Meeting No. 24 – 1/13/2025

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Project:	Lexington High School	Project No:	
Subject:	School Building Committee Meeting	Meeting Date:	1/13/2025
Location:	Hybrid (146 Maple Street & Zoom)	Time:	12:00 PM
Distribution:	Attendees, Project Fi l e	Prepared By:	C. Dell Angelo

Present	Name	Affiliation	Present	Name	Affiliation
	Kathleen Lenihan*	SBC Chair & SC Member	✓	Mike Burton	DWMP
√	Michael Cronin*	SBC Vice-Chair & LPS Facilities	✓	Christina Dell Angelo	DWMP
√	Julie Hackett*	Superintendent		Jacob Greco	DWMP
✓	Steve Bartha*	Town Manager		Chris Schaffner	Green Engineer
√	Joe Pato*	Select Board Chair	√	Lorraine Finnegan	SMMA
√	Mark Barrett*	Public Facilities Manager		Rosemary Park	SMMA
✓	Charles Favazzo Jr.*	PBC Co-Chair		Matt Rice	SMMA
✓	Jonathan Himme l *	PBC Chair	✓	Brian Black	SMMA
√	Andrew Baker*	Interim Lexington High School Principal		Erin Prestileo	SMMA
✓	Carolyn Kosnoff*	Finance Assistant Town Manager		Anthony Jimenez	SMMA
	Hsing Min Sha*	Community Representative		Martine Dion	SMMA
√	Kseniya Slavsky*	Community Representative	✓	Anoush Krafian	SMMA
✓	Charles Lamb	Capital Expenditures Committee		Michael Dowhan	SMMA
✓	Alan Levine	Appropriation Committee		Pete Timothy	A.M. Fogert
✓	Dan Voss*	Sustainable Lexington Committee		Rick DeAngelis	Recreation Departmen
	Maureen Kavanaugh	Director of Planning and Assessment		Cindy Arens	Recreation Departmen

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	Andy Oldeman		Melissa Battite	Recreation Department
✓	Jamie Meiser	Turner Construction		

- Please click <u>here</u> for the presentation
 - o This will be referenced in the meeting minutes with slide numbers called out to refer to.
- Below is a summation of key points, please view the recording for full transcript <u>here.</u>

ltem No.		Descriptio n
24.1	Call to Order & Intro: Called to order by Julie Hackett at 12:02 pm	Record
24.2	 Approval of December 9th, 2024 Meeting Minutes: A motion to approve December 9th, 2024 Meeting Minutes made by J. Pato and seconded by M. Cronin Discussion: None Roll Call Vote: A. Baker – Yes , M. Cronin – Yes, C. Favazzo – Yes, J. Hackett – Yes, J. Himmel – Yes, C. Kosnoff – Yes, J. Pato – Yes, K. Slavsky – Yes, H.M Sha – Absent, K. Lenihan – Absent, D. Voss - Yes, S.Bartha- Yes, M. Barrett - Yes 10-0-2. 	Record
24.3	Review MSBA PSR Comments: M. Burton reviews our Preferred Schematic Report Submission to the MSBA. The preferred option of C.5b bloom was submitted to the MSBA in our PSR Report on 12/13/24. We have spoken with the MSBA a couple of times since submission and answered their questions as of this morning. They have a minimum of 21 days to respond with comments, and we are hoping to discuss them at our next meeting. They will wait till after the FAS (Facilities Assessment Subcommittee) meeting and presentation which is scheduled for 1/15/2025. J. Hackett asked about FAS and what they review/their process? L. Finnegan responds the FAS committee is comprised of MSBA board members and MSBA staff. They are looking to see that the PSR submission aligns with the space summary and educational plan and goals whether now coming it is shown through in the number of spaces. FAS will make a recommendation to the MSBA board to move forward into schematic design.	
23.4	Discussion of alleviating overcrowding by inhabiting space in portions of the new building:	Record

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In response to the CM interviews, K. Slavsky asked the question whether a portion or portions of the new building could be inhabited before the entire building is complete:

- J. Meier from Turner Construction states they were asked to review this question and determine whether there was a zero or no cost scenario to turn over a portion of the school early.
- J. Meier states its a lot of work that would need to happen to allow this to work. This includes:

Early construction documents, early bid packages, submittals, and permanent power. There could be an option to use generators which add complexity and high costs. At this point Turner had to make assumptions in a vacuum, and reviewed phasing and logistics by looking at the wing closest to the existing school, which make sense for logistics, and temporary conditions.

- J. Meier states they can provide rough order of magnitude costs if this is the direction that the SBC would like the construction team to explore. The Project team would seriously need to go through in much detail if that is the direction.
- J. Meier states they expect at least a \$3-5 million dollar impact. In addition, there would be costs on the town, the project team (soft costs) as well which could mean a ROM of an estimation of \$2-2.5 million.
- M. Burton notes that this option is equally technical and logistical challenging for the administrators. At this stage of the process in addition to what J. Meier quoted for ROM costs, at the Feasibility stage we included soft costs on top off construction costs of at least 25-30%. Would like directions from the SBC if we are to further explore this option.
- J. Pato states that he agrees with M. Burton's question, when will need to decide by? The SBC and Town committees would like to see if there is a need whether if enrollment increases greatly.
- M. Burton states we need a decision made by June 4th for us to provide the information to the cost estimators for the Schematic Design estimation package.
- J. Meier states that for early occupancy to be cost effective would need to mean early occupancy of that wing for at least 12 months prior to the completion of the rest of the school.
- J. Himmel states that this is a very interesting study, very high level. SMMA did a chart either 2015 or now? Offices as one color, and general classrooms, etc. parallel same for the early classroom wing? Sense of what the need is. Understand assumptions and functions that are needed, maybe they could be put on Hartwell Ave or some place?
- A. Baker states that the Master planning group, for the timeline that you are talking about will want to have them review since they have a better understanding of this and might have better solutions?
- K. Slavsky states that this was a worthwhile exercise and a proper discussion to have and appreciates having it. K. Slavsky expects this will be better prepared to answer community questions.
- K. Slavsky states the spirit of this question is looking to help the operations of the existing school, knowing at and above capacity and creating a strain. Possibly other solutions to study are a better way to deal with the cost implications If this does not help the school, then we do not need to deliberate any further, less

than 1% of the total project cost.

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K Slavsky reviews Turner's slide outline pros and cons of the early wing turnover: The red and yellow makes it seem threatening but want to be clear in a way studying this now and not later could be disruptive.

- C. Favazzo states that this is good conversation, another way to look at it, how do we expedite project in general, \$5million on optional classrooms and activities, \$5 million to expedite the whole thing?
- J. Meier states this would take a tremendous amount of work in order for this to happen.

M Burton states that Turner has looked at this option from their construction manager perspective. M. Burton asks the SMMA team what these early packages and early document turnovers would mean to them? Is this even viable considering the scope, size, and complexity of the project?

L Finnegan states that this is a 500,000 sqft building and to think of having to do bidding that much earlier would mean bidding at a Design Documents level. Locking ourselves in. this is not a core and shell building, its very complicated. Limiting to changes and decisions. The early turnover of a wing at a DD (design document) level would likely mean the rest of the building looking very different and no decisions could be made at a time that we typically would.

J. Himmel states that this would allow 6 months to a year early occupation for a group of students and staff. Knocking and pushing the architect to the final product is a challenge. Do not want to compromise the design or expedite systems and understand what the tradeoffs are.

A.Baker states that he can imagine even the storage of materials, getting a building of this size on a normal timeline is extremely challenging, and surprised to know that discontinued items (furniture, fixtures, equipment, technology, flooring, etc.) happens over the course of 3 year quite often.

A.Levine states while traveling around town often, he hears from people who are active in town, stating the cost of the building is too much and anything that adds to the cost is highly undesirable. Expediting one part of the building is a lot of effort, and how it could possibly delay portions of the whole building doesn't make sense.

K. Slavsky states she does not endorse expediting the design, it could bite us and can cause an already uncomfortable design schedule. Would endorse making sure design of the one wing could stand the sequence to get the noise away of the existing building as the first phase of construction.

24.5 **Review Schematic Design Decision Matrix:**

The design team was asked to show the schedule format in a timeline.

L. Finnegan reviews the SD matrix slides and shows the "Introduce, discuss and confirm", laid out in a calendar so can view it at a very high level. When we will need

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decisions made and all the groups that we will need from the SBC and other committees. Bringing back the focus groups meetings and bringing recommendations to the SBC based on the discussion. Not asking for anything for town meeting in Aprill, most important is June 4th package to the estimators, need the decisions made by then. Taken SD matrix and have same candance of topics as previously discussed. Waiting for some feedback from SBC and PBC.

- J. Himmel reviews his comments from the January 9th PBC meeting. Most importantly to bring to the top is working to get the program confirmed and adjacencies of that program. The building will cost taxpayers a lot of money. The community is custom to use the building for community use along with the high school activities. Is the current layout a plus or minus for use of the community? Is there another way to look at the design and right way to design this? Has SMMA identified a right way for community use, for student use, and any slight adjustment that you might need to do to get from the matrix?
- J. Himmel states that foundation and substructure cost are approximately 15-20% of the cost of project, are we doing any additional geo tech testing below 25' for look into foundations?
- L. Finnegan states that SMMA had a kickoff meeting this week with their Geotech consultant, and they will be conducting geo soundwave test, since they know there is ledge there, they want to know what the contour of the ledge and rock is, and whether it helps us understand and where we can bear on the rock or no. Schematic Design brings another round of Geotech investigations.
- J. Himmel asks what are we carrying in the current cost estimates? Is there any place that might be able to accept Peet? Need to understand the difference between sub structure and super structure standpoint for cost reasons.
- D. Voss asks what is the difference between SLC and PBC requirements, left side of the chart is binary, approval process or not, part of the push back was a review involved, although implied in the criteria, tracking the progress of where we are?
- C. Favazzo asks that expansion and expanding horizontally, does it make sense to add foundations at this stage so don't have to go back?
- J. Himmel asks what testing is being done during SD, and what decisions are to be informed from testing, composition testing of the material for export, can change where its going, is it clean?
- L Finnegan states this is done during the SD phase. Aligns with Geotech onsite as well. February timeframe.

A.Baker states with Recreation as part of the SD programming meetings it is good representation in the focus groups as well. They are an ongoing part of the conversation of adjacencies, and community use, putting them to the core of the school so the academic wings can be shut down from the community use Tendency to be in a central location and easy to keep the separation between the two areas.

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J Himmel states a focused community use presentation would be great to see and will help with the get out the vote part, can do the engagement with the community and solicit their ideas, would like to hear from anyone. Access and safety and security are all a part of it. At the current community center, there is some expansion beyond the back, it is focused on recreation, enhanced dining, and community groups that wanted to be able to have large community pageant space. Would like to see a space that everyone could use and co mingle as first and foremost a school and community space.

- J. Pato states they want to make sure the value of the facility and double duty on ed program and bring value to the community aspect as well. The SBC's roles are to weigh in on the costs, the educational program, community access, and neighborhood impact.
- J. Hackett asks who has the experience to do the outreach regarding community access, making connections with the seniors in the community, who should take the lead on initiating it?
- C. Dell Angelo states that we can discuss at our next communications working group meeting on creating a presentation to the different groups and community members, meet with them, and make sure they are informed about the community use of the new planned high school.
- M. Burton states would like to have a refresher on the dos and don'ts of public projects and how to get the word out. Will review at next SBC meeting.
- J. Himmel states of the groups that use community center, people who regularly use the suggestion board and could show the bubble diagram, the educational pieces, the community side of the building, and would be good to also show at the next community meeting. Would also like to see an announcement or recording at the next Town meeting.
- C. Favazzo states that this is good conversation, everything heard seemed to be within the school's best interest, the largest community stakeholders site plan and layout and use of the athletic fields, incorporated into this discussion, would like to make sure has full review and is involved in this phase.

24.6 Introduce: Addition/Renovation Field House scope and Constructability:

Record

B. Black reviews addition/renovation field house scope and constructability slides. Introduction today, discuss and confirm at next meeting on 2/24. The slides include review of the PSR site plan which shows a connection of a vestibule of the add/reno field house to the community/gymnasium wing of the building. There is a significant impact on the design, want early feedback on approach. First want to make sure the Turner team is on the same page on what assumed of scope, checking assumptions, will need time worth discussing, seeing the same way or differences. There will be much discussion in next month's meeting and more detail. Today would like to refresh memories, and think about potential opportunities to lower cost, broaden uses.

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- j. Himmel comments benefit to the community, and hugely critical access to the school, after school community use.
- B. Black states project team is meeting this week with recreation reviewing the PSR site plan, school outline along the elongated field house. Most of the building is reconstructed and attached link to the school.
- B. Black reviews slide on the existing program:
 Total 48,000 gross floor area in the addition/renovation
 146m or 200m track to be studied
 Existing space within field house includes:
 3,300sf Alternative PE
 679sf Weight Room and Storage

Appropriate space allocations for future uses within the expanded Field House footprint will be determined in the current round of Schematic Design Programming meetings, which are ongoing

Next Field House Programming meeting with physical education, athletics, and recreation departments to be held Tuesday January 14th at LHS.

- J. Hackett asks what is the opportunity to do things differently if you were to do a smaller track? This SBC decided expanded field house, in SMMA opinion would be 146m be better, since a 200m would go to the end of the walls?
- B. Black states SMMA will be asking for a discussion and confirmation of the size of the track at the next SBC meeting.
- J. Pato asks whether a 146m track might reposition other functions in the building. Not sure whether so at this stage? Would like to see how costs would pan out and could mean possibly sticking with a reno field house.
- B. Black states that the Schools ed program is fixed, and the field house program is looked at as a separate building in MSBA eyes, it's a different program. The Field house will be bigger and there will be space for locker rooms, training rooms, maybe more specialized programs can come out of the planning discussion. Should the add reno field house not happen the locker rooms would need to be used in the high school proper.

A.Levine asks since the add reno field house may be deleted at some point, would they need to build the locker rooms into the main building?

- L. Finnegan states if it stays an add reno field house it could have alternate use locker rooms.
- J. Himmel states the current track is 140m, would adding 6 meters change the layout? L. Finnegan responds, yes, because the current layout is a "D" shape which hinders much of the track team with is odd shape.

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Mike B. states that Turner has been tasked to look at current drawings, current design details from SMMA, and candid review about the cost and feasibility of the option. Project team is to review and report out at next SBC meeting.

- K. Slavsky asks whether the 200m track is even viable in an add/reno project? Making the building large enough to fit it will be challenging.
- B. Black reviews slides and states at the PSR phase, it included a ground floor plan, 146m track centered, with all the data we had at that time, because of moving parts, elements separate, made sense at that stage. Now we know direction deeper dive. Early Investigations: Domed Roof

Maintain southeast half of foundation wall

All new exterior shell, structure, and slab on grade

Extend footprint northwest

A domed roof with new steel trusses

Height same 48'-0" building height as existing field house

Does not allow for PV on roof

Current Investigations: Consolidated PE/Athletics/Community Programs:

School moves 10-15' south to more fully engage with enlarged field house volume

All new structure shell, structure, and slab on grade

Physical features of field house remain similar, but quantity of exterior closure may be reduced

To be investigated: Could a flattened field house room allow PV located on top?

Possible Consolidation of Ground Floor Plan (146m track)

Better access from both public entrance and internal PE areas may be possible by means of shared access-controlled corridor

Possible Consolidation of Ground Floor plan (200m track)

Better access from both the public entrance and internal PE areas may be possible by means of a shared, access-controlled corridor

Continue to study when we meet in February

- J. Pato liked the building possibly moving south, confirm auditorium location, stepped at 3 stories, and what's near the playground is lower height
- B. Black: The northern parking lot need to be looked at, serves functions beyond school, after hours arts event, serves the LABBB program and vans, could look at flipping L shaped wing so performing arts are on Worthern road, and switch it but would be 4 story near the neighbors.
- J. Himmel asks about opening the building earlier, might look at field house as perhaps not coming towards the end and the beginning? Space in the existing building that could expand in. find out from J. Meier what could do in summers, affect athletic program, over multiple summers could deal with it with good weather. Uncomfortable asking but wanted to ask the question.

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M. Burton states the project team is reviewing the idea of starting the field house the second year of construction of the building and having both come online at the same time might be viable? This would mean figuring out what to do with the program not having any space during construction. Still reviewing and will need to talk with the school department.

B. Black presents an updated view of field house next to community wing sharing walls and not separate with only vestibule access. Would allow continuity between both spaces.

A. Baker states he would want Naomi (Athletic Director) to review a shift of the program and building like this. The athletics department is positive about it and likes the idea of creating a connection between the two. A. Baker states that after meeting with recreation, athletics, and other players at programming, that they were in support of the addition renovation field house, and like the idea of the 146m track which provides new opportunities for them. A 200m track isn't necessary since they would still have competitions offsite.

A.Levine asks whether if we are taking off old roof, foundation how much rework, fraction of how much will be original building, why not build new?

L. Finnegan reminds the SBC that we cannot build a new field house concurrent with the school project as part of the MSBA process. They will allow an add/reno project, but not a new field house.

J. Hackett states the discussion and confirmation of this topic will occur at the next meeting on 2/24.

24.7 Introduce: Mass Timber vs. Structural Steel:

SMMA introduces structural consultant Thorton Thomasetti:

The team includes:

Sofya Auren

Vamshi Gooje

Rebecca Rahmlow

Megan Kalisz

M. Kalisz reviews sustainability of Mass Timber slides:

Embodied carbon

Construction efficiency

Deconstruct-ability and material circularity

Biophilic design

Wellbeing and productivity

Certification opportunities

Carbon of Structures:

MEP 15%

Substructure 17%

Superstructure 48%

Internal Finishes 4%

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Façade 16%

Mass Timber:

Good-CLT shaft walls (stairs and elevator)

Better-Hybrid structures, full mass timber system for gravity

Best: all mass timber structure

Comparative Structures:

Please refer to presentation here.

Construction Efficiency:

Speed of Onsite Construction

Prefabricated timber elements reduces time to erect the frame

Smaller Crews

Lower emissions for construction teams

Efficiencies in Interior Work

Exposed mass timber elements reduces the cost, carbon emissions, and time of installation of finish materials

Additional ED Considerations:

Biogenic Carbon Storage

Biogenic carbon refers to carbon that is stored in living organisms, such as trees

– When wood is harvested from sustainably managed forests and used in construction, the biogenic carbon stored in the wood remains stored in the building, providing a carbon sink for the life of the building

Reduction of Interior Finishes:

Leaving mass timber elements are left exposed to serve as the interior finish material reduces the need for additional finish materials

Deconstruct-Ability and Material Circularity:

Made viable via modular elements, standardized dimensions, and reversible connections (e.g. metal connections)

Material Passports

A digital record of each unique material element in a building used facilitate circular material strategies at the end of the building's life that informs inform material recovery, reuse, and recycling

Biophilia Health Benefits:

A landmark study discovered that exposure to wooden environments can result in a significant 10% reduction in blood pressure, a 6% decrease in heart rate, and a 15% decrease in stress hormone levels among participants.

Biophilic elements (such as wood) have a significant impact on cognitive function, improving on average 8% and elevating emotional well-being and positive emotions 12%.

Wood based interiors demonstrate:

• 9-12% reduction in stress

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- 15% improvement in emotional states
- 12% increase in positive emotions

The visual presence of wooden elements can lower stress more effectively than plants. Rooms with 45% wooden surfaces boost perceptions of comfort and lower blood pressure.

Benefits: Already Integrated; Red List; Mass Timber Vs. Stuctural Steel;

Please refer to the presentation here:

Advantages

- Low carbon footprint
- o Sequestered carbon during tree growth
- o Lower embodied carbon to manufacture members
- Potentially slightly lighter construction = smaller foundations
- Installation can be quicker than steel construction
- Attractive finished product

Disadvantages

- Cost (15%-50% more than steel and concrete framing)
- Weaker and more flexible material than steel
- Larger members (floor to floor dimensions will grow)
- Smaller column spacing (20 feet vs 30+ feet for steel)
- Not suitable for long spans and floors of assembly spaces
- Difficult to alter in the field for ducts/pipes (MEP Preconstruction Coordination required)

Other considerations

- Mass timber needs to be "oversized" to achieve a fire rating
- Floors will need a 2"-3" concrete topping to mitigate vibration and sound transmission
- Hybrid approach is commonly used, combining steel framing with mass timber Not in the current cost estimates

Lorraine will need discussion and guidance on whether including the semi mass timber, and all mass timber

Embodied Carbon Calculations please refer to presentation here:

PSR Cost Estimate Considerations:

Option A (Mass timber used for the entire structure)

Est. Total Project Cost= \$24,000,000

Option A: Mass Timber used for the entire structure

Option B: Hybrid system-all Mass Timber except steel used for columns) Est. Total Project Cost=\$19,000,000

Option C: Mass timber used at the Gymnasium, Dining Commons, and Media Center only

Est. Total Project Cost=\$2,000,000.

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K. Slavsky states that exposed structure anything behind walls and above ceiling will be exposed, dress up those elements, can have additional cost as well acoustics matter is meaningful. Adding acoustics in some other way considerable costs would want to deep dive this at the discussion next meeting.

A.Levine states he doesn't have a good feel for what these amounts of embodied carbon are and wants similar measures in comparison. The amount of Co2 that's emitted for operating the existing school for about a year would like to see at next meeting.

- J. Hackett asks to be reminded of what one point means, is it the closest to deal with silver, gold, desire to meet platinum, not a one for one comparison?
- M. Cronin states we are already identified as LEED Gold as our baseline with LEED platinum as our goal. We already meet the incentives with the current building design due to the IDP, solar, Level 2 and Level 3 resiliency.

A.Levine asks the project team to review taking a few million other ways to use the funds to improve the environmental functions of the building in some other way.

- C. Lamb asks that warranties and LCCA of mass timber vs. structural steel for discussion at next meeting
- C. Kosfnoff: Like Ksenia's comment, using other finishes don't have to use because of mass timber, cost savings on not having to use other finishes.
- D. Voss states had same comment as Carolyn. Net difference, base cost is sense of % impact of mass vs structural steel and concrete cost

24.8 **Public Comment:**

Bob Pressman: countries in which mass timber originates, subject to tariffs, please review at next meeting.

24.9 Reflections/Action Items:

M. Barrett: None J. Pato: None A. Baker: None M. Cronin: None J. Himmel: None

K. Slavsky: looks forward to attending upcoming focus groups meetings

S. Bartha: None J. Hacket: None D. Voss: None

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	C. Kosnoff: None C. Favazzo: none A. Lavine: None C. Lamb: None	
24.10	Adjourn: Motion to adjourn at 1:52 was made by A. Baker and seconded by M. Cronin Roll Call Vote: A. Baker – Yes, M. Cronin – Yes, C. Favazzo – Yes, J. Hackett – Yes, J. Himmel – Yes, C. Kosnoff – Yes, J. Pato – Yes, K. Slavsky – Yes, H. Sha – Absent, K.	Record
	Lenihan – Absent, D. Voss - Yes, S.Bartha - Yes, M. Barrett - Yes 11-0-2.	

Sincerely,

DORE + WHITTIER

Christina Dell Angelo

Project Manager

Cc: Attendees, File

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes.