

ANDOVER SCHOOL FACILITY PROJECTS

Frequently Asked Questions (FAQs)

September 2018

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1. What has the Andover High School Facility Study Committee been doing? Are there any significant findings from the Andover High School feasibility study?

The Andover High School Facility Study Committee¹ was formed in January 2017 and has been conducting a preliminary feasibility study with the firm HMFH Architects.

The Committee's goals are to explore options for building improvements in five interrelated areas:

1. Safety and security (code upgrades, supervision, security system)
2. Overcrowding (classroom and cafeteria space for current and future enrollment)
3. Educational delivery (instructional space, teacher planning, flexibility/adaptability)
4. Physical environment (temperature control, ventilation, acoustics, lighting)
5. Site (traffic flow and parking, emergency access, field improvements)

During more than 40 community and public meetings, including weekly meetings with the architects, 11 options have been considered ranging from \$7 million worth of safety and security upgrades to over \$200 million for a new school building.

The preliminary feasibility study has not found an option that addresses both the educational delivery and the physical environment of the building for less than \$100 million. No previous study had indicated the extent of work required to improve building comfort. Significant energy and comfort improvements are only possible if both the mechanical systems and a portion of the building exterior envelope are replaced, which would cost upward of \$40 million.

The Facility Study Committee is now seeking feedback from the community to consider the pros and cons of various approaches and to understand what the community views as a responsible level of investment in the existing building.

2. What are the major deficiencies of the Andover High School facility? What current educational standards are not being met?

Andover High School is seriously overcrowded. Based on current educational state standards,² it is lacking in both number and size of classrooms. According to MGT's report, the school's current enrollment means its space ranks as "inadequate" with a utilization rate of 117 percent. The pressure for space at this facility is predicted to increase to 130 percent by 2025-26.

Specifically, an analysis by HMFH Architects (hired to perform a preliminary feasibility study in 2017) showed 80 percent of Andover High's core classrooms are smaller than the recommended 850 to 950 square feet, 72 percent of science classrooms are smaller than the recommended 1,000 to

¹Significant data and presentation material can be found on the Andover High School Facility Study Committee webpage: <http://www.aps1.net/1932/Data-and-Presentations>

²Educational standards as used by the Massachusetts School Building Authority (MSBA) for the construction of modern school facilities

1,400 square feet, and special needs space is only 53 percent of the recommended area. Based on MSBA's current standards for academic areas, the capacity of AHS is approximately 1,400 students. However, the school's current enrollment already stands at 1,800 with an increase to over 1,900 projected over the next twenty years.

Shared spaces are also too small or insufficient in number. The limited size of the current cafeteria and serving area requires four lunch periods, each with 450 students moving through tight spaces, complicating and disrupting class schedules. The library is roughly half the size needed for the current enrollment. About 25 rooms designed for other uses—including teacher workrooms and teacher dining areas—have been converted into classroom space, and remaining teacher resource areas are crowded and poorly distributed. To accommodate student schedules, 75 percent of faculty members must shuttle among multiple classrooms each day with no appropriate space to prepare lessons, evaluate student work, store materials, or meet with students. Between-class time that could be devoted to conferring with students is instead spent carting materials to the next classroom. Teachers are scattered throughout the building instead of being grouped by department, which impedes professional collaboration. Small classrooms and inflexible furnishings limit instructional options and negate the opportunity for some educational services, including areas for hands-on experimentation and collaboration, for student projects that require extensive space to complete over a period of days or weeks, and for advanced-level classes that enroll small numbers of students. Students are turned away from some popular classes because the small, repurposed instructional areas cannot hold all the students who wish to enroll.

Other concerns: No fire sprinklers exist in 65 percent of the building, including the entire original building, the Dunn Gym and the Collins Center; the fire alarm is not audible in all areas; certain areas of the school are difficult to monitor for security; the site needs improvement for accessibility, traffic flow and avoidance of vehicular and pedestrian conflicts; mechanical systems—particularly those that support climate control—are ineffectual and beyond their usable life; windows are beginning to fail; the Collins Center floods periodically as a result of the high water table near the orchestra pit; water in the science labs is often unusable for experiments because of undesirable color and temperature; and there is an insufficient number of classroom/office electrical outlets, elevators (only one to serve the entire school), and accessible restroom facilities and other features that promote accessibility.

3. Why is the temperature within Andover High often uncomfortable in winter and summer? What are the major contributing factors?

The climate control systems in Andover High are well maintained and actively managed, even earning Energy Star rating for the efficiency of current systems. However, these current systems rely on old technology and major components—including boilers and unit ventilators³—that are reaching the end of useful life and need replacement.

HVAC experts have observed that meaningful replacement of Andover High's aging climate control technology would best be supported by also upgrading other critical energy components. For example, almost all high school windows are drafty and do not sufficiently block UV light, allowing heat loss in the winter and heat gain in the summer.

³ Unit ventilators are the large boxes typically seen under windows along exterior walls to heat outside air as it enters classrooms during cold weather. The technology they use has been largely unchanged in over 60 years.

But most notably, the current building is constructed of concrete with no insulation in the original exterior walls and with floors that create a “thermal bridge” by extending past the building façade, thereby drawing heat out of the building in the winter and increasing room temperatures in the warmer months. Replacing the extensive unit ventilator system without also addressing the building envelope of the original building would provide only very limited climate improvement.

Additionally, in each classroom, unit ventilators bring outside air into the building to reduce carbon dioxide (CO₂) levels. When rooms are overcrowded, CO₂ increases faster than heating elements can keep up with the airflow, resulting in cold outside air being blown into classrooms throughout the winter. The unit ventilators are also loud and distract from learning.

A facility project that simply replaces unit ventilators in-kind—rather than upgrading the heating technology and improving the building envelope—will bring a continuation of the same climate control problems, and may not even save money in the long run.

In addition to solving these problems, a modern climate system would bring an opportunity for replacing the unit ventilation system with a displacement air system similar to the system installed at Bancroft Elementary. This would increase comfort during shoulder seasons and allow year-round use of the building.

4. What future enrollment projections is the School Committee using or planning to use to ensure the High School project meets projected future needs?

A demographic study was conducted in October 2017 by Cropper GIS, an outside company with expertise in school population projection. Information from that report was used to set a target enrollment for Andover High School construction at 1,900 students.

The report can be found on the Andover High School Facility Study Committee project website.⁴ Cropper GIS presented its report for discussion at a Tri-Board (School Committee, Finance Committee and Board of Selectmen) meeting on November 9, 2017, and that replay can be found in the Andover TV archives.⁵

Cropper GIS intends to update its projections as new demographic data, including Andover school enrollment numbers, become available: at this time, however, the target capacity for the high school remains at 1,900 students.

5. Didn't Andover recently renovate the high school?

The high school was originally designed for three grades (10 through 12) and approximately 1,200 students. The main building was constructed in 1966, and the Collins Center was added in 1983.

By 1994-95, enrollment had already grown to 1,270 students in grades 9 through 12. The high school was partially renovated in 1995 to accommodate the addition of grade 9 and an enrollment of up to 1,500 students. That renovation included the addition of a science wing at the rear of the school, a new entrance and art classrooms, a field house, an expanded gym and an expanded cafeteria. The

⁴ The Cropper GIS Demographic Report is on the AHS FSC website: <http://www.aps1.net/1932/Data-and-Presentations>

⁵ The Cropper GIS Tri-Board presentation can be viewed at: <http://andover.vod.castus.tv/vod/?video=148ee011-8dc9-4df1-a5da-6c4520593ba0>

Collins Center and field house are large structures and are used extensively by the community, leaving the space available for school programs less than the total square footage implies.

Based on current space guidelines, the capacity of Andover High is approximately 1,400 students. Meanwhile, current enrollment is just under 1,800 with a projected increase to 1,900 over the next twenty years.

6. Can the state help with Andover's school facility needs? Has Andover sought this assistance?

Yes, Andover can ask the state for assistance through the Massachusetts School Building Authority (MSBA) program.⁶ Acceptance to the MSBA core program is highly competitive, with only 18 percent of submissions accepted in 2017 (15 of 83). However, partnership with the MSBA can result in significant financial assistance for design and construction, in the range of 40 percent of eligible costs.

The first step to potential partnership is the submission of a Statement of Interest (SOI) to the MSBA. Each year, districts are invited to submit SOIs in April, and acceptance or denial is usually announced by December. The SOI outlines the problem(s) related to a specific school building—such as over-capacity enrollment or facility condition—but does not propose a preferred solution. Decisions about facility renovation versus reconstruction are determined through a later “feasibility study” as part of the MSBA process.

An SOI⁷ for West Elementary was submitted to the MSBA in April 2017, outlining significant facility concerns. The school was accepted into the MSBA program in December 2017. In May 2018, Andover Town Meeting approved funding for the West Elementary feasibility study, which is being led by the West Elementary School Building Committee⁸.

An SOI⁹ for AHS was submitted to the MSBA in the spring of 2018 and we expect to learn in December whether this site is accepted into the program.

7. Why did the district decide to ask for MSBA help for Andover High in April 2018?

Although the initial plan was to explore options for Andover High that did not involve MSBA partnership, the AHS Facility Study Committee and the School Committee, with the support of the Board of Selectmen, decided to submit an SOI to the MSBA in April 2018. The year-long AHS feasibility study had revealed that improvements to AHS will be more complex and expensive than anticipated. Given the competitive nature of MSBA acceptance and the lengthy program timelines, along with the potential high cost of the project, seeking MSBA assistance is a responsible step in order to explore all options.

Additionally, the Andover High School Facility Study Committee continues to investigate options and seek community feedback on AHS improvements that could be town-funded and not require MSBA partnership.

⁶ For more information about the MSBA process, visit their website: <http://www.massschoolbuildings.org/>

⁷ The SOI submitted for West Elementary can be found here: <http://andoverma.gov/DocumentCenter/View/4916/West-El-SOI-Submission>

⁸ The West Elementary School Building Committee website can be found on the Town of Andover website: <http://andoverma.gov/747/West-Elementary-School-Building-Committee>

⁹ The Statement of Interest for AHS submitted to the MSBA can be found at: <https://www.aps1.net/1932/Data-and-Presentations>

8. What are the primary options being considered for Andover High construction?

The Facility Study Committee has developed several primary paths and is seeking community feedback on these options:

- A. Construction using financial resources from the town only. This option allows the town to pursue improvements to Andover High immediately, with the next step being financial approval for design funds by a vote at Town Meeting. This option would require Andover taxpayers to fund the project and would not provide any state reimbursement. However, the project could be done on the timeline and to the specifications determined by the Andover community alone.

The Facility Study Committee has worked with HMFH Architects to develop potential options for town-funded improvements. After considering eleven options, the Committee narrowed their choices to four. Following is a general summary of the four best options (still identified by their original option numbers), with significantly more detail available on the AHS Facility Study Committee website.

- Small Addition/Partial Renovation (Option 7A) – This option would partially renovate the existing building and include a small addition (23,000 sq. ft.) at the main entry. It would address safety and security issues, while increasing the number of classrooms and the cafeteria/serving area to support 1,800 students. However, it would not accommodate growth to 1,900 students. Fifty percent of classrooms would still be smaller than recommended standards; science rooms would not be updated; the Dunn Gym, Collins Center, field house and locker rooms would be untouched; and there would be no substantial improvement to climate control or mechanical systems. This option would invest \$40 million into the existing building and \$15 million into an addition, for a total of **\$55 million**.
- Large Addition/Partial Renovation (Option 9A) – This option would partially renovate the existing building and include a larger addition (78,000 sq. ft.) in front of the existing cafeteria area. The new section would include a cafeteria and science classrooms, since they are the most expensive to renovate, and could potentially be the first structure moving toward a future “campus approach.” This option would address safety and security issues and increase classroom capacity to serve 1,900 students. However, it would leave 50 percent of classrooms smaller than standards dictate; the Dunn Gym, Collins Center, field house and locker rooms would be untouched; and there would be no substantial improvement to climate control or mechanical systems. This option would invest \$35 million into the existing building and \$48 million into an addition, for a total of **\$83 million**.
- Large Addition/Full Renovation (Option 4) – This option would expand on Option 9A by fully renovating the existing building (including the Dunn Gym, Collins Center, field house and locker rooms), while still adding the same large addition (78,000 sq. ft.) in front of the existing cafeteria. In addition to the benefits of Option 9A as described above, Option 4 would renovate all classrooms to bring them up to MSBA standard sizes, upgrade climate control systems to modern technology, and add a new building envelope to the original building. This option would invest \$91 million into the existing building and \$48 million into an addition, for a total of **\$139 million**.
- New Construction (Option 5) – This option calls for the construction of a totally new high school. It would meet the requirements outlined by the AHS Facility Study Committee

for a modern school with 1,900-student capacity. The school would be built on the same campus as the current high school and West Middle, potentially in the location of the current sledding hill and baseball field next to Shawsheen Road. This option would entail an investment of **\$185 million**.

- B. Construction with MSBA Assistance (financial reimbursement from the state). The district has submitted a Statement of Interest to the Massachusetts School Building Authority requesting the state to partner with Andover to improve the high school. Acceptance to this program is highly competitive, and the timeline for any potential construction is unclear and dependent on the state. We will learn in December 2018 whether Andover High has been accepted into the MSBA program.

If Andover High School is accepted into the MSBA program, the next step is a feasibility study. This study would inform the MSBA decision as to whether a new high school would be built or the current high school would be renovated/expanded.

The MSBA will only partner with a district to produce a 50-year facility solution, and it is possible that both Option 4 and Option 5 above could meet that requirement. However, with construction costs escalating an average of four to five percent each year, MSBA timelines would also increase the overall cost of these projects.

- Option 4 done with MSBA partnership is estimated to cost \$147 million in total, **\$103 million** of which would be paid by Andover (with the difference being an estimate of state reimbursement).
 - Option 5 done with MSBA partnership is estimated to cost \$203 million in total, **\$142 million** of which would be paid by Andover (with the difference being an estimate of state reimbursement).
 - Note: The costs of Options 4 and 5 under Section B are \$8 million and \$18 million higher respectively than the costs under Section A because of escalating construction costs in the more time-consuming state-assisted plan.
- C. No construction. The community could decide that the expense or other downsides of pursuing improvements at Andover High are not worth the investment.

9. What are the factors to consider in the decision between an addition plus renovation versus new construction?

If Andover partners with the MSBA, a decision to build new or renovate existing will be made after an extensive feasibility study is conducted in conjunction with the MSBA. However, it is worth thinking about the pros and cons of each approach, particularly if Andover decides to undertake a high school project without MSBA assistance.

Some factors to consider in making a decision between new construction and an addition/renovation include:

- New construction is more costly than an addition/renovation.
- An addition plus renovation may be more environmentally friendly if it creates less demolition waste by reusing large parts of a building we already have.

- An addition plus renovation would have less impact on athletics because playing fields would largely be maintained, whereas new construction would likely take the space of existing playing fields.
- A newly constructed building would have a shorter construction timeline than a comprehensive addition plus renovation project.
- New construction would have a limited impact on academics during construction. While any renovation would be phased to minimize disruption, renovations are inherently complicated and disruptive. The phased approach of an addition/renovation project would also drive a longer construction timeline than would a new building.
- Once open, a newly constructed building would be more efficient to operate than an addition/renovation, with fewer break/fix activities and more routine maintenance.

10. Is “do nothing” an option being considered for Andover High?

Yes, the community could decide not to undertake renovation or replacement of Andover High.

If the community does nothing, it is estimated that \$20 million will still need to be spent over the next ten years on the existing building, including maintenance costs, replacement of boilers, replacement of heating and ventilation units as they fail, and upgrades for ADA compliance. The town will also need to update the fire prevention and sprinkler system at an additional cost of \$7 million.

Moreover, a “do nothing” approach would fail to address identified deficiencies in the physical condition of the school and site and their corresponding impact on the educational program.

11. How can a renovated or new facility provide a better and more current instructional program for students?

Over the past decades, education has changed significantly. Not only are we providing high-quality programming and services for students with disabilities that require particular kinds of spaces, but the very nature of how we educate students has evolved. The curriculum has expanded to include such subjects as engineering, robotics, programming, and graphics that require space for specialized equipment, as well as space for student projects and for students to work in collaborative teams. Most courses now integrate project-based learning and collaborative group work, requiring that classroom space be capable of being organized in different ways for changing activities. With a more personalized curriculum, schools require media centers and other areas where students can work either privately or in small groups on projects, online courses, and research. In addition, a number of courses are now co-taught, integrating two subject areas such as English and social studies into American Studies and World Studies courses. Spaces to accommodate new teaching methodologies and new curricula are being designed into all new-school construction. A renovation or reconstruction of Andover High School would provide for an enriched and expanded curriculum and learning experience for students.

12. Why will the MSBA decision in December be a critical milestone for the Andover High project?

In December 2018, we will find out if Andover High has been accepted into the MSBA program. If Andover is accepted, the next steps are strictly prescribed by the state, and the next community decision point will be a request at Town Meeting to fund the required feasibility study.

If Andover High is not accepted into the MSBA program, there will need to be a decision to either pursue a building project without MSBA assistance or to resubmit a request to the MSBA for consideration in 2019.

If the community favors improving Andover High using town financial resources only (no MSBA partnership), there will need to be a decision about which option should be pursued (addition/partial renovation, addition/full renovation, or new school), and design funding would be requested at Town Meeting.

The community is being asked to weigh in on these issues, either at the October community forum, by attending facility committee meetings, or by reaching out to members of the facility committee or School Committee.

13. When will improvements to Andover High begin? When will improvements be complete?

The Andover High School Facility Study Committee continues to meet to develop options for both town-funded and MSBA paths. Community feedback is critical at this stage. The next significant decision point will be in December 2018 when the district learns whether or not AHS has been accepted into the MSBA program. This information will have significant impact on both potential costs and timelines for any AHS facility project.

Acceptance to the MSBA program would provide considerable financial assistance (upwards of 40 percent of eligible costs). However, the program prescribes specific steps that generally take longer to complete than do projects that are solely district/town-funded. As such, taking advantage of MSBA's significant monetary assistance would delay the completion of construction by at least one year beyond the time required for a self-funded project.

14. Which other Massachusetts communities have undertaken major projects to improve their high schools?

Andover is one of the few communities in eastern Massachusetts that has not invested in a new high school or undergone a major renovation of an existing high school in the past 20 years.

For example, fairly new high schools can be found in the nearby communities of North Reading (opened 2015), Wilmington (2015), Methuen (2014), Dracut (2014), Tewksbury (2012), Bedford (2008), Lawrence (2007), Reading (2007), Chelmsford (2006), and North Andover (2004). Billerica will be opening a new facility in 2019, while Lowell, Groveland, West Newbury and Merrimac are either currently building or designing new high schools or are undergoing comprehensive addition/renovation projects.

15. Why are multiple schools being considered for renovation or reconstruction at the same time?

Like many districts that saw baby boomer population spikes, Andover undertook several school building projects in the 1950s and 1960s and has a history of building or renovating multiple schools at the same time. West Elementary, Doherty Middle, and Sanborn Elementary were all built in 1951. Andover High School, Sanborn Elementary, and South Elementary were partially renovated in 1995. High Plain Elementary and Wood Hill Middle were built in 2002. Those schools have aged significantly and/or outgrown their capacity over time.

In 2016, the town hired a national facility assessment and planning organization (MGT of America Consulting) to assess the state of our facilities and help develop a long-term plan to address facility needs. The MGT study¹⁰ concluded that the school facilities with the greatest needs are West Elementary and Andover High School.

The West Elementary building was constructed in 1951 and requires extensive physical improvements. Andover High was constructed in 1966 and renovated in 1995. It is severely overcrowded and requires additional and larger classrooms, as well as larger special-use areas (notably cafeteria, special education, and collaborative spaces). The district is proceeding on parallel paths to consider renovation or replacement of both of these schools.

16. Why did the district ask the Massachusetts School Building Authority (MSBA) for help with West Elementary, rather than Andover High, in April 2017?

Only one facility project can be submitted to the MSBA as “district priority” in any year. To determine which site that would be, during the fall and winter of 2016 the School Committee held several community forums, met with teachers and principals, toured buildings, consulted with architects, walked sites, observed student traffic patterns, calculated enrollment projections, consulted with experts who have gone through similar analyses, reviewed prior space studies, and discussed facility priorities at many School Committee meetings.

Ultimately, the School Committee voted to submit an SOI for West Elementary while simultaneously convening a Facility Study Committee to determine which, if any, town-funded improvements could be made to Andover High without MSBA partnership.

17. What are the pros and cons of participating in the MSBA program and of building without MSBA partnership?

The Massachusetts School Building Authority (MSBA) partnership is highly competitive and can provide considerable financial benefit, upwards of 40 percent of reimbursable costs to Andover. However, the timelines—from acceptance into the program until a renovated/reconstructed building is opened—are lengthy (typically four or more years) because each step follows a detailed, state-prescribed process.

A new-construction high school has never been built in Massachusetts without MSBA partnership, likely because these large facilities are the most expensive building investments a town ever makes.

Some communities have chosen to undertake elementary school construction projects or high school renovations without MSBA assistance, relying entirely upon municipal funding. Town-managed projects can move at their own pace, which is generally faster than the MSBA process.

With construction costs estimated to escalate at least four to five percent each year, moving quickly can reduce overall construction costs.

¹⁰The full MGT of America Consulting study can be found on the APS district website: <http://www.aps1.net/1781/Facility-Forums---MGT-Facility-Plan>

18. What paths are being taken to address both AHS and West Elementary?

With West Elementary's acceptance into the MSBA program, the West Elementary School Building Committee is taking specific steps prescribed by the state process. Most notably, funding for a "feasibility study" was approved by Town Meeting in May 2018, and the study is expected to be complete in early 2020. The feasibility study will recommend a "preferred solution" to address West's facility needs—either a building renovation or a total replacement—to be considered by the community at the 2020 Town Meeting. This step would also require a debt exclusion vote of the community shortly after Town Meeting.

The Andover High School Facility Study Committee was formed in January 2017 and has been conducting a preliminary feasibility study with the architecture firm HMFH. The Study Committee has developed many options for improvements at Andover High, ranging from \$7 million worth of safety and security upgrades to over \$200 million for a new school building¹¹. Additionally, the Study Committee recommended to the School Committee that an SOI for AHS be submitted to the MSBA in order to pursue the potential option for state partnership. The SOI was submitted in April 2018. For both of these projects, community feedback is critical. Meetings of both committees are open to the public and notifications are posted to the Town of Andover website.¹² Meetings are also videotaped and can be viewed from the Andover TV website.¹³

19. When will improvements to West Elementary begin? When will improvements be complete?

The MSBA process is stringent and lengthy, with each step prescribed by state law.

The West Elementary building project was accepted into the MSBA program in December 2017, which started the "eligibility period" and allowed creation of the West Elementary School Building Committee.

In May 2018, Andover Town Meeting approved funding for the West Elementary feasibility study. The study is expected to be completed in early 2020 and will yield a "preferred solution" to address facility needs through either a building renovation or replacement.

Bidding for design and construction would follow. It takes 16 to 24 months to complete renovation or new construction, depending on the project size and complexity.

¹¹ Details on these options can be found in presentations on the AHS Facility Study Group website:

<http://www.aps1.net/1932/Data-and-Presentations>

¹² Notification of both West Elementary and AHS building committee meetings are posted to the Andover Town website:

<http://andoverma.gov/calendar.aspx>

¹³ Replays of both West Elementary and AHS building committee meetings can be found in the Andover TV website archive: <http://andovertv.org/videoarchive>

20. How are Andover buildings being maintained?

The town has a robust maintenance program and the Department of Facilities employs staff in the trades of carpentry, energy management, HVAC, painting, plumbing, masonry, security, electrical and fire systems. The department also manages maintenance and construction projects and uses in-house staff for many small construction projects throughout the schools.

At each school, custodians regularly perform minor repairs and preventive maintenance in addition to routine operations such as cleaning and stocking. Additionally, the town work control center has tradespeople on call around the clock to address repair needs, major equipment services, and acute problems.

Andover buildings are well maintained and run efficiently. We are not in need of facility improvements because of a lack of maintenance. Instead, renovations or additions are being considered because some buildings have passed their expected lifespans and/or exceed the enrollment for which they were designed, particularly as educational requirements and space standards have changed over time.

21. Will Andover High continue to be maintained while we are going through this process?

Yes, the high school will continue to be maintained and improved, particularly with respect to safety and security. As systems need repair, they will be replaced. Nothing will be left in a state of failure. However, major capital projects—such as a request for new boilers—will be postponed until the community has settled on a facility upgrade path.

22. How does the town pay for facility construction projects?

In general, significant facility projects are funded by the town through a debt exclusion.¹⁴ In this process, voters give the town permission to borrow money outside the limitations of Massachusetts Proposition 2½, and taxes are increased to pay back the loan during the term of repayment (usually 30 years).

The town would ask voters for this approval in two separate forums, first at Town Meeting and then by holding a ballot box vote. Both votes would need to pass in order to approve the debt exclusion.

23. What is Andover's track record for past school construction being on or under budget?

The Wood Hill Middle School, High Plain Elementary School and Bancroft Elementary School building projects were all-new construction and all were completed on time and on budget. Each of these three projects was managed by a separate School Building Committee. The 1995 Andover High School renovation project did take longer than anticipated and required some additional funding. Renovations tend to be more complex than new construction because unanticipated challenges are sometimes discovered when existing walls and other structural components are removed.

¹⁴ A debt exclusion is not the same as an override. Generally, with a debt exclusion, voters allow an increase in taxes only to pay back specific project debt over the duration of a loan. An override allows an increase in taxes that will be ongoing and used for operating costs. Historically, Andover has passed debt exclusions for facility projects. Andover has never passed an override.

24. What is the potential impact of school construction projects on my taxes?

The scope of potential construction projects has not yet been defined—including the fundamental question of whether each school would be a renovation or a reconstruction; therefore, costs are unknown. However, we can estimate the impact to the average tax bill using various cost levels and other assumptions.

If voters approve a debt exclusion, new debt could be taken on by the town and loans would be paid over many years by an increase in property taxes over the life of the loan. At the same time, existing exempt debt (financing High Plain, Wood Hill and Bancroft school construction, for example) is being paid off, with a notable drop to come in the year 2022. Estimates show that the FY18 average tax bill was about \$9,600 and that \$270 of that amount was applied to existing exempt debt.

Total exempt debt—existing plus that from any new projects approved by voters—will have a bearing on the town's repayment schedule and, therefore, on residential taxes in any given year.

The Town has put together preliminary debt scenarios based on various assumptions about construction project costs, interest rates and loan terms. These estimates show that for every \$10,000,000 of debt incurred, we can expect an average tax bill impact of between \$38.00 and \$47.80 in the first year of loan repayment. The annual cost to taxpayers would gradually decrease after the first year as interest payments on the debt decrease and as existing debt for other town projects expires.

25. I have no children who attend Andover Public Schools. How will this project benefit me and the community?

Andover High School is not only a school, but also a community center that hosts arts, athletics and community education events. The high school is used seven days a week from early morning until late in the evening and accommodates many community functions. A facility that can support an array of community activities adds value to all the residents in a community.

In addition, the quality of education in a community has a direct impact on the attractiveness of the community to homebuyers and, as a result, on the property value of homes. Families desiring to send their children to high-performing schools are able to choose among communities. A critical factor in that choice is the physical condition and attractiveness of the schools that children will attend. Because all children in Andover will attend Andover High School (unless they choose a private school), homebuyers and the community as a whole have a strong interest in the conditions at Andover High School. Therefore, maintenance of school facilities is a valuable investment that provides a return to everyone in the community.

Research shows that the physical condition of the learning environment has a strong influence on student performance. Conditions such as temperature control, ventilation, lighting, and sufficiency of space are factors that affect learning. To maintain the high quality of performance Andover has achieved and to sustain the attractiveness of its schools in comparison to surrounding communities, it is essential that Andover's school facilities provide sufficient space for current educational programming as well as physical conditions that support high-quality learning.

26. Are any other high-priority school facilities being considered for improvement?

The 2016 MGT facility study also identified Shawsheen and Doherty as high-priority buildings due to their physical conditions.

Shawsheen has long been identified as a structure beyond its useful life and an expensive building to operate. Attempts to move Shawsheen classrooms to Bancroft as part of that building project were only partially successful; K to 3 moved and the preschool remained. The Andover High School Facility Study Committee recommended a pre-school not be included in a high school project primarily due to site constraints. The district continues to explore options for Shawsheen, including co-location with a new West Elementary, separate construction elsewhere, and partnership with outside organizations for preschool space.

In May 2018, Town Meeting approved funding of approximately \$80,000 for a facility study of Doherty that can help inform decisions for near- and long-term facility improvements.

Additionally, as part of the West Elementary feasibility study, there may be opportunity to include an evaluation of a middle school on the West Elementary campus. This approach could potentially free up the West Middle building for swing space during a future Doherty renovation or to provide additional capacity to an AHS campus, though these options would not be feasible for many years.

27. What public input has occurred to date? How can the public be engaged in this process?

At the beginning of the long-range planning process, a survey of parents and a community forum were held to collect input on facility conditions and concerns. The AHS Facility Study Committee has held several community forums and tours of Andover High School. The Committee also collected data from the AHS faculty. The Committee has presented its current findings to the Select Board, the Finance Committee and the School Committee.

Both the West Elementary School Building Committee and the Andover High School Facility Study Committee meet regularly. Notice of these meetings is posted on the town website and the public is encouraged to attend.

The next community forum to collect additional feedback is scheduled for October 2 at 7:00 p.m. in the Collins Center. Tours of the high school facility will be held the same evening, beginning at 6 p.m.

28. Who will make the decision about which building project(s) to pursue?

Ultimately, the Andover community will need to decide the level of financial investment that should be made to improve school facilities.

Both the Andover High School Facility Study Committee and the West Elementary Building Committee have the critical goals of gaining community feedback and adjusting potential options to meet community expectations.

In addition to attending facility committee meetings and community forums, you are encouraged to reach out to members of each facility committee or the School Committee to provide your thoughts. Andover High School Facility Study Committee members may be contacted at: AHSFSC@andoverma.us.

29. How accurate are the cost estimates?

The cost estimates provided by HMFH are based on current construction prices and assume that construction will commence in 2020 if funded by the town, or in 2022 if accepted for partnership with MSBA. A responsible contingency has been added to cover unknowns. Factors impacting the final budget include cost escalation variables, subsurface conditions uncovered by geotechnical and geo-environmental investigations, final development of sustainable goals and strategies, traffic-study-related site costs, and programmatic decisions. The final budget is usually determined at the end of the schematic design phase of the project, which has not yet begun.