April 22, 2024

Lexington High School Project

School Building Committee Meeting No. 10

April 22, 2024, 12:00 PM

DORE + WHITTIER

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SBC Meeting Agenda – April 22, 2024, 12:00PM

1. Call to Order & Intro
2. Previous Meeting Minutes Approval (Vote Expected) (5 minutes)
    - 3/18/24 Meeting Minutes
    - 3/25/24 Meeting Minutes
    - 4/1/24 Meeting Minutes
    - 4/8/24 Meeting Minutes
3. Important Clarifications (15 minutes)
    - Central Office included in all Preliminary Designs
    - Pros & Cons of Addition/Renovation
4. Focus Group Update (35 minutes)
    - Review the MEP Systems & Sustainable Design Focus Group Recommendations
5. Refine the MEP and Sustainable Design Requirements (30 minutes)
6. Upcoming Meetings (5 minutes)
7. Other Topics not Reasonably Anticipated 48 hours prior to the meeting (5 minutes)
8. Public Comment (15 minutes)
9. Adjourn

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Previous Meeting Minutes

Meeting minutes approval from

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Exterior & Interior Design Focus Group Proposed PDP Recommendations						
	Focus Group Suggestions/Comments	Suggested Recommendation to the School Building Committee	Given	Needs Further Discussion	Has challenges / trade-offs Requires further discussion	Comments
Designing for the Future						
EID 1	Need an expandable design that has the potential to grow if student population grows in the future.	Consider concepts for future expansion space, as required in the SBC's Construction Alternative Evaluation Criteria.	●			
EID 2	Design needs to be flexible enough to respond when new teaching methods evolve	Pedagogical flexibility should be a fundamental aspect of the design of the school.	●			
EID 3	The building will be large and will have impacts on the surrounding environment. As an overall sustainable and economical approach, let's not build a space that's bigger than needed.	Promote design that is right-sized.	●			
EID 4	Make sure programs have spaces they need, but that they are well utilized throughout the day.		●			
EID 5	Would be interested in learning about schools that build upward when space on site is constrained	Develop comparative study of vertical vs horizontal future expansion.		●		
EID 6	Consider potential of another pandemic	Collect lessons learned from the COVID pandemic that could affect approaches to design, including: mechanical ventilation, access to the outdoors, social distancing, hybrid learning and quarantine space.	●			
Sustainability						
EID 7	Avoid toxic materials; use green list materials to support health and productivity	Red List screening will be applied to a selected list of interior materials. Refer to the MEP / Sustainability Focus Group recommendations.	●			
EID 8	Consider embodied carbon in both construction and demolition, including possibility of salvage and reuse onsite.	Explore opportunities to minimize embodied carbon, including early siting considerations. Refer to the MEP / Sustainability Focus Group recommendations.	●			
EID 9	Think about waste reduction/reusables/dishwashing in food service areas & teacher lounge spaces	Waste reduction approaches to be considered, in alignment with the Town's waste reduction criteria and requirements. Refer to the MEP / Sustainability Focus Group recommendations.	●			
EID 10	Be prepared to have optimal ways for students and staff to return reusables		●			
EID 11	Building orientation to maximize solar exposure on south-facing elements	Consider building massing options that provide optimal solar orientation for energy savings and quality of natural daylighting.	●			
EID 12	Consider impacts of envelope design on energy performance of a building.	Exterior design to incorporate fundamentals of energy efficiency. Implementation of Passive House standards to be considered. Refer to the MEP / Sustainability Focus Group recommendations.		●		
EID 13	Graph the environmental impact and insulation value of materials			●		
EID 14	Study pros and cons of using mass timber to reduce embodied carbon	Consider options to include Mass Timber elements in design. Refer to the MEP / Sustainability Focus Group recommendations.		●		
EID 15	Be creative with where we put solar panels. Consider using building-integrated photovoltaics.	Solar panels should be maximized at building rooftop and on-grade parking. Consider using building-integrated photovoltaics.		●		
EID 16	Need to balance all of the design goals with operational energy constraints.	Include operational energy constraints in overall decision-making and LCC analysis.		●		

Integrating Site Design						
EID 17	Emphasize the importance of access to the outdoors	Consider design approaches that provide access to the outdoors for both educational and social purposes, while maintaining a safe and secure building. Refer to recommendations of Site, Safety & Security Focus Group.	●			
EID 18	The building design needs to balance the tradition of allowing upper classes to leave the building with security needs			●		
EID 19	Create spaces in nature where students can both learn and gather informally		●			
EID 20	Building should seamlessly fit into the environmental context (i.e. wetlands, walking paths/etc.)	Integrate building and site designs with careful review at each milestone.	●			
EID 21	Make the site design for the school feel unified with the town's open space resources, not separated from them.	Prioritize design options that integrate in one design both high school and community elements.	●			
EID 22	Consider a separate parking area for PE/Athletic wing	Study access and parking needs of each constituency. Cross-reference with recommendations from Sustainability / MEP Focus Group to reduce dependence on single-occupant vehicles.		●		
EID 23	Consider a separate parking area for Performing Arts wing			●		
EID 24	Consider separate parking and access areas for teachers and for students			●		
EID 25	Consider where delivery dock is in relation to food services, especially if there are multiple food spaces	Locate loading dock in proximity to the main kitchen.	●			
Designing in the Context of Lexington - Creating a Sense of Place and Identity						
EID 26	The design should create a place people want to be.	Promote design that combines a unique character, beauty, a sense of welcoming, and is a place where people want to be.	●			
EID 27	The design should have personality		●			
EID 28	Create a welcoming and attractive school entrance		●			
EID 29	The school should have a unique sense of place		●			
EID 30	Create a contemporary building but with a nod to the history of Lexington	Develop designs that explore degrees of modern and traditional expression.	●			
Student Experience During Constuction						
EID 31	Concerned about how construction activities affect students in high school at time of construction. Need a solution that doesn't distract from learning experience.	Consider construction impacts of each design alternative on ongoing high school operations.	●			
Desire to see Precedents						
EID 32	Would love to go on site and visit other school projects to see what's out there before we create something new. Suggest to visit similar sized buildings and urban schools.	Tours of several schools in Massachusetts are to be scheduled. A group led by LPS visited two schools in Virginia in February.	●			
Auditorium						
EID 33	It's important for the community to have a functional auditorium appropriate to the programs that will utilize the space.	Review the auditorium design and get input from all stakeholders as it develops.		●		
EID 34	A hydraulic orchestra pit in the Auditorium is highly desirable.	Develop pros and cons along with costs of orchestra pit design.		●		
EID 35	The Auditorium stage should have adequate wing space and a full fly tower.	The base design of the Auditorium will include wing space and full fly tower.	●			

Interior Planning and Design						
EID 36	Provide a certain level of compartmentalization of building layout, to extend the usefulness of communtal spaces and to keep the public out of academic spaces after school hours	All space layouts will include the ability to allow after hours access to community spaces while allowing other areas of the school to be closed to the public.	●			
EID 37	Consider creating neighborhoods within the building.	Educational neighborhoods were identified in the Visioning as highly desirable for their ability to foster interdisciplinary learning. This should be explored as a design approach to organizing the school.	●			
EID 38	Athletics and Performing Arts have large groups of visitors. Consider placing separate entrances for each on opposite ends of the building.	All programs to have appropriately sized entrances, access and egress.		●		
EID 39	There should be low sensory areas throughout the school.	Prioritize designs that integrate places for respite, biophilia, wellness and mental health.	●			
EID 40	The Media Center should be a place of respite, not a high-traffic area.	Consider planning approaches that allow access to the Media Center space to be controlled and deliberate.	●			
EID 41	Consider a flexible cafeteria space with movable furniture that can be used for performances or other functions	The Dining Commons is to be a highly flexible space with many possible uses.	●			
EID 42	Provide food-appropriate spaces where students can study.	Review food policies to clarify design parameters of possibly distributed cafes.		●		
EID 43	There is a need for acoustics-absorptive materials in classrooms	New classrooms will have very high absorption acoustic tile.	●			
EID 44	Interior design should incorporate natural light and colors to add life, vitality and ease of wayfinding.	Prioritize designs that are well lighted, vibrant and intuitive to move through.	●			
EID 45	Have experienced problems with linoleum in the past	All proposed interior materials to be reviewed by facilities and maintenance staff.		●		
Questions						
Q01 - Arch	Could we run a study to understand space usage maximization?	The design team is willing to discuss potential investigations along these lines if more defined parameters are proposed.				
Q02 - Arch	Is there logic to having multidisciplinary spaces? Does this apply to a high school?	Departments will likely remain organized largely by discipline, but collaboration among those disciplines is increasing in the LHS curriculum. The planning of the new school should reflect this evolution toward active inter-departmental collaboration.				
Q03 - Arch	Have the users of SMMA-designed schools had good experience utilizing the same space for multiple purposes?	Yes, many spaces are designed for flexibility from the outset, either by allowing segmentation or differentiation of space, or by integrating technology, or by the introduction of highly flexible furniture, or a combination of all.				
Q04 - Arch	How can different science classes move around classrooms?	We try to plan labs as flexibly as possible so if courses change over time, labs can support the curriculum.				
Q05 - Arch	Is there a corresponding after school plan to the ed plan?	Yes, we will compile after school hour program list at susbequent stages of the feasibility study.				
Q06 - Site	In terms of site, is the site specific to where the high school is or does it include field and grounds surrounding it?	Site parameters are indicated on the conceptual massing diagrams for each of the MSBA Construction Alternatives.				
Q07 - Site	Will smaller parking areas be able to support large trailers?	Yes, parking areas at auditorium/gymnasium and associated site circulation serving these areas will need to be sized to accommodate these vehicles				
Q08 - Site	How will we utilize recreational fields?	Recreational fields are assumed to have the same geometries and functions as they currently have.				
Q09 - Site	Does SITES certification include protection of mature trees, preservation of tree canopy/wetlands/waterways?	Yes, these are all elements that are required in SITEs certification				
Q10 - Arch	There is a trend with the big stairs as a common area, is this actually used?	The stairs are very well received by students. It allows students to be out in the open but also tucked away, "hidden in plain sight". Additionally, provides functionality for formal and informal presentations. Materials used on the learning stairs will be considered in terms of cleanbility.				
Q11 - Int	Do you design interior materials to be in place for 50-75 years, and do you design them to be easily replaced?	Some materials will have a shorter life span (i.e. paints/tiles) some have a long lifespan (i.e. terrazzo flooring). Interior materials (i.e. ceilings) are designed to be replaced more frequently.				

Q12 - Arch	Will the space be tuned for music only or will it be flexible?	We have an acoustician. Main reflectors are fixed but there may be elements that can be altered to be better suited for speaking. Digital amplification of some types of sound will be considered as part of the auditorium design.				
Q13 - Arch	Is there a plan to have a balcony?	We are not at that point of design yet				
Q14 - Arch	Are there comparable 1000 seat examples?	Yes, Waltham High School is one example. We may be able to tour some.				
Q15 - Arch	What do people do without a pit?	Without a pit, a collapsable stage extension (with or without a hydraulic lift) can be implemented to increase stage size. When the extension is not in use, a group of musicians can sit on the floor of the house.				
Q16 - Arch	What's the typical standard square footage of a new stage?	1600 SF is reimbursible within the MSBA guideline. Non-programmed gross square footage may be considered to increase the technical functionality of the stage as we move into more detailed and latter stages of the design.				

		Sustainability/MEP Focus Group Proposed PDP Recommendations					Comments
		Focus Group Suggestions/Comments	Suggested Recommendation to the School Building Committee	Given	Needs Further Discussion	Has challenges/ tradeoffs Requires further discussion	
	MEPS 1	How do you integrate so many things into one project?	The design team has developped an integrated tracking sheet that incorporates the Lexington Integrated Design Policy, MSBA requirements, and LEEDv4 Requirements. The tracking sheet is to be updated throughout the design and construction phases.	●			
	Climate Preparedness/Adaptability						
	MEPS 2	Thinking about the future	Schools have on average a 50 yr. life Cycle. MSBA requires 50 Yr. LCCA. Lexington proposed a 75-yr. LCCA (Life Cycle Cost Analysis) for systems and materials. The project will address climate resiliency and readiness, as required under the Specialized Stretch code and for climate resiliency.	● 50 yr LCCA	● 75 yr LCCA		
	MEPS 3	Doing this ahead of time					
	MEPS 4	Cutting edge building					
	MEPS 5	Using high school as community shelter	Project has identified Level 2 for the Gym/Field House and Level 3 for the remainder of the facility. Refer to Site/Safety/Security Focus Group Recommendations.	●			May slightly increase the energy demand - and therefore add to the PV size. Larger generator
	MEPS 6	Emerging technology	Emerging technology systems may be considered, while being mindful of maintenance and potential life cycle costs associated with those systems		●		
	Sustainable Sites						
	MEPS 7	Green infrastructure is the only infrastructure that doesn't depreciate	Supports Climate Change Preparedness, as well as healthfulness, which includes access to natural environments for the students. Use of native plants is included as part of the LEEDv4 criteria requirements for Gold Certification, as well as the Lexington IDP requirements. Outdoor classrooms are planned as part of the project concepts and design. They support student performance, student health and environmental literacy.	●			
	MEPS 8	- Incremental but important accomplishments					
	MEPS 9	- Use of trees for shading, cooling, wind					
	MEPS 10	Look at integrating trees into the conceptual design? - To figure out where to plant trees					
	MEPS 11	Use of native plants					
	MEPS 12	Health of students					
	MEPS 13	Creating outdoor spaces					
	MEPS 14	Outdoor learning spaces to connect with natural resources					
	MEPS 15	Landscaping to provide shade and lower air temperatures					
	MEPS 16	Sustainable sites would be helpful in deciding where to site the school	Sustainable SITES criteria will be integrated and monitored as part of the LEEDv4 and Lexington IDP criteria				
	MEPS 17	Important to build green spaces for students to interact with nature	Outdoor classrooms are planned as part of the project concepts and design. They support student performance, student health and environmental literacy				
	MEPS 18	Access to outdoors is important					
	MEPS 19	- Preferably away from roads					
	Net Zero Energy/Renewable Energy						
	Passive Strategies and Sustainable Design Optimization						
	MEPS 20	Building orientation to maximize lighting and solar	While optimized, project will present limitations due to existing site/school. Access to views and daylight harvesting will be optimized as it supports occupant health and student performance	●			
	MEPS 21	Overlap with exterior design and efficiency					
	MEPS 22	Massing of building - utilize space for multifunction's	Will be considered as part of the design concepts, while fully optimizing educational needs and requirements. Please refer to the design focus group recommendations. Please note that the building BMS system will allow zone programming customization for lower temperatures/ventilation in unoccupied mode.		●	Consideration for Health and educational requirements as a priority.	
	MEPS 23	Combining spaces that aren't occupied at the same time to reduce energy use					

	MEPS 24	Lexington is eager to push sustainability envelope	Specialized Stretch Code will require highly insulated, robust and airtight enclosure design and buildings systems at NZE (Net Zero Energy) level. Lexington IDP and the LEEDv4 Gold (aspiration for Platinum) will further enhance high performance building criteria.				
	MEPS 25	- Push standard for high performance buildings					
	Life Cycle Cost Analysis (LCCA)						
	MEPS 26	Best value for the decisions made over the coming months	LCCA (Life Cycle Costs Assessment) will be conducted at PSR (High level), Schematic Design (MSBA required) and updated at Design Development and Construction Documents - 50 yr. LCCA (75 yr), including first costs, replacement costs and maintenance costs		75 yr. LCCA for discussion		
	MEPS 27	Consideration of maintenance of the structure					
	MEPS 28	$1M of operating costs can be saved from the proper solution					
	MEPS 29	BAU operating costs and designs					
	MEPS 30	Need to see hourly energy model					
	MEPS 31	- Decide balance between heating and cooling load					
	MEPS 32	Comparing Costs/LCCA					
	MEPS 33	Lessons learned from recently built schools, bring data from these designs into discussion	The design team welcomes recent schools feedback and lessons learned				
	MEPS 34	Communication & collaboration with utilities	Utilities have been contacted. Introductory meetings are being scheduled. A more engaged set of meetings will be pursued throughout the design phases. Design team has started assessing potential incentives programs				
	Renewable Energy Systems						
	MEPS 35	Renewable energy	EUI 25 will require between 3.3-3.5 MW, pending final building GSF. The Specialized Stretch Code will require Solar PV Readiness and energy storage readiness. Optimization of the Solar PV systems will be considered as part of the design concepts for roofs/extended canopies, parking canopies. The project also plans to install Solar PV systems likely to include battery storage, as battery storage has become an integral part in the majority of recent Solar PV systems installations in Massachusetts. Solar PV savings will be assessed in parallel with the LCCA analysis. Peak load estimated (from the LCCA analysis) may be used to estimate potential savings. the design team has started preliminary estimates of the potential Solar PV systems, and has engaged introductory meetings with the utility (Eversource).				
	MEPS 36	Need 3 megawatts of solar					
	MEPS 37	- Requires significant upfront planning					
	MEPS 38	- Make sure we have enough storage					
	MEPS 39	Battery back up					
	MEPS 40	- Get savings by using energy storage					
	MEPS 41	Solar ready building is critical					
	MEPS 42	Making Building solar ready					
	MEPS 43	Consideration for wall mounted Solar PV panels					
	MEPS 44	Timing is critical when thinking about incorporating sustainability elements :					
	MEPS 45	putting in infrastructure for solar PV					
	MEPS 46	designing building to be ready for storage					
	MEPS 47	Not solutions that can be tacked on afterwards without significant costs					
	MEPS 48	Ask ourselves the cost implications of delay					
	MEPS 49	Creative roofline pitch facing south : Canopies and Awnings to hold Solar PV					
	MEPS 50	Net positive	Net Positive aspirations will require considerations for Solar PV system larger than 3.3 MW. A net positive goal may be discussed, such as a 10% target.				
	MEPS 51	Should strive for net positive					

	Sustainable Transportation and Electrification of Transportation						
	MEPS 52	Batteries/EV charging stations - EV charging to meet Lexington zoning bylaws (which is higher than 2% for LEED; stretch code is 10% readiness) - Lexington zoning bylaws require minimum 4% installed, & minimum 50% readiness	Lexington zoning bylaws require installation and readiness. LEEDv4 requires installation, Stretch Energy Code requires Readiness.	●			
	MEPS 53	EV charging stations for students					
	MEPS 54	Potential for bus batteries to increase resilience	Specialized Stretch Code will require battery storage readiness with permanent batteries. Electric transportation batteries may be considered for additional resiliency			●	TBD-May trigger larger Solar PV system and may compete with a aspiration for Net Positive
	MEPS 55	Electric school buses need a place to be charged					
	MEPS 56	- Place to charge buses					
	MEPS 57	- could be off-site					
	MEPS 58	- could be integrated in a building at the high school					
	MEPS 59	- if considered, need to be considered early					
	MEPS 60	Transportation – easy egress and entrance for non-car transportation to encourage biking and walking	LEEDv4 criteria will support bike access and storage, as well as preferred parking for electric vehicles/carpooling.	●			
	MEPS 61	Fewer people driving single cars – encourage multi modal transport					
	MEPS 62	EV charging stations for students					
	MEPS 63	Plan for electric Bicycles charging					
	MEPS 64	Bike stores are selling 3x as many e-bike s as regular bikes			●		
	MEPS 65	Bigger and require more storage, and charging					
	MEP Systems						
	System Automation, Controls, Metering						
	MEPS 66	Separate metering for water systems and electrical systems	We will separately meter water, including DHW. Electric distribution will be metered by type (lighting, power, HVAC). Electric metering to show Demand, Consumption, Voltage. Contributes to LEEDv4 credits for Gold certification	●			
	MEPS 67	Being cognizant of expansion of the systems that need to support the building	Where central systems are provided, consideration will be given to future expansion needs.	●			
	MEPS 68	Leak detection	The proposed water metering could be used to create an alarm to the BMS where atypical use is measured and/or it could be used to close an isolation valve on a service line.	●			
	MEPS 69	Valve shutoff to mitigate loss	Related to the above. It is good practice to monitor makeup water to closed systems to ensure there is not a leak. For an open system with makeup water, a leak should trigger a makeup valve closure, where appropriate.	●			
	MEPS 70	Integration of all systems into one specific area	Refer to the System Integration comments and LCCA comments toward the top of this section and in the NZE section.	●			
	MEPS 71	- Security					
	MEPS 72	- Sensor systems					
	MEPS 73	- Active shooter alerts					
	MEPS 74	Looking at costs					
	MEPS 75	- Initial cost					
	MEPS 76	- Maintenance					
	MEPS 77	- Need robust systems that are efficient and easy to maintain					
	MEPS 78	24/7 HVAC and humidity control	24/7 space conditioning is appropriate for critical spaces (e.g., IT rooms), and will be reviewed where indicated as being necessary for particular programmatic needs, such as musical instrument storage areas.		●		

	MEPS 79	System automation integration	It is expected that the BMS will integrate with Lighting Control. BMS will also integrate with selected Plumbing systems (Mixing Valves, DHW Heaters, Sump Pumps, etc.) and Electrical Systems (Meters, Emergency Generator). We understand there is a desire to broaden the integration across multiple systems.				
	Geothermal System						
	MEPS 80	Geothermal upfront and maintenance cost	Each system type will consider installed cost as well as annual operating costs, such as energy and maintenance. Geothermal maintenance would include maintenance of the glycol percentage in the system, pumps and heat exchangers at a minimum.				
	MEPS 81	How many wells will we need?	We anticipate a closed loop geothermal system, subject to Lexington's own experiences and desires. The number of bore holes required to support the system will depend on the peak design cooling and/or heating load as well as the findings of the planned test boreholes. Given the size of the project, we expect the number of boreholes required, if the school is primarily geothermally supported, to be in the hundreds.				
	MEPS 82	Is it possible to get exemptions to drill deeper?	Closed loops can be implemented up to 800-ft depths. Open wells typically go to 1500 ft. The test boreholes will provide much useful information to support a decision relative to geothermal.				
	HVAC Systems & Loads						
	MEPS 83	Best system for a building this size and amount of use it gets	System selection discussion will focus on the type of system(s) that best suit the intended use of the building and offer the best life cycle cost.				
	MEPS 84	System that will last the lifetime of the building	Depending on the selected system, the expected useful life of equipment does vary depending on the type. For example, refrigerant-based systems that use compressors often have a listed useful life of 15 years. It is expected that certain equipment will need to be replaced but the primary distribution (piping, ductwork, etc.) of the systems would be expected to be similar to the life of the building (50 years, per MSBA). Please note that part of the building enclosure will last close to the lifetime of the facility. The project will strive for a highly insulated, robust and airtight building enclosure.				
	MEPS 85	Lessons learned with two pipe in the past	Assuming 2-pipe means a Dual Temperature (Hot Water / Chilled Water) system, we would not advise this type of system, since it does not provide operational flexibility in the swing seasons, when cooling may be required one day while heat is required the next.				
	MEPS 86	Simultaneous cooling and heating	Each zone will be designed to be provided with either heating or cooling but not both at any one time. There could be parts of the building that may require heating while another part of the building requires cooling. In this case, it is important that the system can accommodate both modes with compartmentalized systems.				
	MEPS 87	Supplemental *backup* for HVAC	Selected spaces are typically provided with standalone supplemental systems. For example, the elevator machine room, IT rooms and certain electric rooms would be served by dedicated split systems, and some of those may be on standby power. The typical occupied spaces in the building would be supported from a common system type without standby. Note, it will be important to consider support of any anticipated emergency shelter occupancy or for general building freeze protection in the event of a loss of normal power.				
	MEPS 88	Heating load and cooling load is critical for understanding incentives	The current incentives projections derive from installed Tons.				

	MEPS 89	Heating and cooling is currently inconsistent and inefficient (existing school)	We are familiar with the types of systems supporting the current school. Most classrooms are provided with heating and ventilation, only. In addition, the main campus is supported from a steam heating system, which can be difficult to control. Most of the classes are served by Unit Ventilators, which are noisy and not very efficient at delivering ventilation to the occupants. There is room for improvement.				
	MEPS 90	Consider future building expansion when planning out available areas to use for GSHP bore holes/wells	Future addition planning is to be cognizant of site usage for bore hole/well fields.				
	MEPS 91	Theatre spaces to have larger supply of electricity that other high schools	The programming for the theater is to confirm the required power needs.				
	MEPS 92	Air source heat pumps	Air source heat pumps are a likely system type to evaluate as part of the system selection process.				
	MEPS 93	Viability of heat pumps 5 years out	Kicking the tires' on newer systems is important to ensure the system will be reliable and serviceable over the life of the building.				
	MEPS 94	Refrigerant Management for ASHP- looking at long-term impacts	ASHP's hold higher Refrigerants volume vs. GSHP's - being mindful of climate impact and maintenance following future regulations (r410 replacement to butane was mentioned at the FG1 mtg.) Will be taken into consideration.				
	MEPS 95	Heat pumps maintenance on cold days	Air source heat pumps cycle off for up to 5 minutes +/- during heat mode and when the outdoor temperatures are from 20-40'F because the system runs in reverse to defrost the outdoor heat pump condenser coil. When this happens it's important to understand the impact to the occupied spaces. Fan coils are not typically impacted in any noticeable way, but when air source heat pumps support an AHU or DOAS, then a backup electric coil is required during defrost cycles.				
	MEPS 96	Latest MEP	High efficiency MEP systems will be included as part of the design				
	Sustainable Materials and Healthfulness [IEQ/IAQ]						
	MEPS 97	Low toxicity and avoiding red list materials Consider the health effects on manufacturers and downstream of disposal	Included as part of LEEDv4 and required under MSBA's Green Policy (low toxicity): low-emitting materials. Red List screening will be applied to a selected list of interior materials, in alignment to with the Lexington Integrated Design Policy				
	MEPS 98	No amount of ventilation will mitigate toxic substances in building					
	MEPS 99	- Focus on red list					
	MEPS 100	Support healthfulness to minimize detrimental materials					
	MEPS 101	Goal of IDP is for health of students and staff	Noted. We will note this goal as part of the IDP tracking sheet. Ventilation is mostly where there is a tradeoff for slightly higher energy consumption.				
	MEPS 102	- If there is a tradeoff between energy efficiency and health we will go towards health					
	MEPS 103	HEALTH COMES FIRST					
	MEPS 104	Air quality and ventilation is important for health					
	MEPS 105	Air quality sensors in building	The project may consider systems such as Aircuity which monitors VOCs.				
	MEPS 106	Goal of 600 ppm C02 Sensors	The project will address and consider the option of a 600 ppm threshold for the CO2 sensors. Please refer to the MEP Section above.				
	MEPS 107	Exposure to natural light indoors	The project will optimize fenestration design to support access to daylight and views. Studies have demonstrated the benefits of this criteria on student performance				
	MEPS 108	Acoustic comfort, mindfulness of noise levels	The project will be design in alignment with LEEDv4 acoustical performance criteria, as it is a pre-requisite.				
	MEPS 109	Reusables outside of cafeteria, lounges	Will be integrated as part of the project, in alignment with the Town's waste reduction criteria and requirements				
	MEPS 110	Reusable dishware in cafeteria					
	Environmental Literacy						
	MEPS 111	Tie maintenance into educational possibilities	The project design team will engage with students throughout the design phases. A comprehensive Green Educational Program will be developed, including environmental signage (both interior and exterior signage), building tour and tour booklet and case study. In addition, the project will address opportunities to give student access to day to day energy use				
	MEPS 112	What is embodied carbon? Teach students					
	MEPS 113	Micro rhythms, educating students					
	MEPS 114	Goal is to get student representation in these conversations					

	MEPS 115	Systems in place for students to learn about sustainability	addition, the project will address opportunities to give student access to day to day energy use data, including the renewable energy systems.				
	MEPS 116	Data Monitoring accessible to students					
	General - Sustainability/MEP planning						
	MEPS 117	Spirit of IDP is to explore options as early as possible	Focus Group meetings will continue at upcoming design phases.				
	MEPS 118	Need to discuss this over the next 2 weeks					
	MEPS 119	Conduct open PBC	Sustainability study outcomes are to be shared with the noted stakeholders in a transparent manner to promote collaboration and leverage stakeholder interest and expertise to determine the path forward.				
	MEPS 120	Sustainable Lexington work session to explore parameters of grants, explore beyond business as usual solutions					
	MEPS 121	Increased transparency for students					
	MEPS 122	Task consultants to explore beyond business as usual solutions to be presented to SBC and PBC	Proposed additional Goals, beyond the Givens, will be prioritized by the FG. Those selected during PDP will be assessed, supported through a LCCA during the subsequent feasibility phase and climate impact approach				

DORE + WHITTIER

SBC Meeting Agenda – April 22, 2024, 12:00PM

1. Call to Order & Intro
2. Previous Meeting Minutes Approval (Vote Expected) (5 minutes)
    - 3/18/24 Meeting Minutes
    - 3/25/24 Meeting Minutes
    - 4/1/24 Meeting Minutes
    - 4/8/24 Meeting Minutes
3. Important Clarifications (15 minutes)
    - Central Office included in all Preliminary Designs
    - Pros & Cons of Addition/Renovation
4. Focus Group Update (35 minutes)
    - Review the MEP Systems & Sustainable Design Focus Group Recommendations
5. Refine the MEP and Sustainable Design Requirements (30 minutes)
6. Upcoming Meetings (5 minutes)
7. Other Topics not Reasonably Anticipated 48 hours prior to the meeting (5 minutes)
8. Public Comment (15 minutes)
9. Adjourn

Upcoming Meetings

- **4/29 SBC Coordination Meeting – Review PDP alternatives (design options), review cost estimates/alternatives, taxpayer impact update**
- **5/2 Community Meeting #4 – SSBC Job shadowing update, focus group report out, massing studies, alternatives/options review, cost estimate review, public survey and discussion**
- **5/6 SBC Coordination Meeting – SBC discussion of the options using criteria matrix=**
- **5/8 Abutters Meeting – Schedule review, options review, next steps**
- **5/13 SBC Coordination Meeting – Accept PDP alternatives, select 3 alternatives to move into PSR**
- **5/20 SBC Meeting No. 11 – Review Draft PDP submission**
- **5/28 SBC Coordination Meeting – Vote to approve PDP**

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