

# Pennsbury School Board: Facilities Committee

High School Design Discussion  
11/9/2023



# Agenda

- Committee Purpose and Members
- Upper Merion High School visit
- Avon Grove High School visit
- Tour of Pennsbury High Schools - East/West
- Heat Map
- Recommendation
- Q&A
- Appendix

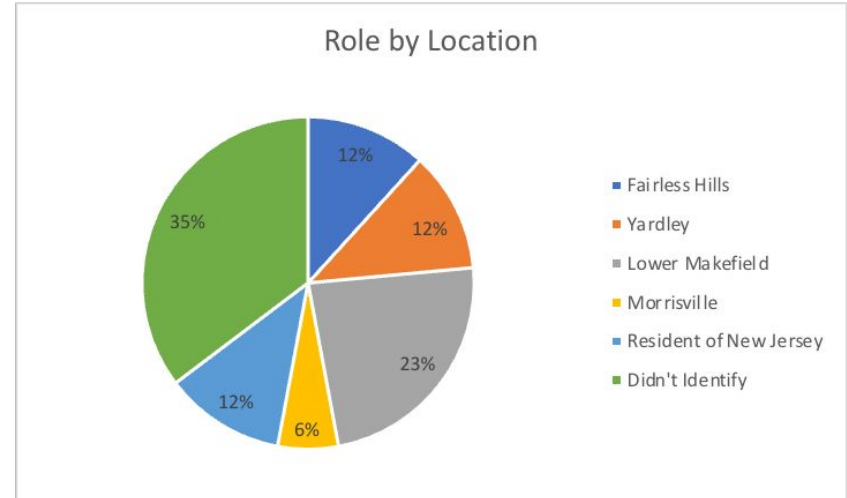
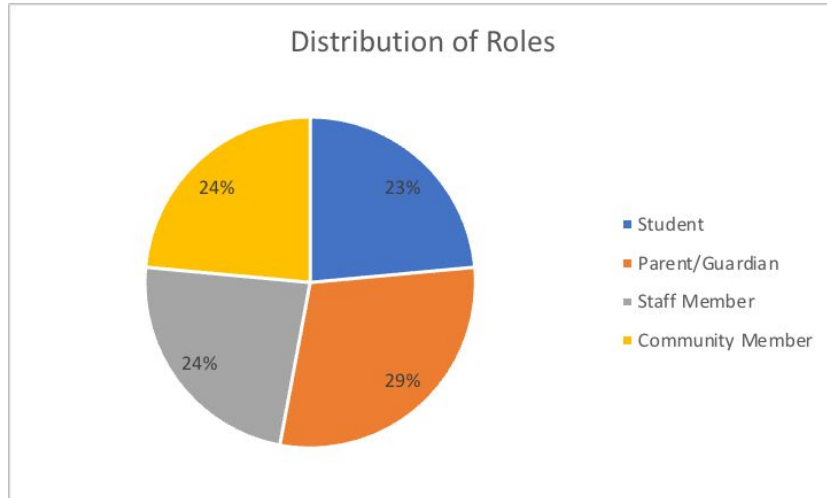


# Committee Purpose and Members

Under the leadership of Dr. Smith & Principal Meadows, The High School Design Discussion Committee was assembled this Fall with; community members, parents/guardians, staff, and students to shape an informed recommendation on whether or not the School Board should seek to renovate the existing High School facilities, or consider the building of a new High School on the current PHS grounds.



# Committee Purpose and Members

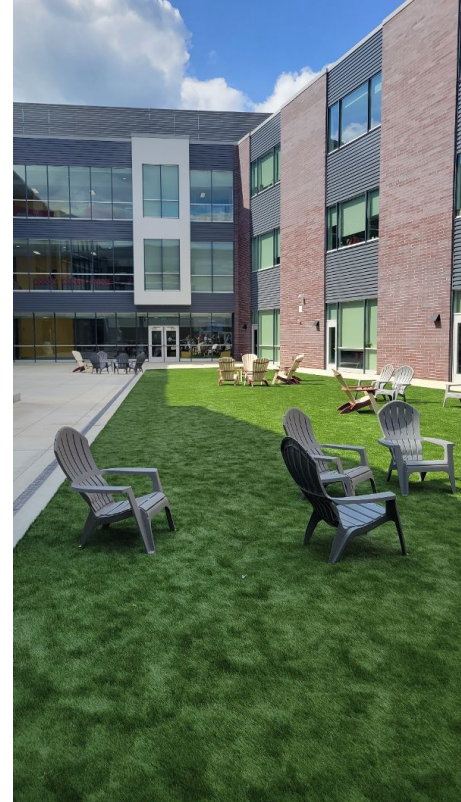


- There were a total of 17 members invited to participate
- Committee met five separate times during the Fall
- Committee visited two high schools
- Committee toured East and West facilities
- Full list of committee members can be found in the appendix

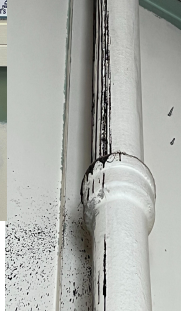
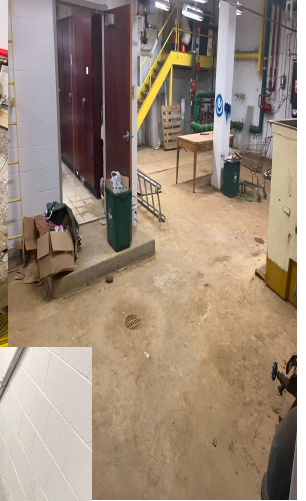
# Upper Merion High School visit



# Avon Grove High School visit



# Pennsbury High Schools tour - West

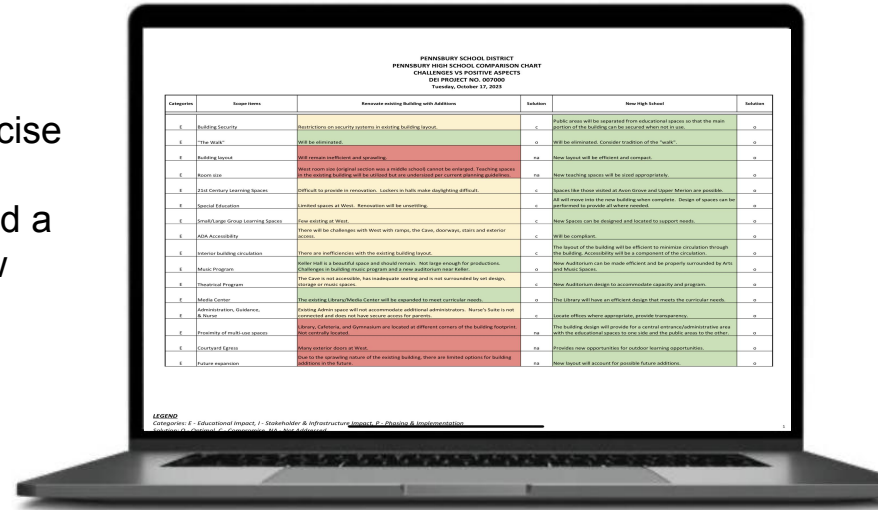


# Heat Map Tool Summary

D'Huy Engineering walked the committee through an exercise to help us assess the groups overall position. The group reviewed 40 various 'scope' items need. We then assigned a RAG status based on whether or not a Renovation vs New Build would meet the districts target state needs

Green - Optimal State      Amber = Compromise

Red - Not Addressed



	Renovate	Build New
Green	10 scope items can reach an optimal state	34 scope items would reach an optimal state
Amber	24 scope items would be comprise to our target state	6 scope items were identified whereby a new school would still require a compromise
Red	6 scope items would not address the issue	0 - All issues addressed with a new building

\* Full Heatmap results in Appendix





# Recommendation

The committee has taken a great deal of time to evaluate the pros and cons of the High Schools current and desired target state.

We have:

- Come together with the mission of making a recommendation
- Communicated with community members outside of the committee mtgs to address the overwhelming challenges in our facilities
- Considered the financial impact on the community
- Toured other schools to understand what is possible
- Witnessed the decay of our facilities first hand

Through these efforts, the committee voted unanimously to support a new structure as opposed to a renovation determining it to be the best course of action for our: students, teachers, community, and staff.

Key Factors in our decision include:

- Outcome of the Heatmap exercise
- A renovation will add needed facilities while placing while placing band aids on the rest of the structure inhibiting future growth
- There is no resolution for the lack of people movement in the current building.
- There is no resolution for security issues on a sprawling campus.
- The current structure is already a meld of previous structures and facing significant infrastructure and cosmetic needs.
- A new structure will be able to grow with the student body
- Considering the minimal difference in a school tax increase between a renovation and new school, a new school offers more value-add to the students, teachers, community, and staff

We appreciate the opportunity and trust placed in this committee to be part of this process.



# Q&A



# Appendix



# Committee Member Survey

Student			
Student			
Student			
Student			
Parent/Guardian	Griesbaum	Kevin	Fairless Hills
Parent/Guardian	Kiley	Dan	Yardley
Parent/Guardian	Tuthill	Jason	Lower Makefield
Parent/Guardian	Calix	Jose	Yardley
Parent/Guardian	Coyle	Colin	
Staff Member	Bergmann	Kurt	Fairless Hills
Staff Member	Swanson	Jamie	Titusville, NJ
Staff Member	McCleary	Tim	Morrisville
Staff Member	Emme	Wes	Cinnaminson, NJ
Community Member	Poulton	Terence	Lower Makefield
Community Member	Murray	John	Lower Makefield
Community Member	Kall	Kevin	
Community Member	Higgins	Michael	Lower Makefield



**PENNSBURY SCHOOL DISTRICT  
PENNSBURY HIGH SCHOOL COMPARISON CHART  
CHALLENGES VS POSITIVE ASPECTS  
DEI PROJECT NO. 007000  
Tuesday, October 17, 2023**

Categories	Scope Items	Renovate existing Building with Additions	Solution	New High School	Solution
E	Building Security	Restrictions on security systems in existing building layout.	c	Public areas will be separated from educational spaces so that the main portion of the building can be secured when not in use.	o
E	"The Walk"	Will be eliminated.	o	Will be eliminated. Consider tradition of the "walk".	o
E	Building layout	Will remain inefficient and sprawling.	na	New layout will be efficient and compact.	o
E	Room size	West room size (original section was a middle school) cannot be enlarged. Teaching spaces in the existing building will be utilized but are undersized per current planning guidelines.	na	New teaching spaces will be sized appropriately.	o
E	21st Century Learning Spaces	Difficult to provide in renovation. Lockers in halls make daylighting difficult.	c	Spaces like those visited at Avon Grove and Upper Merion are possible.	o
E	Special Education	Limited spaces at West. Renovation will be unsettling.	c	All will move into the new building when complete. Design of spaces can be performed to provide all where needed.	o
E	Small/Large Group Learning Spaces	Few existing at West.	c	New Spaces can be designed and located to support needs.	o
E	ADA Accessibility	There will be challenges with West with ramps, the Cave, doorways, stairs and exterior access.	c	Will be compliant.	o
E	Interior building circulation	There are inefficiencies with the existing building layout.	c	The layout of the building will be efficient to minimize circulation through the building. Accessibility will be a component of the circulation.	o
E	Music Program	Keller Hall is a beautiful space and should remain. Not large enough for productions. Challenges in building music program and a new auditorium near Keller.	o	New Auditorium can be made efficient and be properly surrounded by Arts and Music Spaces.	o
E	Theatrical Program	The Cave is not accessible, has inadequate seating and is not surrounded by set design, storage or music spaces.	c	New Auditorium design to accommodate capacity and program.	o
E	Media Center	The existing Library/Media Center will be expanded to meet curricular needs.	o	The Library will have an efficient design that meets the curricular needs.	o
E	Administration, Guidance, & Nurse	Existing Admin space will not accommodate additional administrators. Nurse's Suite is not connected and does not have secure access for parents.	c	Locate offices where appropriate, provide transparency.	o
E	Proximity of multi-use spaces	Library, Cafeteria, and Gymnasium are located at different corners of the building footprint. Not centrally located.	na	The building design will provide for a central entrance/administrative area with the educational spaces to one side and the public areas to the other.	o
E	Courtyard Egress	Many exterior doors at West.	na	Provides new opportunities for outdoor learning opportunities.	o
E	Future expansion	Due to the sprawling nature of the existing building, there are limited options for building additions in the future.	na	New layout will account for possible future additions.	o

**LEGEND**

Categories: E - Educational Impact, I - Stakeholder & Infrastructure Impact, P - Phasing & Implementation

Solution: O - Optimal, C - Compromise, NA - Not Addressed



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Categories	Scope items	Renovate existing Building with Additions	Solution	New High School	Solution
I	Sprinklers	Sprinklers will be served from the public water service.	o	Sprinklers will be served from the public water service.	o
I	Electrical Systems	Aging and in need of replacement and expansion at West.	c	Designed to meet current code and life safety requirements.	o
I	Gymnasium	West Gym has no spectator seating and will need to be enlarged.	o	New gym can be built to accommodate spectators and all athletic needs.	o
I	Natorium	Build new pool in the renovation.	o	Connect natatorium and team rooms makes for better security, energy efficiency and access.	o
I	Storage	Storage space throughout the existing building will be addressed, but due to the configuration, will be limited.	c	Storage requirements will be addressed efficiently throughout the building for all spaces (i.e. Kitchen, Gymnasium, Teacher needs, facility needs, etc.).	o
I	Athletic Fields	Existing will remain.	c	There will be a time during which there will be a shortage of fields during construction. Include a second synthetic field as part of project?	c
I	Exterior walls	Exterior wall insulation will remain as is. All windows will be replaced. EIFS in many parts of West.	c	Entire building envelope will be energy efficient.	o
I	Existing utility tunnels	No tunnels but underground sanitary at West has a history of problems.	o		o
I	Bus parking	New building at East location after renovation.	o	New building at East location after new construction.	o
I	Site traffic flow	Modify existing traffic patterns.	c	All new traffic patterns.	o
I	First Cost	Lower cost but higher risk of change orders.	o	Higher cost and lower risk of change orders.	c
I	Long Term value	Existing building has a service life.	c	All new systems.	o
I	Utilities below building	Should be replaced; will require extensive floor slab removal & excavation inside building.	c	All new as part of construction.	o
I	Master Plan site, Campus site	Does not allow for best solution.	na	Provides long-range planning opportunities.	o
I	Mechanical Systems	Minimal space above Corridor ceilings limits the ability to install a 4-pipe ducted HVAC system similar to the new High School. With phased construction, existing systems need to remain operational while new systems are being installed.	c	New building layout and design will account for efficient, maintainable HVAC system.	o
I	Plumbing Systems	The existing toilet rooms do not meet current ADA guidelines and will require extensive renovations. All Under slab waste lines will be replaced from the existing tunnels to the fixtures. Domestic water well tanks are at the end of their useful life.	c	New building layout and design will account for the plumbing system. All areas will meet the current ADA requirements.	o

**LEGEND**

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Categories	Scope Items	Renovate existing Building with Additions	Solution	New High School	Solution
P	Phasing & impact on ongoing building programs	Daily impact.	c	Limited impact on building program.	o
P	Phasing & Impact on student arrival and pick-up	Constant revisions based on the phasing.	c	Changes once the new building is occupied until new parking lots are completely constructed.	c
P	Phasing & impact on staff	Constant noise, temporary barriers, odor and other nuisances.	c	East and West remain as is until construction is complete. Then there will be one large move to the new building and temporary measures on site until the buildings are demolished.	c
P	Phasing & impact on parents	During construction access will change frequently.	c	East and West remain as is until new building is complete. During demo there will be temporary traffic patterns.	c
P	Hazardous Materials Removal	Has to be done as renovations occur.	o	Will be performed after moving into the new building and prior to demolition.	o
P	Neighbor Impact	Longer construction timeline means longer nuisance.	c	Master planning of the site offers opportunities to respond to neighbor concerns.	c
P	Time to project completion	Renovation 1 1/2 years longer.	c	3 years construction, 1 year demolition and site.	o
P	Construction Safety	Extra precautions to keep school first, construction second.	c	Clear separation of construction and students/staff.	o

**LEGEND**

Categories: E - Educational Impact, I - Stakeholder & Infrastructure Impact, P - Phasing & Implementation

Solution: O - Optimal, C - Compromise, NA - Not Addressed



# Upper Merion High School visit (notes)

- Committee members traveled to Upper Merion High School during the school day to get a true feel for the facility and how students interact with the walls of the school
- Single flow security access point to building
- Three story structure with academics, Life Skills (MOST), gymnasium, natatorium, concert hall all under one roof - ball fields are adjacent
- Open learning concept with several gathering spaces for students including a large “Common’s Area” at the center of the facility (see picture)
- The use of glass as a material for interior walls made the space open, bright, and leant itself to foster community
- UMHS made the decision to remove the majority of lockers
- Logical grouping of spaces were apparent throughout - IE choral, orchestral were all near the concert hall, cafeteria was one large space and athletics (gym, pool, locker rooms) were all together.
  - Each section could be “closed off” for weekend events to preventing unnecessary access
- Creating use of space - upper balcony of concert hall seat could fold into wall
- Technology environment exceeded that available at Pennsbury
- Key aspect to Upper Merion was that the design catered to the full academic environment of each aspect of curriculum and student live life.





# Avon Grove High School visit (notes)

- Committee traveled to Avon Grove High School after UMHS
- Three story structure with all similar elements to UMHS
- Creative use of outdoor space - two courtyards surrounded by the school to allow students access to fresh air for “downtime”, lunch, etc.
- AGHS opted to install lockers. The reduction in natural light and visibility was apparent immediately
- AGHS leveraged similar design patterns by grouping disciplines together, leveraging space saving techniques, and accounted for potential expansion with a strategic design
- Inclusion of a Makerspace (with access to courtyard) was a focus to continue building out AGHS STEM curriculum



# Pennsbury High Schools tour - East/West (notes)

- Crumbling concrete and exposed rebar in public spaces
- Rusted lockers and inoperable showers in gym locker rooms
- Physical damage/holes in gym floors due to termites
- Evidence of poor air quality due to 'dead zones' where air cannot flow
- Two auditoriums (The Cave & Keller Hall) in two separate areas of the school inefficient for community events
  - Entrance to The Cave is below grade and floods during snow and heavy rains
- Narrow hallways create pinch points
- The fire alarm system is out of code
- Blind corners create security challenges for video monitoring
- The pool deck is undersized preventing the school from hosting community events. Pool viewing area has poor ventilation and seats are broken
- There is no space in either building that can accommodate the entire student body - IE pep rally, school events

