | 1768 | 1742 | 1772 | 1778 | 1769 | 1775 | 1776 | 1780 | 1779 | 1789 | 1784 | 1769 | 1750 |
| Change | | 6 | -15 | -26 | 30 | 6 | -9 | 6 | 1 | 4 | -1 | 10 | -5 | -15 | -19 |
| % Change | | 0.3% | -0.8% | -1.5% | 1.7% | 0.3% | -0.5% | 0.3% | 0.1% | 0.2% | -0.1% | 0.6% | -0.3% | -0.8% | -1.1% |
| Total: K-5 | 781 | 802 | 811 | 800 | 837 | 844 | 847 | 844 | 853 | 859 | 840 | 828 | 813 | 798 | 789 |
| Change | | 21 | 9 | -11 | 37 | 7 | 3 | -3 | 9 | 6 | -19 | -12 | -15 | -15 | -9 |
| % Change | | 2.7% | 1.1% | -1.4% | 4.6% | 0.8% | 0.4% | -0.4% | 1.1% | 0.7% | -2.2% | -1.4% | -1.8% | -1.8% | -1.1% |
| Total: 6-8 | 414 | 428 | 402 | 401 | 380 | 381 | 386 | 411 | 405 | 396 | 400 | 415 | 428 | 417 | 410 |
| Change | | 14 | -26 | -1 | -21 | 1 | 5 | 25 | -6 | -9 | 4 | 15 | 13 | -11 | -7 |
| % Change | | 3.4% | -6.1% | -0.2% | -5.2% | 0.3% | 1.3% | 6.5% | -1.5% | -2.2% | 1.0% | 3.8% | 3.1% | -2.6% | -1.7% |
| Total: 7-12 | 560 | 521 | 523 | 508 | 517 | 515 | 498 | 482 | 480 | 487 | 501 | 508 | 505 | 516 | 513 |
| Change | | -39 | 2 | -15 | 9 | -2 | -17 | -16 | -2 | 7 | 14 | 7 | -3 | 11 | -3 |
| % Change | | -7.0% | 0.4% | -2.9% | 1.8% | -0.4% | -3.3% | -3.2% | -0.4% | 1.5% | 2.9% | 1.4% | -0.6% | 2.2% | -0.6% |

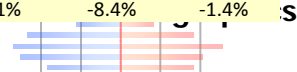


Town of Hamilton Enrollment Forecasts

| | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 2025-26 | 2026-27 | 2027-28 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| PK | 18 | 15 | 24 | 27 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| K | 76 | 98 | 81 | 84 | 107 | 97 | 95 | 95 | 93 | 92 | 89 | 87 | 85 | 83 | 84 |
| 1 | 88 | 75 | 98 | 79 | 83 | 105 | 95 | 93 | 91 | 89 | 88 | 86 | 84 | 82 | 80 |
| 2 | 83 | 86 | 72 | 95 | 81 | 81 | 103 | 94 | 92 | 90 | 88 | 87 | 85 | 83 | 81 |
| 3 | 96 | 86 | 89 | 71 | 94 | 79 | 79 | 102 | 93 | 91 | 89 | 87 | 86 | 84 | 82 |
| 4 | 84 | 95 | 87 | 86 | 70 | 92 | 77 | 78 | 101 | 92 | 90 | 88 | 86 | 85 | 83 |
| 5 | 97 | 84 | 95 | 84 | 93 | 69 | 91 | 76 | 77 | 100 | 91 | 89 | 87 | 85 | 84 |
| Total: K-5 | 542 | 539 | 546 | 526 | 552 | 547 | 564 | 562 | 571 | 578 | 559 | 548 | 537 | 526 | 518 |
| 6 | 84 | 91 | 81 | 90 | 74 | 88 | 66 | 87 | 73 | 74 | 96 | 87 | 86 | 84 | 82 |
| 7 | 98 | 83 | 91 | 82 | 92 | 75 | 89 | 67 | 89 | 74 | 75 | 98 | 89 | 88 | 86 |
| 8 | 89 | 104 | 81 | 88 | 78 | 90 | 74 | 88 | 66 | 88 | 73 | 74 | 97 | 88 | 87 |
| Total: 6-8 | 271 | 278 | 253 | 260 | 244 | 253 | 229 | 242 | 228 | 236 | 244 | 259 | 272 | 260 | 255 |
| 9 | 91 | 80 | 98 | 70 | 85 | 73 | 85 | 70 | 84 | 63 | 84 | 69 | 71 | 93 | 84 |
| 10 | 79 | 88 | 79 | 97 | 68 | 83 | 72 | 83 | 69 | 82 | 62 | 82 | 68 | 70 | 91 |
| 11 | 103 | 80 | 86 | 73 | 93 | 67 | 82 | 71 | 82 | 68 | 81 | 61 | 81 | 67 | 69 |
| 12 | 107 | 99 | 76 | 82 | 72 | 90 | 65 | 80 | 69 | 80 | 66 | 79 | 59 | 79 | 65 |
| Total: 9-12 | 380 | 347 | 339 | 322 | 318 | 313 | 304 | 304 | 304 | 293 | 293 | 291 | 279 | 309 | 309 |
| OOD | 11 | 16 | 18 | 23 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| Total: K-12 | 1204 | 1180 | 1156 | 1131 | 1136 | 1135 | 1119 | 1130 | 1125 | 1129 | 1118 | 1120 | 1110 | 1117 | 1104 |
| Total: K-12 | 1204 | 1180 | 1156 | 1131 | 1136 | 1135 | 1119 | 1130 | 1125 | 1129 | 1118 | 1120 | 1110 | 1117 | 1104 |
| Change | | -24 | -24 | -25 | 5 | -1 | -16 | 11 | -5 | 4 | -11 | 2 | -10 | 7 | -13 |
| % Change | | -2.0% | -2.0% | -2.2% | 0.4% | -0.1% | -1.4% | 1.0% | -0.4% | 0.4% | -1.0% | 0.2% | -0.9% | 0.6% | -1.2% |
| Total: K-5 | 542 | 539 | 546 | 526 | 552 | 547 | 564 | 562 | 571 | 578 | 559 | 548 | 537 | 526 | 518 |
| Change | | -3 | 7 | -20 | 26 | -5 | 17 | -2 | 9 | 7 | -19 | -11 | -11 | -11 | -8 |
| % Change | | -0.6% | 1.3% | -3.7% | 4.9% | -0.9% | 3.1% | -0.4% | 1.6% | 1.2% | -3.3% | -2.0% | -2.0% | -2.0% | -1.5% |
| Total: 6-8 | 271 | 278 | 253 | 260 | 244 | 253 | 229 | 242 | 228 | 236 | 244 | 259 | 272 | 260 | 255 |
| Change | | 7 | -25 | 7 | -16 | 9 | -24 | 13 | -14 | 8 | 8 | 15 | 13 | -12 | -5 |
| % Change | | 2.6% | -9.0% | 2.8% | -6.2% | 3.7% | -9.5% | 5.7% | -5.8% | 3.5% | 3.4% | 6.1% | 5.0% | -4.4% | -1.9% |
| Total: 7-12 | 380 | 347 | 339 | 322 | 318 | 313 | 304 | 304 | 304 | 293 | 293 | 291 | 279 | 309 | 309 |
| Change | | -33 | -8 | -17 | -4 | -5 | -9 | 0 | 0 | -11 | 0 | -2 | -12 | 30 | 0 |
| % Change | | -8.7% | -2.3% | -5.0% | -1.2% | -1.6% | -2.9% | 0.0% | 0.0% | -3.6% | 0.0% | -0.7% | -4.1% | 10.8% | 0.0% |

Town of Wenham Enrollment Forecasts

| | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 2025-26 | 2026-27 | 2027-28 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| PK | 5 | 3 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| K | 41 | 44 | 38 | 40 | 39 | 40 | 41 | 42 | 41 | 41 | 40 | 40 | 40 | 40 | 41 |
| 1 | 32 | 53 | 48 | 42 | 44 | 43 | 44 | 45 | 45 | 44 | 44 | 43 | 43 | 42 | 42 |
| 2 | 32 | 37 | 51 | 46 | 43 | 45 | 44 | 45 | 46 | 46 | 45 | 45 | 44 | 44 | 43 |
| 3 | 37 | 35 | 40 | 59 | 47 | 45 | 47 | 45 | 46 | 47 | 47 | 46 | 46 | 45 | 45 |
| 4 | 52 | 40 | 38 | 40 | 64 | 50 | 48 | 49 | 47 | 48 | 49 | 49 | 47 | 47 | 46 |
| 5 | 40 | 51 | 46 | 43 | 42 | 68 | 53 | 50 | 51 | 49 | 50 | 51 | 50 | 48 | 48 |
| Total: K-5 | 239 | 263 | 265 | 274 | 285 | 297 | 283 | 282 | 282 | 281 | 281 | 280 | 276 | 272 | 271 |
| 6 | 51 | 45 | 51 | 40 | 42 | 43 | 69 | 54 | 51 | 52 | 50 | 51 | 52 | 51 | 49 |
| 7 | 47 | 56 | 44 | 52 | 41 | 43 | 44 | 70 | 55 | 52 | 53 | 51 | 52 | 53 | 52 |
| 8 | 45 | 49 | 54 | 49 | 53 | 42 | 44 | 45 | 71 | 56 | 53 | 54 | 52 | 53 | 54 |
| Total: 6-8 | 143 | 150 | 149 | 141 | 136 | 128 | 157 | 169 | 177 | 160 | 156 | 156 | 156 | 157 | 155 |
| 9 | 40 | 48 | 45 | 54 | 46 | 52 | 41 | 43 | 44 | 70 | 55 | 52 | 53 | 51 | 52 |
| 10 | 50 | 40 | 49 | 45 | 58 | 45 | 51 | 40 | 42 | 43 | 69 | 54 | 51 | 52 | 50 |
| 11 | 39 | 49 | 39 | 46 | 47 | 57 | 44 | 50 | 39 | 41 | 42 | 68 | 53 | 50 | 51 |
| 12 | 51 | 37 | 51 | 41 | 48 | 48 | 58 | 45 | 51 | 40 | 42 | 43 | 69 | 54 | 51 |
| Total: 9-12 | 180 | 174 | 184 | 186 | 199 | 202 | 194 | 178 | 176 | 194 | 208 | 217 | 226 | 207 | 204 |
| OOD | 11 | 16 | 14 | 10 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Total: K-12 | 573 | 603 | 612 | 611 | 636 | 643 | 650 | 645 | 651 | 651 | 661 | 669 | 674 | 652 | 646 |
| Total: K-12 | 573 | 603 | 612 | 611 | 636 | 643 | 650 | 645 | 651 | 651 | 661 | 669 | 674 | 652 | 646 |
| Change | | 30 | 9 | -1 | 25 | 7 | 7 | -5 | 6 | 0 | 10 | 8 | 5 | -22 | -6 |
| % Change | | 5.2% | 1.5% | -0.2% | 4.1% | 1.1% | 1.1% | -0.8% | 0.9% | 0.0% | 1.5% | 1.2% | 0.7% | -3.3% | -0.9% |
| Total: K-5 | 239 | 263 | 265 | 274 | 285 | 297 | 283 | 282 | 282 | 281 | 281 | 280 | 276 | 272 | 271 |
| Change | | 24 | 2 | 9 | 11 | 12 | -14 | -1 | 0 | -1 | 0 | -1 | -4 | -4 | -1 |
| % Change | | 10.0% | 0.8% | 3.4% | 4.0% | 4.2% | -4.7% | -0.4% | 0.0% | -0.4% | 0.0% | -0.4% | -1.4% | -1.4% | -0.4% |
| Total: 6-8 | 143 | 150 | 149 | 141 | 136 | 128 | 157 | 169 | 177 | 160 | 156 | 156 | 156 | 157 | 155 |
| Change | | 7 | -1 | -8 | -5 | -8 | 29 | 12 | 8 | -17 | -4 | 0 | 0 | 1 | -2 |
| % Change | | 4.9% | -0.7% | -5.4% | -3.5% | -5.9% | 22.7% | 7.6% | 4.7% | -9.6% | -2.5% | 0.0% | 0.0% | 0.6% | -1.3% |
| Total: 7-12 | 180 | 174 | 184 | 186 | 199 | 202 | 194 | 178 | 176 | 194 | 208 | 217 | 226 | 207 | 204 |
| Change | | -6 | 10 | 2 | 13 | 3 | -8 | -16 | -2 | 18 | 14 | 9 | 9 | -19 | -3 |
| % Change | | -3.3% | 5.7% | 1.1% | 7.0% | 1.5% | -4.0% | -8.2% | -1.1% | 10.2% | 7.2% | 4.3% | 4.1% | -8.4% | -1.4% |





HAMILTON-WENHAM
REGIONAL SCHOOL DISTRICT

District Operations Team

Special Project Prioritization Discussion

March 28, 2018

Prepared by:

Jeff Sands, Assistant Superintendent for Finance & Administration

Michael Harvey, Superintendent of Schools

Special Projects Prioritization

- We have identified the slate of Projects that will be Prioritized over the course of the next 6+ months
- Considerations in determining this Prioritization:
 - School Committee & District Goals
 - District Policy
 - Existing Staff Resource Limitations
 - Number of Staff
 - Skill Set
 - Special Projects are in addition to the full-time responsibilities of supporting District operations
 - Multiple Similar Project Types exacerbates limitations on certain Resources (e.g. Procurement)
- The attached list of Prioritized Projects puts our Operations Team at 100% capacity during this timeframe. NO new projects can be added.

Projects Prioritized

- FY19 Budget and Debt Authorizations
- HS/MS BAS Construction Project – Green Communities Grant
- Negotiate Districtwide Employee Healthcare Plans for FY19, including Plan Re-Design or RFP
- Collective Bargaining with Teacher, Custodial, & Office Personnel Unions
- Buker Playground Construction Project
- A.L.I.C.E. Implementation
- FY18 Annual Audit
- FY18 Year-end Financial Close & Annual School Staffing Reviews
- Project Adventure Course Restoration Project
- Custodial Union Grievance & Arbitration Hearing
- Districtwide Grounds Maintenance Program

A.L.I.C.E. Implementation

- We are moving forward with a Districtwide implementation of the A.L.I.C.E. active shooter response program.
- The District has engaged the services of the ALICE Training Institute (ATI) to provide Training and Program Implementation Support Services.
- All HW District Staff (~350) will be A.L.I.C.E. trained on August 27-28, 2018
 - ~50 selected Staff will participate in a two-day ATI Instructor Led Train-the-Trainer Program
- We've scheduled a meeting for Monday, April 2nd at 10:00 AM with Wenham and Hamilton PD Leadership to discuss next steps.

Jeff Sands

Assistant Superintendent for Finance and Administration, HWRSD

Operational Projects Prioritized for the next 6+ Months

Priority Projects (next 6+ months):

- FY19 Budget and Debt Authorizations
- HS/MS BAS Construction Project – Green Communities Grant Funded
- Districtwide Employee Healthcare Plans for FY19, including Plan Re-Design or RFP
- Collective Bargaining with Teacher, Custodial, & Office Personnel Unions
- Buker Playground Construction Project
- A.L.I.C.E. Implementation
- FY18 Annual Audit
- FY18 Year-end Financial Close & Annual School Staffing Reviews
- Project Adventure Course Restoration Project
- Custodial Union Grievance & Arbitration Hearing
- Districtwide Grounds Maintenance Program

Other Projects:

- Safety, Accessibility, & Critical Infrastructure Projects (pending ATM Approval)
- Winthrop School Sprinkler Construction Project (pending ATM Approval)
- Winthrop School ADA Ramp Project
- Waste Water Treatment Facility Electrical Service Upgrade Project
- OPEB Trust Fund
- 3 Year Student Transportation IFB and Contract (FY20 – FY23)
- Management Letter Remediation Projects
- HS Student Activities Account Audit Remediation Projects
- MS Student Activities Account Audit Remediation Projects
- Turf Field / Athletic Complex Master Plan Project
- Buker Playground Construction Project – Phase 2 (donor walkway & patio, sitting area, etc.)
- Develop Districtwide Technology Plan
- Renovation of School Libraries Projects
- Districtwide Enrollment Studies
- Longmeadow Study
- Update Regional Agreement w/ Member Towns, including Apportionment Calculation
- Conduct Districtwide review of User Fees, including Athletic and non-Athletic.
- Review and recommend revisions to District Building Use Policies including Fee structure
- Update District-wide Human Resources Practices and Procedures, including Staff Handbook
- Create Districtwide Job Description Repository
- Perform detailed review of Teachers Assistant (TA) roles and responsibilities across District, including compensation and potential restructuring of function in general and special education

NOTE: This list DOES NOT include day-to-day responsibilities of the Assistant Superintendent for F&A and his Operations Team (including Business Office, HR, IT, Facilities & Maintenance, & Food Service)

Massachusetts School Building Authority

Next Steps to Finalize Submission of your FY 2018 Statement of Interest

Thank you for submitting your FY 2018 Statement of Interest (SOI) to the MSBA electronically. **Please note, the District's submission is not yet complete.** The District is required to mail all required supporting documentation, which is described below.

VOTES: Each SOI must be submitted with the proper vote documentation. This means that (1) the required governing bodies have voted to submit each SOI, (2) the specific vote language required by the MSBA has been used, and (3) the District has submitted a record of the vote in the format required by the MSBA.

- | **School Committee Vote:** Submittal of all SOIs must be approved by a vote of the School Committee.
 - | For documentation of the vote of the School Committee, Minutes of the School Committee meeting at which the vote was taken must be submitted with the original signature of the Committee Chairperson. The Minutes must contain the actual text of the vote taken which should be substantially the same as the MSBA's SOI vote language.
- | **Municipal Body Vote:** SOIs that are submitted by cities and towns must be approved by a vote of the appropriate municipal body (e.g., City Council/ Aldermen/Board of Selectmen) in addition to a vote of the School Committee.
 - | Regional School Districts do not need to submit a vote of the municipal body.
 - | For the vote of the municipal governing body, a copy of the text of the vote, which shall be substantially the same as the MSBA's SOI vote language, must be submitted with a certification of the City/Town Clerk that the vote was taken and duly recorded, and the date of the vote must be provided.

ADDITIONAL DOCUMENTATION FOR SOI PRIORITIES #1 AND #3: If a District selects Priority #1 and/or Priority #3, the District is required to submit additional documentation with its SOI.

- | If a District selects Priority #1, Replacement or renovation of a building which is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of the school children, where no alternative exists, the MSBA requires a hard copy of the engineering or other report detailing the nature and severity of the problem and a written professional opinion of how imminent the system failure is likely to manifest itself. The District also must submit photographs of the problematic building area or system to the MSBA.
- | If a District selects Priority #3, Prevention of a loss of accreditation, the SOI will not be considered complete unless and until a summary of the accreditation report focused on the deficiency as stated in this SOI is provided.

ADDITIONAL INFORMATION: In addition to the information required above, the District may also provide any reports, pictures, or other information they feel will give the MSBA a better understanding of the issues identified at a facility.

If you have any questions about the SOI process please contact the MSBA at 617-720-4466 or SOI@massschoolbuildings.org.

Massachusetts School Building Authority

School District Hamilton-Wenham

District Contact Michael Harvey TEL: (978) 626-0821

Name of School Cutler School

Submission Date 3/21/2018

SOI CERTIFICATION

To be eligible to submit a Statement of Interest (SOI), a district must certify the following:

- The district hereby acknowledges and agrees that this SOI is NOT an application for funding and that submission of this SOI in no way commits the MSBA to accept an application, approve an application, provide a grant or any other type of funding, or places any other obligation on the MSBA.
- The district hereby acknowledges that no district shall have any entitlement to funds from the MSBA, pursuant to M.G.L. c. 70B or the provisions of 963 CMR 2.00.
- The district hereby acknowledges that the provisions of 963 CMR 2.00 shall apply to the district and all projects for which the district is seeking and/or receiving funds for any portion of a municipally-owned or regionally-owned school facility from the MSBA pursuant to M.G.L. c. 70B.
- The district hereby acknowledges that this SOI is for one existing municipally-owned or regionally-owned public school facility in the district that is currently used or will be used to educate public PreK-12 students and that the facility for which the SOI is being submitted does not serve a solely early childhood or Pre-K student population.
- After the district completes and submits this SOI electronically, the district must mail hard copies of the required documentation described under the "Vote" tab, on or before the deadline.
- The district will schedule and hold a meeting at which the School Committee will vote, using the specific language contained in the "Vote" tab, to authorize the submission of this SOI. This is required for cities, towns, and regional school districts.
- Prior to the submission of the SOI, the district will schedule and hold a meeting at which the City Council/Board of Aldermen or Board of Selectmen/equivalent governing body will vote, using the specific language contained in the "Vote" tab, to authorize the submission of this SOI. This is not required for regional school districts.
- On or before the SOI deadline, the district will submit the minutes of the meeting at which the School Committee votes to authorize the Superintendent to submit this SOI. The District will use the MSBA's vote template and the vote will specifically reference the school and the priorities for which the SOI is being submitted. The minutes will be signed by the School Committee Chair. This is required for cities, towns, and regional school districts.
- The district has arranged with the City/Town Clerk to certify the vote of the City Council/Board of Aldermen or Board of Selectmen/equivalent governing body to authorize the Superintendent to submit this SOI. The district will use the MSBA's vote template and submit the full text of this vote, which will specifically reference the school and the priorities for which the SOI is being submitted, to the MSBA on or before the SOI deadline. This is not required for regional school districts.
- The district hereby acknowledges that this SOI submission will not be complete until the MSBA has received all of the required vote documentation in a format acceptable to the MSBA. If Priority 1 is selected, your SOI will not be considered complete unless and until you provide the required engineering (or other) report, a professional opinion regarding the problem, and photographs of the problematic area or system. If Priority 3 is selected, your SOI will not be considered complete unless and until you provide a summary of the accreditation report focused on the deficiency as stated in this SOI.

**LOCAL CHIEF EXECUTIVE OFFICER/DISTRICT SUPERINTENDENT/SCHOOL COMMITTEE CHAIR
(E.g., Mayor, Town Manager, Board of Selectmen)**

Chief Executive Officer * School Committee Chair Superintendent of Schools

(signature) (signature) (signature)

Date Date Date

* Local chief executive officer: In a city or town with a manager form of government, the manager of the municipality; in other cities, the mayor; and in other towns, the board of selectmen unless, in a city or town, some other municipal office is designated to the chief executive office under the provisions of a local charter. Please note, in districts where the Superintendent is also the Local Chief Executive Officer, it is required for the same person to sign the Statement of Interest Certifications twice.

Massachusetts School Building Authority

School District Hamilton-Wenham

District Contact Michael Harvey TEL: (978) 626-0821

Name of School Cutler School

Submission Date 3/21/2018

Note

The following Priorities have been included in the Statement of Interest:

1. Replacement or renovation of a building which is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of school children, where no alternative exists.
2. Elimination of existing severe overcrowding.
3. Prevention of the loss of accreditation.
4. Prevention of severe overcrowding expected to result from increased enrollments.
5. Replacement, renovation or modernization of school facility systems, such as roofs, windows, boilers, heating and ventilation systems, to increase energy conservation and decrease energy related costs in a school facility.
6. Short term enrollment growth.
7. Replacement of or addition to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements.
8. Transition from court-ordered and approved racial balance school districts to walk-to, so-called, or other school districts.

SOI Vote Requirement

I acknowledge that I have reviewed the MSBA's vote requirements for submitting an SOI which are set forth in the Vote Tab of this SOI. I understand that the MSBA requires votes from specific parties/governing bodies, in a specific format using the language provided by the MSBA. Further, I understand that the MSBA requires certified and signed vote documentation to be submitted with the SOI. I acknowledge that my SOI will not be considered complete and, therefore, will not be reviewed by the MSBA unless the required accompanying vote documentation is submitted to the satisfaction of the MSBA.

Potential Project Scope: Potential Consolidation

Is this SOI the District Priority SOI? YES

School name of the District Priority SOI: Cutler School

Is this part of a larger facilities plan? YES

If "YES", please provide the following:

Facilities Plan Date: 6/4/2014

Planning Firm: SMMA Architects

Please provide a brief summary of the plan including its goals and how the school facility that is the subject of this SOI fits into that plan:

The Hamilton-Wenham District Master Plan was completed in June of 2014. The Master Plan had the following goals: 1. Facilitate a visioning process, involving a broad range of community and District stakeholders to identify educational and community goals for the district with a focus on transformation of the HWRSD school system so as to promote the 21st Century learner. 2. Review a number of narrowly-defined facilities reports developed in the last 5 years regarding the state of the District's facilities as well as work conducted by the District for repairs and or replacement of certain building components. 3. Perform a Demographic Study to understand the population changes experienced already, as well as those anticipated over the next ten years. 4. Review the role and ramifications of School Choice on the population and needed facilities. 5. Develop a comprehensive Master Plan with options for incorporating Goals identified through the Visioning process with demographics, School Choice and existing buildings. The consolidation of the Cutler and Winthrop Elementary Schools was presented as one option for modernizing the school facilities of the HWRSD in the Facilities Master Plan. This consolidation would maximize the efficiencies a single school of approximately 600 students would have over two separate schools and would spare the communities from having to extensively renovate two separate buildings.

Please provide the current student to teacher ratios at the school facility that is the subject of this SOI: 12 students per teacher

Please provide the originally planned student to teacher ratios at the school facility that is the subject of this SOI: 12 students per teacher

Does the District have a Master Educational Plan that includes facility goals for this building and all school buildings in District? YES

If "YES", please provide the author and date of the District's Master Educational Plan.

SMMA Architects, June 4, 2014

Is there overcrowding at the school facility? NO

If "YES", please describe in detail, including specific examples of the overcrowding.

Has the district had any recent teacher layoffs or reductions? YES

If "YES", how many teaching positions were affected? 5

At which schools in the district? Hamilton-Wenham Regional High School

Please describe the types of teacher positions that were eliminated (e.g., art, math, science, physical education, etc.).

5.0 FTE of teaching positions were eliminated at Hamilton-Wenham Regional High School for the 2017-2018 school year. These FTEs were primarily made up of part time positions at the school in all various areas (English, Social Studies, Language, PE).

Has the district had any recent staff layoffs or reductions? NO

If "YES", how many staff positions were affected? 0

At which schools in the district?

Please describe the types of staff positions that were eliminated (e.g., guidance, administrative, maintenance, etc.).

Please provide a description of the program modifications as a consequence of these teacher and/or staff reductions, including the impact on district class sizes and curriculum.

The reductions to teaching staff were the result of decreased student enrollment at HWRHS. The impact of these reductions was slightly larger class sizes.

Please provide a description of the local budget approval process for a potential capital project with the MSBA. Include schedule information (i.e. Town Meeting dates, city council/town council meetings dates, regional school committee meeting dates). Provide, if applicable, the District's most recent budget approval process that resulted in a budget reduction and the impact of the reduction to the school district (staff reductions, discontinued programs,

consolidation of facilities).

The HWRSD follows the budget approval process for regional school districts. The process begins in November. Building Principals and other budget account holders compile budget requests and submit them to the Asst. Superintendent for Admin. and Finance in late November. The Superintendent reviews these requests and presents a recommended budget to the School Committee in early January. The School Committee reviews the Superintendent's Recommended Budget and makes changes to the budget from early January to mid February. The School Committee then votes a final budget in mid-February. This budget is then sent to Annual Town Meeting for approval. Annual Town Meeting is usually held in early April in both Hamilton and Wenham. The FY18 Budget approved by Hamilton and Wenham Town Meeting was an increase of \$1,049,784 or 3.6% over FY17.

General Description

BRIEF BUILDING HISTORY: Please provide a detailed description of when the original building was built, and the date(s) and project scopes(s) of any additions and renovations (maximum of 5000 characters).

The Cutler Elementary School is a 45,800 sf masonry building constructed in 1951 with modular classroom additions in 1952 and 1956. In 1989 the Whittier Wing was added which houses kindergarten classrooms and a gymnasium. The school serves approximately 300 students in grades K-5.

TOTAL BUILDING SQUARE FOOTAGE: Please provide the original building square footage PLUS the square footage of any additions.

45800

SITE DESCRIPTION: Please provide a detailed description of the current site and any known existing conditions that would impact a potential project at the site. Please note whether there are any other buildings, public or private, that share this current site with the school facility. What is the use(s) of this building(s)? (maximum of 5000 characters).

The Cutler Elementary School is located on 237 Asbury Street, a minor arterial road with one lane in each direction. The school site is located within 1 mile of downtown Hamilton and is surrounded by residential neighborhoods. The school site is approximately 11.5 acres located and is located within Zone X (areas of minimal flooding) within the Flood Insurance Map.

Most of the site appears to be located within Zone II, wellhead protection area. The site is located within an R-1A Zone.

There are no other buildings that share the site with the Cutler School.

ADDRESS OF FACILITY: Please type address, including number, street name and city/town, if available, or describe the location of the site. (Maximum of 300 characters)

237 Asbury St., Hamilton, MA 01928

BUILDING ENVELOPE: Please provide a detailed description of the building envelope, types of construction materials used, and any known problems or existing conditions (maximum of 5000 characters).

Foundations

The foundations for the 1951 building and the 1989 addition are constructed of cast-in-place concrete. The 1952 and 1956 modular additions have a crawl space under the entire floor. The type and extent of foundation for the modular classrooms could not be determined. There is a boiler room below the kitchen with cast-in-place reinforced concrete walls and slab.

The gym/classroom addition, completed in 1989, has a basement storage area consisting of cast in-place reinforced concrete walls, beams and slab. The gymnasium above has steel portal bents supporting wide flange purlins and steel roof deck. The low roof, over the classroom area adjacent to the gym, likely has steel columns supporting either beams or joists and metal deck. There is clerestory glazing at the gym with exterior brick and interior 8 inch CMU's. The remaining exterior walls have back-up metal studs. There are no designed lateral load resisting elements in the building and wind loads are currently transferred through exterior walls and interior partitions.

Exterior--1951 Building

The exterior walls of the 1951 original building appears to be roughly 12” thick, in full wythe brick and no insulation. Brick has efflorescence and is spalling in a few areas around the building. This efflorescence was primarily noted at a decorative brick piers where the brick is fully exposed to weathering and joints are susceptible to water ingress. Some of the brick is 2” h x 10” l (Roman Brick in a “slipped” Running Bond) while other brick is standard size; most appears to be in good condition with localized areas where cracks, efflorescence and spalling was noted. The cracks appear to be due to a lack of control joints at the corners of the building.

The Multi-purpose Room (MPR) has vinyl siding applied over existing wood siding. The condition of the wood siding underneath is not known. The original wood trim is covered by aluminum panels with exposed fasteners, which are rusting. The MPR has a sloped roof with queen post rafters consisting of structural wood beams and steel rods. These are supported on wood columns at 5’-0” on center at the exterior curtain walls and load bearing wall at the stage. The rafters support wood plank. The classroom areas have sloped wood beams at 5’-0” on center supporting wood plank. The beams typically cantilever out beyond the curtain wall which has wood columns at each roof beam. There is exterior brick up to the sill level with full height panels at various locations.

Exterior--1952 and 1956 Modular classrooms

The modular classrooms are constructed of non-thermal metal store-front window systems The building adjacent to the classrooms has a concrete parged coating on one side and wood panels on another. The steel behind the parged coating is rusting, which is causing the parged coating to peel off the building. Significant cracking and deterioration of the parge coating was noted. The presence of insulation in the exterior wall is not known. Significant deterioration/rotting of the wood panels was evident.

Exterior--1989 Building

The exterior wall is constructed of brick veneer, with precast concrete window sills and panels above windows. The gym has concrete block back-up, with 1” of rigid insulation in the cavity between block and brick. The classroom areas have light gauge metal framing back-up with 6” fiberglass batt insulation in between the studs. Six inches of fiberglass batt insulation should have R-19 thermal value if it was installed continuously. However, because it is installed in between metal framing, the thermal value of the wall is significantly reduced; the metal framing acts as a conductor allows for thermal transfer of cold air in, and warm air out. In addition, after a review of the drawings, there is some concern over the potential lack of a continuous thermal envelope at the gym, particularly at the top of wall transition to the roof. The base of the brick at the northeast corner of the building has some fungal growth. Several sealant joints have failed around openings, giving a direct pathway for water to enter the wall system. Joints in precast sills are in need of repointing/sealing.

Has there been a Major Repair or Replacement of the EXTERIOR WALLS? NO

Year of Last Major Repair or Replacement:(YYYY) 1951

Description of Last Major Repair or Replacement:

none

Roof Section A

Is the District seeking replacement of the Roof Section? NO

Area of Section (square feet) 10000

Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe)

Shingle

Age of Section (number of years since the Roof was installed or replaced) 19

Description of repairs, if applicable, in the last three years. Include year of repair:

None

Roof Section B

Is the District seeking replacement of the Roof Section?

Area of Section (square feet)

Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe)

Age of Section (number of years since the Roof was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Roof Section C

Is the District seeking replacement of the Roof Section?
Area of Section (square feet)
Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe))
Age of Section (number of years since the Roof was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Roof Section D

Is the District seeking replacement of the Roof Section?
Area of Section (square feet)
Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe))
Age of Section (number of years since the Roof was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Roof Section E

Is the District seeking replacement of the Roof Section?
Area of Section (square feet)
Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe))
Age of Section (number of years since the Roof was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Roof Section F

Is the District seeking replacement of the Roof Section?
Area of Section (square feet)
Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe))
Age of Section (number of years since the Roof was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Roof Section G

Is the District seeking replacement of the Roof Section?
Area of Section (square feet)
Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe))
Age of Section (number of years since the Roof was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Roof Section H

Is the District seeking replacement of the Roof Section?
Area of Section (square feet)
Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe))
Age of Section (number of years since the Roof was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Roof Section I

Is the District seeking replacement of the Roof Section?
Area of Section (square feet)
Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe))
Age of Section (number of years since the Roof was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Roof Section J

Is the District seeking replacement of the Roof Section?

Area of Section (square feet)

Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe))

Age of Section (number of years since the Roof was installed or replaced)

Description of repairs, if applicable, in the last three years. Include year of repair:

Window Section A

Is the District seeking replacement of the Windows Section? NO

Windows in Section (count) 50

Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))

single pane wood

Age of Section (number of years since the Windows were installed or replaced) 62

Description of repairs, if applicable, in the last three years. Include year of repair:

None

Window Section B

Is the District seeking replacement of the Windows Section?

Windows in Section (count)

Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))

Age of Section (number of years since the Windows were installed or replaced)

Description of repairs, if applicable, in the last three years. Include year of repair:

Window Section C

Is the District seeking replacement of the Windows Section?

Windows in Section (count)

Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))

Age of Section (number of years since the Windows were installed or replaced)

Description of repairs, if applicable, in the last three years. Include year of repair:

Window Section D

Is the District seeking replacement of the Windows Section?

Windows in Section (count)

Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))

Age of Section (number of years since the Windows were installed or replaced)

Description of repairs, if applicable, in the last three years. Include year of repair:

Window Section E

Is the District seeking replacement of the Windows Section?

Windows in Section (count)

Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))

Age of Section (number of years since the Windows were installed or replaced)

Description of repairs, if applicable, in the last three years. Include year of repair:

Window Section F

Is the District seeking replacement of the Windows Section?

Windows in Section (count)

Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))

Age of Section (number of years since the Windows were installed or replaced)

Description of repairs, if applicable, in the last three years. Include year of repair:

Window Section G

Is the District seeking replacement of the Windows Section?

Windows in Section (count)**Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))****Age of Section (number of years since the Windows were installed or replaced)****Description of repairs, if applicable, in the last three years. Include year of repair:****Window Section H****Is the District seeking replacement of the Windows Section?****Windows in Section (count)****Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))****Age of Section (number of years since the Windows were installed or replaced)****Description of repairs, if applicable, in the last three years. Include year of repair:****Window Section I****Is the District seeking replacement of the Windows Section?****Windows in Section (count)****Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))****Age of Section (number of years since the Windows were installed or replaced)****Description of repairs, if applicable, in the last three years. Include year of repair:****Window Section J****Is the District seeking replacement of the Windows Section?****Windows in Section (count)****Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))****Age of Section (number of years since the Windows were installed or replaced)****Description of repairs, if applicable, in the last three years. Include year of repair:**

MECHANICAL and ELECTRICAL SYSTEMS: Please provide a detailed description of the current mechanical and electrical systems and any known problems or existing conditions (maximum of 5000 characters).

MECHANICAL SYSTEM

The original 1952 building heating system consisted of steam boilers, below floor steam distribution pipe and steam terminal units. The terminal units were unit ventilators, unit heaters, radiators and steam coils within several air handlers. The original ventilation system consisted of unit ventilator fresh air intakes and roof mounted exhaust fans. The original control system was pneumatic; with air compressor, copper tubing, actuators, central control station and wall thermostats.

In 1990 a kindergarten section was added to the building along with replacement of the boilers, the kitchen exhaust system and gymnasium heating and ventilation unit. Only several office areas are air conditioned. These spaces primarily utilize through-the-window units. In the spring/summer of 2010 a major upgrade to the HVAC system occurred, in part with funding from the MSBA's Green Repair Program. The upgrades include new energy efficient condensing boilers, the conversion of the steam heating system to hot water, the conversion of the pneumatic control system to a Direct Digital Control (DDC) system, the addition of several rooftop air conditioners and the replacement of older unit ventilators and roof exhaust fans with radiators and energy recovery ventilators.

ELECTRICAL SYSTEM

The buildings electrical service is rated 400 Ampere, 208Y/120 volt, three phase, four wire and is provided by National Grid Electric. Based upon a usable square footage of totals 42,050 sf the total watts per square foot available are 3.4. This total is below the industry standard for an Elementary school which if designed today would have no less than 10 watts per sq. foot available to accommodate lighting, power, mechanical and miscellaneous loads. The electrical distribution equipment installed throughout the building varies by manufacturer and renovation date. Some would appear to date back to original building construction.

- Main electric/boiler room: Wadsworth and Federal Electric distribution gear appears to be the oldest distribution

equipment still utilized. It is in poor condition.

- Common corridors: Trumbel Electric panelboards appear to date back many years. They are in poor condition
- 1991 Addition: a new main distribution panel by Siemens Electric was installed when the addition was built. It is in fair condition
- Kitchen: General Electric panels installed within the kitchen appear to be in fair condition.

Boiler Section 1

Is the District seeking replacement of the Boiler? NO

Is there more than one boiler room in the School? NO

What percentage of the School is heated by the Boiler? 100

Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)

Natural Gas

Age of Boiler (number of years since the Boiler was installed or replaced) 8

Description of repairs, if applicable, in the last three years. Include year of repair:

n/a

Boiler Section 2

Is the District seeking replacement of the Boiler?

Is there more than one boiler room in the School?

What percentage of the School is heated by the Boiler?

Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)

Age of Boiler (number of years since the Boiler was installed or replaced)

Description of repairs, if applicable, in the last three years. Include year of repair:

Boiler Section 3

Is the District seeking replacement of the Boiler?

Is there more than one boiler room in the School?

What percentage of the School is heated by the Boiler?

Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)

Age of Boiler (number of years since the Boiler was installed or replaced)

Description of repairs, if applicable, in the last three years. Include year of repair:

Boiler Section 4

Is the District seeking replacement of the Boiler?

Is there more than one boiler room in the School?

What percentage of the School is heated by the Boiler?

Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)

Age of Boiler (number of years since the Boiler was installed or replaced)

Description of repairs, if applicable, in the last three years. Include year of repair:

Boiler Section 5

Is the District seeking replacement of the Boiler?

Is there more than one boiler room in the School?

What percentage of the School is heated by the Boiler?

Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)

Age of Boiler (number of years since the Boiler was installed or replaced)

Description of repairs, if applicable, in the last three years. Include year of repair:

Boiler Section 6

Is the District seeking replacement of the Boiler?

Is there more than one boiler room in the School?

What percentage of the School is heated by the Boiler?

Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)
Age of Boiler (number of years since the Boiler was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Boiler Section 7

Is the District seeking replacement of the Boiler?
Is there more than one boiler room in the School?
What percentage of the School is heated by the Boiler?
Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)
Age of Boiler (number of years since the Boiler was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Boiler Section 8

Is the District seeking replacement of the Boiler?
Is there more than one boiler room in the School?
What percentage of the School is heated by the Boiler?
Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)
Age of Boiler (number of years since the Boiler was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Boiler Section 9

Is the District seeking replacement of the Boiler?
Is there more than one boiler room in the School?
What percentage of the School is heated by the Boiler?
Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)
Age of Boiler (number of years since the Boiler was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Boiler Section 10

Is the District seeking replacement of the Boiler?
Is there more than one boiler room in the School?
What percentage of the School is heated by the Boiler?
Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)
Age of Boiler (number of years since the Boiler was installed or replaced)
Description of repairs, if applicable, in the last three years. Include year of repair:

Has there been a Major Repair or Replacement of the HVAC SYSTEM? YES

Year of Last Major Repair or Replacement:(YYYY) 2010

Description of Last Major Repair or Replacement:

The steam heating system was converted to hot water, a Direct Digital Control (DDC) system control system replaced the pneumatic one, there was the addition of several rooftop air conditioners and the replacement of older unit ventilators and roof exhaust fans with radiators and energy recovery ventilators.

Has there been a Major Repair or Replacement of the ELECTRICAL SERVICES AND DISTRIBUTION SYSTEM? YES

Year of Last Major Repair or Replacement:(YYYY) 1991

Description of Last Major Repair or Replacement:

A new main distribution panel (MDP), manufactured by Siemens Electric, was installed in 1991 when the new addition was built.

BUILDING INTERIOR: Please provide a detailed description of the current building interior including a description of the flooring systems, finishes, ceilings, lighting, etc. (maximum of 5000 characters).

Floors

1951 Building and 1952 and 1956 Modular Classrooms

- Classrooms: 9"x9" Vinyl Asbestos Tile (VAT)
- MPR: Vinyl Composition Tile (VCT) has been patched in numerous areas, is cupping in some areas, with some signs of moisture issues. The platform has VCT but is in poor condition as well. The wood edge of the platform is also in poor condition.
- Corridors: VCT and carpeting over VAT, and VCT over VAT.
- Most areas around the school appear to have VCT installed directly over VAT. Some corridors have exposed concrete floor.
- Modular classroom wing has carpeting in the corridors with VCT in the classrooms.
- Kitchen: 2" x 2" ceramic mosaic tile
- Stairs: Raised Rubber Tile (RRT)

1991 Addition

- Gym: Wood flooring, still in good condition.
- Toilet Rooms: 2" x 2" CMT in good condition
- Classrooms: VCT in good condition
- Lobby: Porcelain tile in good condition
- Corridors: VCT is generally in good condition however there is a very large crack where the corridor meets the lobby.

WALLS

1951 Building and 1952 and 1956 Modular Classrooms

- Interior wall construction and finish vary throughout the school:
- Classrooms: wood siding, wood panels and wired glass clerestories (some have brick and plaster)
- MPR: Horizontal wood, flush; appears to be original to the school
- Kitchen: Structural Glazed Facing Tile SGFT in good condition
- Storage room off of MPR: Concrete block on the inside is the same as that on the outside. There is significant efflorescence on the inside, which is a sign that there is a large amount of moisture passing through the block
- Toilet rooms: SGFT and metal partitions appear to be in good condition.
- The main office and misc. office areas: plaster lathe walls on wood framing.
- The corridors: thin, long brick on one side and standard brick on the opposite side

CEILINGS

1951 Building

Classrooms and MPR rooms have what appears to be painted Medium Density Overlay (MDO) boards fastened to the underside of the roof deck. There are a number of the boards/panels that are warped, damaged/stained due to leaks and moisture over the last 60 years. Acoustical panels have been suspended in the MPR in an effort to reduce the noise and/or minimize reverberation. It is not known how effective these panels are but usually, a space of this size requires significantly more panels to have a noticeable impact. The kitchen has plaster that appears to be in good condition. The main office, administrative areas and corridors have plaster lathe; damage and staining is evident from roof leaks.

1952 and 1956 Modular Classrooms

These rooms have exposed tectum roof planks and steel structure. The planks appear to be generally in good condition.

1991 Addition

The majority of these areas have suspended acoustical ceiling tile in an aluminum grid, with the exception of the Gym which has exposed structure and metal deck. The ceiling in the addition is in good condition.

LIGHTING

Lighting within classrooms is primarily surface mounted, multi-lamp fluorescent and is controlled via a single switch zone. Fixtures appear to be in fair condition. Lighting within hallways, offices, the cafeteria and mechanical/electrical rooms is

generally linear fluorescent. Fixtures appear to be in fair condition.

Gymnasium lighting consists of 2'x4' multi-lamp fluorescent fixtures. Fixtures appear to be in fair condition.

Lighting within the Boiler room consists of bare lamp fluorescent strips with single switch zone.

Interior lighting is currently not equipped with a means for automatic shut-off (ie: occupancy sensors)

PROGRAMS and OPERATIONS: Please provide a detailed description of the current grade structure and programs offered and indicate whether there are program components that cannot be offered due to facility constraints, operational constraints, etc. (maximum of 5000 characters).

The Cutler School currently serves students in grades K-5. The as the building was primarily designed and built before the implementation of modern special education programming and the Americans with Disabilities Act, there are several issues that impact the education of students at the school.

1. Handrails are missing from stairs to the MPR and at other stairs in the building.
2. There has been significantly high humidity in the modular classrooms, as well as inadequate heating, ventilation and temperature control. The school is providing new heating and ventilation and has added dehumidifiers as a part of the renovation project, however the existing thermal envelope construction (exterior walls, floor and roof) is very poor. The improvements made may not address all the issues with these classrooms.
3. Many doors throughout the building do not have closers, are not fire-rated where they should be, have inadequate hardware and are held open with foot-stops. The boiler room door in the 1951 building is original and in poor condition; the door and hardware should be replaced.
4. The faculty/conference room is located in a space that has electrical distribution panels. An 8' high partition was constructed to provide separation but the wall does not extend to the ceiling and does not meet code.
5. There is a lack of ventilation in the main office and Nurse's room. There is a single window A/C unit in most office spaces.
6. The administrative offices along the corridor of the 1951 building have large plate glass borrowed lites. One has tempered glass, while the others are not. They also do not have a fire rating.
7. Corridor doors in the 1951 building have a steep ramp directly in front of them, with no landing. These doors are held open with stones. The doors have no closers, have push-pull hardware (no latch), and are not fire rated.
8. Exterior guardrail over 1989 boiler room/storage room should be 42" high.

Handicap Accessibility

Requirements for handicap accessibility were non-existent when this school was originally constructed. In 1990, the Americans with Disabilities Act (ADA) was enacted into law by the Federal Government to provide civil rights protections and nondiscrimination on the basis of disability. Since 1990, the original regulations have been updated and new requirements and clarifications have been added. In addition, the Commonwealth of Massachusetts has developed their own regulations (521 CMR Architectural Access Board) that are in many instances more stringent than the ADA. Regulations are updated and added almost every year. Based on the most current regulations, we have found the following items to be in non-compliance or can be considered as barriers for the disabled:

- Knob hardware should be replaced with lever style hardware.
- Ramp in main corridor of 1951 building leading to classroom wing is very steep and has inadequate handrails; handrails do not extend and are the improper slope and height per code. As such, the entire classroom wing is not accessible to the disabled.
- The set of stairs in the main corridor between the entry door and the admin office has an inclined chair lift that appears to be 20+ years old. The lift is in poor condition, does not function well and is not used.
- Ramp at the MPR: railing stops $\frac{3}{4}$ of the way up the ramp; the handrail should be continuous.
- The nurse's office is not accessible by the disabled.

Because of the accessibility issues at the Cutler School, the HWRSD is precluded from housing the integrated preschool program and substantially separate special education programming at the school.

EDUCATIONAL SPACES: Please provide a detailed description of the Educational Spaces within the facility, a description of the number and sizes (in square feet) of classrooms, a description of science rooms/labs including ages and most recent updates, a description of the cafeteria, gym and/or auditorium and a description of the media center/library (maximum of 5000 characters).

Typical classrooms are generally adequate in size ranging from 940 sf to 1000 sf.

There appears to be adequate space for supporting subject areas: art, music, SPED, gym but the other support areas is short on space and cramped. These include: main office, teacher work room, toilet rooms etc. The library / technology lab when combined are under size and the division of spaces is disruptive to its purpose.

CAPACITY and UTILIZATION: Please provide the original design capacity and a detailed description of the current capacity and utilization of the school facility. If the school is overcrowded, please describe steps taken by the administration to address capacity issues. Please also describe in detail any spaces that have been converted from their intended use to be used as classroom space (maximum of 5000 characters).

The school is not currently overcrowded.

MAINTENANCE and CAPITAL REPAIR: Please provide a detailed description of the district's current maintenance practices, its capital repair program, and the maintenance program in place at the facility that is the subject of this SOI. Please include specific examples of capital repair projects undertaken in the past, including any override or debt exclusion votes that were necessary (maximum of 5000 characters).

The Hamilton-Wenham Regional School District currently provides adequate annual maintenance on all school facilities. The District employs a full-time Director of Facilities, who works with the Assistant Superintendent for Administration and Finance to develop and implement an annual preventative maintenance program. Additionally, the Director of Facilities works in conjunction with building principals to address any unforeseen but necessary repairs. Both preventative and emergent maintenance work is coordinated through the use of the "School Dude" work order system. The District employs a team of three full-time maintenance workers to complete maintenance assignments as they are identified through the work-order system.

The HWRSB has also developed a Five-Year Capital Plan to identify and prioritize more extensive capital repairs and enhancements. The Hamilton-Wenham Regional School Committee has developed a plan to fund this list of approximately \$7 million in projects over the next five years. This plan includes funding the first \$3.5 million through debt exclusions and the remaining items through the District's Annual Operating Budget. The \$3.5 million in debt exclusion items will be put before Hamilton and Wenham Town Meetings in April of 2018 for approval.

Over the past 8 years, the Hamilton-Wenham Regional School District has completed several large-scale repair projects to school facilities:

Year Project School Cost

2011 HVAC System Cutler \$1,349,000

2014 Roof Winthrop \$587,000

2014 Roof Cutler \$546,000

2015 HVAC System Buker \$579,000

2015 HVAC System and Exterior Walls Winthrop \$1,959,000

All of these projects were financed through debt exclusions that were approved by the Towns of Hamilton and Wenham. The Cutler HVAC (2011), Cutler Roof (2014), Buker HVAC (2015), and Winthrop HVAC and Exterior Walls (2015) were all part of the MSBA's Accelerated Repair Program.

Priority 7

Question 1: Please provide a detailed description of the programs not currently available due to facility constraints, the state or local requirement for such programs, and the facility limitations precluding the programs from being offered.

Because of the physical limitations of the Cutler School, the Hamilton-Wenham Regional School District avoids placing students with severe special needs at the school. Both the District's integrated preschool program and substantially separate special education programs are housed at another school in the District partly because of the physical limitations of the Cutler School Facility. Students with mobility issues can only access all spaces in the school with great difficulty. Younger students have difficulty reaching bathroom sinks and faucets. Ramps were built at too steep an angle. Handrails at ramps are not reachable. Doorknobs are not easily turned by a child's hands.

Not having a second school facility that would be able to house these programs severely limits the District in terms of being able to expand programming in these areas. Additionally, only housing these programs in one of our elementary schools limits the ability of the District to integrate a larger number of our "typically" developing students with our special needs programs. Students at the Cutler School are ultimately deprived of the ability to learn the skills of compassion, respect for differences and tolerance that comes as a result of daily living and learning with their peers who have diverse learning needs.

Priority 7

Question 2: Please describe the measures the district has taken or is planning to take in the immediate future to mitigate the problem(s) described above.

The District has taken several measures to address some of the identified issues at the Cutler School. The school's HVAC system was totally renovated in 2010. As part of this project, new high-efficiency condensing boilers were installed, the steam heating system was converted to hot water, a Direct Digital Control (DDC) system control system replaced the pneumatic one, several rooftop air conditioners were added and older unit ventilators and roof exhaust fans were replaced with radiators and energy recovery ventilators. Additionally, the roof over the original and modular sections of the building was replaced in 2013. Renovations have also been completed so that there is at least one handicap accessible restroom on each level of the school. While the District is committed to maintaining the school through regular maintenance and repair projects, many of the existing shortcomings of the building cannot be fully remedied without replacing the entire building.

Priority 7

Question 3: Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

The Mission of the Hamilton-Wenham Regional School District is to "Educate our students to become young adults who demonstrate mastery of the knowledge and skills needed to be successful members of our global economy and engaged citizens of the 21st Century." As we strive to prepare all students to be "future-ready," we are constantly hindered by a facility that was designed and built 67 years ago. The educational program of today and the future requires programs that develop students' abilities to work cooperatively, using a myriad of technologies, in a setting where students can be fully integrated with their peers. School facilities need to be flexible to allow for multiple forms of teaching and learning. While the Cutler School has received several improvements to its physical systems in the past few years, most notably a new HVAC system in 2010 and a new roof in 2013, the original 1951 design of the school does not meet the standards for education required in 2018.

As mentioned in the review of the school's physical condition, the school is comprised of an original 1951 structure, two modular wings built in 1952 and 1956, and a 1989 addition. A 2011 review of the physical conditions of the School by the architectural firm of Dore and Whittier recommended both modular additions be demolished and rebuilt. "While considering all the issues observed at these classrooms as a whole, we believe it would be more cost effective to eliminate these modular classrooms entirely and build new. It is evident by their type of construction, that they were never intended to be permanent classroom structures, or at least not for the Northeastern United States." (Dore and Whitter, 2011) The architects expressed concerns regarding adequate drainage around these structures, inefficient insulation and window systems, and numerous other code violations that would not be acceptable in school construction today.

The "piecemeal" design of the Cutler School also creates problems. The school is sited on an uneven grade, which has created different levels within a single story structure. As the 1952 and 1956 additions were added to the building, stairs were used to connect the different wings. Later efforts to retrofit the school with ramps fall far short of meeting modern ADA Accessibility and building code requirements. The corridor leading to the classroom areas is at the top of a ramp that is too steep to meet modern code requirements. This means none of the classrooms in the school are handicap accessible. In another case, a ramp was constructed to cut through an existing classroom to allow access to one of the modular wings. The addition of the 1989 gymnasium and classroom addition also caused accessibility problems. This addition created a new main entry space for the school. The entry is located at the top of a slope that is also too steep to meet ADA requirements. Finally, the only corridor leading to the school cafeteria contains several stairs. An wheelchair accessible lift was retrofitted to these stairs, but the advanced age of the unit has led to periods where it is out of service for repairs.

In addition to the difficulties for those with mobility issues posed by the Cutler School, there are many other accessibility issues in the school. Most classrooms and the school nurse's office in the building are equipped with individual restrooms, none of which are sized to meet ADA requirements. A retrofit of restrooms located in public areas of the building has been done to provide the school with several accessible restrooms. One set of undersized restrooms located in the modular addition is not equipped with a sink, making proper hand washing impossible. Other fixtures in the building, including door handles and sinks are also not handicap accessible.

The design of the Cutler School also makes it difficult to ensure the safety of students from outside intruders. The entry space created in 1989 is not adjacent to the main offices of the school. Visitors to the school are identified and granted access to the building by the school secretary through means of a closed circuit camera and electronic door lock system. Once the visitor has been granted access to the building, however, they have direct access to the kindergarten classrooms that are located adjacent to the gymnasium and have relatively unrestricted access to the entire building without needing to enter the main office.

The design of the Cutler School also does not account for many of the educational spaces necessary for delivery of education in 2018. While inclusion is our primary method for delivering Special Education Services, there is still a need to deliver pullout

services. In order to accommodate this need, full size classrooms have been subdivided with temporary partitions. These spaces are less than ideal as they do not provide the privacy necessary to deliver specialized instruction to students. They also do not provide the soundproofing necessary for the administration of special education assessments, which calls the results of these assessments into question. In an effort to create spaces for students to work in small groups, school administration has turned any and all available space into learning areas. To this end, small group meeting areas have been created in hallways and in the front entry foyer of the building.

In addition to the lack of small group instructional spaces, the school lacks sufficient space for meetings. The one conference room that exists in the school is a section of the school's media center that has been divided off by a temporary wall. In order to access this room, meeting participants must first cross through the school's library and into the adjoining computer lab. This meeting space violates the privacy of meeting attendees.

The school's library and media center are currently housed in separate, adjoining classrooms. The physical layout of these spaces makes it impossible for the school's library media specialist to adequately supervise students working in both spaces. This supervisory issue limits the delivery of the Library Media Curriculum in the school.

CERTIFICATIONS

The undersigned hereby certifies that, to the best of his/her knowledge, information and belief, the statements and information contained in this statement of Interest and attached hereto are true and accurate and that this Statement of Interest has been prepared under the direction of the district school committee and the undersigned is duly authorized to submit this Statement of Interest to the Massachusetts School Building Authority. The undersigned also hereby acknowledges and agrees to provide the Massachusetts School Building Authority, upon request by the Authority, any additional information relating to this Statement of Interest that may be required by the Authority.

Chief Executive Officer *

School Committee Chair

Superintendent of Schools

(signature)

(signature)

(signature)

Date

Date

Date

* Local Chief Executive Officer: In a city or town with a manager form of government, the manager of the municipality; in other cities, the mayor; and in other towns, the board of selectmen unless, in a city or town, some other municipal office is designated to the chief executive office under the provisions of a local charter. Please note, in districts where the Superintendent is also the Local Chief Executive Officer, it is required for the same person to sign the Statement of Interest Certifications twice.

For of Vote Cutler School SOI

Resolved: Having convened in an open meeting on March 28, 2018, prior to the SOI submission closing date, the School Committee of the Hamilton-Wenham Regional School District, in accordance with its charter, by-laws, and ordinances, has voted to authorize the Superintendent to submit to the Massachusetts School Building Authority the Statement of Interest Form dated April 6, 2018 for the Cutler School located at 237 Asbury St., South Hamilton, MA 01982 which describes and explains the following deficiencies and the priority category(s) for which an application may be submitted to the Massachusetts School Building Authority in the future:

Priority 7. Replacement of or addition to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements. The physical deficiencies of the Cutler School as outlined in the SOI demonstrate that the building does not meet the HWRSD's minimum standards for accessibility, and security.

Furthermore, the physical design of the Cutler School does not support the District's Mission of providing an education that prepares all students for future success;

and hereby further specifically acknowledges that by submitting this Statement of Interest Form, the Massachusetts School Building Authority in no way guarantees the acceptance or the approval of an application, the awarding of a grant or any other funding commitment from the Massachusetts School Building Authority, or commits the City/Town/Regional School District to filing an application for funding with the Massachusetts School Building Authority.

DOCUMENTATION OF VOTE

Documentation of each vote must be submitted **in hard copy** to the MSBA as follows:

- 1) For the vote of the City Council/Board of Aldermen or Board of Selectmen/equivalent governing body, a copy of the text of the vote must be submitted **with a certification** of the City/Town Clerk that

the vote was duly recorded and the date of the vote must be provided.

2) For the vote of the School Committee, Minutes of the School Committee meeting at which the vote was taken must be submitted **with the original signature** of the Committee Chairperson.



To: Josh Liebow, HWRSC

From: Michael Harvey, Superintendent

CC: Jeff Sands, Members of the School Committee

Date: March 21, 2018

Re: Statement of Interest for the Winthrop School

The School Committee asked me to complete Statements of Interest for the replacement of the Cutler and Winthrop Schools. I have completed the statement of interest for the Cutler School and believe that the shortcomings in the overall design of the school, construction issues in the modular wings, and the identified deficiencies with handicap accessibility throughout the Cutler School make a compelling argument for the replacement of the entire facility. I have included the Statement of Interest for the Cutler School in the packet for the March 28th School Committee Meeting and have prepared the Form of Vote Document necessary for the School Committee to approve the submittal of the Statement of Interest.

While I feel the Cutler School is worthy of a submission to the MSBA as a candidate for replacement, I cannot reach the same conclusion about the Winthrop School. Over the past five years, the Winthrop School has received the largest amount of funding for major repairs of all of the District's schools. In 2013, the building's entire roof was replaced and structural issues that resulted from roof leaks were repaired at a cost of \$587,438. In 2014-2015, the heating system was replaced and all of the original storefront window-walls in the school were replaced at a total cost of \$1,959,818. Additionally, the District is asking for an additional \$850,000 to install automated sprinklers and upgrade the fire alarm system in the Winthrop School at 2018 Annual Town Meeting. These projects will bring the total of work completed at the Winthrop School to \$3.35 million. This figured does not include other projects that have been completed at the school intended to improve the day-to-day air quality and climate conditions for students and staff that have been paid out of the operating budget. For a comparison, the Cutler School has undergone \$1.89 million in repairs from 2010 to the present. The repairs to the Winthrop School have addressed identified issues with the school's building envelope (roof and curtain wall replacement), HVAC system (boiler replacement), fire safety (alarm and sprinkler project), and have modernized the school's systems.

The only possible rationale for submitting the Statement of Interest for the Winthrop School is "Priority 7: Replacement of, or addition to, obsolete buildings in order to provide for a full range of programs

consistent with state and approved local requirements.” Under this Priority, the MSBA asks the District to demonstrate the school is obsolete by describing, in detail, the programs that cannot be housed at the school due to facility constraints and the impact of identified problems of the facility on delivering the District’s educational program. As the Winthrop School currently houses two of the District’s most specialized programs, the Integrated Preschool, and the Intensive Learning Program (ILP), I cannot say the limitations of the Winthrop School prevent the District from providing a “full range” of programs. While there are relatively minor issues around accessibility at the Winthrop School, such as the entryway to the school’s playground and the stage in the multi-purpose room, these issues can be remedied without demolishing the building. Furthermore, I cannot say that the hindrances to delivering the District’s educational program that do exist at the Winthrop School are so pronounced that they require a replacement of the entire building. Many identified issues, such as the lack of continuity between the school’s library and computer lab space, can be remedied through small-scale renovation projects. Because of this, I do not believe it is appropriate or necessary to submit a Statement of Interest to replace the Winthrop Elementary School.

Donations

SC Meeting: March 28, 2018

| | |
|---------------------------------|-------------|
| Firehouse Center for the Arts | \$200. |
| • Transportation | |
| Lacrosse Boosters | \$2,703. |
| • Funding for Coaching Position | |
| EdFund | \$22,268.25 |
| • CNC Plasma Cutting system | |



HW Lacrosse Boosters, Inc.

Dear Hamilton-Wenham School Committee Members,

March 1, 2018

The HW Lacrosse Boosters would like to fund a coaching position for the 2018 Boys Lacrosse spring season at Step 0 for \$2703.00.

Please let me know how to proceed.

Sincerely,

Lindsey Strong

President
HW Lacrosse Boosters, Inc.



Grant Acknowledgement and Acceptance of Terms

PLEASE COMPLETE AND RETURN BY EMAIL TO THE FOLLOWING:

1. Edfund-Amy DeSimone at amydesimone12@gmail.com and
2. Hamilton Wenham Administration-Vincent Leone at v.leone@hwschools.net

We accept this grant from the **Hamilton Wenham Education Foundation** and agree to abide by the following associated provisions and obligations:

- 1) The purpose of the grant is to be accomplished as proposed. The project's current budget, as previously submitted to the Edfund with the grant proposal, accurately reflects the grantee's intentions to expend the amount of this grant. Expenses not included in the project budget must be approved in advance by the Edfund.
- 2) Any photos and student feedback will be provided to the Edfund within 30 days of the grant's implementation. If applicable, student feedback can be a handwritten paragraph reviewing their experience.
- 3) Funds not used for the express purposes described in the grant proposal that are not used by the end of the 2018-2019 school year (or a mutually agreed upon date) are to be returned to the Edfund.
- 4) It is not necessary to issue a tax receipt for this donation as the Edfund is a 501 (c) (3) public charity. Also, please keep in mind that public schools do not have to pay a sales tax.

The Grantee's deposit or endorsement of the enclosed check will also constitute its agreement to the terms and conditions set forth above.

School Name: HWRHS

Name of Contact on the Edfund Grants Subcommittee: Dana Allara

Title of Grant Application: CNC Plasma Cutting System

Grant Amount Approved: \$22268.25 Date Requested:

Grant Requestor's Name: Jeff Walsh Title: Technology and Engineering Teacher

Email Address and Phone Number: j.walsh@hwschools.net

Please attach a detailed budget with payment instructions below for District payment

Check should be payable to:

Please remit check to (contact name):

Address of where check should be sent:

Date by which check should be sent:

Date District requested funds of Edfund for reimbursement:

Signature of grant recipient _____



Edfund
Hamilton Wenham

HAMILTON WENHAM EDFUND PROJECT GRANT APPLICATION FORM

Project grants are for projects of \$1,000 or more, and should be designed to influence or advance the school system's interest in areas such as curriculum, technology, teaching methods, special school projects or specific innovative interdisciplinary projects.

Name(s) of Application Contact(s): Jeffrey Walsh

Submission date: 2/28/18 Date approval needed: ASAP

Contact(s) phone number: 978-473-6881 Email: J.walsh@hwschools.net

Position or Title of Application Contact(s): Technology & Engineering teacher

Grant Title: CNC plasma cutting system

School(s): HWRHS Grade(s): 9-12

Amount requested: 22,268.25 Recurring costs: To be assumed by the school

Please address the following topics:

1. Has this grant been funded in the past? If yes, from what source?

- No, a grant for a CNC plasma cutter has never been applied for or funded in the past.

2. Description of project and purpose.

- This Grant will bring in a fully enclosed 21" x 36" CNC plasma cutting system, which includes the CNC table, the plasma cutter, all necessary software, on-site training, V-carve software for 40 seats (program to create the cut file), and all necessary set-up equipment.
- A CNC plasma cutter is a computer numerically controlled robot, which moves an arm that holds a plasma cutter on the X, Y, and Z-axis. As the arm moves, it cuts designated shapes out of metal (typically steel). Using the software V-Carve student can design a particular shape that they want cut out, save the shape to a flash drive, then upload the shape to the CNC cutter. The CNC cutter then cuts out one or multiples of the desired shape out of steel sheet metal, using the plasma cutter.
- The designs that can be created and cut using this system can be used in many

classes. The classes that I see the immediate effects on are the Fabrication Technology class, Manufacturing class, Intro to Engineering, Sculpture, and Theater, with the potential of spreading throughout the high school and even the middle school. This technology assists students in advancing design, engineering, and creating different projects such as the human powered amphibious vehicles in ways that were previously not possible. For example, parts such as gears, brackets, washers, templates, and more can be designed and created by the students, just as an engineer and manufacturer would. Previously these parts would have to be ordered from a distributor.

- Outside of all the Engineering and Technology classes, the CNC plasma cutter would be used by the arts in both Sculpture and Theater Tech.
 - Metal sculpture is something that Bill Melville and I have been talking about for a while. This would open up the doors for us to move forward with this, just as so many of the art colleges around here have.
 - In theater, it could be used to create props or lighting patterns. In the past we have made metal parts, but not with the precision and efficiency that would accompany a CNC plasma cutting system.
 - It also has endless opportunities to be used by the Science, Math, and potentially even the History and English departments.
- The potential to use a CNC plasma cutter in every class is there, teachers just have to be creative with it. To help spark teachers creativity, I would be more than willing to teach them how to use the machine and brainstorm ideas with them.

3. Describe how this grant meets the goals of the Edfund Grants Program (see Edfund Grant Guidelines and Criteria at <http://hwedfund.org/applications-criteria.htm>)

I believe that bringing in a CNC plasma cutter to the HWRHS would fulfill all of the Edfund's goals for the program. To demonstrate this, listed below are examples of how the grant attends to each of the following goals.

A. To encourage and support innovative projects in teaching and learning that are consistent with Hamilton Wenham's district-wide goals and priorities beyond the scope of the regular school budget

- I.** Bringing in a CNC plasma cutter would open up doors for students to create and advance innovative projects within the school. It would also allow and encourage cross-curricular and inter-department collaboration. For example, perhaps theater needs a prop made. They could either submit a design to one of the engineering students or they could collaborate together to design and create the product. This would be the same for sculpture and other classes as well.
- II.** In addition to collaboration activities, this grant would give students a real-life opportunity to create, just as an engineer, designer, sculptor, or machinist would. They would be using the latest design programs and working with same robotic technology that is seen in colleges such as MIT and many engineering companies, preparing students to "demonstrate mastery of the knowledge and skills needed to be successful members of our global economy and engaging citizens of the 21st century", which is quoted from the schools mission statement.

B. To encourage leadership and creativity from teachers and administrators

- I.** The possibility of being creative with the CNC plasma cutter is really endless. Teachers from all subjects could design a creative lesson that directly relates to what they are doing in class. A lesson that involved the CNC plasma cutter would get students excited to learn. I'm really excited to see what types of projects could arise around the school and community.
- II.** The possibility of students working alongside administration to improve the school is always a possibility. Administrators may have something that they need done in the school, and rather than hiring someone to create something such as a sign, they could rely on the help of students to work through the real-world problem and accomplish a goal.

C. To support grants that impact a significant number of students

- I.** This grant would impacts both a large number of students and teachers. The students get to apply math, science, design, visual, art, technology, and engineering skills previously learned to design and create a tangible object that can actually be used. They get to see the importance of all of these skills they have been working on throughout their school career and how their skills can be applied. This will immediately impact the five engineering classes, sculpture, and theater class. Which means the grant will impact about 150 +/- students immediately with an opportunity to

grow drastically and potentially impact every student as they make their way through their high school career.

- II.** Collaboration among students and classes would allow students with different leaning styles and backgrounds to work and learn with one another as they create a product. I see this as being a great grant that could reach a number of students through their high school and possibly even middle school careers. Anytime you have an opportunity to bring collaboration and creativity into a project I feel as though a students interests get sparked, and with that the hope would be that more teachers would find a way to implement this grant into their classes.

D. To support grants that have a lasting benefit to Hamilton Wenham regional school system

- I.** This grant will likely benefit the Hamilton-Wenham regional schools system for many years to come. CNC technology has been around for many years and is still evolving to become better and more intuitive. The technology that comes with this CNC machine is the most up to date to this point and comes with the most up to date software. Like anything, there will be a newer, possibly better model in the future, but overall the outcome will still be the same. The benefits that the students can get by working with a piece of equipment/technology like this are something they can take with them as they make their way out of high school and into their career path. It gives the students an opportunity to use software, math, engineering, design, and art skills all together. Even as the technology may change these aspects won't which is why I see it lasting for a very long time and impacting students of all learning styles for many years going forward.

E. To encourage cross-school, cross-grade, and cross-curricular collaboration

- I.** I believe this grant has a huge opportunity to encourage cross-school, cross-grade, and cross-curricular collaboration. For example, I can see a geometry, or engineering class working along side an art class or Theater Tech. class, with the math students applying what they are learning about geometry to the designs of sculpture or props that the art/theater students are trying to create. Once a person learns how to use the CNC software and understands how to operate the device, sharing that knowledge cross-curricular, cross-school, or even cross grade could open up so many opportunities for students in different subjects to work together.
- II.** Once a class has learned how to use the CNC machine, I could see that class sharing their knowledge with possibly middle school students, introducing them to entry level metal sculpting, or applying simple

engineering design. Not only would they be collaborating on the project, but the students will also be teaching other students valuable skills, and real-life applications of math, design, technology, and engineering. Where STEM or STEAM is such a huge initiative right now, determining how to work the CNC machine into a class should not be difficult.

F. To encourage collaboration among teachers, administrators, parents, and community groups to benefit the Hamilton Wenham Regional School District. Edfund grants are not intended to replace or relieve existing responsibility for public funding or programs for the public school system, nor are they intended to substitute for normal budget growth and maintenance

I. *Please see comments above.

4. Number of students and/or teachers to benefit.

- In the very first year, I know between Engineering and Technology classes, and Sculpture that minimally 150 students will be using the machine. However, this grant has the potential to benefit all of the students in the high school throughout their career. Of course this will depend upon which teachers choose to adapt this into their curriculum and what courses the students choose to use. Immediately, I see this being used by the Science/Technology & Engineering department, the art department, and then expanding to the other department just as the 3D printers have. (Just last week the 3D printer were used for a humanities project)

5. Budget Detail (Please list or attach itemized sheet of all costs for speaker, guest performer, training, consultant, equipment, materials, etc. and include when appropriate, photocopy of catalog page, price list or other documentation of cost). The estimated ratio of dollars spent per student is taken into consideration.

CNC MACHINE ETC. (See details attached)

1. Techno CNC - HDII-2136 Table top CNC Plasma cutter - **\$11,500**
 - Table on which the cut metal sits.
 - Has all the computerized controls to move the plasma cutter to the desired location.
2. Techno CNC - Hypertherm Powermax 45XP Plasma Torch -**\$3,510**
 - Cutting device.
 - Requires 220 amp breaker (Already in shop).
 - Requires clean, compressed air (already in shop).

3. Techno CNC - Hypertherm Powermax 45 torch consumable kit - **\$210**
 - Plasma cutter electrode tip that wears out.
4. Techno CNC - Vectric V-Carve Pro software H22V30-VCARVEPRO - **\$950**
 - Will work with the current computers and laptops that have SolidWorks.
5. Techno CNC - Top Safety enclosure TSE - **\$1,450**
 - Includes shaded windows, which will protect your eyes from the bright light the plasma cutter produces.
 - Keeps sparks from exiting into the shop.
6. Techno CNC - Steel Base with casters SBC - **\$1,250**
7. Penn State Industries - 1.5HP Portable Dust Collector DC3XX - **\$340**
 - Vents the fumes and smoke to outside the shop.
8. AET - Training - Installation/Training - **\$1,200**
9.
 - a. This training will be for myself, Bill Melville (art dept.), John Kotch (Science department head) and Tate shippen (math dept.) along with anyone else who would like to join; it is not limited to a certain number.
 - b. Training includes set-up and detailed explanation of how to use the CNC plasma cutter – including but not limited to: How to transfer a file from V-Carve (CNC drawing program) to the CNC machine, setting up the plasma cutter to make the correct cuts (height, voltage, speed, air pressure ect.), using the water-table and vents to eliminate any fumes/smoke.
 - c. The training does not include how to use the software V-Carve Pro. However, I have already been working through a demo program, which was given to me by AET labs, and working through online tutorials found on Youtube. In addition, one of my current students has experience using V-Carve from his internship over the summer with a local engineering company.
10. Shipping - Estimated Shipping - **\$900**
 - **Cost = \$21,310**

START-UP METAL (*See details attached*)

1. ¼" - 4'x8" steel sheet metal (x2) – \$405.50

2. 11GA – 4’x8’ steel sheet metal (x3) - \$288.00

3. 16GA – 4’x8’ steel sheet metal (x5) - \$264.75

- **Cost = \$958.25**

Total cost

CNC Machine, etc. (\$21,310) + Start-up metal (\$958.25) = Total cost (\$22,268.25)

6. Possible future expenditures linked to this project (i.e. maintenance, parts replacement, professional development, etc.) including timeframes.

- Sheet metal – The department(s) will be able to budget for this after the initial start-up metal order.
- Maintenance/parts – Like anything with moving parts and technology, the likelihood of something breaking is always possible. However, the dealer is located right in Essex and easy to get in touch with if an issue arises.
 - As far as software issues go, we are lucky to have a technology staff here that will keep everything running smooth.
 - In regards to the plasma cutter part of the machine, we currently have a plasma cutter that I have become very familiar with. I have no trouble addressing any issues or maintenance. For the most part, maintenance usually only involves replacing the torch consumables, which are included with the overall CNC plasma cutter package.
- Teacher trainings – When this CNC machine is set up, the company also trains the teacher(s) on how to use it. The software that is used with this CNC machine has many step-by-step training tutorials that can be found for free on Youtube.com.
 - Once the immediate staff that is most interested in this grant learns how to use the machine and software, then EdCamp trainings can be offered to other teachers who are interested.

7. Method of evaluating success of project (i.e. student feedback).

- The success of this project will be measured by the results of the lessons/projects developed by various faculty members as well as by the feedback from the students as they work through the process of designing and creating their product. Specific classes will be required to write a reflection on using the CNC plasma cutter and how it impacted their learning experience.

Additional Comments: Feel free to watch the videos below to see how a CNC plasma cutter can be used and some of the processes involved.

- Video link showing a simple project made with a techno CNC plasma cutter. Same brand and operation, just larger than the one in the grant: <https://www.youtube.com/watch?v=smDK-LH7XVI>
- Video link showing a rack and pinion gear being made at the same time on a CNC plasma cutter. <https://www.youtube.com/watch?v=ycnFkj1W5mg>
- Video link showing amazing maple tree sculpture made with CNC plasma cutter and welder. <https://www.youtube.com/watch?v=7PU5qHZfLY>

Signature(s) of Applicant(s): Jeff Walsh Date: 2/27/18

Approval

Please submit grant application to your Principal for approval before sending to Dana Allara at edfundgrants@gmail.com, Edfund Grants Committee Chair with a copy to Director of Curriculum, Assessment and Instruction, Peggy McElhinney at m.mcelhinney@hwschools.net.

Principal: [Signature] Date: 2/27/18

Revised 5/10/2016

***Price Quotes from AET Labs and
Northstar Steel and Aluminum.***

To:

Hamilton Wenham Regional High School
Jeff Walsh
775 Bay Road
S. Hamilton, MA 01982
(978) 468-0400
j.walsh@hwschools.net

Project: Techno CNC Plasma 2136 - H-W High School



Rep: James Carmilia

Shipping: FOB Destination, Freight Prepaid

Estimated Delivery: 4 - 8 weeks

Shipping Method: Standard

| No. | Product Details | Qty | Price | Total |
|-----|---|-----|--------------|--------------|
| 1. | Techno CNC - HDII-2136 Table top CNC Plasma HTPLWRM24036000E HDII-2136 Table top CNC Plasma X-Axis Travel = 21" Y-Axis Travel = 36" Z-Axis Travel = 7-1/2" Gantry Clearance = 7-1/2" Specifications: -CNC Plasma height control features automatic CNC torch height control and maintains a constant arc voltage with optional. Includes magnetic torch breakaway with Z-axis auto retract retract. -Table: Steel V-Grid table. -Drive system: Precision ball screws on X,Y, and Z -Control System: PC based WinCNC micro stepper controller with brushless stepper motors and drives. -Compatibility: G & M code -Repeatability: +/- .003 inches -Max. rapid traverse speed: 200 in/min -Approx. weight = 500lbs Power requirements: Machine: 220V, 1-phase (15amp circuit req'd) Torch Power: See torch details for power requirements | 1 | \$ 11,500.00 | \$ 11,500.00 |
| 2. | Techno CNC - Hypertherm Powermax 45XP Plasma Torch H24H00-PM0045XP System includes - Techno's CNC Plasma real-time torch height control, and Torch mounting accessories. Cutting specifications: Production pierce = 3/8" Edgecut severance = 1/2" Requirements: -A clean dry non-fluctuating 90psi Compressed air or Nitrogen (required for Aluminum and Stainless steel cutting applications) source. -Input Voltage: 200-240V, 1-PH, 50/60Hz, CSA 230V, 1-PH, 50/60Hz, CE 400V, 3-PH, 50/60Hz, CE -Input Current: 200-240V, 1-PH: 30Amps 230V, 1-PH: 30Amps 400V, 3-PH: 10Amps -Flow rate and pressure: 360scfh @ 90psi -Duty Cycle: 50% -NOTE: Techno auto CNC torch height control included with the purchase of the Hypertherm torch from Techno. If customer chooses to use their own Hypertherm unit add \$2000 for integration and torch height control circuitry and software capability. | 1 | \$ 3,510.00 | \$ 3,510.00 |
| 3. | Techno CNC - Hypertherm Powermax 45 torch consumable kit H25XHY-850-490 | 1 | \$ 210.00 | \$ 210.00 |

| No. | Product Details | Qty | Price | Total |
|-----|---|-----|---------------------|---------------------|
| 4. | Techno CNC - Vectric V-Carve Pro software H22V38-VCARVEPRO | 1 | \$ 950.00 | \$ 950.00 |
| | Vectric V-Carve Pro software Features: -High quality toolpath previewer -Precision V-Carving & Engraving -True shape nesting -2D Production profile cutting & drilling -3D Raised prism machining -Fast and Efficient Pocketing -Automatic 2 Tool Pocket Machining -Fluting Toolpaths - Ramp In / Out -Auto-Inlay Toolpaths -Drawing and layout tools | | | |
| 5. | Techno CNC - Top Safety enclosure TSE | 1 | \$ 1,450.00 | \$ 1,450.00 |
| 6. | Techno CNC - Steel Base with casters SBC | 1 | \$ 1,250.00 | \$ 1,250.00 |
| 7. | Penn State Industries - 1.5HP Portable Dust Collector DC3XX | 1 | \$ 340.00 | \$ 340.00 |
| | - 1 -1/2 HP Portable Exhaust Blower - For direct vented applications (Ceiling and wall penetrations to be done by qualified facilities personnel) | | | |
| | Nominal Voltage: 110220 Phases: 1 Collector Footprint: 14" x 14" Height (inches): 16.5 Sound Rating db: 62db Max Static Pressure (inches): 8.5 Max Airflow through collector (CFM): 850 Running Amps: 16 @ 110V Horsepower: 1.5 Main Inlet Size (inches): 4 Impeller Size (inches): 9 Impeller Material: Steel Hose/bag not included | | | |
| 8. | AET - Training - Installation/Training - 488-28883 | 1 | \$ 1,200.00 | \$ 1,200.00 |
| 9. | Shipping - Estimated Shipping | 1 | \$ 900.00 | \$ 900.00 |
| | | | Sub Total | \$ 21,310.00 |
| | | | (If applicable) Tax | \$ 0.00 |
| | | | Adjustment | \$ 0.00 |
| | | | Grand Total | \$ 21,310.00 |

Payment Terms

Net 30 days

FED Tax ID - 20-2391756

Notes

2136 system has a water table.



205 BOUCHARD STREET * P.O. BOX 4886
 MANCHESTER, NH 03108-4886
 PHONE (800) 258-3515 FAX (603) 629-9943

QUOTATION

SOLD TO: HAMILTON-WENHAM REG SCHOOL DIST
 C/O SUPT. OF SCHOOLS
 775 BAY ROAD
 SOUTH HAMILTON MA 01982

SHIP TO: HAMILTON-WENHAM REG SCHOOL DIST
 775 BAY ROAD
 SOUTH HAMILTON MA 01982

QUOTATION NUMBER
 01379413

P.O.#: QUOTE

PAGE 1 OF 1

BID DATE
 2/26/18

F.O.B. POINT
 DESTINATION

TERMS
 NET 30 DAYS

IN RESPONSE TO YOUR INQUIRY, WE ARE PLEASED TO QUOTE AS FOLLOWS.

TERMS ARE SUBJECT TO CREDIT APPROVAL

| ITEM NO. | QUANTITY | DESCRIPTION | UNIT PRICE | EXTENDED PRICE | SHIPMENT DATE |
|----------|---|-------------|-------------|----------------|---------------|
| 00510 | A-36 H R PLATE 1/4 2 WIDTH 48 EA | LENGTH 96 | 202.7500 EA | 405.50 | 0/00/00 |
| | | | 654 LB | | |
| 05468 | BLACK SHEET 11GA 3 WIDTH 48 EA | LENGTH 96 | 96.0000 EA | 288.00 | 0/00/00 |
| | | | 480 LB | | |
| 05325 | BLACK SHEET 16GA 5 WIDTH 48 EA | LENGTH 96 | 52.9500 EA | 264.75 | 0/00/00 |
| | | | 400 LB | | |

A surcharge of an additional \$1.42 per line item will reflect in your final invoice.

SALES TAX/
 SALES TOTALS \$958.25
 TOTAL LBS 1,534.000

PRICES ARE VALID FOR 48 HOURS; SUBJECT TO STOCK AVAILABILITY

PRICING BASED ON QUOTE AS SHOWN. CHANGES SUBJECT TO RE-QUOTE

BY:
 MATT

SIGNATURE:

Mineola HS Introduces CNC Technology into Their Curriculum

By Maryann Valentine

EAGER to learn, the students at Mineola High School (MHS), Long Island, NY, work hard day to day, not only in their core classes like math, science, and ELA, but also enthusiastically in the woodshop, to learn everyday skills. The school recently updated their entire Tech Ed woodworking and metalworking classroom, switching from conventional methods of producing projects to an exclusive “Fab Lab” that consists of some of the most advanced technological equipment used in the industry.

The new Fab Lab at MHS is equipped with machinery that few other schools have on the Island—a CNC plasma cutter and CNC router from Techno CNC Systems. Whitney Smith, principal at MHS, spoke proudly about the new lab and how it has effectively and efficiently changed the way the students are learning.

“Adding CNC to our high school program was really the next step for us,” stated Smith. “We are always on the cutting edge of technology. We are always searching for the best tools for our students. We have always had a traditional woodshop and metalshop, but now we are focusing on showing the students the latest and greatest technology in automation, and the students are very excited about it. We already knew our students had great ideas, but now, it

Maryann Valentine is the marketing manager at Techno CNC Systems in Bohemia, NY.

is incredible to be able to see these students take their ideas from inception to completion, using CAD/CAM technology,” said Smith.

“The school was able to transform the lab from a conventional shop to an advanced lab for students to learn and enhance their engineering skills.

instructor,” said Paul Sommer, tech expert/teacher at MHS.

“Having a space like this is unique. We are the only school on Long Island to have made the commitment to adding this technology and advanced learning which benefits our students. Another benefit

Determined technical education student from Mineola High School operating Techno CNC System’s HD Series CNC Router for her senior project



The technology in the Fab Lab has changed everything. All our 8th graders get introduced to the equipment and do a problem-solving activity. They get introduced to Aspire CAD/CAM software by choosing a letter of the alphabet, setting up the job, and creating a toolpath. The students are shown how to setup and operate the CNC router under the direction of the

about the space is that the 8th grade students are all given a chance to find a passion in CNC, thus getting them excited for the more advanced tech courses offered in grades 9-12. We also partnered with Queensborough Community College, where students can receive college credits for courses taken,” Smith said.

Transforming the shop and learning the equipment was a challenge for the school, at first. The transformation was a huge commitment, but overall, was a necessity for the school to further their knowledge



and better their classes. MHS now has grades 8-12 students flowing through the shop for all nine periods of the day.

"We are still learning how to integrate the new equipment into our teaching curriculum. It is a work in progress, but very much worth it. We also spend more time on designing and learning the Aspire, AutoCAD, and Inventor CAD/CAM programs. As a result, the types of projects have changed tremendously. Before, we used a lot of hard and soft woods, and now, we are using more plywood.

"We are getting the students to solve more real-world problems such as seating, flat pack furniture, and space organizers." Sommer stated that, "The biggest challenge to adding CNC into our program was that we were given two high-end CNC machines and high-end computer design programs all at once. This was overwhelming in the beginning, especially since we had little to no experience with these types of machines and software.

"Thanks to the training and exceptional tech support from Techno CNC Systems, we were able to get through the first few months and begin to develop a curriculum for our students.

Now, our students are able to use the software and run the machines with no problems. The possibilities are endless."

MHS recently created an entire robotics team. Smith states, "The CNC equipment has been tremen-

dously beneficial for our new robotics team, as well. We are able to manufacture our own parts, and we can customize any of our parts. It has also helped us with our alliances with other robotics clubs. We are now able to help other schools manufacture their own robotics parts."

Not only is the Fab Lab used for classes and manufacturing robotic team parts, but it is also used for many other activities that the entire town requires. Sommer explained how the CNC equipment has completely transformed the theater clubs in the elementary, middle, and high schools of Mineola. "Once word got out that we could manufacture pretty much anything, we were getting requests from everyone asking if we could create their designs."

Paul Sommer and Andrew Woolsey, technology teachers at MHS, were also asked to help with theater design. They were given the project

to create stage lighting from the bottom. They were able to route out an entire stage lighting template. "If we had to do these by hand, it would have taken months. We had to create six of these and I was able to program it all within minutes,

letting the router do the rest," said Woolsey. The tech teachers were also able to design and route perfect (and huge) theater props for the play.

"The students are taught the software, but are given freedom to think out of the box, challenging their young minds," says Sommer. He uses online tools available to him and the students for learning and finding quick solutions to immediate challenges. Sommer believes this is a great tool for students to use at home or in the shop, as a secondary way to master Aspire and AutoCAD

software.

The program at MHS has completely transformed the learning process from conventional hand tools to now being able to design, program, and route whatever they imagine,



as well as cut metals with their new CNC plasma metal cutting machine. "We had trouble cutting thick material so I had wanted to research a



can actually showcase and sell their projects. Not only has the CNC equipment benefited the tech students, but it has also made it possible for business students to practice marketing, design, and advertising, while having an idea come to life,” said Smith.

The lab is designed to let the kids design whatever they want. “Basically, if you can draw it, you can route it,” Sommer explained. The students are taught to create, design, program, and route, and have their visions come to life.

The Business Ownership & Marketing class at MHS works closely with the students from the Tech Class to design and create a finished product. The Business Ownership & Marketing class students are responsible for designing the product to hopefully be sold in their new school store. The students then bring their ideas to the Tech students who bring their concepts to life.

“I first started to think of a product that I could sell at local events,

plasma cutter. It has changed the welding class by allowing us to cut thick plate steel accurately. In the past, we used a torch or hand-held plasma,” said Sommer.

The students have developed a passion for CNCs, and are even considering manufacturing as a future. “As a high school, it is our job to prepare our students for the real world. We want our students to leave high school with an idea and direc-

tion, and with the possibility of getting a job that they love after school. We are really focused on getting kids to pursue a pathway for their future here at MHS and we concentrate on having electives that pave that pathway.

“We are using this CNC equipment not only in tech classes but in our business classes, as well. The CNC equipment has allowed us to create a school store where students

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