3.1.6. Preliminary Evaluation of Alternatives

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The town and school officials, the owner's project manager, and the design team have preliminarily evaluated a range of alternatives for Arlington High School, which included school district student assignments, tuition agreements, rental of other buildings or other sites, renovation of the existing school, renovating and adding onto the existing school, and constructing an all new school building.

Analysis of school district student assignment and assignment practices and available space in other schools in the district
All school owned, and operated facilities are fully utilized in the Town of Arlington.

Tuition agreement with adjacent school districts
The school district has tuition agreements with Minuteman Career Technical High School, Lexington, MA outside the district for regular education.

The school district has tuition agreements with special education collaboratives, including LABBB Collaborative Program. And Arlington receives reduced rates through EDCO Collaborative as a member district for students enrolled in special education programs, none of which are housed in Arlington Public School buildings.

Rental or acquisition of existing buildings that could be made available for school use
The district has examined the potential for leased, rental or alternative spaces. There have been initial discussions with Minuteman Career Technical High School and MSBA to ascertain if Arlington may use the existing Minuteman school building as swing space. Beyond this, there have been no identified available buildings to be used as swing space for the current 1,350, and growing, high school student population, therefore any construction project at the existing school site will be an occupied, phased project.

Code Upgrade Option
The existing 391,875-square foot high school was constructed over a period of 67 years, beginning in 1914 and five major additions. See **Appendix T** for the Existing Building Construction by Date Diagram. Much of its systems and finishes are original to the date of construction and/or have had a few upgrades over the years. The facility does not meet current code requirements for accessibility. Much of the site and building entrances are not accessible. Not all levels/areas of the building are accessible. The toilet and locker room facilities are not accessible. The door hardware and stair railings do not meet current accessibility code requirements. The building does not meet current requirements for energy efficiency in terms of its envelope (windows, insulation). The building does not meet current requirements for energy efficient mechanical, electrical, and plumbing systems. The building was not designed with the current requirements for air exchanges and exhaust air. Portions of the building are of unprotected construction and portions are not fully covered by an automatic sprinkler system.

There are approximately 25 exterior door locations with 68 individual exterior doors. There is no single fire alarm system and therefore portions of the building may be evacuated while the other portion is unaware of the concern. The building has minimal security features, the exterior doors are not alarmed and impossible to secure, and there are just 25 exterior cameras which cannot view all the building perimeter. The building communication system is in poor/failing condition. There are two floors partially below grade and there have been flooding and other air-borne contaminants to contend with over the years and have impacted the indoor learning environment.

The Evaluation of Existing Conditions report is in **Appendix N**. The report includes more detailed lists of the building, systems, and site deficits requiring upgrades and/or replacement to meet code requirements should the building be renovated. Code upgrade only, with no educational-related modifications, is conceptually estimated at $118,000,000 project cost. MSBA would support a code upgrade option if it fulfilled the significant components identified in the SOI and if it was reported to support delivery of the district's educational program, which it does not.

Preliminary Evaluation of Alternatives

The preliminary alternatives evaluated include: renovating the existing school with no additions, renovating various portions of the existing school with additions, and alternatives of all new construction. Additionally, four other parcels in town were evaluated as potential locations for Arlington's high school.

The Initial Space Summary was developed in collaboration with the school administration and is an integral part of the analysis of the alternatives studied and is in **Appendix I**. The space summary, inclusive of "other" district and town programs that currently reside with the existing high school, totals 415,292 square feet. The "other" program spaces total 30,413 square feet and it is understood by the District and the Town officials that the "other" programs are not reimbursable by MSBA. The District and Town officials have actively looked for alternative locations for these program spaces, which include School District Administrative Offices, Community Education Offices, Town Information Technology, Town Facilities, Town Comptroller, and Town Payroll. And, except for the Town Comptroller, all other departments listed serve the school department since the schools are the largest employers and operate the greatest amount of building square footage in the town. As noted previously, at the time of writing and submitting the PDP, it has not been confirmed, but there are efforts being made to relocate the Comptroller, Payroll, and Facilities departments. Unfortunately, we cannot confirm the success of these efforts to date. The Design Team has included the District Administrative Offices, Community Ed, and Town IT in the preliminary alternatives developed for this submission.

Renovation only --

The existing school building is 391,875 square feet, making it approximately just 18,000 square feet smaller than the space needed for the project. On the surface these numbers make it seem plausible that the proposed spaces with minor compromise would fit within the existing building, but this is not the case. The existing facility has two floors that are partially underground, therefore many spaces do not have natural light and are not suited for educational programs. Additionally, a large amount of the building's square footage is in corridors and stairwells, the calculated net to gross factor is 1.73, which is very high and indicative of the inefficiencies of the existing facility.

Due to the configuration and constraints of the existing facility there is overcrowding in core academic spaces, performing and visual arts spaces, FACS and all other vocational/technical programs with the current student enrollment. We are planning for 400 more students than exist today.

When programming all available spaces on all floors, including using large areas without natural light for the vocational/technical program spaces, we are unable to accommodate the school's entire program, see Renovation Only Floor Plans in **Appendix U**. The following spaces are not able to be included: five of the special education programs (Summit, Reach, Workplace, Mill Brook, and Compass), the special education preschool, LABBB Collaborative, ECE daycare, district administrative offices, community education offices, and all town offices/departments. And because many programs remain in their existing location, some would remain undersized, such as the auditorium. Additionally, while all general classrooms and sciences have been placed, they are wildly distributed throughout the building from the top floor of Fusco to the lowest level of Downs and therefore the layout does not work for educational delivery.

A full, gut renovation only of the existing school facility is conceptually estimated at $204,000,000 project cost. The renovation only alternative is not a viable, acceptable alternative to serve the Arlington high school population and therefore it has been decided by the AHS Building Committee to not pursue this alternative in the Preferred Schematic phase.

Renovation and addition(s) --

The existing school and property were assessed for how they could best be modified to meet the proposed high school space needs to serve 1,755 students. The property, while reasonable in overall acreage, is made challenging due to the steep grade change that occurs through the center of the property and existing building. Additionally,

the Mill Brook culvert cuts through the middle of the property just behind the school and under the existing sports fields and there are river setbacks associated with Mill Brook at the property line where it is daylit.

While we studied the renovation only alternative it became apparent that large amounts of the existing facility are not ideally suited as educational spaces due to being underground. It also became apparent that the core infrastructure of the existing facility is one of its major problems. It has a sprawling layout, extensive corridors, 20 stairwells, multiple floors and levels, and a large courtyard at the center of it all. Also, nearly the entire Downs and Collomb Houses educational spaces are dramatically undersized for general classrooms, science, and art classrooms. This means a near gut of the interior partitions would be required to layout out spaces of appropriate sizes. This approach has structural implications: both Downs and Collomb have structured waffle slab construction, which is very costly and challenging to reconfigure.

Downs House is located across the north courtyard furthest from the remainder of the school. There are three ways to reach Downs, cross through the outdoor courtyard at the lowest level or walk across the Links corridors to the far west and east of the building. It is not convenient to anything accept Red Gym, which is also far from everything. Another challenge of Downs, in addition to its location, classroom layout, and waffle slab construction, is its low floor-to-floor height, which would cause renovation challenges to incorporate new mechanical systems. Additionally, the route to Downs from the other buildings is not fully accessible to the physically challenged and would require reconstruction of concrete ramps and additional elevators. After careful review of Downs House, it has been determined that its challenges outweigh any benefit of reuse in a renovation/addition alternative.

Collomb House includes the central, 1938 portion of the school with its distinct columns, pitched roof, and clock tower combined with the wings to the rear creating a T-shape. The rear portion of the "T" includes the undersized art classrooms, science labs, and FACS classrooms. And while this portion of the school is centrally located, having all its spaces be undersized would require a major gut renovation and result in just 10 science rooms spread out on all four floors. And because this area is centrally located if it were to remain it would greatly limit the potential layout and adjacencies of educational spaces in any alternative. After careful review of the rear portion of Collomb House it has been determined it provides little benefit of reuse in a renovation/addition alternative.

The front portion of Collomb House, inclusive of three floors, one above grade and two below grade, was constructed in the early 1960's. There are minimal programmatic spaces, it is mostly programmed as storage and foodservice. The top floor includes administration, nurse, and guidance offices, the majority of which are all undersized. It is possible that the lower portions may be either gut renovated or repurposed in a renovation/addition alternative. It is less likely the existing top floor would remain in its current configuration as it is just one floor connecting buildings together that may not remain.

Lowe Auditorium and its four floors contain the performing arts spaces, FACS and LABBB programs, and a portion of the Menotomy Preschool. The performing arts spaces are on three different floors. The only "back of house" at the stage for the performers is the Chorus classroom. The stage is good size and while the auditorium currently has 916 seats, if the 5,660-square foot space were to be renovated and designed to meet accessibility codes, it would not accommodate the desired 900 seats. By simple math, at 10 square feet per occupant, the auditorium would only seat 566 people. The band is one floor above the stage requiring performers to lug larger instruments up and down stairs. The stage is not accessible nor is the control room, both would require either ramps or lifts, which would further reduce seating capacity. The auditorium is located at the property line and cannot be expanded in its current location. The lower two floors are partially underground. Because the Lowe Auditorium does not meet the programmatic requirements and is unable to be expanded, it has been determined that there is no benefit to reuse this portion of the building in a renovation/addition alternative.

Blue Gym, which was added in the 1960s with locker rooms at the lower level, has been an asset for the high school's physical education program. It currently is not accessible to the rest of the school. Blue Gym, like all other additions, has floor levels that do not align with other portions of the building. It is nearly a standalone portion of the school, and if the size of the property allowed for keeping this structure in use as is, it could continue to be an

asset. As various alternatives were assessed, it became clear that this two-story structure at the far west side of the school building is challenging to incorporate into a more efficient building layout.

Through the feasibility study process it has been determined that Fusco House and the central portion of Collomb House provide the best opportunities for reuse.

Fusco House is the original school house on the property, it has five levels, the lowest underground. The upper floors have good sized rooms surrounding a central space with a small platform, likely formerly the schools all-purpose room and currently called Old Hall. The building has good "bones" structurally speaking, large windows (which would need to be replaced, but provide a high-level of natural light), and a respectable floor to floor height of 13'-0". The lowest level is mostly storage surrounding an open gym space affectionally called "The Pit". Since Fusco was constructed first, structurally it is separate from the other buildings/additions around it. The exterior of Fusco has quality period details that require some relatively minor refurbishment. Fusco makes the transition from the higher elevation at the front of the site to the lower elevation at the rear of the site.

The central portion of Collomb House has brick archways at the main entry level with a series of Corinthian columns above the entry that rise 18 feet with an entablature with "Arlington High School" text. While this is not the oldest portion of the building, most in the community associate this structure as the iconic image of the high school. For this reason, it is important to assess ways in which this central portion may be reused in the future.

Varying degrees of renovation vs. new additions were assessed with specific considerations of keeping the "best" of the existing building and removing the more problematic areas. Areas deemed highly desirable to retain are Fusco House and the central portion of Collomb House. Areas deemed, as identified above, as problematic and costly to retain and renovate with little educational or spatial benefit are Downs House, Links, Red Gym, Blue Gym, Lowe Auditorium, and Collomb House wings.

After meeting with much of the high school faculty and staff, numerous building committee meetings, and the educational visioning workshops, facility goals were identified as musts to address the current challenges of the existing building layout and some of them are:

- Meet the Educational Program
- Achieve ideal adjacencies
- Create a more "compact", easily navigable building
- Provide distinct entrances
- Improve site use and circulation
- Plan for occupied, phased construction

The following are initial renovation/addition alternatives developed and assessed by the building committee, school department, and at a community open forum. See **Appendix V** for conceptual massing, floor plans, and site plan diagrams of each of the preliminary alternatives evaluated and described below.

Alternative 1 proposes to retain and renovate Fusco House and the central portion of Collomb House. The concept "extends" Fusco by providing an addition of similar size and proportion to Fusco to the north. This would provide six full floors of program space, including Menotomy Preschool at the two lowest levels toward the north allowing for a distinct entry and drop-off/pick-up area, LABBB Program and various special education programs (Summit, Mill Brook, Workplace) at the third floor also would have a distinct entry location, and Humanities classrooms at floors four, five, and six.

Collomb maintains its status the main entry point of the high school. The lowest level includes open-air parking, P.E. lockers, and district administrative offices. There is an entrance at this lowest level providing a welcoming entrance at the north side. The open-air parking would provide much needed increase of parking spaces. Up one level is the cafeteria, gymnasium, and auditorium. Having all three shared use program spaces near each other allows for ease of access after hours and on weekends without necessarily providing access to the full building.

The third floor provides the main south-facing entry, the upper auditorium, and the visual arts classrooms. Centrally located on the fourth floor and within the footprint of the pitched roof and clock tower is the library learning commons. The fourth, fifth, and sixth floors contain the science and math classrooms and maker spaces, creating STEM areas. A green roof is shown above the gymnasium at the fifth floor, easily accessed by the sciences.

The compact footprint would open more of the back of the site for better vehicular and pedestrian circulation and with shifts made to the existing ballfields would provide increased car parking.

Alternative 2 proposes to retain and renovate Fusco House and the central portion of Collomb House. The concept provides for a central circulation spine where all program areas are easily accessed, the central corridor would double as a gallery, gathering hub for the school community. Three new additions would project from the spine to the north, two of six stories and one, the central addition, would contain the gymnasium with green roof. Fusco would be renovated to accommodate LABBB and special education programs on floors three and four, and science classrooms on floors five and six. Upon entering the lowest level at the north side, there is the gymnasium and auditorium, which would be easily accessed by the community. The cafeteria is just above on the second floor. The main entry on the third floor at the Collomb House column-façade has an outdoor amphitheater to the east that effectively extends the front green of the property. One six-story wing includes the district administration, visual arts, makerspaces, and general classrooms. The other six-story wing includes Menotomy Preschool and general classrooms. A portion of the sciences are centrally located on each floor. The sciences have direct access to the green roof.

Collomb maintains its status as the main entry point of the high school. LABBB, the special education programs, and Menotomy Preschool have their own, distinct entries.

The compact footprint would open more of the back of the site for better vehicular and pedestrian circulation with shifts made to the existing ballfields. As diagrammed, with a generous front green “oval”, the car parking space quantity does not increase, but the alternative (and all alternatives) could be modified to include at-grade/under the building parking spaces.

Alternative 3 proposes to retain Fusco House for Town use and the central portion of Collomb House is retained. The concept provides a single academic wing of six stories, which is set further north on the site than other alternatives to provide perimeter exposure to natural light. The lowest level of the “main” building to the south, contains the cafeteria with direct access to an outdoor courtyard. The makerspaces, FACS classrooms, and visual arts classrooms are also located at this level, some without direct access to daylight and views. All spaces on the first floor are double-height. The main entry is on the third floor at the Collomb House column-façade along with the school’s main office and auditorium. The fourth floor contains the library learning commons and the upper auditorium. The six-story academic wing includes Menotomy Preschool at the lowest level with LABBB. General classroom with science labs centrally located are on each of the upper floors. The gymnasium wing is located to the west of the academic wing. The layout is not as compact or efficient due to building around Fusco House. The shared use program spaces (gym, cafeteria, and auditorium) are dispersed making it not as easy to secure the other portions of the building after hours. To be as compact as possible, the buildings are close to one another creating an unusable, cavernous exterior space.

Collomb maintains its status as the main entry point of the high school. LABBB, the special education programs, and Menotomy Preschool have their own, distinct entries.

The footprint is not compact and would not improve the circulation challenges that already exist on the property and would likely impact the existing ballfields.

Alternative 4 proposes to retain the central portion of Collomb House. The floor plan concept radiates all programs around either the centrally located cafeteria or the centrally located library learning commons. The lowest level

contains the cafeteria, which is directly accessed from the exterior and provides for an outdoor gathering/lunch area. Also on the lowest level are the auditorium, Menotomy Preschool, district administration, LABBB, and P.E. lockers. The cafeteria has multiple double and triple height openings connecting it to upper level circulation. The gymnasium and upper auditorium, upper preschool, and special education programs are on the second floor. The main entry on the third floor at the Collomb House column-façade has the main offices, the upper auditorium, and the start of the academic floors. Floors three, four, five, and six contain general classrooms and centrally located science labs. The library learning commons is on the fourth floor with direct access to an outdoor amphitheater, and is centrally located within the building both vertically and horizontally.

Collomb maintains its status as the main entry point of the high school. LABBB, the special education programs, and Menotomy Preschool have their own, distinct entries.

The building footprint would open more of the site for better access to the outdoors. Vehicular and pedestrian circulation would require shifts made to the existing ballfields. As diagrammed, with a generous front green "D" shape located on axis with the main entry, the car parking space quantity does not increase, but the alternative (and all alternatives) could be modified to include at-grade/under the building parking spaces.

New Construction

The following are the initial all new construction alternatives developed and assessed by the building committee, school department, and at a community open forum. See **Appendix V** for conceptual massing, floor plans, and site plan diagrams of each of the preliminary alternatives evaluated and described below.

Alternatives 5 and 6 are all new construction alternatives. The reuse of iconic existing elements either within the building (the 18' Corinthian columns) or at the exterior (refurbishing the clock tower) are possible in both alternatives.

Alternative 5 shows the reuse or recreation of the Collomb House pitched roof and clock tower. The floor plan concept provides for a centrally located cafeteria and library learning commons and two new academic wings to the south of the property at the front green. Instead of detracting from the front green, the additions would frame the front green, giving "presence" to the school building and more purpose to the front green. The lowest level provides for car parking, district administration offices, P.E. lockers and special education programs. The second floor contains the gymnasium, cafeteria, and performing arts. The new main entrance is located at the third floor with main offices, library learning commons, visual arts classrooms, the upper auditorium, and special education programs. The preschool is in the new west academic wing with humanities classrooms above. The east academic wing contains humanities classrooms. The STEM classrooms are in the main building on floors four, five, and six. A green roof is located adjacent to the sciences. And an amphitheater/outdoor classroom is located at the main entry level with access from the library learning commons and the humanities wing

The new layout provides for distinct programmatic entries. Alternative 5 (and 6) allows for new construction to occur first to the south and provides the much-needed swing space to enable the remaining construction to occur.

The building footprint allows for development to the north to improve site circulation and access to the sports fields. There is an increased quantity of surface parking in addition to the proposed at-grade/under the building parking spaces.

Alternative 6 is an all new alternative. It does not currently show the reuse of iconic, existing elements, but it is possible to do so. The floor plan concept provides for a new STEAM wing and a new humanities wing with the library learning commons centrally located between them with contiguous shared use program spaces located just behind and a discrete wing containing the Menotomy Preschool, district administrative offices, and special programs, each requiring a distinct entrance. There is a green roof/amphitheater located at the third floor. The cafeteria has direct outdoor access for outdoor dining and gathering. The cafeteria and auditorium share the first floor with the gymnasium and upper auditorium sharing the second floor.

The new layout provides for distinct programmatic entries. This alternative allows for new construction to occur first and provides the much-needed swing space to enable the remaining construction to occur.

The building footprint allows for development to the north to improve site circulation and access to the sports fields. The front green is dedicated to the pedestrian and would remain a main school entry as many students arrive by MBTA bus. The car parking space quantity does not increase, but the alternative could be modified to include at-grade/under the building parking spaces.

The Alternatives 1 through 6 were reviewed and analyzed by the Building Committee. After discussions, the Building Committee determined that Alternative 3, in which Fusco would be "turned over" to the Town for Town use, was eliminated from consideration. It was impractical to lose that much square footage and site acreage to a program that does not serve the school program. A second round of alternatives were developed to respond to the feedback received and they include Alternatives 1A, 6A, and 7.

Alternative 1A, like Alternative 1, also proposes to retain and renovate Fusco House and the central portion of Collomb House. Of the alternatives proposed previously, none combined both keeping Fusco and Collomb AND building an addition at the front the school. Like Alternatives 5 and 6, once constructed, the addition at the front of the school would provide much needed swing space to then continue to renovate and add onto the remainder. The majority of Alternative 1A's program spaces are located the same as in Alternative 1, apart from a new STEAM wing to the front of the building. Additionally, a wider, more welcoming entry courtyard would be created at the rear of building than that in Alternative 1.

Collomb maintains its status at the main lobby of the high school. Upon entering the double-height lobby, a visitor would engage the archways and columns as they pass through from lobby to library learning commons and on to access the upper level of the auditorium. And as in Alternative 1, the compact footprint would open more of the back of the site for better vehicular and pedestrian circulation and with shifts made to the existing ballfields would provide increased car parking.

Alternative 6A is nearly identical to Alternative 6 with the only difference being the relocation of the wing from the north side to the east side of the building. The internal layout of the wing would remain as in Alternative 6, but by locating it to the east it frees up more open space to the back of the building for improved site circulation and development of outdoor gathering space. Additionally, with this new location its upper floors are closer in proximity to the upper floors at the front portions of the building creating better circulation.

Alternative 7 is an all new building located on the front green along Massachusetts Avenue. Due to the 400,000 square foot program, a building in this location needs to be six stories tall and its footprint extends from the front, south face of the existing school building to the sidewalk along Mass Avenue. To accommodate the school program and to provide natural light to the spaces requiring it, the gymnasium and auditorium are in the center of the building footprint to the left and right respectively of the central, main entry. The classrooms and other program spaces ring the perimeter around these large, multi-level program spaces. At floors five and six, the classrooms are located on a single-loaded corridor.

Upon entering either from Mass Avenue or from the rear of the building, one would enter a double-height cafeteria. And above it is the double-height library learning commons. Because the building footprint occupies most of the front green there is little foreseeable opportunity for delivery or drop-off/ pick-up areas on three sides of the building. Parking, drop-off/pick-up, and deliveries would need to be accommodated by raising the grade at the rear of the new building (where the existing school is currently) thereby creating an accessible entry and access point at the rear side of the building. This would require approximately 24' of fill and structured fill material to raise the grade. The site would then have a lower tier of parking that would provide accessible parking and access to the sports fields but would require stairs and ramps to access the school building. With this tiered approach, the parking lots are long and narrow, and it is anticipated that only small truck deliveries would be accommodated.

Larger, tractor trailer truck deliveries would need to occur at the Mass Avenue side of the building, therefore requiring a demarcated delivery zone.

It may be possible to construct this building in one phase; further assessment is needed to determine if this is possible. Also, with the existing school remaining in operation, less swing space will be required (it will still be desirable to temporarily relocate the preschool and daycare programs during construction). Site circulation would be greatly challenged during construction. In conjunction with contractor laydown area and the need of the contractor to use part of Massachusetts Avenue during construction, upwards of 1800 people will still be arriving and departing from the site during construction.

The real perceived drawback to Alternative 7 is the complete loss of the one open green space along Mass Avenue in Arlington. While it is agreed that it is currently underutilized, it is an asset that many would like to see strengthened and improved, not eliminated.

After this round of alternatives, just one more alternative was developed, Alternative 5A.

Alternative 5A renovates Fusco and retains historic elements of Collomb House for reuse. Same as in Alternative 5, there are two new academic wings to the south of the existing building, located on the front green and framing the new main entrance. The wing to the west abuts and aligns with Fusco House and combined would accommodate the preschool at the lower level and the humanities on the upper floors. The wing to the east contains the STEAM academic spaces. Fusco House is extended to the north to accommodate other programs. Just to the north of the STEAM wing are the P.E. and Performing Arts programs above an open-air parking level. The floor plan concept provides for a centrally located cafeteria and library learning commons. A green roof is located adjacent to the sciences.

The new layout provides for distinct programmatic entries. And the new construction to occur first provides the much-needed swing space to enable the remaining construction to occur.

This alternative was developed after the geo-environmental engineer completed the Phase I Environmental Site Assessment Report. The Report notes the best approach to a building project on the contaminated soils is to provide four feet of clean soil on which to construct an addition, thereby raising the first floor level. We have modified our approach to have just one level below the main entry level at Mass Avenue (in lieu of the existing two floor levels), because the floor-to-floor would be too low to accommodate two floor levels. The Selected Preliminary Alternatives have been revised to make this adjustment.

Evaluation of other potential locations

In considering this project, the Town of Arlington identified four other potential sites:

- Mugar Property
- Poet's Corner
- Summer Street Rink
- Mirak Properties

See **Appendix W** for an Arlington map with the existing school and the evaluated other potential sites located, Google map site plans with simplified building massing diagrams at each of the sites explored, and an analysis matrix of each of the properties. The four properties were selected for review because they are the only properties of any significant size in Arlington, though they are all smaller than the existing school site, and smaller than the rule of thumb 20 acres that would be considered appropriate for a high school development.

None of the four properties are Town-owed and would require a lengthy procurement process (if the owners were willing to sell) and/or taking by eminent domain. Three are zoned as Open Space and two are protected park land, again requiring a lengthy zoning and/or legal process to change its use. Two are not centrally-located and/or have

poor access to MBTA, which is how much of the student population arrive to school. Three properties, if developed as a high school, would cause or increase traffic congestion.

Based on this analysis, the Building Committee, Town, School Department, Design Team, and OPM have concluded that the best location for Arlington High School is at the site of the existing school. Therefore, the preferred schematic alternatives will be developed for the current site.

Selected Preliminary Alternatives

The following four distinct alternatives merit further investigation and were approved by the School Building Committee on April 10, 2018:

1. Alternative 2 renovation and addition
2. Alternative 5B renovation and addition
3. Alternative 6A new construction
4. Alternative 7 new construction

After this submission and in the Preferred Schematic Phase, the Alternatives will be numbered one through four for clarity.

See **Appendix X** for conceptual massing, floor plans, and site plan diagrams of the selected preliminary alternatives to be further evaluated in the Preferred Schematic phase.

The alternatives were described in detail previously. All alternatives meet the Educational Program. Below is a summary of why the Building Committee selected each.

Alternative 2 renovates the two distinct portions of the existing school building, Fusco and Collomb. The new construction is behind the existing building and therefore this alternative retains the open, front green along Massachusetts Avenue to be programmed for better utilization.

Alternative 5B, which is the same as 5A described above, but includes renovations of both Fusco and Collomb Houses. The new construction is located both behind the existing and to the south at the front green. The new academic wings would frame the front entry and still maintain open, green space to be programmed. The new construction would provide much needed swing space to enable the rest of the renovations and construction to proceed.

Alternative 6A is of all new construction with a significant portion located at the front green, while still retaining a significant portion of open space. This creates more open space to the rear of the building to be programmed for parking and/or outdoor learning and activities. The new construction would provide much needed swing space to enable the rest of the renovations and construction to proceed.

Alternative 7 is of all new construction located completely on the front green. It would eliminate the open space along Massachusetts Avenue but increase the open space to the rear of the building. The rear of the building could be programmed for parking and/or open space/practice fields. The new construction may be completed in one phase (to be confirmed through further study), thereby shortening the construction period.

See **Appendix Y** for the Comparative Cost Analysis of the three alternatives. The conceptual project costs range from $287,000,000 to $293,000,000.