

## Massachusetts School Building Authority

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### Next Steps to Finalize Submission of your FY 2015 Statement of Interest

Thank you for submitting your FY 2015 Statement of Interest (SOI) to the MSBA electronically. **Please note, the District's submission is not yet complete.** The District is required to print and mail a hard copy of the SOI to the MSBA along with the required supporting documentation, which is described below.

Each SOI has two Certification pages that must be signed by the Superintendent, the School Committee Chair, and the Chief Executive Officer\*. Please make sure that **both** certifications contained in the SOI have been signed and dated by each of the specified parties and that the hardcopy SOI is submitted to the MSBA with **original signatures**.

#### **SIGNATURES: Each SOI has two (2) Certification pages that must be signed by the District.**

In some Districts, two of the required signatures may be that of the same person. If this is the case, please have that person sign in both locations. Please do not leave any of the signature lines blank or submit photocopied signatures, as your SOI will be incomplete.

*\*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 as the chief executive office under the provisions of a local charter.*

**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.

- 1 **School Committee Vote:** Submittal of all SOIs must be approved by a vote of the School Committee.
  - 1 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.
- 1 **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.
  - 1 Regional School Districts do not need to submit a vote of the municipal body.
  - 1 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.

**CLOSED SCHOOLS: Districts must** download the report from the "Closed School" tab, which can be found on the District Main page. Please print this report, which then must be signed by the Superintendent, the School Committee Chair, and the Chief Executive Officer. A signed report, with original signatures must be included with the District's hard copy SOI submittal. **If a District submits multiple SOIs, only one copy of the Closed School information is required.**

**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 MSBA requires the full accreditation report(s) and any supporting correspondence between the District and the accrediting entity.

**ADDITIONAL INFORMATION:** In addition to the information required with the SOI hard copy submittal, 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 Diane Sullivan at 617-720-4466 or [Diane.Sullivan@massschoolbuildings.org](mailto:Diane.Sullivan@massschoolbuildings.org).

## Massachusetts School Building Authority

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School District Pentucket

District Contact Paul Livingston TEL: (978) 363-2280

Name of School Pentucket Reg Sr High

Submission Date 4/3/2015

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### 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 sign the required certifications and submit one signed original hard copy of the SOI to the MSBA, with all 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 hard copy 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 and certification signatures in a format acceptable to the MSBA. If Priority 1 is selected, your Statement of Interest 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.

<b>Chief Executive Officer *</b>	<b>School Committee Chair</b>	<b>Superintendent of Schools</b>
Jeffrey J. Mulqueen	Christopher Wile	Jeffrey J. Mulqueen
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. Please do not leave any signature lines blank.

# Massachusetts School Building Authority

School District Pentucket

District Contact Paul Livingston TEL: (978) 363-2280

Name of School Pentucket Reg Sr High

Submission Date 4/3/2015

## Note

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

1. <sup>b</sup> 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. <sup>b</sup> Elimination of existing severe overcrowding.
3. <sup>e</sup> Prevention of the loss of accreditation.
4. <sup>b</sup> Prevention of severe overcrowding expected to result from increased enrollments.
5. <sup>b</sup> 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. <sup>e</sup> Short term enrollment growth.
7. <sup>b</sup> 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. <sup>e</sup> Transition from court-ordered and approved racial balance school districts to walk-to, so-called, or other school districts.

## SOI Vote Requirement

<sup>b</sup> 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 New School

**Is this SOI the District Priority SOI?** YES

**School name of the District Priority SOI:** 2015 Pentucket Reg Sr High

**Is this part of a larger facilities plan?** YES

**If "YES", please provide the following:**

**Facilities Plan Date:** 4/1/2015

**Planning Firm:** Pentucket Regional School District

**Please provide an overview of the plan including as much detail as necessary to describe the plan, its goals and how the school facility that is the subject of this SOI fits into that plan:**

Pentucket seeks to become the educational opportunity of choice for students/families, the career opportunity of choice for talented educators, and the investment opportunity of choice for the District's member communities. The District Capacity-building Plan Appendix 6) aligns the strategies and resources throughout the District to achieve this bold vision. In the past two years, Pentucket has begun to realize the rewards of its focused work. By fall 2015, it is anticipated that Pentucket will have become the Innovation School leader in Massachusetts with the implementation of ten innovation schools. The March 22, 2015 Sunday Boston Globe North (Appendix 3) describes the dynamic program of studies that has transformed teaching and learning in the District. There is strong alignment of the Facilities Plan with the District Capacity-building Plan. The Facilities Plan (Appendix 12) supports the vision and mission of the District by providing learning environments that are safe, clean, well maintained, and support a dynamic program of studies. Reaching this outcome aligns to the District's third strategic objective (Develop a dynamic program of studies that reflects the voice of students and ensures each student a future of choices) and eighth strategic initiative (Improve school facilities to support a dynamic program of studies). The action plan for the eighth strategic initiative is to improve the high school via a Statement of Interest. The obsolete facility and systems are in imminent danger of potential failure put the high school beyond the scope of regular practices identified in the Pentucket Facilities Plan. The District supports its facilities with the following resources: • 28,097 square feet per facilities staff member • \$2.62 of the Operations and Maintenance Budget per square foot of school • The Operations and Maintenance Budget is 4.55% of the total district budget • 22 maintenance and custodial staff • The District has position descriptions for facilities employees • The District complies with the minimum spending requirements per 963 CMR 2.17. The District or school has not been identified as underperforming or chronically underperforming as identified in MGL Ch. 70, section 8 Expenditures for maintenance, specifically for the high school, have increased for the past three years. The 2015 Facilities Plan is focused on eight goals: 1. Properly maintain all school facilities. 2. Properly maintain all school grounds. 3. Establish and prioritize a multi-year capital maintenance plan. 4. Strengthen partnerships with the PRSD member town departments & workgroup committees. 5. Maximize the facilities availability for community use. 6. Strengthen the roles of maintenance personnel. 7. Provide professional development for staff. 8. Establish performance standards. Though reflected in the Facilities Plan, the Statement of Interest for Pentucket Regional High School has been elevated to the District Capacity-building Plan. Staff roles are defined by position descriptions and operate using preventative cleaning maintenance routines. Training for facilities staff is related to their responsibilities. Examples include: EPA standards, safety, energy management, floor care, first aide, emergency response, biohazard disposal, and technology. A computerized maintenance management system is used to review work orders, prioritize action items, manage facilities resources, and collect and manage data to support preventative maintenance. Facility audits are conducted at each school periodically. The objectives of audits are to support a culture of continuous improvement, communicate directly with school-based staff about needs and challenges, and to identify needed improvements. These audits have successfully improved teaching and learning conditions and supported intended outcomes regarding a culture of continuous improvement. The District's Facilities Use Policy is under review and will be reflected in the Facilities Plan. Pentucket renovated athletic fields on the regional campus in 2014, including tennis courts, practice field, field hockey field, softball field, and track and infield. Policy updates have come on the heels of these improvements and are slated for completion in 2015. The regional district is committed to improving the value of the district as a community asset. Performance standards are used to evaluate each staff member in the facilities department. The school principal and facilities manager collaborate to complete evaluations. Performance standards span compliance with policies and procedures, work habits and attitudes, and problem-solving.

**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: 19 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.**

Jeffrey Mulqueen, Superintendent of Schools 2012 Annually updated

**Is there overcrowding at the school facility? YES**

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

Pentucket Regional High School does not have enough space to house all of the classes offered to students in the program of studies.

High school classes had to be relocated to the middle school. These high school classrooms are now scheduled in the middle school library-media center, the superintendent's conference room, and a middle school classroom. The modular classrooms and portions of the high school, were flooded when a corroded water main burst at 3AM on April 13, 2014. The modular classrooms were damaged to a degree that they could not be repaired. This same water main broke seven years ago, and broke a third time on February 1, 2015. The scarcity of instructional space since April 13, 2014 has delayed the implementation of planned innovation schools for students in grades 7 – 12. Donated equipment for the new Movement Science & Athletic Academy sits sidelined throughout the school. Meaningful integration of this new equipment is delayed for the foreseeable future.

Overcrowding impacts our education programming. High school teachers have been reassigned to classroom spaces at the middle school. When students travel from the high school building to the middle school building they need extended passing time for each period of the day. This wastes up to 10 minutes of class time. Class periods are 50 minutes long. This year, affected classes include Spanish, German, Social Studies, and Computer Lab. The required relocation of high school classes to the middle school has a negative impact on the District's educational programming.

Another impact is to safety and security. Approximately 120 students move between the high school and middle school due to class reassignment. While our school doors are locked and access is only allowed through two video monitored entries, having 100-120 students traveling between the buildings on campus significantly challenges school security.

Implementation of Pentucket's secondary innovation schools is hampered due to working around the high school's limited space. Our Design and Engineering Academy requires students and staff to collaborate to develop curriculum and deliver instruction and applied assessment methods. Pentucket is implementing assessments that integrate academic knowledge, adaptive leadership, and high levels of personal meaning. Educators in Pentucket plan units of instruction and construct assessments that require students to apply content knowledge, adaptive leadership skills, and high levels of personal meaning to problems that have an impact on the local or global community. Two of the programs that cannot be housed in the high school due to lack of space are the Engineering and Computer Assisted Design (CAD) programs. These programs need to be in proximity to the math and science departments. Space and proximity have a significant, limiting impact on the program.

A state-of-the-art computer lab was donated by a District partner for use in the Art & Visual Effects Academy. This computer lab provides new capacity for students to access new courses, including digital character sculpture and digital painting. The implementation of this new equipment, given the reduced capacity of the facility, required the displacement of another high school computer lab, relocated to the middle school. Consequently, teachers and students must relocate to the middle school to access this computer lab. Teachers report that students ask for them to consider alternatives due to the inconvenience and time wasted by walking to the middle school. This overcrowding puts a large burden on the High School Media center. When we asked students and teachers to describe the impact of the facility on their learning, two thirds of both staff and students replied to the principal's December 2014 survey that the lack of adequate access to the resources in the media center are significant factors limiting their educational program. Teachers and students recognize the need for resources and technology as critical to their ability to learn and apply their knowledge and skills.

The small size of the weight lifting area adds additional constraints to our implementation of Movement Science & Athletics programming. The weight room is already overcrowded and in need of expansion. These are critical to the programming and curriculum of the Movement Science and Athletics Innovation Academy. Anatomy & Physiology I & II, Sports Medicine I & II, Biomechanics, Strength and Conditioning, Wellness 9 & 10 are all limited by the

overcrowded weight room and lack of the Movement Science and Athletics lab. Moreover, the school's obsolete gymnasium does not have the capacity to support a contemporary vision of health and wellness. Pentucket Regional High School's innovative curriculum has outpaced the function of the 1950's basketball court. The high school does not have the space to support its contemporary program of studies or intended student outcomes.

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

**If "YES", how many teaching positions were affected?** 11

**At which schools in the district?** Sweetsir, Donaghue, Page, Bagnall Elementary Schools and Pentucket Regional Middle School

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

In FY16, nine - reductions due to decreased student enrollment. Two middle school math positions are being reduced to capture efficiencies. 3FTE K 1FTE Gr 1 2FTE Gr 2 1FTE Gr 4 1FTE Gr 5 1FTE Gr 6 2FTE Math PRMS

**Has the district had any recent staff layoffs or reductions?** YES

**If "YES", how many staff positions were affected?** 1

**At which schools in the district?** Central Office

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

Central office will be reduced by 1FTE in FY16 – Director of Arts and Academics

**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.**

No modifications result from teacher reductions. 95% of elementary classes are projected to have 23 or fewer students and 50% of classes with 20 or fewer students. The curriculum will not be affected. Middle school math classes are projected to have 23 or fewer students. The curriculum will be improved as more students access the early-high school credit. The District has implemented an accelerated math curriculum that more students are electing. Administrative responsibilities of the Director of Arts and Academics will be absorbed by the administrative team.

**Please provide a detailed description of your most recent budget approval process including a description of any budget reductions and the impact of those reductions on the district's school facilities, class sizes, and educational program.**

Pentucket Regional School District has been using a Zero-based budgeting process since FY13. This approach reverses the working process of traditional budgeting. Zero-based budgeting requires the budget request be re-evaluated thoroughly, starting from the zero-base. This process is independent of whether the total budget or specific line items are increasing or decreasing. Advantages include: 1. Efficient allocation of resources, as it is based on needs and benefits rather than history. 2. Drives managers to find cost effective ways to improve operations. 3. Detects inflated budgets. 4. Increases staff motivation by providing greater initiative and responsibility in decision-making. 5. Increases communication and coordination within the organization. 6. Identifies and eliminates wasteful and obsolete operations. 7. Forces cost centers to identify their mission and their relationship to overall goals. 8. It facilitates more effective delegation of authority Zero based helps in identifying areas of wasteful expenditure, and if desired, can also be used for suggesting alternative courses of action. The approval process is managed by the following timeline: • October – Identification of strategic priorities for District and each school • November – Preliminary resource allocations to support strategic priorities • December – Presentation of superintendent's recommended budget to school committee • January – Consideration and deliberation of draft at school committee subcommittee and business meetings • February – Public hearing for proposed budget • March – Approval of final budget The past three budget cycles (FY14 – 1.88% increase, FY15 - .58% increase, and FY16 – 2.15s% increase) have resulted in adopted budgets that have not required an override in the regional district's member towns. Facility line items have increased, small class sizes have been stabilized, and an innovative curriculum continues to expand at each school.



## General Description

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**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 1956 blue prints for Pentucket Regional High School were prepared by Korslud, Le Normand & Quann, Inc. Architects. Pentucket Regional High School was originally constructed between 1956 and 1958 as a Junior-Senior High School for 750 students. The structure was constructed to maximize efficiency, similar to other industrial models of the time. Students were viewed as pupils (empty vessels). As such, classrooms were constructed for the teacher to be at the front of the room and students to be in their seats. This model required students to read, write, and take notes. Since students did not need to move from their seats, the efficient use of space was planned to fit as many chairs as possible.

High school students took four years of English, four years of physical education, one year of biology, one year of US history, one year of civics, and one year of contemporary civilization (Appendix 11). Mathematics, chemistry, physics, and world language were electives. The curriculum designated courses for students “not going to college”. The curriculum did not offer opportunities for students to earn early-college credit, engage with apprenticeships or internships, or provide early-career experiences. Contemporary technology had not been invented for teaching and learning. Again, 1956 predates IDEA and specialized intensive supports needed by students with high needs and/or disabilities.

Today, local and state educational standards shape the student experience in ways that no longer link to the industrial model of the past. Education today is very different than the mid-1950's. Every student is expected to be college and career ready when s/he matriculates from high school. Schools and educators are accountable for reaching these high standards of education.

1. The curriculum is guided by MassCore (figure 7 – 5). Students are expected to complete a far more intensive array of courses, including: 4 units of English; 3 units of lab science; 3 units of history / social studies; 2 units of the same world language; and physical education, art, and health. In addition, students are expected to take as many of the following courses as possible: advanced placement, dual enrollment (high school-college), business, career / vocational technical, service learning, work-based learning, and online courses.

2. The new state Educator Evaluation System (Appendix 10) holds all educators accountable for standards that ensure every student is college and career ready.

3. Pentucket has transformed into the Innovation School leader in Massachusetts (figure 4 – 2). The District is focused on innovation, student voice & choice, and significant outcomes. As such, its educational programs integrate high levels of personal meaning, adaptive leadership skills, and challenging academic standards to accelerate the learning of every student. Pentucket's specialized educational programs afford students early-high school credit, early-college credit, internships / apprenticeships, and an extended day/year high school schedule.

In 1967, Pentucket Regional Middle School opened on the regional campus. Students in grades 7 and 8 were moved to the new facility. The student population at Pentucket Regional High School, as indicated in a review of records, tripled. Approximately 60 students were in the graduating classes in the late 1950's. This number rose to 140 students by 1969.

In 1993, a west wing began construction and added classrooms, Library, and Science classrooms. Science education was one of the targets of education reform in the 1990's. While classroom spaces were added to Pentucket Regional High School to include science in the curriculum for more students, the spaces are in poor condition and do not support the District's intended educational outcomes for students.

In 2001, (4) modular classrooms were added to the south side facility for additional classroom space. This brought the total square footage in 2001 to 213,000. In August 2014, the modular classrooms were demolished (Appendix 5) due to

damage from 2 different flood events and inherent water damage issues. The current square footage as of this submission is 208,000.

The 1956 high school structure currently functions as the clear majority of the school's educational space. The 1950's design limits the instructional delivery needed to support Pentucket's innovative curriculum. The facility marginally supports rotation models<sup>1</sup>, such as station rotation, lab rotation, flipped classroom, and individual rotation. It cannot support needed instructional models, including the flexible<sup>1</sup>, a la carte<sup>1</sup>, and enriched virtual models<sup>1</sup>. For example, the obsolete and outdated electrical system is in danger of imminent failure and is insufficient to support the contemporary technological supports required to deliver the District's intended student learning outcomes.

<sup>1</sup>Horn & Stalker. Blended: Using disruptive innovation to improve schools. 2015

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

208000

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**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 Pentucket High School and Middle School campus consists of approximately 54 acres on the Groveland/West Newbury town lines and currently is the site of the 208,000 square foot High School building and the 123,000 square foot Middle School. There are two residential homes along southern Main Street property line in front of the campus and a significant portion of the site is wetlands, including space between the High School and the Middle School. The High School facility is completely within West Newbury, the Middle School and new track & field are split over the Groveland/West Newbury town line. There is a man-made retention pond in front of the High School. The northern campus property line borders the Merrimack River.

The access roadway enters the campus from state highway route 113, looping through the front of the high and middle schools campus, and exiting back onto state highway route 113. Parking for both schools is beside and behind each facility. The High School has a front facing circle for pickup / drop off for smaller vehicles. Two athletic fields are located between highway route 113 and the campus access road. Additional fields, running track, and tennis courts are located behind the schools.

The high school portion of the campus has potential for expansion to the north & south of the facility. The northern area currently is the site for the high school baseball and football fields. The southern area includes the entrance driveway, the field hockey field and a practice field. These proposed areas may be suitable for reconfiguration, renovation, additions, or replacement of the high school.

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**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)**

Pentucket Regional High School  
24 Main Street  
West Newbury, MA 01985

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**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).**

Roofs:

With the exception of the two-story 1993 classroom wing, all roofs are single-ply PVC membrane over 3" minimum rigid

insulation over gypsum concrete roof deck (at 1956 sections) or metal roof deck (at 1993 sections). The current roof membrane dates back to the 1993 addition project. The PVC roof has reached the end of warranty.

The 1993 wing has a 5:12 pitched roof comprised of 1-1/2" metal deck, 5/8" exterior plywood, asphalt felt, and asphalt shingles. The attic space houses mechanical equipment in some areas. The attic space is ventilated with a continuous soffit vent at the perimeter and a continuous ridge vent (at the northwest leg) or aluminum roof louvers (at the main portion). The insulation layer (fiberglass batts) in the roof is located above the top floor finished ceiling assembly, a suspended acoustical tile system in most areas and gypsum board in portions of the media center. The 1993 drawings do not indicate the presence of a vapor retarder.

The shingles are in need of replacement due to cracking and splitting. The District experiences active leaks under certain weather conditions in this portion of the school. Significant ice-damming was observed at the perimeter of the 1993 classroom wing. Deteriorated shingles, active leaks, and ice dams could all result from the original design and/or construction of the roof system. CGKV accessed the attic space to the south of the media center and found it to be relatively warm despite outdoor air temperatures being well below freezing. This suggests that the attic space may be inadequately ventilated. The lack of a vapor retarder may also negatively impact the performance of the roof assembly. Lastly, according to the 1993 drawings, the roof assembly does not include an ice and water shield, which, at minimum, would normally be located at the lowest three to four feet of the roof perimeter. Ice dams and icicles at the perimeter of the 1993 classroom wing are a danger to pedestrians below.

#### Exterior Walls:

A projecting gable feature defines the media center. The wall assembly is comprised of face brick backed up by steel studs and gypsum sheathing. There are also large areas of cement plaster on 1/2" cement backer board at the upper gable and surrounding the exterior windows. The roof rake edge is flush with the gable end wall. There are significant problems with water intrusion, which can be clearly seen at damaged interior finishes within the media center. Exterior edges of the cement plaster assembly are deteriorated and rusting. Continuing water intrusion can further deteriorate the exterior wall structure and possibly lead to the introduction of mold into the wall assembly.

Existing exterior walls at the 1956 classroom wings are constructed of face brick with CMU back-up, or, at the primary elevations, of pre-cast concrete mullions infilled with window units (replaced 1993) and pre-cast concrete "Mosai" panels. "Mosai" panels are pre-cast concrete wall panels featuring an exposed aggregate on the outside surface.

The original 1956 construction generally does not include insulation or vapor retarders as part of the exterior envelope. Insulation was added to the 1956 roofs when the current PVC membrane was installed around 1993, though the thickness does not meet current energy codes. The exterior walls at the 1956 portions of the school are not thermally efficient and allow the transfer of heat energy through the assembly. The 2001 cafeteria expansion is clad in molded plastic faux brick panels. The plastic panels are in very poor condition. They are cracked and broken in a number of locations.

#### Windows:

Windows from the original 1956 building were replaced in 1993. They are aluminum-framed with 1" insulated glass. The District is not experiencing any pervasive concerns with existing exterior window systems. CGKV did observe some deterioration of gaskets at insulated glass, though these defects did not appear to affect the insulated glass unit seals.

CGKV observed issues with south-facing windows at the 1956 gymnasium. A glazing treatment has deteriorated and resulted in a crazed pattern on the surface of the glass. Physical Education faculty report that uncontrolled glare at these windows disrupts athletic activities inside the gym.

#### Doors:

Primary entrance doors are aluminum-framed. Other doors are hollow metal with hollow metal frames. Exterior doors are in poor condition, unsuitable for the degree of use they've seen over nearly twenty years, with screwed connections loosening over time. Door hardware is also deteriorated. The District supplemented the original 1993 overhead door closers with new surface-mounted closers.

The fit and operation of existing exterior doors is problematic. Weather seals are ineffective. Conditions at the southwest exterior door at the 1993 gymnasium have made that door virtually inoperable, raising serious concerns about the available means of effective egress from that space.

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

**Year of Last Major Repair or Replacement:(YYYY)** 2014

**Description of Last Major Repair or Replacement:**

2002 Flood repairs and restoration of interior finishes to the modular unit classrooms and classrooms in the junior wing

2014 Flood repairs, Jr Wing lower level, Main Lobby, Guidance, Nurses Suite, Administrative areas, Café, Main Hallways renovation, removal of Modular classrooms

Sections of the 1956 original building interior walls/doors & finishes have been replaced due to water damage by flooding.

The 1993 addition experienced a flood in the science classrooms in 2010 which entailed replacing gypsum wall board and acoustical ceiling tiles in 4 classrooms.

The 1993 wing also has had issues with the concrete window sills at the base of the window systems whereas they had become loose and fallen out. This required all the sills to be externally fastened to the structure with stainless plating and through bolted into the structure.

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**Roof Section** A

**Is the District seeking replacement of the Roof Section?** YES

**Area of Section (square feet)** 105000

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

White PVC and Shingle

**Age of Section (number of years since the Roof was installed or replaced)** 22

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

No, not in last three years.

Flat Roof Areas

The roof was inspected by Garland Roofing Inc. in October, 2010.

The roof at that time was considered in good overall condition. Core samples were taken and were shown to be dry. PVC roof system warranty's vary by manufacturer and are usually either 10 or 20 year warranted products.

The PRHS PVC roof system is 18 years old and nearing a point of consideration to be recoated or replaced to maintain watertight integrity. (Recoating PVC is an option, however it must meet rigid inspection guidelines in order to reactivate a warranty.)

Pitched Shingled Roof Areas

The Architectural asphalt shingled pitched roof 1996 Science wing addition was recently inspected by Aulson Inc. in November 2014. This wings shingled roof is in need of replacement due to cracking & splitting of the asphalt shingles on all 4 sides of the pitched roof. There are active leaks under certain weather conditions in this section of the facility.

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**Window Section** A

**Is the District seeking replacement of the Windows Section?** NO

**Windows in Section (count)** 308

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

Aluminum Framed, with insulated glazing

**Age of Section (number of years since the Windows were installed or replaced)** 22

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

No repairs in the last three years.

**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).**

**HVAC**

The HVAC system is either past or nearing the end of its useful life expectancy, as detailed by the HVAC Applications - ASHRAE Handbook. There are currently two (2) existing Cleaver Brooks fire tube, steam boilers (Model CB200) in the Boiler Room. The 1993 boilers are dual fire, such that they are able to run on natural gas or fuel oil. Both boilers are in poor condition and in need of replacement.

Within the Apparatus Room are two (2) shell and tube, steam to hot water heat exchangers. These 1956 heat exchangers are in very poor condition. The shell and tube heat exchangers have a life expectancy of 24 years and are decades past their useful life expectancy. Gate valves allow for individual hot water supply and return branches to be isolated. The 1956 gate valves do not appear to be operable. The equipment within the Apparatus Room is in imminent danger of possible failure.

According to ASHRAE, base-mounted pumps have a life expectancy of 20 years; therefore the distribution pumps have exceeded their useful life expectancy. Hot water unit heaters have an ASHRAE life expectancy of 20 years, and have all exceeded their useful life expectancy. They have poor heat transfer capability due to corrosion. Finned tube radiators have an ASHRAE life expectancy of 25 years and have either far exceeded (1956 radiators) or are nearing the end (1993 radiators) of their useful life expectancy.

Unit ventilators installed in 1956 are corroded and in very poor condition. The roof mounted exhaust fans have an ASHRAE life expectancy of 20 years, and have exceeded their useful life expectancy.

Three 1993 packaged rooftop units provide cooling to offices and have an ASHRAE life expectancy's of 15 years and have exceeded their useful life expectancy.

All equipment and system controls are pneumatic. This system does not have that capability for temperature control or alarm and maintenance monitoring. Pneumatic systems have an ASHRAE life expectancy of 20 years. There are parts of this system that are now almost 60 years and in need of full replacement.

**Plumbing**

Two (2) domestic hot water storage tanks provide domestic hot water. Tank #2 is inoperable due to corrosion. Tank #1 is in poor condition. The hot water heaters and hot water tanks are in need of replacement. 1956 piping needs to be replaced due to sporadic pipe point failure. Many plumbing fixtures are more than 20 years old, leak, and are in poor condition.

The roof drainage system is in poor condition. The exposed roof drains within the Gymnasium showed signs of corrosion and failure.

**Electrical**

The primary utility cable enters the building through the Utility Vault located within the Apparatus Room. The primary cable is split within the vault. The 1956 primary cables are in poor physical condition. A past cable failure required removal of the damaged cable. New cable was spliced with the existing cable within the vault and does not appear to be installed in accordance with manufacturer's requirements.

The 1956 main switchboard to the building is a 1600 Amp, 120/208 Volt, 3 Phase, 4 Wire switchboard manufactured by Frank Adam and is in poor physical condition. The switchboard is past its useful life of 25 years. Replacement parts are no longer manufactured. The original 1956 Frank Adam switchboard, is in imminent danger of possible failure.

The Apparatus Room only has one egress door, which is not in compliance with the National Electrical Code. Due to the mechanical equipment located within the room, the additional clearance cannot be achieved.

In 1993 an additional section was added to the existing Frank Adam main switchboard. It is rated for 1600 Amps and is a Spectra series switchboard as manufactured by General Electric (GE). The 1993 GE panelboards are at the end of their useful life of 25 years.

The original 1956 electrical distribution equipment (panelboards) is in use in the original building section of the high school. The Frank Adam panelboards are all in poor physical condition and are past their useful life of 25 years. Replacement breakers are not available. The original 1956 electrical distribution system is in imminent danger of possible failure.

Classrooms within the 1956 construction only included a single receptacle branch circuit and typically only 2 duplex receptacles, which does not provide adequate branch circuitry or electrical infrastructure within classrooms to accommodate modern classroom power requirements.

The lighting system is generally in good condition.

The existing fire alarm system provides adequate coverage and appears to be in compliance with the latest editions of NFPA 72 and the Commonwealth of Massachusetts Building Code (780 CMR).

The building is equipped with 8 CCTV cameras located at key security points in the school. The front door is electronically locked and includes an intercom and CCTV that feeds back to the main office.

#### **Boiler Section 1**

**Is the District seeking replacement of the Boiler?** YES

**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 or Fuel Oil

**Age of Boiler (number of years since the Boiler was installed or replaced)** 22

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

The original boilers were replaced with (2) 200 hp, dual fuel burner, Cleaver/Brooks steam boilers to prepare for the building addition in 1993. The boilers are 3 phase, tubular units. Tubes are replaced annually as inspections/cleanings discover issues. In fall 2012, the dual fuel burners were supplied and connected to a 4" natural gas supply capable of meeting BTU demand.

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

**Year of Last Major Repair or Replacement:(YYYY)** 2012

**Description of Last Major Repair or Replacement:**

A major heating system failure in 2002 caused flooding in the junior wing (30% of the facility), which required the wing to be rebuilt, (electrical/unit ventilators, flooring & plumbing).

In 2012, a new HVAC RTU was installed on the 1993 science wing due to failure of the original unit.

The HVAC RTU units on the cafeteria have had compressors and heat exchangers replaced.

Steam traps have been rebuilt as needed, based on survey results.

Localized Administrative HVAC units have had compressors and leaks repaired.

The original Gym & Auditorium air handlers have had motors, bearings, valves replaced as needed.

**Has there been a Major Repair or Replacement of the ELECTRICAL SERVICES AND DISTRIBUTION SYSTEM? NO**

**Year of Last Major Repair or Replacement:(YYYY) 1993**

**Description of Last Major Repair or Replacement:**

In 1993 an additional section was added to the existing Frank Adam main switchboard. The new switchboard section is rated for 1600 Amps and is a Spectra series switchboard as manufactured by General Electric. The 1993 panelboards are nearing the end of their useful life of 25 years.

**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).**

1956 Classrooms:

Floors: Original vinyl asbestos tile [VAT] (or asbestos containing asphalt tile) is in place at most 1956 classrooms. Most VAT was removed in the "junior wing" and replaced with vinyl composition tile [VCT] or painted epoxy as part of post-flood event repairs.

Walls: Stained plywood dado (wainscot); wood-framed tack boards, peg boards, and chalk boards; adhered acoustical tiles; and wood bookshelves at the window wall elevation.

Ceilings: Painted underside of the cast in place structural concrete waffle slab. First Floor classroom ceilings are painted plaster on metal lath.

1956 Corridors:

Floors: Most corridors have vinyl asbestos floor tile, with the exception of the "junior wing" where VAT was mostly replaced by VCT or painted epoxy.

Walls: Glazed structural tile, adhered acoustical tiles, painted homasote, and recessed metal lockers are common at 1956 corridors. Updates have introduced some areas of painted CMU and gypsum wall board.

Ceilings: Corridor ceilings at the Ground Floor are the painted underside of the cast in place structural concrete waffle slab. First Floor corridor ceilings are painted plaster on metal lath.

Administration:

Floors: Original flooring was typically VAT. Much of it has been replaced or covered with VCT and carpet.

Walls: Painted concrete block is in many of the administrative spaces. Painted gypsum wall board is in newer spaces created during reconfiguration projects.

Ceilings: Most ceilings are plaster on metal lath, with some suspended acoustical tile ceilings.

Auditorium:

Floors: The auditorium floor is painted concrete with carpeted aisles.

Walls: Walls are mostly painted CMU, with painted plywood panels installed on the walls at the front 1/3 of the space.

Ceilings: The auditorium ceiling is asbestos-containing acoustical plaster on metal lath.

1956 Gymnasium:

Floors: The floor in the 1956 gymnasium is a traditional wood sports flooring assembly.

Walls: 1956 gym walls are painted CMU and/or pumice block, with glazed structural tile at the lower portion of end walls. Vinyl-faced foam pads have been installed at end walls for safety.

Ceilings: Steel trusses and the underside of the roof deck are left exposed and are painted.

1956 Locker Rooms:

Floors: 1956 locker room floors are painted concrete, with a granolithic finish or ceramic tiles at shower areas.

Walls: 1956 locker room walls are typically glazed structural tile, with some areas of painted CMU.

Ceilings: Sprayed acoustical plaster and/or painted exposed roof deck are found at main locker room spaces, with cement plaster at ancillary spaces.

1956 Stairs Halls:

Floors: Stair halls in the 1956 building have a variety of floor finish materials, including original VAT, VCT, and epoxy. Rubber stair treads and risers were installed as part of the 1993 project.

Walls: Stair hall walls are glazed structural tile, with some areas of adhered acoustical panels.

Ceilings: Ceilings at the Ground Floor portions of stair halls are painted concrete, with some plaster soffits.

First Floor stair hall ceilings are painted plaster on metal lath.

1993 Classrooms: Floors:

Flooring throughout the 1993 classrooms is VCT, which is considerably worn. Sheet vinyl is used in some science labs.

Walls: Painted gypsum wall board at the Ground Floor and a combination of painted CMU and painted gypsum wall board at the First Floor.

Ceilings: Suspended acoustical tile is used at 1993 classroom spaces, and painted gypsum wall board can be found at some storage and support spaces.

1993 Media Center:

Floors: Carpeted, with some areas of VCT.

Walls: Painted gypsum wall board is prevalent throughout the media center. Areas of significant water damage are visible at the exterior wall.

Ceilings: Painted gypsum wall board is used at the ceiling within the media center, and suspended acoustical tile ceilings can be found in ancillary spaces.

1993 Gymnasium:

Floors: The floor in the 1993 gymnasium is a vented and cushioned wood sports flooring assembly.

Walls: Glazed concrete block at the lower 7'-4" with painted CMU and acoustical CMU above.

Ceilings: Painted steel trusses and painted metal roof deck.

1993 Locker Rooms:

Floors: Ceramic tile is at 1993 locker and shower rooms.

Walls: A combination of painted CMU and ceramic tile.

Ceilings: Ceilings are typically painted gypsum board.

1993 Corridors: Floors:

VCT is used at 1993 classroom wing corridors.

Walls: Ceramic tile at lower portions and painted gypsum wall board above.

Ceilings: Suspended acoustical tile makes up the finished ceiling at 1993 classroom wing corridors.

Cafeteria:

Floors: Original vinyl asbestos tile remains in place throughout most parts of the 1956 cafeteria. The 2001 expansion has VCT.

Walls: Glazed structural tile, painted cement plaster, and painted gypsum wall board are all finishes.

Ceilings: The cafeteria ceiling is primarily suspended acoustical tile.

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

Pentucket Regional High School offers students in grades 9 – 12 a unique program of academic opportunities that give



them a distinct choice in how they pursue their future. Pentucket students identify goals for high school and post-secondary and then align their choices for classes and programs to help them achieve their goals.

We offer students the opportunity to study across 7 major departments including English, Social Studies, Math, Science and Engineering, Foreign Language, Fine and Performing Arts and Wellness. We also offer students the opportunity to align their high school studies across 6 different Innovation School pathways including Safety and Public Service, Movement Science and Athletics, Arts, STEM, Business, Finance and Entrepreneurship, and our Music Conservatory.

The inadequate and inflexible facility limits our ability to teach the innovative programs that we offer. Our science facilities are completely inadequate to teach all of the courses we offer and we teach these classes in inferior rooms with inconsistent or nonexistent facilities. In our science labs basic needs like electricity, gas and plumbing do not always work. In some rooms portions of the class have functioning electric or plumbing, while other parts of the room do not. Rooms also do not have proper ventilation for conducting experiments. One such room was attempting to use the ineffective ventilation fume hood when it failed to exit the smoke and set off the school fire detection system. The fire department ordered the school not to use it again. The school offers STEM courses but we have no facilities for such programs. These programs are taught in the old wood shop space in the middle school, which is on the same campus as the high school.

The foreign language program offers course work in three different languages, Spanish, German and Latin. The programs have no technology to access online curriculums and there is not enough physical space in the HS for all of the classes. As a result, 2 of the teachers use space in the nearby middle school. We have new equipment for our Movement Science and Athletics program, but we do not have space to set up our Wellness Lab and hands on teaching area. This is one of the most sought after programs in the school and we need additional space to expand to meet the need.

The Fine and Performing Arts Department, which contains 2 innovation school pathways lacks in adequate or proper space for programs. Each of the 4 classrooms in this department are inadequate in size and lack storage. Items that could be stored are in the classroom which further impedes upon the space in the classrooms. The music department has numerous large instruments which have no place to be stored and they take up vital space in the rehearsal classroom. The theatre program likewise has no storage and the classroom is cluttered with sets and equipment. Space is such an issue that students cannot even bring their back packs into the band room, as there is not enough space for the students with bags and instruments. Furthermore, access to internet resources and research tools is severely limited by the lack of space in the media center and the overcrowding in the school which has resulted in computer labs being located at the middle school.

#### Innovation Courses:

Academy Course  
 Safety and Public Service Public Safety I  
 Public Safety II – Criminal Justice  
 Public Safety III – Fire Science & EMS  
 Forensics  
 Topics in Literature  
 Anatomy and Physiology I & II  
 Environmental Science I & II  
 Sports Medicine I  
 Sports Medicine II  
 Writing Lab 9  
 Creative Writing  
 Contemporary Global Issues  
 Photography I and II  
 Video Production I and II  
 Robotics  
 Investigating Emerging Diseases

Public Safety Independent Study Criminology  
Public Safety Independent Study Psychology of Crime  
Public Safety Internship  
Junior Firefighter Program  
Teen CERT Program  
Service Learning

Movement Science & Athletics Sports Medicine I  
Sports Medicine II  
Anatomy and Physiology I & II  
Intro to Organic Chemistry  
Biomechanics  
Strength and Conditioning  
Healthy Athlete Wellness  
Nutrition for the Physically active  
Clinical Practicum I & II  
Topics in Literature  
Contemporary Global Issues  
Sports Literature  
Public Speaking  
Psychology  
Biology  
Chemistry  
Physics  
Independent Wellness  
Personal Fitness  
Service Learning

Arts Academy Fundamentals in Art  
Drawing  
Character Sculpture  
Digital Sculpture  
Anatomy and Physiology I & II  
Topics in Literature  
Contemporary Global Issues  
Graphic Novel  
Topics in Literature  
Writing lab  
Video Production I & II  
Painting I and II  
3D Design  
Photography I & II  
AP Studio Art / Senior Studio  
Virtual High School courses  
Dual Enrollment with Mass College of Art  
Internship  
Creative Writing  
Service Learning

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**CORE EDUCATIONAL SPACES: Please provide a detailed description of the Core 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).**

The core educational spaces in Pentucket High School consist of classroom spaces which vary in size, auditorium, cafeteria, gymnasium, and media center. Classrooms are not all the same size but can be broken into categories. There are 31 standard classroom spaces approximately 700 square feet in size and 12 smaller classroom spaces approximately 450 square feet in size. The school also contains 4 uniquely sized art/music/theatre spaces approximately 800 square feet in size, 4 science labs from the original construction (800 square feet) and 4 science labs from the 1993 construction (1000 square feet). 23 of these classroom spaces are part of the original construction from the 1950's and 8 are part of the 1993 construction.

These rooms are inflexible spaces designed for teacher directed instruction. They are too small for our student centered collaborative instruction and assessment methods which require space for tables, small group meetings and breakout sessions. The science labs are both obsolete and too small. All of the labs, including the ones from the 1993 construction, have plumbing, electrical and gas deficiencies. Lab and collaboration spaces overlap creating overcrowding and safety concerns. Only half of the rooms have proper ventilation for chemistry experiments.

The fine art spaces are also inadequate for the current programming and instructional approach. The dark room for the photography program is in another hallway in another part of the school. The fine art computer labs are also located in a

different part of the building because for space constraints they could not be housed near the other fine art classrooms. All of the fine art programs lack storage space which intrudes on the classroom space further shrinking the available square footage for instruction and assessment. Our music program uses a small space which is clogged with instrument storage which impedes on the rehearsal space. There are two small rehearsal rooms which are not part of the music room, housed across the hall in another space.

The auditorium has maximum capacity of 625 seats and had modest improvements to the stage and house lighting 2 years ago. This space is too small to hold school programs for grades 9-12. The cafeteria received a small addition in 2001 to increase capacity to 375 seats. Even with this addition, the size of the cafeteria requires 3 separate sessions of lunch during the school day which has an impact on class time as one third of the school has a split class, with multiple passing times, to accommodate lunch. In the 1993 construction a small gymnasium space was added onto the original building resulting in one original gymnasium of 7000 square feet with seating capacity for 350 and another smaller gymnasium of 3800 square feet with no seating available. The limited seating capacity of the gymnasium has resulted, on multiple occasions, with the school being required by the MIAA, to hold home basketball playoff games off site at other schools with larger gymnasium seating capacity. The 3100 square foot library media center was added in the 1993 construction. The library media center receives extensive use by staff and students before, during and after school. The size of the space presents several challenges. The overall capacity for students limits access for those who need to use the center for research and collaboration. Once a teacher reserves the space for their class for a period no other teachers can access the space. Teachers find it a challenge to get their classes into the space when they need it. The large open space has no small group meeting areas which are necessary for small group instruction, collaboration, research and study.

**CAPACITY and UTILIZATION: Please provide 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 challenge we are facing at Pentucket is to match the existing available space for classes and programs to the needs of the innovative programs that we offer. We are currently at 85% utilization of our classroom spaces throughout the school day. The Core Education Space description details the challenges of the size of our classrooms. We have a number of classroom spaces that are under sized and not appropriate for most of our classes and programs. This impacts our utilization of all classrooms. While a classroom may be un-used for a particular period of time, it is not appropriate to be used for another program or class that needs space during that same period of time. This is an ongoing yearly challenge that we face. We simply do not have enough appropriately sized, versatile spaces for the programs that we offer. For years we have used 2 classrooms in the regional middle school, which is on the same campus as the high school. There is no room for these engineering and design programs in the high school building. In the late 1990's and early 2000's the high school also occupied 4 additional classrooms at the middle school to alleviate overcrowding in the high school building. In 2001 a modular addition of 4 classrooms was added to the high school building and this allowed these programs to return to the high school building.

An additional complicating factor for Capacity and Utilization is a significant loss of classroom space which occurred last spring. In April of 2014 a water main ruptured and flooded an entire wing of the building. The end result was the destruction of 4 modular classrooms. To find space for the programs and courses using this space we have intruded on the middle school building housed on our campus. To give these programs the space needed for their courses we have moved into 4 classroom spaces at the middle school, including their library/media center. Our building does not have the space for these programs and as a result 6 classes are now required to use our middle school building for class. With approximately 120 students traveling between the two buildings each period this creates a satellite campus for the high school. This situation means the middle school does not have access to its library/media center. Furthermore, it creates a challenge to keep the campus secure with the necessity for students to be leaving and entering the building in large numbers every period throughout the day.

In addition to the overcrowding described above, resulting in 6 classrooms needed at the middle school, over crowding is evident during passing time in the hallway. The standard size of our interior hallways is 10 feet. However, there are multiple

places where the hallways narrow at fire suppression doors to a mere 5 feet 3 inches. Furthermore, one heavily used stairway is even narrower than that due to a lift system. The 4 foot 7 inch stairway is the only way for students to access a wing containing 14 classrooms and the stairway passing width is less than 5 feet wide. These choke points in the school are another example of the overcrowding in Pentucket HS.

**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 Pentucket Facilities Plan systematically supports schools as safe, clean, well maintained learning environments that support a dynamic program of studies. Pentucket seeks to deliver on its educational promise of innovation, student voice & choice, and significant results. The Facilities Plan supports Pentucket in reaching its goals. The eight goals of the Facilities Plan align to the District's Capacity-building Plan and have preventative, maintenance, and repair functions.

Preventative practices are divided among the AM and PM scheduled staff at each school, including Pentucket Regional High School. the AM shift has responsibilities connected to the cafeteria, kitchen, and as-needed cleaning. The PM staff function to support daily classroom, restroom, and hallway cleaning. Facilities staff members are provided with training that aligns to roles and responsibilities. Examples include: EPA standards, safety, energy management, floor care, first aide, emergency response, biohazard disposal, and technology.

Periodic audits of schools and grounds are conducted by a team composed of the principal, facilities manager, a member of the custodial staff, and business administrator. A facility audit checklist is used to guide audits and provide assessments in ten areas: 1) facility maintenance performance, 2) facility mechanical systems, 3) facility appearance & general condition, 4) facility grounds, 5) facility roofing systems, 6) facility energy performance, 7) facility & district support staffing, 9) facility capital planning, and, 10) facility environmental safety. Audits provide a means for two-way communication between custodial staff, the principal, and district administrators to ensure continuous improvement toward intended outcomes. Facilities audits help to identify successes and challenges at each school. They have helped to maximize the work order system's capacity for the initiation of predictive, preventative, and timely corrective maintenance activities. Periodic reviews assist in communication expectations and the conditions of school facilities.

The capital repair program for Pentucket Regional High School has become obsolete due to the high frequency of emergency repairs at the school, figure 1 -1.

On April 13, 2014, a corroded water pipe located 18 feet below the foundation of the high school burst. The impact of the water pressure lifted a wing of the school off of its foundation, carved a twenty square foot cavity under the foundation, and flooded the main corridor, cafeteria, auditorium, guidance suite, nurse's office, first floor classrooms, and six attached modular classrooms with water and mud.

Flooding of the corridor and cafeteria damaged their asbestos tiles. Asbestos abatement was required and completed during the repairs.

Remediation of the cavity excavated by the water pressure under the school foundation required the use of a specialized process that injected pressurized concrete to fill the void.

Lastly, black mold was discovered in the walls of the modular units. The age and condition of the modular classrooms unit required its removal.

This same pipe failed in a different location on February 1, 2015, resulting in the cancellation of high school classes for two days and the establishment of a new water supply for the high school.

These catastrophic events are costly, interrupt the continuity of high quality teaching and learning, and took four

classrooms off-line. Classes that normally could be scheduled at the high school are now being conducted in the middle school. Relocating these high school classrooms to the middle school required the cannibalization of the middle school media center, superintendent's conference room, and one additional middle school classroom. Moreover, spaces that had been designated for the implementation of innovation school programming are no longer available. Equipment donated by the Pentucket Educational Foundation for the implementation of the Movement Science & Athletic program is not able to be used until a suitable space can be identified.

Each catastrophic event not only sabotages Capital Repairs Plans, it has a negative impact on the educational programming. It has become futile to engage in meaningful planning when emergency expenses at the high school require the diversion of funds from that plan, the regular maintenance budget, and from funds intended to support educational programming.

Major capital projects in the past include: 1) 1967 – Pentucket Regional Middle School Building Project resulting in students in grades 7 and 8 being relocated from the 1956 junior-senior high school to the middle school; and, 2) 1993 Classroom Addition to the high school.

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**Priority 1**

***Question 1: Please provide a detailed description of the perceived health and safety problem(s) below. Attach copies of orders or citations from state and/or local building and/or health officials.***

The Pentucket Regional School District hired CGKV Architects, Inc. to examine and report (Appendix 1) on existing architectural and structural conditions at the Pentucket Regional High School. CGKV's consultant, Lin Associates, prepared the structural conditions report. Under separate contract, the District hired Fitzemeyer & Tocci Associates to examine and report on existing mechanical, electrical, and plumbing [MEP] systems. In his letter dated March 24, 2015 (Appendix 2), Matthew Merli, Project Manager for Fitzemeyer & Tocci Associates, Inc. describes the severity of systems problems as, "in imminent danger of possible failure." Further, Mr. Merli states, "...it is somewhat surprising that this equipment hasn't failed yet." These reports and letter serve as a foundation for the claims regarding the perceived health and safety problems described below.

1. The HVAC system and equipment are either past or nearing the end of their useful life expectancy, as detailed by the HVAC Applications – ASHRAE Handbook. The HVAC equipment within the Apparatus Room, dating back to 1956, appears to be in imminent danger of possible failure. This would result in a large portion of the school being without heat.
2. The plumbing systems and equipment are 20+ years old and have surpassed their useful life expectancy. Many of these systems appear to be in need of full replacement.
3. The original 1956 electrical distribution equipment, including the original Frank Adam switchboard, appears to be in imminent danger of possible failure; which would result in the school being without power.
4. The Apparatus Room has one egress door, which is not in compliance with the National Electrical Code. Due to the mechanical equipment located within the room, the additional working space clearance cannot be achieved.
5. The original 1956 Frank Adam switchboard appears to be in imminent danger of possible failure. This would result in the loss of power to the entire building.
6. Classrooms within the 1956 construction only include a single receptacle branch circuit and typically only 2 duplex receptacles, which does not provide adequate branch circuitry or electrical infrastructure within classrooms to accommodate modern classroom power requirements.
7. There are significant problems with water intrusion at this exterior elevation, which can be clearly seen at damaged interior finishes within the media center. Unchecked and continuing water intrusion can further deteriorate the exterior wall structure and possibly lead to the introduction of mold into the wall assembly.
8. The fit and operation of existing exterior doors is problematic. Conditions at the southwest exterior door at the 1993 gymnasium have made that door virtually inoperable, raising serious concerns about the available means of effective egress from that space.
9. The Aulson Company inspected the asphalt shingle roof in November 2014 and found that the shingles are in need of replacement due to cracking and splitting. The District reports active leaks under certain weather conditions in the 1993 classroom wing.
10. At the time of CGKV's visit to the school, significant ice-damming was observed at the perimeter of the 1993 classroom wing. Deteriorated shingles, active leaks, and ice dams could all result from the original design and/or construction of the roof system at this portion of the facility. Ice dams and icicles at the perimeter of the 1993 classroom wing are a danger to pedestrians below.

**Priority 1*****Question 2: Please describe the measures the district has taken to mitigate the problem(s) described above.***

1. The District attempts to mitigate HVAC problems with ongoing repairs. A project to make needed improvements to the PRHS facility HVAC system, as cited in Appendix 1, would be a significant undertaking. Such work would require compliance with numerous building codes and state regulations, three of which are discussed below.

**780 CMR Massachusetts State Building Code**

The repair, alteration, change of occupancy, addition, and relocation of existing building must conform to the provisions of the Massachusetts State Building code. The State Building code currently uses the International Existing Building code 2009 (IEBC 2009) with amendments specific to Massachusetts. The code provides three methods for compliance: the prescriptive compliance method (where, in general, altered areas must comply with the Code for new construction), the work area compliance method (where the level of compliance is based on the classification of work), and the performance compliance method (which uses a numerical method that allows tradeoffs for code deficiencies).

Broadly speaking, the more complex and extensive a renovation project is, the more likely the code will require that the building perform similar to a newly constructed building. Replacing a complete building system, such as all the components of the HVAC system, would generally require that the new system comply with the Code for new construction. The existing building would be required to undergo a detailed evaluation of seismic and other structural issues, as well as confirmation of sufficient means of egress capacity.

**521 CMR Architectural Access Board**

Renovation of Pentucket Regional High School would be regulated by the Massachusetts Architectural Access Board [AAB]. For existing buildings, if the renovation work being performed amounts to 30% or more of the full and fair cash value of the building, then the entire building is required to comply with 521 CMR.

According to the Town of West Newbury, the existing PRHS building is assessed at just over \$8 million. A renovation project (or multiple renovation projects conducted over a three year time frame) costing as little as \$2.4 million would trigger the requirement that the entire building be brought up to the accessibility standards of a newly constructed facility.

The Architectural Access Board does have in place procedures whereby a building who thinks that full compliance with 521 CMR is impracticable may apply to the Board for a variance from 521 CMR. Per AAB, impracticability is defined as a condition where 9a) compliance with 521 CMR would be technologically unfeasible, or (b) compliance with 521 CMR would result in excessive and unreasonable costs without any substantial benefit to persons with disabilities.

**Massachusetts General Law c.148 s. 26G**

MGL Chapter 148 Section 26G may require the installation of an automatic sprinkler system in buildings over 7,500 square feet in aggregate where the proposed work is expected to affect 33% or more of the total area of the building or where the cost of the proposed work is 33% or more of the assessed value of the building and is considered "major".

The Automatic Sprinkler Appeals Board takes guidance from a 1989 Massachusetts Appeals Court case to help determine if "major alterations or modifications" are taking place. The Court said that the term "major alterations" shall include "any changes affecting a substantial portion of the building". In its decision, the Court looked at the nature of the planned work and would require sprinklers throughout the building if "the extra cost of installing sprinklers would be moderate in comparison to the total cost of the work contemplated..." or "if the physical work being done is of such scope that the additional effort to install sprinklers would be substantially less than it would have been if the building were intact."

2. The District attempts to mitigate plumbing problems with ongoing repairs. The school's water main has broken three times with two breaks occurring in the past year (April 2014 and February 2015). The District operates under a significant financial overburden due to the ongoing, costly repairs needed to mitigate system failures. This overburden compromises the District's ability to operate efficiently and effectively. A project to make needed improvements to the PRHS facility



Plumbing system would be a significant undertaking. Such work would require compliance with numerous building codes and state regulations, three of which are discussed above.

3. The District has attempted to mitigate the obsolete and insufficient electrical infrastructure. Since replacement breakers are not available, the District has attempted to mitigate obsolete components by reusing retired parts. A project to make needed improvements to the PRHS facility electrical system would be a significant undertaking. Such work would require compliance with numerous building codes and state regulations, three of which are discussed above.

4. The Apparatus Room has one egress door, which is not in compliance with the National Electrical Code, and cannot be mitigated by the District. Due to the mechanical equipment located within the room, the additional working space clearance cannot be achieved.

5. A project to replace the original 1956 Frank Adam switchboard would be a significant undertaking. Such work would require compliance with numerous building codes and state regulations, three of which are discussed above.

6. The District has attempted to mitigate the lack of electrical infrastructure by having panelboards installed within classrooms in order to provide power to new receptacles. A project to make needed improvements to the PRHS facility Electrical system would be a significant undertaking. Such work would require compliance with numerous building codes and state regulations, three of which are discussed above.

7. Mitigation is not possible without the reconstruction of this façade. Water infiltration has been attributed to design rather than malfunction. Unchecked and continuing water intrusion can further deteriorate the exterior wall structure and possibly lead to the introduction of mold into the wall assembly. A project to make needed improvements to the PRHS façade would be a significant undertaking. Such work would require compliance with numerous building codes and state regulations, three of which are discussed above.

8. The District attempts to mitigate these conditions with ongoing repairs and supplements to the 1993 overhead door closers with new surface-mounted closers. Despite these measures, the fit and operation of existing exterior doors is problematic. Weather seals are ineffective, either through general deterioration or through racking and sagging of door and frame components.

9. The District must consider removal of the existing roofing system down to the existing structural roof deck. Installation of a full, new roof system would need to include a vapor retarder, polyisocyanurate insulation of minimum thickness required by current energy codes, protective cover board, and new single-ply membrane.

10. The original design and construction of the roof is unable to be mitigated, other than restricting use of the doors except in the case of an emergency.

**Priority 1**

***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 Pentucket Regional School District hired CGKV Architects, Inc. to examine and report on existing architectural and structural conditions at the Pentucket Regional High School. CGKV's consultant, Lin Associates, prepared the structural conditions report. Under separate contract, the District hired Fitzmeyer & Tocci Associates to examine and report on existing mechanical, electrical, and plumbing [MEP] systems. In his letter dated March 24, 2015, Matthew Merli, Project Manager for Fitzmeyer & Tocci Associates, Inc. describes the severity of systems problems as, "in imminent danger of possible failure." Further, Mr. Merli states, "...it is somewhat surprising that this equipment hasn't failed yet." These reports and letter serve as a foundation for the claims regarding the perceived health and safety problems described below.

While future catastrophic failures cannot accurately be predicted, the District is experiencing an increase in the frequency of infrastructure failures at Pentucket Regional High School. Future catastrophic failure of the facility's infrastructure will negatively impact the District's educational program as it has to date. Failures of school infrastructure this year have had a negative impact on Pentucket's educational program and are described below.

1. The obsolete condition of the Pentucket Regional High School facility impedes the District's Innovation School leadership position in Massachusetts, compromising the economic advancement of the regional district member communities.

The March 22, 2015 Boston Sunday Globe highlights Pentucket for its leadership position with respect to Innovation Schools - [http://www.bostonglobe.com/metro/regionals/north/2015/03/21/new-wave-innovation-pentucket-schools/9sJqOh8t1o3B6VZSY2DlFK/story.html?s\\_campaign=8315](http://www.bostonglobe.com/metro/regionals/north/2015/03/21/new-wave-innovation-pentucket-schools/9sJqOh8t1o3B6VZSY2DlFK/story.html?s_campaign=8315) (Appendix 3). The obsolete conditions of Pentucket Regional High School and imminent possible failure of its systems challenge the District's branding that is focused on innovation, student voice & choice, and significant outcomes. Pentucket loses approximately 9% of its student population to other public and private educational organizations. Pentucket's innovation school initiative, as highlighted in the Boston Sunday Globe, seeks to sharpen Pentucket's competitive edge so that it can successfully compete with the many private and public educational options available to students in the Pentucket area. Moreover, the obsolete condition of the high school facility erodes the community's confidence in its educational system. Although Pentucket's educational programming offers students a new way to get ahead, the high school facility adversely affects the District's intended outcomes for students. Homebuyers recognize that good schools equate to a sound investment. Pentucket High School's obsolete facilities and outdated systems have a negative impact on the District's educational program as a community asset.

The following events that recently occurred are listed below and can be attributed to the obsolete facility and its failing systems.

- 1 On April 13, 2014, a corroded water pipe burst under the school, flooding areas on the first floor and modular unit. As a result, classes scheduled for the 4 modular classrooms, 6 classrooms on the first floor, health / nurses's office, job coach office, and three guidance counselor offices were displaced to other areas of the high school and middle school from April until September. Subsequently, the modular classrooms were demolished and those classes scheduled for the middle school, cannibalizing the middle school library/media center, one classroom, and the superintendent's conference room. Facilities staff, fire, police and other town crews were required to respond. The cost to the District was approximately \$85,000 and an insurance expense of approximately \$202,000.
- 1 In fall 2014, a security threat occurred at the high school. As a result, the school was evacuated, co-curricular activities cancelled. Facilities staff, fire and police responded. Subsequently, 8 security cameras have been installed at a cost of \$25,000.
- 1 On September 5, 2014, a gas leak was detected in a science lab. As a result, the school was evacuated. Facilities staff, fire and police responded.

- 1 On December 3, 2014, a light in the gymnasium short circuited in the panelboard. As a result, athletic practice was interrupted. Early detection and action prevented a fire in the panelboard and prevented the need for fire and police to respond.
- 1 In December 2014, a corroded heating/steam pipe burst. Repairs occurred during the winter break, causing the interruption of co-curricular activities. Early detection prevented widespread damage and the need for emergency responders.
- 1 On January 12, 2015, inadequate ventilation in a science lab required a school evacuation. Facilities staff, fire and police responded.
- 1 On January 16, 2015, a corroded water pipe in a science lab leaked, flooding the science room and office located below it on the ground floor. Early detection prevented widespread damage, interruption to education, and the need for emergency responders.
- 1 On January 30, 2015, water leaked through the ventilation unit in the gymnasium. It was caused from condensation around drainage pipes on the roof. As a result, the basketball game was interrupted due to the hazard on the court for players. Facilities staff were required to respond. Early detection prevented need for emergency responders.
- 1 On February 1, 2015, the corroded water main across route 113 burst. Water service to the high school was interrupted for two days. This is the same corroded pipe that burst and flooded the high school in April 2014. Repairing the pipe would have cost approximately \$187,000. The District discontinued water service with West Newbury and established water service with Groveland. The cost of this project was \$9,700. Facilities staff, emergency responders, and town responders were required to address the issue.

2. Continued investment in the obsolete high school facility is an inefficient and ineffective use of public funds and compromise efficiencies intended by regionalization. Escalating costs for emergency repairs, figure 1 – 1, divert funding away from educational programming and away from intended outcomes.

Repairs to the high school facility only restore it to its current, obsolete condition that limits the implementation of innovative educational programming, mandated state expectations (educator evaluation and district-determined measures), and intended student outcomes.

3. The obsolete condition of the high school facility has a negative impact on community resources. Escalating demands on community emergency responders may prompt a reallocation of financial support of communities from schools to match demands on emergency responders. The reassignment of community funds from schools to emergency departments will have a negative impact on educational programs. Emergency responses from local communities are a financial overburden to the communities. Community cost for emergency responses for the past year are conservatively estimated to be \$1,574.

4. The obsolete condition of the high school facility and the potential imminent failure of infrastructure have a negative impact on the District's educational program and intended results for students. Failures of facility infrastructure result in the interruption of high quality teaching and learning.

Students and staff have missed three days of school (April 2014 and February 2015) due to Plumbing system failure (broken water pipes). Educational continuity has been interrupted by three school evacuations required during the same time frame. In addition, interruptions in co-curricular activities have resulted from system failures.

5. The obsolete condition of the high school facility has a negative impact on District facilities staff.

April 13, 2014 – Burst Water Main

The regular responsibilities of facilities staff from across the District are interrupted, resulting in a negative impact on the maintenance of all schools

Facilities teams were redirected to support the high school recovery from April 13 burst water main

Removal and storage of furniture, instructional materials, and equipment  
 Cleaning of furniture and instructional materials and equipment  
 Renovate middle school media/library to host high school classrooms  
 Move furniture, instructional materials, and equipment back into the high school  
 Overtime attributed to impact of the high school on the District: \$ 21,068.51

6. Unanticipated repairs, figure 1 – 1, of obsolete high school require the redirection of funds away from educational programming and impede educators and students from reaching intended outcomes, documented as Measurable Annual Goals in the Innovation School Plans (Appendix 14). Funds in the approved operational budget must be diverted from educational programming to accomplish required emergency repairs.

7. Facility failures are the cause of interruptions to high quality learning. Students lose instructional time due to the schedule of high school classes at the middle school. Students scheduled for classes at the middle school can experience reduced class time 95 – 10 minutes per day) due to time required to walk from the high school to the middle school.

Limited student and staff access to specialized learning spaces aligned to innovation schools resulted from the demolition of modular classrooms. Implementation of the Innovation School for Movement Science & Athletics Lab is delayed due to the lack of instructional space at the high school.

8. Facility failures are the cause of interruptions to high quality teaching and limit educators' ability to meet state standards for Educator Evaluation (Standard 1 – Curriculum, Planning, & Assessment, Standard 2 – Teaching All Students, Standard 4 – Professional Culture). Educators lose instructional time due to the schedule of high school classes at the middle school. Students scheduled for classes at the middle school can experience reduced class time 95 – 10 minutes per day) due to time required to walk from the high school to the middle school. Educators scheduled at the middle school have limited access to their peers, specialized learning instructional spaces, and professional resources.

9. The obsolete high school facilities and failing systems have a negative impact on other students, teachers, and administrators. The schedule of high school courses at the middle school requires the loss of the middle school library/media center, superintendent's conference room, and one additional middle school classroom. Students no longer have access to library for practical skills development.

Superintendent meetings and professional development sessions are relocated to the corridor outside of his office.

**Please also provide the following:**

In the space below, please tell us about the report from an independent source that is not under the direct control of the school district or the city/town, stating that the facility is structurally unsound or jeopardizes the health and safety of the students. The entirety of this report should be submitted in hard copy along with the hard copy of the district's SOI.

Please note that the MSBA will accept an official report from a city or town department/employee, if the person preparing the report is a licensed building inspector, architect, or engineer. For example, a report from the district, city, or town maintenance or janitorial department would not meet this requirement.

<b>Name of Firm that performed the Study/Report (maximum of 50 characters):</b>	
CGKV Architects, Inc. & Fitzemeyer & Tocci Assoc	
<b>Date of Study/Report:</b>	3/23/2015
<b>Synopsis of Study/Report (maximum of 1500 characters):</b>	
The existing building appears to be structurally sound.	

The Mechanical, Electrical and Plumbing Existing Conditions Report is summarized as follows.

The HVAC system and equipment is either past or nearing the end of its useful life expectancy. It is evident that the HVAC system is in need of replacement in the near future. Additionally, the HVAC equipment within the Apparatus Room, dating back to 1956, appears to be in imminent danger of possible failure. This would result in a large portion of the school being without heat.

As with the HVAC system, much of the Plumbing systems and equipment is 20+ years old and has surpassed its useful life expectancy. Many of these systems appear to be in need of full replacement.

The majority of the electrical power distribution system, including the building's electrical service, is in poor physical condition and well past its useful life of 25 years. Equipment is still in operation from the original high school construction in 1956 and no longer has replacement parts available. The original 1956 electrical distribution equipment, including the original Frank Adam switchboard, appears to be in imminent danger of possible failure; which would result in the school being without power.

The lighting system throughout the 1956 original construction and 1993 building addition were visually in good condition in most areas.

**Is the perceived Health and Safety problem related to asbestos?:** NO

**If "YES", please describe the location in the facility, if it is currently viable, and the mitigation efforts that the district has undertaken to date (maximum of 2000 characters):**

**Is the perceived Health and Safety problem related to an electrical condition?:** YES

**If "YES", please describe the electrical condition, any imminent threat, and the mitigation efforts that the district has undertaken to date (maximum of 2000 characters):**

The primary utility cable enters the building through the Utility Vault located within the Apparatus Room. The Apparatus Room has one egress door, which is not in compliance with the National Electrical Code. The additional working space clearance cannot be achieved.

The primary cable is split, routed from the vault to the pad mounted transformer. The 1956 primary cables are in poor physical condition. A cable failure in the past resulted in damage to the cable within the vault that required its removal. New cable was spliced with the existing cable within the vault. The primary cable splice does not appear to be installed in accordance with manufacturer's requirements.

The 1956 switchboard is well past its useful life of 25 years and replacement parts for the switchboard are no longer manufactured. The original 1956 Frank Adam switchboard appears to be in imminent danger of possible failure. This would result in the loss of power to the entire building.

The original 1956 electrical distribution equipment is in use. The Frank Adam panelboards are all in poor physical condition and are well past their useful life of 25 years. Since replacement breakers are not available, the District mitigates circumstances by reusing retired parts. The original 1956 electrical distribution system, which includes Frank Adam panelboards and transformers, appear to be in imminent danger of possible failure.

Classrooms within the 1956 construction only include a single receptacle branch circuit and typically only 2 duplex receptacles, which does not provide adequate branch circuitry or electrical infrastructure within classrooms to accommodate modern classroom power requirements.

The District installed panelboards within classrooms to provide power to new receptacles. These panelboards are not properly protected from damage which can be a safety hazard for students and faculty.

**Is the perceived Health and Safety problem related to a structural condition?:** NO

**If "YES", please describe the structural condition, any imminent threat, and the mitigation efforts that the district has undertaken to date (maximum of 2000 characters):**

**Is the perceived Health and Safety problem related to the building envelope?:** YES

**If "YES", please describe the building envelope condition, any imminent threat, and the mitigation efforts that the district has undertaken to date (maximum of 2000 characters):**

Exterior Walls:

A projecting gable feature defines the media center. The wall assembly at this projecting form is comprised of face brick backed-up by steel studs and gypsum sheathing. There are also large areas of cement plaster on ½ inch cement backer board at the upper gable and surrounding the exterior windows. The roof rake edge is flush with the gable end wall.

There are significant problems with water intrusion, which can be clearly seen at damaged interior finishes within the media center. The EIFS clad façade of the library facing the courtyard exhibit corrosion along its termination around the windows and at the soffit. Similarly, exterior edges of the cement plaster assembly are deteriorated and rusting.

Mitigation is not possible without the reconstruction of this façade. Water infiltration has been attributed to design rather than malfunction. Unchecked and continuing water intrusion can further deteriorate the exterior wall structure and possibly lead to the introduction of mold into the wall assembly.

Doors:

The fit and operation of existing exterior doors is problematic. Primary entrance doors are aluminum-framed. Other doors are hollow metal with hollow metal frames. Exterior doors are in generally poor condition, unsuitable for the degree of use they have seen over nearly twenty years. Aluminum doors and frames have suffered the most, with screwed connections loosening over time. Door hardware is also deteriorated.

The District attempts to mitigate these conditions with ongoing repairs and supplements to the 1993 overhead door closers with new surface-mounted closers. Weather seals are ineffective, either through general deterioration or through warping and sagging of door and frame components.

Conditions at the southwest exterior door at the 1993 gym have made that door virtually inoperable, raising serious concerns about effective egress.

**Is the perceived Health and Safety problem related to the roof?:** YES

**If "YES", please describe the roof condition, any imminent threat, and the mitigation efforts that the district has undertaken to date (maximum of 2000 characters):**

With the exception of the two-story 1993 classroom wing, all roofs at Pentucket Regional High School are comprised of single-poly PVC membrane over 3 inch minimum rigid insulation over gypsum concrete roof deck (at 1956 sections) or metal roof deck (1993 sections). The current roof membrane dates back to the 1993 renovation and addition project. The Garland Company performed a detailed inspection of the existing roof in October 2010 and found it to be in generally good condition at that time.

The current PVC roof, at approximately 20 years of age, has most likely reached the end of the maximum warranty available at the time of its installation. The Garland report recommended scanning for areas of possible wet insulation and repairing portions of the existing roof system prior to installing a liquid-applied coating over the entire roof. It is recommended that the District consider removal of the existing roofing system down to the existing structural roof deck.

The Aulson Company inspected the asphalt shingle roof in November 2014 and found that the shingles are in need of replacement due to cracking and splitting. The District reports active leaks under certain weather conditions in the 1993 classroom wing.

Significant ice-damming was observed at the perimeter of the 1993 classroom wing. Deteriorated shingles, active leaks, and ice dams could all result from the original design and/or construction of the roof system at this portion of the facility. The attic space may be inadequately ventilated. The lack of vapor retarder as part of the insulation layer may also negatively impact the performance of the roof assembly. The roof assembly does not include an ice and water shield, which, at minimum, would normally be located at the lowest three to four feet of the roof perimeter. Ice dams and icicles at the perimeter of the 1993 classroom wing are a danger to pedestrians below.

**Is the perceived Health and Safety problem related to accessibility?:** NO

**If "YES", please describe the areas that lack accessibility and the mitigation efforts that the district has undertaken to date. In addition, please submit to the MSBA copies of any federally-required ADA Self-Evaluation Plan and Transition Plan (maximum of 2000 characters):**

**Priority 2*****Question 1: Please describe the existing conditions that constitute severe overcrowding.***

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Pentucket Regional High School is overcrowded. It does not have enough space to house all of our programs and classrooms and relies on space at the middle school as a way of mediating the overcrowding. Six high school classrooms with up to 120 students per class period are scheduled at the regional middle school. The high school building does not have enough space to house all of the classes offered to students in the program of studies.

High school classes had to be relocated to the middle school as a result of the removal of a modular classroom unit (Appendix 5) connected to the high school. These high school classrooms are now scheduled in spaces that formerly housed the middle school library-media center, the superintendent's conference room, and a middle school classroom. The modular classrooms, a lower wing of the high school, main corridor, auditorium, guidance suite, health office, and cafeteria were flooded and damaged when a water main burst at 3AM on April 13, 2014 (Appendix 4). The modular classrooms were damaged to a degree that they could not be repaired. This same water main broke seven years ago, and broke a third time on February 1, 2015. With the removal of these classrooms, the high school could not accommodate classrooms with existing space. In order to find space for these classes the high school took over classroom space in the middle school building which is part of the regional campus. In addition to relocating high school core classes at the middle school, the scarcity of instructional space since April 13, 2014 has delayed the implementation of planned innovation schools for students in grades 7 – 12. For example, donated equipment for the new Movement Science & Athletic Academy has been displaced and sits sidelined throughout the school. Meaningful integration of this new equipment from a District partner is delayed for the foreseeable future.



**Priority 2**

***Question 2: Please describe the measures the School District has taken to mitigate the problem(s) described above.***

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Thirteen years ago, a modular classroom unit was added to the existing building to mitigate the overcrowding at Pentucket Regional High School. As a result of the burst water main that caused a building flood on April 13, 2014, these modular classrooms were damaged beyond repair and were removed, exacerbating the overcrowding at the high school. The steps taken to mitigate the problem following the April 2014 flood included using additional classroom space at Pentucket Regional Middle School, located on the same campus as the high school. High school teachers have been reassigned to classroom spaces at the middle school and each period approximately one hundred twenty students walk to the middle school to attend various classes.

Reconnecting modular classrooms to the high school will only restore the school to its current, obsolete condition. The District's innovative program of studies requires the reimaging of the use of space and time. Contemporary instructional models needed to implement innovation schools, such as the individual rotation model and virtual enrichment model, require large, open spaces to support flexible use. While the elimination of modular classrooms is a detriment to the space needed to implement the program of studies, a short-sighted, patchwork approach will compromise the efficient use of taxpayer funds that regional districts are designed to accomplish. The various instructional models are described in more detail later in this Statement of Interest.

**Priority 2**

***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.***

There are multiple ways that this overcrowding problem impacts our education programming. High school teachers have been reassigned to classroom spaces at the middle school and each period approximately one hundred twenty students walk to the middle school to attend various classes. When students travel from the high school building to the middle school building they need extended passing time for each period of the day. This wastes up to 10 minutes of class time. With class time already limited to 50 minutes per class per day, a loss of up to 10 minutes is significant. The time required to walk to the middle school continues to hamper the delivery of high quality teaching and learning. Students and teachers are cognizant of and sensitive to the impact on time. This year, affected classes include Spanish, German, Social Studies, and Computer Lab. The required relocation of high school classes to the middle school has a negative impact on the quantity and quality of instruction specifically for those content areas and, consequently, on the District's educational programming.

Another impact to our educational program involves school safety and security. Reassigning high school classrooms to the middle school building results in the potential for 120 students to be moving between buildings each class period. While our school doors are locked and access is only allowed through two video monitored entries, having 100-120 students traveling between the buildings on campus significantly challenges school security.

Implementation of Pentucket's secondary innovation schools is hampered due to working around the high school's limited space. Our Design and Engineering Academy requires students and staff to collaborate to develop curriculum and deliver instruction and applied assessment methods. Pentucket is implementing assessments that integrate academic knowledge, adaptive leadership, and high levels of personal meaning. Educators in Pentucket plan units of instruction and construct assessments that require students to apply content knowledge, adaptive leadership skills, and high levels of personal meaning to problems that have an impact on the local or global community. Two of the programs that cannot be housed in the high school due to lack of space are the Engineering and Computer Assisted Design (CAD) programs. These programs need to be in proximity to the rest of the math and science departments to develop and deliver our program. Space and proximity have a significant, limiting impact on the program.

A state-of-the-art computer lab was donated by a District partner for use in the Art & Visual Effects Academy. This computer lab provides new capacity for students to access new courses, including digital character sculpture and digital painting. The implementation of this new equipment, given the reduced capacity of the facility, required the displacement of another high school computer lab, relocated to the middle school. Consequently, teachers and students must relocate to the middle school to access this computer lab. Teachers report that students ask for them to consider alternatives due to the inconvenience and time wasted by walking to the middle school. This overcrowding puts a large burden on the high school media center. When the principal asked students and teachers to describe the impact of the facility on their learning, two thirds of both staff and students replied to the principal's December 2014 survey that the lack of adequate access to the resources in the media center are significant factors limiting their educational program. Teachers and students both recognize the need for resources and technology as critical to their ability to learn and apply their knowledge and skills.

The loss of modular classrooms forced the elimination of a classroom space that was to be our Movement Science and Athletics lab, housing our cardio equipment, recently donated by a District partner and purchased for the new program. We now have no location for the Movement Science and Athletics lab. Our small weight lifting room adds additional constraints to our implementation of Movement Science & Athletics programming. The weight room is already overcrowded and in need of expansion. These are critical to the programming and curriculum of the Movement Science and Athletics Innovation Academy. Anatomy & Physiology I & II, Sports Medicine I & II, Biomechanics, Strength and Conditioning, Wellness 9 & 10 are all limited by the overcrowded weight room and lack of the Movement Science and Athletics lab. Moreover, the school's obsolete gymnasium does not have the capacity to support a contemporary vision of health and wellness. Pentucket Regional High School's innovative curriculum has outpaced the function of the 1950's basketball court. The high school does

not have the space to support its contemporary program of studies or intended student outcomes.

Another common overcrowding concern among staff and students is felt during passing time between classes. After spending one five minute passing time between classes, a student will experience the effects of the school's small and overcrowded hallways. The normal width of a corridor in the high school is 10 feet wide. At numerous "choke points", the hallways narrow at fire doors to a width of five feet three inches. Furthermore, some stairways are only four feet seven inches wide. These crowded hallways present a challenge for students, staff and administrators and require additional time between classes just so that students can get to their next class.

Overcrowding, due to the lack of space at Pentucket Regional High School, has a negative impact on the implementation of the school's Innovation Schools (Appendix 14) and innovative program of studies. Overcrowding limits the ability of students, educators, or the member communities to realize intended outcomes. The obsolete facility requires a visionary solution that is equal to the school's innovative program of studies and the District's intended outcomes for students.

**Please also provide the following:**

<b>Cafeteria Seating Capacity:</b>	375
<b>Number of lunch seatings per day:</b>	3
<b>Are modular units currently present on-site and being used for classroom space?:</b>	NO

**If "YES", indicate the number of years that the modular units have been in use:**

**Number of Modular Units:**

**Classroom count in Modular Units:**

**Seating Capacity of Modular classrooms:**

**What was the original anticipated useful life in years of the modular units when they were installed?:**

<b>Have non-traditional classroom spaces been converted to be used for classroom space?:</b>	YES
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**If "YES", indicate the number of non-traditional classroom spaces in use:** 2

**Please provide a description of each non-traditional classroom space, its originally-intended use and how it is currently used (maximum of 1000 characters):**

High school classes are scheduled for the middle school library/media center and superintendent's conference room. Middle school students no longer have access to the middle school library/media center and the superintendent conducts meetings and professional development sessions in the corridor outside of his office.

**Please explain any recent changes to the district's educational program, school assignment polices, grade configurations, class size policy, school closures, changes in administrative space, or any other changes that impact the district's enrollment capacity (maximum of 5000 characters):**

Pentucket seeks to become the educational opportunity of choice for students and families who reside in the regional district's three member towns, Groveland, Merrimac, and West Newbury. For many years, the District has experienced an average of approximately 8.8% of its students opting for public or private alternatives to Pentucket Regional High School. A longitudinal analysis from 2009 to 2014, Figure 4-1, demonstrates this pattern of choice. Students who enroll in public and private school alternatives to Pentucket Regional High School represent missed opportunities for the District.

The 2013 Survey of Parents Opting for Educational Opportunities Outside of Pentucket (Appendix 13) survey provided valuable feedback for the District. Survey results identified key drivers in parents' decisions to access educational alternatives to Pentucket Regional High School.

- Parents desire contemporary curriculum offerings in which students apply learning and access individual strengths. They desire accelerated courses that prepare students for college.
- Parents desire small class sizes with personalized educational experiences for students. This high degree of personalization included specialized supports for students with disabilities.

- The condition of the high school facility and condition of the athletic fields on the regional campus are significant drivers in parents opting for educational opportunities outside of the District.

The District has taken bold steps within its definition of world class that have resulted in it becoming the Innovation School leader in Massachusetts, as illustrated in figure 4 - 2. With seven innovation schools implemented (Appendix 14) and three innovation schools in development, Pentucket's curriculum distinguishes it from other districts. Pentucket will have more innovation schools than Boston, Worcester, or any other district in Massachusetts. Each innovation school is carefully correlated and responsive to student and parent feedback. The District values the voice of stakeholders and seeks to offer educational choices that match their expectations.

Pentucket's curriculum provides opportunities for students to access accelerated learning opportunities, enact leadership resulting in significant change, and have an impact on the world as a creative agent. These expectations permeate the entire system, prekindergarten through grade 12. Early success can be seen among some of the District's youngest students. For example, Pentucket recognized a first grade student as the 2014 Student Of The Year. The first grade team at his school piloted a high-powered unit of instruction aligned to the District's curriculum changes. He extended this learning by working with his church to support the needy members of the community. This student set a high bar for other students when he demonstrated how a seven year old student could apply his learning, enact leadership resulting in significant change, and have an impact on the world as a creative agent, Appendix 2. Similar examples of how our piloted innovative curriculum supports student success can be cited across the system, as highlighted in the March 22, 2015 Sunday Boston Globe (Appendix 3). These pilot programs need to be brought to scale.

In addition to program improvements, Pentucket has reduced class sizes and increased special education supports. Since 2012, Pentucket's class sizes have been reduced to increase the level of personalization experienced by students. In 2011 – 2012, fifteen elementary school classes in the District had 25 – 29 students. By 2014 – 2015, all elementary school class sizes were under 24, with an average of 17. Secondary class sizes have also been reduced during this time frame, from an average of 22 to an average of 18 in all core classes. Specialized programs for students with disabilities have been expanded, particularly for those students with communication and emotional disabilities (Appendix 15).

The 2014 improvements to the athletic complex located on the regional campus represent the most recent way in which the District has responded to feedback from parents choosing public and private educational alternatives outside of Pentucket Regional High School. The \$2.6 million renovation resulted in the installation of a new softball field, new field hockey field, a new practice field, five new tennis courts, and a new eight-lane track and infield. This facilities project, in combination with new educational programs, positions Pentucket as a very desirable school district. In light of recent improvements to the athletic complex and educational programming (Appendix 15), questions are raised about when the obsolete high school facility will be repositioned to support the intended educational outcomes of students, educators, and the regional district's member communities.

**What are the district's current class size policies (maximum of 500 characters)?:**

Per the negotiated agreement between the District and Association:

20 students per teacher

15 students per teacher for high school writing lab classes

**Priority 4*****Question 1: Please describe the conditions within the community and School District that are expected to result in increased enrollment.***

A change in leadership occurred in Pentucket when, in July 2012, a new superintendent began his tenure. Data was collected from all stakeholder groups as part of his entry plan (Appendix 15). Reports from parents and town leaders about parents opting for educational opportunities outside of the District required further investigation. Specifically, questions were raised about the number of students opting out of the District and the driving factors influencing these decisions.

The 2013 *Survey of Parents Opting for Educational Opportunities Outside of Pentucket* (Appendix 13) assessed the drivers for parents' decisions to enroll their children in schools outside of Pentucket. Initial analysis resulted in the identification of the transition between grade eight and grade nine as the decision point for many parents. The survey provided an opportunity for parents to respond to questions about the curriculum / educational programs and facilities. Parents responded using the survey's Likert scale and open-ended comment opportunities.

The following information serves to summarize feedback from parents. Parents desire contemporary curriculum offerings in which students apply learning and access individual strengths. They desire accelerated courses that prepare students for college. For example, one parent wrote, "Be sure the educational programs are competitive with area schools, both public and private."

Parents desire small class sizes with personalized educational experiences for students. This high degree of personalization included specialized supports for students with disabilities.

The condition of the high school facility and condition of the athletic fields on the regional campus are significant drivers for parents opting for educational opportunities outside of the District. Examples of comments written by parents included,

"Update the school facilities and athletic facilities"

"When we moved here in 1999, a new high school was discussed. My children would have been in a new high school yet (there is still no new school) and (they) are in college now. The improvements to bleachers were not done. New track, tennis courts were not started."

"Poor facilities compared to all surrounding high schools. Extremely poor athletic facilities. Need an updated high school."

In 2014, Pentucket Regional School District took bold steps to address the key drivers of parents' decisions to enroll their children in public and private schools other than Pentucket. The District competed for and won a State award of \$50,000 for purposes of planning Innovation Schools and, more recently, competed for and won a State award of \$164,956 (Appendix 9) for purposes of implementing innovation schools. Pentucket's innovation school awards distinguish the District from others. Pentucket won five of the nine planning grants awarded in Massachusetts and seven of eight implementation grants awarded. Pentucket's innovation school initiative remains one of the District's priority strategies for district improvement, as seen in the District Capacity-building Plan (Appendix 6). Pentucket seeks to become the preferred educational opportunity for students and families, the career opportunity of choice for talented educators, and the investment opportunity of choice for Groveland, Merrimac, and West Newbury, the regional district's member communities. To this end, the District has embarked on a bold improvement agenda that recently established Pentucket as the Innovation School Leader in Massachusetts. Moreover, the District has adopted an acceleration agenda, implementing an advanced curriculum for elementary school students, early-high school credit for middle school students, and early-college / early-career opportunities for high school students. The March 22, 2015 Sunday Boston Globe article describes the success of Pentucket's innovative curriculum (Appendix 3). Technology is being integrated into the core curriculum in ways that provide highly specialized supports for each student. The District has rapidly reduced class sizes over the past three years. In 2011 – 2012, fifteen elementary school classes in the District had 25 – 29 students. By 2014 – 2015, all elementary school class sizes were under 24, with an average of 17.

Secondary class sizes have also been reduced during this time frame, from an average of 22 to an average of 18 in all core classes. Specialized programs for students with disabilities have been expanded, particularly for those students with communication and emotional disabilities. District partnerships have expanded commensurate with its focus on providing early-college and early-career experiences. The Art & Visual Effects Academy enjoys a partnership with Gnomon, a world-renowned school for visual effects located in Hollywood, CA. Local and state emergency response agencies partner with the Safety & Public Service Academy. Merrimack College and Pentucket Regional High School have entered into discussions that could result in a partnership with the Movement Science & Athletics Academy. Three additional secondary innovation academies are in the planning stages: 1) the Secondary STEM Academy, 2) Business, Finance & Entrepreneurship, and, 3) a Music Conservatory.

The District completed a \$2.6 million project in 2014 to revitalize the athletic facilities on the regional campus. A new softball field, new field hockey field, a new practice field, five new tennis courts, and a new eight-lane track and infield complex will be enjoyed by Pentucket's students and communities in the spring of 2015. The implementation of accelerated courses, innovation schools, and the revitalization of the District's athletic complex leaves only the high school facility left on the "to do" list. The response of students, parents, educators, and community members has been very positive and has contributed to the positive momentum for a high school building project. As a sign of support, each community's Board of Selectmen voted (Appendix 7) to approve the Pentucket Regional School District's submission of a Statement of Interest supporting a building project for the high school.

A longitudinal analysis of data, 2007 – 2014, Figure 4 - 1, in the Attending Children Report describes the size of the student population opting for educational opportunities outside of the District. This annual report documents the number of students enrolled in Vocational Education, Out-of-District Public schools, and Private Schools. While the report records data across the K – 12 student population, analysis for this Statement of Interest is focused on the high school student population and those students who opt for public and private schools. Students opting for Vocational programs have been excluded, since Pentucket does not compete with vocational opportunities and encourages each student to make choices that best match his or her career goals. Students who attend other public and private schools represent a missed opportunity for Pentucket and its member communities.

The combined population of students who seek public or private alternatives to Pentucket Regional High School is represented in Figure 4 - 1. The number of students opting for public and private alternatives outside of Pentucket Regional High School vary from a low of 7.3% in 2011 to a high of 9.7% in 2014, with an average of 8.8% from 2009 to 2014. The number of students opting out has decreased over time from 303 students in 2007 to 279 students in 2014. The number of students in Pentucket who opt for educational alternatives is below the state average of approximately 11% from 2009 to 2014 ([http://profiles.doe.mass.edu/state\\_report/schoolattendingchildren.aspx](http://profiles.doe.mass.edu/state_report/schoolattendingchildren.aspx)).

Presumably, with improvements to the curriculum, small class sizes, and athletic facilities accomplished to date (Appendix 15) and the improvement of high school facilities on the horizon, Pentucket Regional High School could experience a dramatic increase in student enrollment that will exacerbate the already crowded conditions. A 9.7% increase in the student population would potentially add approximate 279 students from resident populations, as indicated in the 2014 data. This influx does not include student enrollment that could occur from parents moving to the District. Massachusetts families continue to recover from the economic recession that caused the values of properties to fall from their high in 2005. "Statewide, the median home price in Massachusetts peaked in 2005 at \$355,000. Since then, we have seen 46 communities rebound from the crash in real estate prices and record an increase in the median selling price of homes," said Timothy M. Warren Jr., CEO of the Warren Group. Homebuyers recognize that good schools equate to a sound investment. Pentucket's newly established position as the Innovation School Leader in Massachusetts will be attractive to potential homebuyers. Increased enrollment is anticipated due to the link between school quality and home sales.

**Priority 4**

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

Pentucket seeks to become the educational opportunity of choice for students and families who reside in the regional district's three member towns, Groveland, Merrimac, and West Newbury. For many years, the District has experienced an average of approximately 8.8% of its students opting for public or private alternatives to Pentucket Regional High School. A longitudinal analysis from 2009 to 2014, figure 4-1, demonstrates this pattern of choice. Students who enroll in public and private school alternatives to Pentucket Regional High School represent missed opportunities for the District.

The *2013 Survey of Parents Opting for Educational Opportunities Outside of Pentucket* (Appendix 13) survey provided valuable feedback for the District. Survey results identified key drivers in parents' decisions to access educational alternatives to Pentucket Regional High School.

- 1 Parents desire contemporary curriculum offerings in which students apply learning and access individual strengths. They desire accelerated courses that prepare students for college.
- 1 Parents desire small class sizes with personalized educational experiences for students. This high degree of personalization included specialized supports for students with disabilities.
- 1 The condition of the high school facility and condition of the athletic fields on the regional campus are significant drivers in parents opting for educational opportunities outside of the District.

The District has taken bold steps within its definition of world class that have resulted in it becoming the Innovation School leader in Massachusetts, as illustrated in figure 4 - 2. With seven innovation schools implemented (Appendix 14) and three innovation schools in development, Pentucket's curriculum distinguishes it from other districts. Pentucket will have more innovation schools than Boston, Worcester, or any other district in Massachusetts. Each innovation school is carefully correlated and responsive to student and parent feedback. The District values the voice of stakeholders and seeks to offer educational choices that match their expectations.

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In addition to program improvements, Pentucket has reduced class sizes and increased special education supports. Since 2012, Pentucket's class sizes have been reduced to increase the level of personalization experienced by students. In 2011 – 2012, fifteen elementary school classes in the District had 25 – 29 students. By 2014 – 2015, all elementary school class sizes were under 24, with an average of 17. Secondary class sizes have also been reduced during this time frame, from an average of 22 to an average of 18 in all core classes. Specialized programs for students with disabilities have been expanded, particularly for those students with communication and emotional disabilities.

The 2014 improvements to the athletic complex located on the regional campus represent the most recent way in which the District has responded to feedback from parents choosing public and private educational alternatives outside of Pentucket Regional High School. The \$2.6 million renovation resulted in the installation of a new softball field, new field hockey field, a new practice field, five new tennis courts, and a new eight-lane track and infield. This facilities project, in combination

with new educational programs, positions Pentucket as a very desirable school district. In light of recent improvements to the athletic complex and educational programming (Appendix 15), questions are raised about when the obsolete high school facility will be repositioned to support the intended educational outcomes of students, educators, and the regional district's member communities.

As stated in Priority 1, the Pentucket Regional School District hired CGKV Architects, Inc. to examine and report on existing architectural and structural conditions at the Pentucket Regional High School. CGKV's consultant, Lin Associates, prepared the structural conditions report. Under separate contract, the District hired Fitzemeyer & Tocci Associates to examine and report on existing mechanical, electrical, and plumbing [MEP] systems. In his letter dated March 24, 2015, Matthew Merli, Project Manager for Fitzemeyer & Tocci Associates, Inc. describes the severity of systems problems as, "in imminent danger of possible failure." Further, Mr. Merli states, "...it is somewhat surprising that this equipment hasn't failed yet" (Appendix 2).

The District attempts to mitigate systems problems with ongoing repairs. A project to make needed improvements to the PRHS facility system or systems would be a significant undertaking. Such work would require compliance with numerous building codes and state regulations, three of which are discussed below.

#### 780 CMR Massachusetts State Building Code

The repair, alteration, change of occupancy, addition, and relocation of existing building must conform to the provisions of the Massachusetts State Building code. The State Building code currently uses the International Existing Building code 2009 (IEBC 2009) with amendments specific to Massachusetts. The code provides three methods for compliance: the prescriptive compliance method (where, in general, altered areas must comply with the Code for new construction), the work area compliance method (where the level of compliance is based on the classification of work), and the performance compliance method (which uses a numerical method that allows tradeoffs for code deficiencies).

Broadly speaking, the more complex and extensive a renovation project is, the more likely the code will require that the building perform similar to a newly constructed building. Replacing a complete building system, such as all the components of the HVAC system, would generally require that the new system comply with the Code for new construction. The existing building would be required to undergo a detailed evaluation of seismic and other structural issues, as well as confirmation of sufficient means of egress capacity.

#### 521 CMR Architectural Access Board

Renovation of Pentucket Regional high School would be regulated by the Massachusetts Architectural Access Board [AAB]. For existing buildings, if the renovation work being performed amounts to 30% or more of the full and fair cash value of the building, then the entire building is required to comply with 521 CMR.

According to the Town of West Newbury, the existing PRHS building is assessed at just over \$8 million. A renovation project (or multiple renovation projects conducted over a three year time frame) costing as little as \$2.4 million would trigger the requirement that the entire building be brought up to the accessibility standards of a newly constructed facility.

The Architectural Access Board does have in place procedures whereby a building who thinks that full compliance with 521 CMR is impracticable may apply to the Board for a variance from 521 CMR. Per AAB, impracticability is defined as a condition where 9a) compliance with 521 CMR would be technologically unfeasible, or (b) compliance with 521 CMR would result in excessive and unreasonable costs without any substantial benefit to persons with disabilities.

#### Massachusetts General Law c. 148 s. 26G

MGL Chapter 148 Section 26G may require the installation of an automatic sprinkler system in buildings over 7,500 square feet in aggregate where the proposed work is expected to affect 33% or more of the total area of the building or where the cost of the proposed work is 33% or more of the assessed value for the building and is considered "major".

The Automatic Sprinkler Appeals Board takes guidance from a 1989 Massachusetts Appeals Court case to help determine if "major alterations or modifications" are taking place. The Court said that the term "major alterations" shall include "any changes affecting a substantial portion of the building". In its decision, the Court looked at the nature of the planned work and would require sprinklers throughout the building if "the extra cost of installing sprinklers would be moderate in



comparison to the total cost of the work contemplated..." or " if the physical work being done is of such scope that the additional effort to install sprinklers would be substantially less than it would have been if the building were intact."

Pentucket embraces the possibility of increased student enrollment. It has already maximized the use of its regional facilities, expanding the schedule of high school classes to the middle school. The District is seeking a partnership with the Massachusetts School Building Authority for a school building project to address the obsolete high school facility and systems which are in imminent danger of potential failure.

**Priority 4**

***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.***

Pentucket has positioned itself as the Innovation School leader in Massachusetts with high expectations for accelerated learning, early-college, and early-career opportunities for every student. Since 2012, the District has taken bold steps in defining world class education for purposes of becoming the preferred educational opportunity for students / families, the career opportunity of choice for talented educators, and the investment opportunity of choice for the regional district's member towns. The implementation of carefully planned strategies have been instrumental in considering how best to support each student in reaching his or her fullest human potential and succeed in the future. As the District launches its contemporary curriculum and reimagines the use of space and time, it is evident that the high school facility no longer has the capacity to support intended educational outcomes. The District has established a clear vision, organized autonomous teams, defined the student experience, and defined the experience of educators, Appendix 6. The culture of Pentucket's school community supports these shifts.

The 1950's egg crate design of the high school (Appendix 11) limits the instructional delivery needed to support Pentucket's innovative curriculum. The facility marginally supports rotation models<sup>1</sup>, such as station rotation, lab rotation, flipped classroom, and individual rotation. In a rotation model, students in a course or subject rotate among online learning, small-group instruction, and pencil-and-paper assignments at their desks. They may also rotate between online learning and some type of whole class discussion or project. Rotation might occur at stations in a classroom or between the classroom and computer lab. The individual rotation model, unlike the other rotation models, requires large open spaces. Pentucket Regional High School does not have the capacity to fully support rotation models. Limited instructional spaces require high school classes to be scheduled at the middle school, negatively impacting middle school programming. Small classroom spaces and limited numbers of computer labs limit the capacity of Pentucket Regional High School to support high quality teaching and learning as well as intended educational outcomes.

The flex model<sup>1</sup> of instruction is descriptive of learning in which the teacher of record is on site and student learning occurs mostly in the school. Students move through educational supports that are matched to their individual needs and teachers are available to offer help, initiate enrichment, and deepen learning via projects and discussions. This model depends upon a flexible school facility that supports highly individualized learning plans. Modular work stations support flexible grouping. Full implementation of the innovation school initiative underway in Pentucket requires a variety of instructional models, including the flex model. Pentucket Regional High School has a rigid classroom structure that does not have the capacity to support a flex model of instruction.

The A La Carte instructional model<sup>1</sup> describes students accessing online courses while also taking courses at a school. The Pentucket Regional High School facility currently supports this instructional model. A range of virtual high school classes are available to students so that they can access courses that are outside of the school's program of studies.

Enriched virtual instructional models<sup>1</sup> require face-to-face learning sessions but allow students to complete work online from wherever they prefer. Some courses meet in person, while others may customize the in-person based on student progress. As part of Pentucket's innovation school initiative, it is developing and strengthening partnerships with organizations of higher education. The implementation of this model is critical to fulfilling Pentucket's intended outcomes for each student to realize the benefits of early-college and early-career opportunities. Large, open learning spaces are required so that flexible instruction can meet the requirements of individual students. The obsolete high school does not have the capacity to support the enriched virtual instructional model.

Pentucket is anticipating severe overcrowding expected to result from increased enrollments due to the implementation of its world class educational vision. The current facility limits the District's ability to support the current student population and would suffer additional, negative complications with increased student enrollment.

<sup>1</sup>Horn, Michael B. & Stalker, Heather. Blended: Using disruptive innovation to improve schools. Jossey-Bass.2015

**Please also provide the following:**

<b>Cafeteria Seating Capacity:</b>	375
<b>Number of lunch seatings per day:</b>	3
<b>Are modular units currently present on-site and being used for classroom space?:</b>	NO

If "YES", indicate the number of years that the modular units have been in use:

**Number of Modular Units:**

**Classroom count in Modular Units:**

**Seating Capacity of Modular classrooms:**

**What was the original anticipated useful life in years of the modular units when they were installed?:**

<b>Have non-traditional classroom spaces been converted to be used for classroom space?:</b>	YES
--	-----

If "YES", indicate the number of non-traditional classroom spaces in use: 2

**Please provide a description of each non-traditional classroom space, its originally-intended use and how it is currently used (maximum of 1000 characters):**

High school classes are scheduled for the middle school library/media center and superintendent's conference room.

Middle school students no longer have access to the middle school library/media center and the superintendent conducts meetings and professional development sessions in the corridor outside of his office.

**Please explain any recent changes to the district's educational program, school assignment policies, grade configurations, class size policy, school closures, changes in administrative space, or any other changes that impact the district's enrollment capacity (maximum of 5000 characters). :**

Pentucket seeks to become the educational opportunity of choice for students and families who reside in the regional district's three member towns, Groveland, Merrimac, and West Newbury. For many years, the District has experienced an average of approximately 8.8% of its students opting for public or private alternatives to Pentucket Regional High School. A longitudinal analysis from 2009 to 2014, Figure 4-1, demonstrates this pattern of choice. Students who enroll in public and private school alternatives to Pentucket Regional High School represent missed opportunities for the District.

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- Parents desire small class sizes with personalized educational experiences for students. This high degree of personalization included specialized supports for students with disabilities.
- The condition of the high school facility and condition of the athletic fields on the regional campus are significant drivers in parents opting for educational opportunities outside of the District.

The District has taken bold steps within its definition of world class that have resulted in it becoming the Innovation School leader in Massachusetts, as illustrated in figure 4 - 2. With seven innovation schools implemented (Appendix 14) and three innovation schools in development, Pentucket's curriculum distinguishes it from other districts. Pentucket will have more innovation schools than Boston, Worcester, or any other district in Massachusetts. Each innovation school is carefully correlated and responsive to student and parent feedback. The District values the voice of stakeholders and seeks to offer educational choices that match their expectations.

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**What are the district's current class size policies (maximum of 500 characters)?:**

Per the negotiated agreement between the District and Association:

20 students per teacher

15 students per teacher for high school writing lab classes

**Priority 5**

***Question 1: Please provide a detailed description of the issues surrounding the school facility systems (e.g., roof, windows, boilers, HVAC system, and/or electrical service and distribution system) that you are indicating require repair or replacement. Please describe all deficiencies to all systems in sufficient detail to explain the problem.***

The Pentucket Regional School District hired CGKV Architects, Inc. to examine and report (Appendix 1) on existing architectural and structural conditions at the Pentucket Regional High School. CGKV's consultant, Lin Associates, prepared the structural conditions report. Under separate contract, the District hired Fitzmeyer & Tocci Associates to examine and report on existing mechanical, electrical, and plumbing [MEP] systems. In his letter dated March 24, 2015 (Appendix 2), Matthew Merli, Project Manager for Fitzmeyer & Tocci Associates, Inc. describes the severity of systems problems as, "in imminent danger of possible failure." Further, Mr. Merli states, "...it is somewhat surprising that this equipment hasn't failed yet." These reports and letter serve as a foundation for the claims regarding the perceived energy related issues described below.

**Roofs****Flat Roof Areas**

The roof was inspected by Garland Roofing Inc. in October, 2010. The roof at that time was considered in good overall condition. Core samples were taken and were shown to be dry.

PVC roof system warranty's vary by manufacturer and are usually either 10 or 20 year warranted products.

The PRHS PVC roof system is 18 years old and nearing a point of consideration to be recoated or replaced to maintain watertight integrity. (Recoating PVC is an option, however it must meet rigid inspection guidelines in order to reactivate a warranty.)

**Pitched Shingled Roof Areas**

The Architectural asphalt shingled pitched roof 1996 Science wing addition was recently inspected by Aulson Inc. in November 2014. This wings shingled roof is in need of replacement due to cracking & splitting of the asphalt shingles on all 4 sides of the pitched roof. There are active leaks under certain weather conditions in this section of the facility.

Asphalt shingles at the 1993 classroom wing are in need of replacement due to cracking and splitting. Additionally, roof replacement should address possible problems with ice dams, attic ventilation, and thermal and moisture control.

**Exterior Walls**

The District does not experience concerns at most exterior wall assemblies. One exception is at the 1993 wing. The north elevation includes a projecting gable feature that defines the media center. The wall assembly is comprised of face brick backed up by steel studs and gypsum sheathing. There are also large areas of cement plaster on 1/2" cement backer board at the upper gable and surrounding the exterior windows. The roof rake edge is flush with the gable end wall. There are significant problems with water intrusion, which can be clearly seen at damaged interior finishes within the media center. Similarly, exterior edges of the cement plaster assembly are deteriorated and rusting. Continuing water intrusion can further deteriorate the exterior wall structure and possibly lead to the introduction of mold into the wall assembly.

Existing exterior walls at the 1956 classroom wings are constructed of face brick with CMU back-up, or, at the primary elevations, of pre-cast concrete mullions infilled with window units (replaced ca. 1993) and pre-cast concrete "Mosai" panels. "Mosai" panels are pre-cast concrete wall panels featuring an exposed aggregate on the outside surface.

The original 1956 construction generally does not include insulation or vapor retarders as part of the exterior envelope. Insulation was added to the 1956 roofs when the current PVC membrane was installed around 1993, though the thickness does not meet current energy codes. The exterior walls at the 1956 portions of the school are not thermally efficient and allow the transfer of heat energy through the assembly. The 2001 cafeteria expansion is clad in molded plastic faux brick panels. The plastic panels are in very poor condition. They are cracked and broken in a number of locations.

**Doors**

All exterior doors were replaced as part of the 1993 renovation project. Primary entrance doors are aluminum-framed. Other doors are hollow metal with hollow metal frames. Exterior doors are in poor condition, unsuitable for the degree of use they've seen over nearly twenty years, with screwed connections loosening over time. Door hardware is also deteriorated and is an ongoing maintenance concern.

The fit and operation of existing exterior doors is problematic. Weather seals are ineffective, either through general deterioration or through wracking and sagging of the door frame components.

**HVAC**  
The HVAC system is either past or nearing the end of its useful life expectancy, as detailed by the HVAC Applications - ASHRAE Handbook. There are currently two (2) existing Cleaver Brooks fire tube, steam boilers (Model CB200) in the Boiler Room. The 1993 boilers are dual fire, such that they are able to run on natural gas or fuel oil. Both boilers are in poor condition and in need of replacement.

Within the Apparatus Room are two (2) shell and tube, steam to hot water heat exchangers. These 1956 heat exchangers are in very poor condition. The shell and tube heat exchangers have a life expectancy of 24 years and are decades past their useful life expectancy. Gate valves allow for individual hot water supply and return branches to be isolated. The 1956 gate valves do not appear to be operable. The equipment within the Apparatus Room is in imminent danger of possible failure.

The hot water distribution pumps were installed in 1993. According to ASHRAE, base-mounted pumps have a life expectancy of 20 years; therefore the distribution pumps have exceeded their useful life expectancy. Hot water unit heaters have an ASHRAE life expectancy of 20 years, and have all exceeded their useful life expectancy. They have poor heat transfer capability due to corrosion. Finned tube radiators have an ASHRAE life expectancy of 25 years and have either far exceeded (1956 radiators) or are nearing the end (1993 radiators) of their useful life expectancy.

Unit ventilators installed in 1956 are corroded and in very poor condition. The unit ventilators installed in 1993 are in the moderate condition and are operable. The roof mounted exhaust fans have an ASHRAE life expectancy of 20 years, and have all exceeded their useful life expectancy.

Three 1993 packaged rooftop units provide cooling to offices and have an ASHRAE life expectancy's of 15 years and have exceeded their useful life expectancy.

All equipment and system controls are pneumatic. This system does not have that capability for temperature control or alarm and maintenance monitoring. Pneumatic systems have an ASHRAE life expectancy of 20 years. There are parts of this system that are now almost 60 years and in need of full replacement.

All equipment operates under outdated controls. The District is restricted in its ability to monitor the building VACC systems for alarms or maintenance issues, and it is difficult to schedule operation to ensure maximum energy efficiency. This older pneumatic system does not have that capability. Pneumatic systems and equipment have an ASHRAE life expectancy of 20 years. There have been several pieces of controls equipment that has been replaced by facility staff, however these parts of the system are now almost 60 years old and in need of full replacement. Failure of this system would leave the school without heat.

**Priority 5**

***Question 2: Please describe the measures the district has already taken to mitigate the problem/issues described in Question 1 above.***

**Roofs**

The District must consider removal of the existing roofing system down to the existing structural roof deck. Installation of a full, new roof system would need to include a vapor retarder, polyisocyanurate insulation of minimum thickness required by current energy codes, protective cover board, and new single-ply membrane.

**Exterior Walls**

Mitigation is not possible without the reconstruction of this façade. Water infiltration has been attributed to design rather than malfunction. Unchecked and continuing water intrusion can further deteriorate the exterior wall structure and possibly lead to the introduction of mold into the wall assembly. A project to make needed improvements to the PRHS façade would be a significant undertaking. Such work would require compliance with numerous building codes and state regulations, three of which are discussed below under HVAC.

**Doors**

The District attempts to mitigate these conditions with ongoing repairs and supplements to the 1993 overhead door closers with new surface-mounted closers. Despite these measures, the fit and operation of existing exterior doors is problematic. Weather seals are ineffective, either through general deterioration or through wracking and sagging of door and frame components.

**HVAC**

The District attempts to mitigate HVAC problems with ongoing repairs. A project to make needed improvements to the PRHS facility HVAC system would be a significant undertaking. Such work would require compliance with numerous building codes and state regulations, three of which are discussed below.

**780 CMR Massachusetts State Building Code**

The repair, alteration, change of occupancy, addition, and relocation of existing building must conform to the provisions of the Massachusetts State Building code. The State Building code currently uses the International Existing Building code 2009 (IEBC 2009) with amendments specific to Massachusetts. The code provides three methods for compliance: the prescriptive compliance method (where, in general, altered areas must comply with the Code for new construction), the work area compliance method (where the level of compliance is based on the classification of work), and the performance compliance method (which uses a numerical method that allows tradeoffs for code deficiencies).

Broadly speaking, the more complex and extensive a renovation project is, the more likely the code will require that the building perform similar to a newly constructed building. Replacing a complete building system, such as all the components of the HVAC system, would generally require that the new system comply with the Code for new construction. The existing building would be required to undergo a detailed evaluation of seismic and other structural issues, as well as confirmation of sufficient means of egress capacity.

**521 CMR Architectural Access Board**

Renovation of Pentucket Regional High School would be regulated by the Massachusetts Architectural Access Board [AAB]. For existing buildings, if the renovation work being performed amounts to 30% or more of the full and fair cash value of the building, then the entire building is required to comply with 521 CMR.

According to the Town of West Newbury, the existing PRHS building is assessed at just over \$8 million. A renovation project (or multiple renovation projects conducted over a three year time frame) costing as little as \$2.4 million would trigger the requirement that the entire building be brought up to the accessibility standards of a newly constructed facility.

The Architectural Access Board does have in place procedures whereby a building who thinks that full compliance with 521

CMR is impracticable may apply to the Board for a variance from 521 CMR. Per AAB, impracticability is defined as a condition where 9a) compliance with 521 CMR would be technologically unfeasible, or (b) compliance with 521 CMR would result in excessive and unreasonable costs without any substantial benefit to persons with disabilities.

Massachusetts General Law c.148 s. 26G

MGL Chapter 148 Section 26G may require the installation of an automatic sprinkler system in buildings over 7,500 square feet in aggregate where the proposed work is expected to affect 33% or more of the total area of the building or where the cost of the proposed work is 33% or more of the assessed value of the building and is considered "major".

The Automatic Sprinkler Appeals Board takes guidance from a 1989 Massachusetts Appeals Court case to help determine if "major alterations or modifications" are taking place. The Court said that the term "major alterations" shall include "any changes affecting a substantial portion of the building". In its decision, the Court looked at the nature of the planned work and would require sprinklers throughout the building if "the extra cost of installing sprinklers would be moderate in comparison to the total cost of the work contemplated..." or "if the physical work being done is of such scope that the additional effort to install sprinklers would be substantially less than it would have been if the building were intact."



**Priority 5**

***Question 3: Please provide a detailed explanation of the impact of the problem/issues described in Question 1 above 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 Pentucket Regional School District hired CGKV Architects, Inc. to examine and report on existing architectural and structural conditions at the Pentucket Regional High School. CGKV's consultant, Lin Associates, prepared the structural conditions report (Appendix 1). Under separate contract, the District hired Fitzemeyer & Tocci Associates to examine and report on existing mechanical, electrical, and plumbing [MEP] systems. In his letter dated March 24, 2015 (Appendix 2), Matthew Merli, Project Manager for Fitzemeyer & Tocci Associates, Inc. describes the severity of systems problems as, "in imminent danger of possible failure." Further, Mr. Merli states, "...it is somewhat surprising that this equipment hasn't failed yet." These reports and letter serve as a foundation for the claims regarding the perceived health and safety problems described below.

While future catastrophic failures cannot accurately be predicted, the District is experiencing an increase in the frequency of infrastructure failures at Pentucket Regional High School. Future catastrophic failure of the facility's infrastructure will negatively impact the District's educational program as it has to date. Failures of school infrastructure this year have had a negative impact on Pentucket's educational program and are described below.

The obsolete condition of the Pentucket Regional High School facility impedes the District's Innovation School leadership position in Massachusetts, compromising the economic advancement of the regional district member communities.

The March 22, 2015 Boston Sunday Globe highlights Pentucket for its leadership position with respect to Innovation Schools (Appendix 3). The obsolete conditions of Pentucket Regional High School and imminent possible failure of its systems challenge the District's branding that is focused on innovation, student voice & choice, and significant outcomes. Pentucket loses approximately 9% (figure 4 – 1) of its student population to other public and private educational organizations. Pentucket's innovation school initiative, as highlighted in the Boston Sunday Globe, seeks to sharpen Pentucket's competitive edge so that it can successfully compete with the many private and public educational options available to students in the Pentucket area. Moreover, the obsolete condition of the high school facility erodes the community's confidence in its educational system. Although Pentucket's educational programming offers students a new way to get ahead, the high school facility adversely affects the District's intended outcomes for students. Homebuyers recognize that good schools equate to a sound investment. Pentucket High School's obsolete facilities and outdated systems have a negative impact on the District's educational program as a community asset.

The events listed below illustrate the obsolete facility, its failing systems and impact on the educational program.

- On April 13, 2014, a corroded water pipe burst under the school, flooding areas on the first floor and modular unit. As a result, classes scheduled for the 4 modular classrooms, 6 classrooms on the first floor, health / nurses's office, job coach office, and three guidance counselor offices were displaced to other areas of the high school and middle school from April until September. Subsequently, the modular classrooms were demolished and those classes scheduled for the middle school, cannibalizing the middle school library/media center, one classroom, and the superintendent's conference room. Facilities staff, fire, police and other town crews were required to respond. The cost to the District was approximately \$85,000 and an insurance expense of approximately \$202,000.
- In fall 2014, a security threat occurred at the high school. As a result, the school was evacuated, co-curricular activities cancelled. Facilities staff, fire and police responded. Subsequently, 8 security cameras have been installed at a cost of \$25,000.
- On September 5, 2014, a gas leak was detected in a science lab. As a result, the school was evacuated. Facilities staff, fire and police responded.

- On December 3, 2014, a light in the gymnasium short circuited in the panelboard. As a result, athletic practice was interrupted. Early detection and action prevented a fire in the panelboard and prevented the need for fire and police to respond.
- In December 2014, a corroded heating/steam pipe burst. Repairs occurred during the winter break, causing the interruption of co-curricular activities. Early detection prevented widespread damage and the need for emergency responders.
- On January 12, 2015, inadequate ventilation in a science lab required a school evacuation. Facilities staff, fire and police responded.
- On January 16, 2015, a corroded water pipe in a science lab leaked, flooding the science room and office located below it on the ground floor. Early detection prevented widespread damage, interruption to education, and the need for emergency responders.
- On January 30, 2015, water leaked through the ventilation unit in the gymnasium. It was caused from condensation around drainage pipes on the roof. As a result, the basketball game was interrupted due to the hazard on the court for players. Facilities staff were required to respond. Early detection prevented need for emergency responders.
- On February 1, 2015, the corroded water main across route 113 burst. Water service to the high school was interrupted for two days. This is the same corroded pipe that burst and flooded the high school in April 2014. Repairing the pipe would have cost approximately \$187,000. The District discontinued water service with West Newbury and established water service with Groveland. The cost of this project was \$9,700. Facilities staff, emergency responders, and town responders were required to address the issue.

Continued investment in the obsolete high school facility is an inefficient and ineffective use of public funds and compromise efficiencies intended by regionalization. Escalating costs for emergency repairs, figure 1 – 1, divert funding away from educational programming and away from intended outcomes.

Repairs to the high school facility only restore it to its current, obsolete condition that limits the implementation of innovative educational programming, mandated state expectations (educator evaluation and district-determined measures), and intended student outcomes.

Escalating costs for repairs, figure 1 – 1, of obsolete high school require the redirection of funds away from educational programming and impede educators and students from reaching intended outcomes. Funds in the approved operational budget must be diverted from educational programming to accomplish required emergency repairs.

**Priority 5**

***Question 4: Please describe how addressing the school facility systems you identified in Question 1 above will extend the useful life of the facility that is the subject of this SOI and how it will improve your district's educational program.***

In his letter dated March 24, 2015 (Appendix 2), Matthew Merli, Project Manager for Fitzmeyer & Tocci Associates, Inc. describes the severity of systems problems as, "in imminent danger of possible failure." Further, Mr. Merli states, "...it is somewhat surprising that this equipment hasn't failed yet." These reports and letter serve as a foundation for the claims regarding the perceived health and safety problems described below.

Broadly speaking, the more complex and extensive a renovation project is, the more likely the Code will require that the building perform similar to a newly constructed building. Replacing a complete building system, such as all the components of the HVAC system, would generally require that the new system comply with the Code for new construction. Based upon the results of the CGKV / Fitzmeyer & Tocci Associates report, it is unlikely that renovating a portion of the facility systems, rather than a comprehensive overhaul, would result in extending the useful life of the current facility.

The District's Capacity-building Plan has positioned Pentucket as the Innovation School leader in Massachusetts with high expectations for accelerated learning, early-college, and early-career opportunities for every student. The District has taken bold, strategic steps in defining world class education for purposes of becoming the preferred educational opportunity for students / families, the career opportunity of choice for talented educators, and the investment opportunity of choice for the regional district's member towns. The implementation of carefully planned strategies is instrumental in supporting each student in reaching his or her fullest human potential and succeeding in the future. As the District launches its contemporary curriculum and reimages the use of space and time, improved facility systems would support intended educational outcomes.

Student and educator comments cite ways they are limited by the obsolete facilities at the high school.

- 1 I hope to pursue a career in sports medicine. The laboratory facilities do not provide me with a contemporary science experiences due to the limited size and faulty electrical, gas, and water supplies. Additionally, the obsolete facilities are the cause of periodic school evacuations that have interrupted the continuity of learning. - Student, Gr. 12
- 1 My physical disability limits my access to some areas of the school. The obsolete high school does not provide the level of access that a modern learning facility would allow. A modern facility would allow me the same level of access as other students to specialized computer labs and other specialized learning opportunities. - Student, Gr. 10
- 1 As a student, the environment in which I learn is essential to my full success. Pentucket's facilities are subpar at best and hinder students from learning and growing. Computers hardly work. Gas leaks and other issues distract from learning. - Student Gr. 10
- 1 I cannot focus when I am cold because the heat is not working. Sometimes when the WiFi is not working, we cannot get work done. When the library is closed, we are not provided the resources we need. - Student, Gr. 12

"I am unable to support every student reaching high expectations. Our classrooms do not support every student reaching their potential." Peter Romanowsky – Special Education Teacher

"Our new Innovation School for Safety & Public Service relies upon the regular engagement of students with state and local emergency responders. Our 1950's infrastructure impedes our ability to deliver on high expectations." Dave Evans – Innovation School Leader

"Inadequate science labs limit my ability to help students reach our high expectations. Plumbing, electrical, gas and ventilation are all obstacles. When sinks don't drain, GFI plugs constantly trip, gas leaks and fume hoods do not work, I cannot effectively teach my students." - Sandra Goodrich – Science Teacher

Improvements to the school facility would:

- | Support the District's Innovation School leadership position in Massachusetts and the economic advancement of the regional district's member communities
- | Increase the efficiency and ineffectiveness of use of public funds intended by regionalization
- | Improve the continuity and quality of teaching and learning
- | Increase the efficiency and effectiveness of facilities staff
- | Focus intended instructional funds on the implementation of the district's innovative curriculum without diverting them to address emergency repairs
- | Increase accessibility to all programs for all students, including those with disabilities
- | Support educators in reaching high standards, defined in the educator evaluation system, for professional practice and student outcomes
- | Support students reaching state and local standards via a contemporary, innovative educational experience leading to accelerated learning, early-college / early career opportunities, and a future of each student's choice

**Please also provide the following:**

**Have the systems identified above been examined by an engineer or other trained building professional?:**

YES

**If "YES", please provide the name of the individual and his/her professional affiliation (maximum of 250 characters):**

Matthew Merli, PE

Fitzemeyer & Tocci Associates, Inc

**The date of the inspection:** 3/23/2015

**A summary of the findings (maximum of 5000 characters):**

The Pentucket Regional School District hired CGKV Architects, Inc. to examine and report (Appendix 1) on existing architectural and structural conditions at the Pentucket Regional High School. CGKV's consultant, Lin Associates, prepared the structural conditions report. Under separate contract, the District hired Fitzemeyer & Tocci Associates to examine and report on existing mechanical, electrical, and plumbing [MEP] systems. In his letter dated March 24, 2015 (Appendix 2), Matthew Merli, Project Manager for Fitzemeyer & Tocci Associates, Inc. describes the severity of systems problems as, "in imminent danger of possible failure." Further, Mr. Merli states, "...it is somewhat surprising that this equipment hasn't failed yet." These reports and letter serve as a foundation for the claims regarding the perceived health and safety problems described below.

1. The HVAC system and equipment is either past or nearing the end of its useful life expectancy, as detailed by the HVAC Applications – ASHRAE Handbook. The HVAC equipment within the Apparatus Room, dating back to 1956, appears to be in imminent danger of possible failure. This would result in a large portion of the school being without heat.
2. The plumbing systems and equipment are 20+ years old and have surpassed their useful life expectancy. Many of these systems appear to be in need of full replacement.
3. The original 1956 electrical distribution equipment, including the original Frank Adam switchboard, appears to be in imminent danger of possible failure; which would result in the school being without power.
4. The Apparatus Room has one egress door, which is not in compliance with the National Electrical Code. Due to the mechanical equipment located within the room, the additional working space clearance cannot be achieved.

5. The original 1956 Frank Adam switchboard appears to be in imminent danger of possible failure. This would result in the loss of power to the entire building.
6. Classrooms within the 1956 construction only include a single receptacle branch circuit and typically only 2 duplex receptacles, which does not provide adequate branch circuitry or electrical infrastructure within classrooms to accommodate modern classroom power requirements.
7. There are significant problems with water intrusion at this exterior elevation, which can be clearly seen at damaged interior finishes within the media center. Unchecked and continuing water intrusion can further deteriorate the exterior wall structure and possibly lead to the introduction of mold into the wall assembly.
8. The fit and operation of existing exterior doors is problematic. Conditions at the southwest exterior door at the 1993 gymnasium have made that door virtually inoperable, raising serious concerns about the available means of effective egress from that space.
9. The Aulson Company inspected the asphalt shingle roof in November 2014 and found that the shingles are in need of replacement due to cracking and splitting. The District reports active leaks under certain weather conditions in the 1993 classroom wing.
10. At the time of CGKV's visit to the school, significant ice-damming was observed at the perimeter of the 1993 classroom wing. Deteriorated shingles, active leaks, and ice dams could all result from the original design and/or construction of the roof system at this portion of the facility. Ice dams and icicles at the perimeter of the 1993 classroom wing are a danger to pedestrians below.

**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.***

When a school district spends taxpayer money more efficiently and effectively, it maximizes the impact of every dollar spent and contributes to long-term community development. The purpose of school regionalization is to streamline administration and management structures, to expand opportunities to ensure strong oversight and leadership, and improve teaching and learning. This vision of school consolidation values both continuous improvement and innovation. Our economic context, locally and statewide, continues to be challenging and demands increased efficiency and innovative ways of delivering on the promise of each student having a bright future of his or her choice.

Massachusetts is focused on creating a 21st century public education system and preparing students for success in a multifaceted and complicated world. Values supporting this state-wide foundation align with all students having access to new educational and career opportunities, being well prepared to be lifelong learners, valuable contributors to their families and communities, and active citizens of the 21st century. This agenda builds on current initiatives across the public education system, and is also the foundation for the creation of a more robust and responsive public education system in Massachusetts.

The member communities of the Pentucket Regional School District are negatively impacted by the obsolete high school building. Pentucket's efficient management of its operational budget while expanding innovative educational programs demonstrates financial acumen and commitment to the intents of regionalization for the member communities. Since 2012, the District has managed its operational budget in ways that have not forced towns into overrides. The District's policies and financial practices have earned a AA3 bond rating. While Pentucket Regional School District continues to provide highly efficient use of public funds, expenditures required to maintain the current high school facility no longer meet the standard or intent of regionalization. Escalating costs exceed capital repair plans and are focused on emergency repairs which divert funding away from regular maintenance and away from educational programming and intended learning outcomes. Moreover, any potential benefits of dollars invested in the obsolete building evaporate since the results of repairs only restore the facility to its 1950's educational function. Continued investment required for ongoing repairs of Pentucket Regional High School represent an inefficient and ineffective use of public funds. Figure 1-1 illustrates the escalating expenses for repairs to Pentucket Regional High School.

A team (Appendix 8) composed of students, parents, educators, selectmen, school committee, retirees, and business owners convened from November 2014 to January to consider the impact of the high school on the community and the discrepancy between the high school's innovative program of studies and the obsolete school facility. Wide agreement was reached among all participants. "The continued financial investment required for planned and unforeseen repairs is neither an efficient nor effective use of public funds." Project LEAP – Leveraging Educational Assets in Pentucket

Successful regionalization does not solely rely upon the capture of efficiencies alone. Innovation is required. Innovation differs from improvement in that innovation describes the implementation of a new idea while improvement is doing the same thing in a better way. The educational agenda in Massachusetts depends upon school districts to exert leadership that forges pathways of innovation for students, educators, and communities. The Massachusetts educational system is strengthened by the innovative practices of each school district. Pentucket has become the innovation school leader in Massachusetts through the implementation of a portfolio of innovation schools, figure 4-2. Measureable annual goals (Appendix 14) set ambitious outcomes for high quality teaching and learning.

It is widely accepted that strong communities have strong school systems. Homebuyers recognize that good schools equate to a sound investment. Pentucket Regional School District is transforming itself and redefining world class education. Ultimately, as the regional school district is strengthened, the community will be strengthened.

Pentucket's portfolio of innovation schools was recognized by Secretary of Education Matthew Malone in December 2014. *"I applaud the Pentucket Regional School District for making the decision to think outside the box and provide access to new and*

*exciting programs for its three communities."* Pentucket's success is documented in the March 22, 2015 Boston Sunday Globe article (Appendix 3). Recognition has come on the heels of Pentucket receiving seven of the eight competitive Innovation School Implementation grants awarded by the Massachusetts Department of Elementary & Secondary Education. Pentucket won \$164,596 of the possible \$194,596 awarded (Appendix 9). At the secondary level, students in grades 7 – 12 have access to a university-style course of studies with customized, high-powered learning experiences. Each course integrates academic knowledge, adaptive leadership, and high levels of personal meaning. Flexibility in scheduling supports accelerated learning granting early high school credit to middle school students. Senior high school students can access early college and early career experiences through a variety of programs, internships, and apprenticeships via the extended day and extended year scheduling.

Three innovation schools for middle and high school students began implementation in the fall of 2014: Safety & Public Service, Movement Science & Athletics, and Art & Visual Effects. Three additional schools are in the planning stages for possible implementation scheduled for September 2015. They include an academy for STEM (Science, Technology, Engineering, and Mathematics), Business, Finance, & Entrepreneurship, and Music Conservatory. Pentucket's educational program requires students to achieve *more than a score* on annual state assessments. In addition to state assessment results, Pentucket values complex thinking, significant outcomes, and student growth across the domains of academic knowledge, adaptive leadership, and personal meaning. These local requirements distinguish Pentucket Regional School District from other districts.

The implementation of innovation schools at the secondary level has been negatively impacted by the obsolete high school building. A series of unanticipated, catastrophic events (Appendix 4) have drained valuable funding away from educational programming and instructional space reductions (Appendix 5). Infrastructure failures continued to limit Pentucket from meeting state and local requirements as well as providing a full range of programs.

The obsolete facility has a negative impact on community emergency responders. Limited community emergency resources attending to the frequent, unanticipated, disruptive events at the high school may be diverted from other community emergencies. The frequency and level of response required from local emergency response teams represents an overburden to the local communities.

Pentucket educators are negatively impacted by the obsolete high school building as they attempt to meet the new state and local standards of the educator evaluation system. State and District expectations for educators are described within four standards: 1. *Curriculum, Planning, and Assessment*; 2. *Teaching All Students*; 3. *Family and Community Engagement*; and 4. *Professional Culture* (Appendix 10). Information in figure 7- 4 summarizes the perspective of Pentucket Regional High School's staff members regarding the negative impact of the obsolete high school on their ability to meet state and local educator evaluation standards.

Pentucket students are negatively impacted by the obsolete high school building as they attempt to meet the state and local standards of learning. State standards are described within the MassCore program of studies guide, figure 7- 5. Local standards for student expectations are described in the Pentucket Continuum of Student Performance Goals figure 7 – 6. This comprehensive document describes goals for students across the Pre-school to Grade 14 continuum. They must demonstrate complex thinking, significant outcomes, and continuous growth. Figure 7 - 7 illustrates Pentucket's assessment system that provides the foundation for Pentucket's District-determined Measures.

Pentucket's standards for academic knowledge are aligned with the Massachusetts Curriculum Frameworks ([doe.mass.edu](http://doe.mass.edu)). Additionally, the District has a rubric for Personal Meaning, figure 7 -8, and a rubric for Adaptive Leadership, figure 7 -9, to describe expectations and levels of performance in these areas.

**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.***

1. The obsolete condition of the Pentucket Regional High School facility impedes the District's Innovation School leadership position in Massachusetts, compromising the economic advancement of the regional district member communities.

Mitigation Steps:

- | 2012 – Implementation of a 5-year District Capacity-building Plan, focusing resources on key strategic priorities for improvement
- | 2013 – District survey of parents opting for educational opportunities outside of Pentucket identified three key needs: 1) contemporary curriculum, 2) conditions of athletic facilities on regional campus, and 3) condition of Pentucket Regional High School
- | 2014/15 – District secured competitive state Innovation School Grants (≈\$215,000) to improve the curriculum
- | 2014 – Pentucket Regional School Committee approved the implementation of Innovation Schools
- | 2014 – District renovated the regional campus athletic facilities by installing: 1) new field hockey field; 2) new softball field; 3) 5 new tennis courts; 4) new practice field; 5) new 8-lane track including pole vault, shot put, high jump, long jump, javelin, and discus; and, 6) new natural grass infield
- | 2015 – District establishes position as Innovation School Leader in Massachusetts

2. Continued investment in the obsolete high school facility is an inefficient and ineffective use of public funds and compromise efficiencies intended by regionalization.

Mitigation Steps:

- | 2012 – Superintendent conducted community meetings to assess District priorities. The obsolete high school was identified by the communities, staff, and students as a top priority
- | 2012 – Included facility improvements in the District's Capacity-building Plan and 5-year Business Plan
- | 2014 – Worked with the District's Regional Finance Advisory Committee to build awareness and support for a potential MSBA building project
- | 2014 - Convened a team of stakeholders (LEAP) to develop awareness and support in the community for a potential MSBA building project
- | 2014 – Convened a team of stakeholders (LEAP) to identify initial priorities for Statement of Interest
- | 2015 – Strengthened support of community leaders for high school building project and submission of at Statement of Interest (SOI) to the Massachusetts School Building Authority (MSBA)
- | 2015 – FY16 District budget proposal demonstrates fiscal acumen to communities with a 2.15% increase, mirroring FY 14 (1.88% increase) and FY 15 (.58% increase)

3. The obsolete condition of the high school facility and potential imminent failure of infrastructure have a negative impact on community resources.

Mitigation Steps:

- | 2015 adoption of state-of-the-art Emergency Operations Plan and increased communication are used to minimize time devoted by emergency responders
- | 2014 – 2014 Completed emergency repairs

4. The obsolete condition of the high school facility and the potential imminent failure of infrastructure have a negative impact on the District's educational program and intended results for students.

Mitigation Steps:

- | 2012 – Updated District Facilities Plan
- | 2013 – Doubled the budget for high school repairs



- | 2015 – Contracted with independent architect to evaluate the high school facility

5. The obsolete condition of the high school facility has a negative impact on District facilities staff.

Mitigation Steps:

- | 2012 – District’s facilities staff deployed as a collaborative team
- | 2014 – Redirected administrative expenditures to increase facilities staff

6. Emergency repairs of obsolete high school require the redirection of funds away from educational programming and impede educators and students from reaching intended outcomes.

Mitigation Steps:

- | 2012-2013 - District Capacity-building Plan integrates state mandates into a coherent, strategic action plan
- | 2012 – 2015 – Resources focused on strategic priorities to strengthen innovation, reduce class size, and expand the District’s position as an educational leader in MA
- | 2012 – 2013 – Strengthened partnership formed among school committee, teacher association, and superintendent
- | 2012 – 2013 – Three-tiered systematic learning strengthened across district

7. The Technology Infrastructure limits high quality teaching and learning.

Mitigation Steps:

- | 2014 – Staffing increased to support alignment of middle and high school schedule, supporting increased planning and collaboration for secondary educators (grades 7 – 12)
- | 2014 – Assessed infrastructure needs
- | 2015 - Invested \$100,000 to upgrade servers and make connectivity improvements which are insufficient to bring the facility to 21<sup>st</sup> century standards
- | 2015 – Applied for e-rate funding

8. The obsolete high school is only 75% accessible to students with physical disabilities.

Mitigation Steps:

- | When possible, Principal sacrifices room specialty for accessibility by relocating classes to rooms that are accessible to students with physical disabilities as dictated by individual schedules
- | Some students with physical disabilities are required to exit the building and use alternative, exterior access to classrooms with specialty equipment

9. The obsolete high school limits educators’ ability to meet state and local professional standards.

Mitigation Steps:

- | 2010 – Team structure adopted at high school to support increased levels of collaboration
- | 2010 – Implementation of School Loop to foster higher levels of communication for parents
- | 2011 – 2012 – Implemented Bring-Your-Own-Device Program
- | 2013 – Implemented an electronic tool to support collaborative curriculum and instructional planning
- | 2014 – Innovation School adoption implements increased autonomies for educators
- | 2014 – Decentralized District-wide Professional Development
- | 2014 – Innovation School structure was adopted to cultivate higher levels of creativity and professionalism

10. The obsolete high school limits educators’ ability to meet District expectations for World Class as defined in the District Capacity-building Plan.

Mitigation Steps:

- | 2012 – Implementation of Educator Evaluation System to strengthen educators’ access to leadership and decision-making
- | 2014 – Innovation School structure was adopted to cultivate higher levels of autonomy, creativity, and professionalism
- | 2014 – Expanded staffing to support the implementation of innovation schools

11. The obsolete high school facilities and the lack of contemporary science laboratories, arts studios, and wellness centers, limit students’ ability to engage in real-world experiences in the role of scientist, mathematician, historian, author, artist, athlete, etc.

Mitigation Steps:

- | 2014 – Upgrade of athletic fields including new 8 lane track and grass infield, 5 new tennis courts, new softball field, new field hockey field, and new practice field
- | 2014 – Developed partnerships with local and national institutions of higher education

12. Students lose instructional time due to the schedule of high school classes at the middle school.

Mitigation Steps:

- | Annually, rotation of courses at the middle school will distribute this hardship among courses (students & staff)

13. The schedule of high school courses at the middle school requires the loss of the middle school library/media center, superintendent’s conference room, and one additional middle school classroom.

Mitigation Steps:

- | Teachers retrieve periodicals and other resources directly from the library
- | Superintendent meetings and professional development sessions are relocated to the corridor outside of his office
- | Middle school rescheduled classes to accommodate for the loss of a classroom
- | Delayed implementation of the Innovation School for Movement Science & Athletics Lab

14. The obsolete high school prevents early college courses from being offered on site.

Mitigation Steps:

- | 2014 – Developed partnerships with state and local organizations to support off-site early college and early career opportunities
- | 2013 – Implementation of extended day and extended year scheduling expands student access to early college and early career opportunities

15. The obsolete high school limits students’ ability to reach World Class expectations as defined in the District’s 5-year Capacity-building Plan.

Mitigation Steps:

- | 2014 – Implementation of Student Success Plans to support students establishing doable goals and reaching Personal Meaning targets
- | 2015 – Implementation of District-wide Personal Meaning Rubric developed by vertical team (elementary, middle, and high school) of teachers as a component of District-determined Measures
- | 2015 – Implementation of high school electronic Student Success Plan modules
- | 2014 – Designing District-determined Measures so that they can be applied within the current, obsolete high school context
- | 2015 – Delayed full deployment of District-determined Measures
- | Scaling the implementation of innovation schools gradually to accommodate limitations of current obsolete high school facility

**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.***

1. The obsolete condition of the Pentucket Regional High School facility impedes the District's Innovation School leadership position in Massachusetts, compromising the economic advancement of the regional district's member communities.

Impact on Educational Program:

- | Limited student and staff access to specialized learning spaces aligned to innovation schools
- | Limited technology infrastructure to support innovation school high quality teaching and learning
- | Facility failures are the cause of interruptions to high quality teaching and learning
- | Emergency repairs to facility require the diversion of funds from educational programming
- | The demolition of modular classrooms due to April 13, 2014 burst water main requires the use of middle school space for high school classrooms
- | The demolition of modular classrooms due to April 13, 2014 burst water main impedes the implementation of a wellness lab due to limited space

2. Continued investment in the obsolete high school facility is an inefficient and ineffective use of public funds and compromise efficiencies intended by regionalization.

Impact on Educational Program:

- | Escalating costs for emergency repairs divert funding away from educational programming and away from intended outcomes, figure 1-1
- | Repairs to facility only restore it to a condition that limits the implementation of innovative educational programming, mandated state expectations (educator evaluation and district-determined measures), and intended outcomes

3. The obsolete condition of the high school facility and potential imminent failure of infrastructure have a negative impact on community resources.

Impact on Educational Program:

- | Escalating demands on community emergency responders may prompt a reallocation of financial support of communities from schools to match demands on emergency responders.
- | The reassignment of community funds from schools to emergency departments will have a negative impact on educational programs.

4. The obsolete condition of the high school facility and the potential imminent failure of infrastructure have a negative impact on the District's educational program and intended results for students.

Impact on Educational Program:

- | Failure of facility infrastructure results in the interruption of high quality teaching and learning
- | Students and staff have missed three days of school (2013 – 2015) due to system failure (broken water pipes)
- | Educational continuity has been interrupted by four emergency evacuations from 2013 – 2015 and the cancellation of extracurricular activities due to the inadequate facility
- | Relocation of high school classes / displacement of middle school classes

5. The obsolete condition of the high school facility has a negative impact on District facilities staff.

Impact on Educational Program:

- | The regular responsibilities of facilities staff from across the District are interrupted, resulting in a negative impact on

the maintenance of all schools

- | Overtime attributed to impact of the high school on the District: \$ 21,068.51

6. Emergency repairs of obsolete high school require the redirection of funds away from educational programming and impede educators and students from reaching intended outcomes.

Impact on Educational Program:

- | Funds in the approved operational budget must be diverted from educational programming to accomplish required emergency repairs, figure 1 – 1
- | Increasing budget for facility competes with funding for programs

7. The Technology Infrastructure limits high quality teaching and learning.

Impact on Educational Program:

- | Staff and students experience interruptions in Internet service due to infrastructure inadequacies
- | The District is unable to fully implement its Bring-Your- Own-Device program due to infrastructure insufficiencies
- | Infrastructure insufficiencies and inconsistencies hamper educators from implementing instruction and interrupt student learning
- | Infrastructure insufficiencies and inconsistencies limit educators' in their ability to meet state and local standards for professional practice

8. The obsolete high school is only 75% accessible to students with physical disabilities.

Impact on Educational Program:

- | Discrepant educational access and quality of educational conditions between typical students and those with disabilities result from limited accessibility

9. The obsolete high school limits educators' ability to meet state and local professional standards.

Impact on Educational Program:

- | Space for team meetings is relegated to available classrooms that are disconnected from resources rather than resourced, professional meeting spaces
- | Educators aligned to specialty programs and innovation schools use generic space rather than highly specialized spaces
- | The implementation of supplemental and intensive educational supports for students are limited by the inflexible, obsolete classroom spaces
- | Limited numbers of computer labs limit the capacity of Pentucket Regional High School to support the rotation instructional model
- | Pentucket Regional High School has a rigid classroom structure that does not have the capacity to support a flex model of instruction
- | The obsolete high school does not have the capacity to support the enriched virtual instructional model.
- | Educators' engagement with family and community are not optimized
- | Insufficient technology infrastructure limits functionality as a support for professional learning communities

10. The obsolete high school limits educators' ability to meet District expectations for World Class as defined in the District Capacity-building Plan.

Impact on Educational Program:

- | The high school facility has limited flexible meeting space to support intended outcomes for staff
- | Educators have limited access to specialized spaces aligned to their function

11. The obsolete high school facilities and the lack of contemporary science laboratories, arts studios, and wellness centers, limit students' ability to engage in real-world experiences in the role of scientist, mathematician, historian, author, artist,

athlete, etc.

Impact on Educational Program:

- | Small classroom spaces and limited numbers of computer labs limit the capacity of Pentucket Regional High School to support the rotation instructional model
- | Pentucket Regional High School has a rigid classroom structure that does not have the capacity to support a flex model of instruction
- | Large, open learning spaces are required so that flexible instruction can meet the requirements of individual students. The obsolete high school does not have the capacity to support the enriched virtual instructional model

12. Students lose instructional time due to the schedule of high school classes at the middle school.

Impact on Educational Program:

- | Students scheduled for classes at the middle school can experience reduced class time (5 – 10 minutes per day) due to time required to walk from the high school to the middle school

13. The schedule of high school courses at the middle school requires the loss of the middle school library/media center, superintendent's conference room, and one additional middle school classroom.

Impact on Educational Program:

- | Students no longer have access to library for practical skills development
- | Superintendent meetings and professional development sessions are relocated to the corridor outside of his office
- | Implementation of the Innovation School for Movement Science & Athletics Lab is delayed

14. The obsolete high school prevents early college courses from being offered on site.

Impact on Educational Program:

- | The District's innovation plans are unable to be fully implemented with regard to early-college credit

15. The obsolete high school limits students' ability to reach World Class expectations as defined in the District's 5-year Capacity-building Plan.

Impact on Educational Program:

- | Students are unable to fully enact expectations for Personal Meaning, Adaptive Leadership, and Academic standards
- | The delayed, full development of DDMs limits students' learning experience
- | Students are unable to experience the full implementation of innovation schools

## REQUIRED FORM OF VOTE TO SUBMIT AN SOI

### REQUIRED VOTES

If the SOI is being submitted by a City or Town, a vote in the following form is required from both the City Council/Board of Aldermen **OR** the Board of Selectmen/equivalent governing body **AND** the School Committee.

If the SOI is being submitted by a regional school district, a vote in the following form is required from the Regional School Committee only. **FORM OF VOTE** Please use the text below to prepare your City's, Town's or District's required vote(s).

### FORM OF VOTE

Please use the text below to prepare your City's, Town's or District's required vote(s).

Resolved: Having convened in an open meeting on \_\_\_\_\_, prior to the closing date, the \_\_\_\_\_ *[City Council/Board of Aldermen, Board of Selectmen/Equivalent Governing Body/School Committee]* of \_\_\_\_\_ *[City/Town]*, 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 dated \_\_\_\_\_ for the \_\_\_\_\_ *[Name of School]* located at \_\_\_\_\_ *[Address]* 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

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\_\_\_\_\_ ; *[Insert a description of the priority(s) checked off on the Statement of Interest Form and a brief description of the deficiency described therein for each priority];* 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.

**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.

<b>Chief Executive Officer *</b>	<b>School Committee Chair</b>	<b>Superintendent of Schools</b>
Jeffrey J. Mulqueen	Christopher Wile	Jeffrey J. Mulqueen
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. Please do not leave any signature lines blank.