Advisory Team – Sustainability & MEP Systems 1

Project Name:	Medford High School	Project Number:	25100
RE:	Advisory Team - Sustainability & MEP Systems	Meeting Date:	12/16/2025
Prepared by:	Brenda Lam	Meeting Number:	01
Distribution:	Attendees		

Owner

- [x] Libby Brown, *SBC Member, Architect*
- [x] Suni Dillard, *Medford Resident, Sustainability Leader at HMFH Architects*
- [x] Austin Ditz, *Medford Resident, Solar Project Manager*
- [x] Audrey Feitor, *Medford High School Teacher*
- [x] Jenny Graham, *Chair of SBC, Vice Chair of School Committee*
- [x] Chris Hogan, *Medford Resident*
- [x] Elisabeth Krautscheid, *Medford Resident, MassSave Decarbonization Program*
- [x] Ken Lord, *MPS Chief Operating Officer*
- [ ] Sarah Michelman
- [ ] Nicole Morell, *SBC Member*
- [x] Jessica Parks, *Medford Resident, MIT Energy Efficiency Project Manager*
- [x] Brenda Pike, *City of Medford Climate Policy Planner*
- [x] Luke Preisner, *SBC Member*
- [x] Chris Richard, *Medford Resident, Senior Project Superintendent at Turner*
- [x] Paul Ruseau, *SBC & School Committee Member*
- [x] Nathan Scott, *Medford Resident, Capital Construction at Tufts University*

SMMA & Consultants

- [x] Martine Dion, *Director of Sustainable Design*
- [x] Brenda Lam, *Sustainable Design Project Coordinator*
- [ ] Helen Fantini, *Project Manager*
- [x] Matt Rice, *Principal-in-Charge, Architect*
- [x] Abigail Ransmeier, *Head of Research*
- [x] Soala Ajienka, *Architectural Designer*
- [x] Emily Ehlers, *Mechanical Engineer*
- [x] Andrew Barros, *Electrical Engineer*
- [x] Anthony Jimenez, *Electrical Engineer*

- [x] James Job, *Plumbing & Fire Protection Engineer*, AKAL Engineering
- [x] Tommaso Bitossi, Transsolar

Leftfield

- [x] Jen Carlson, *Project Director*
- [x] Matt Gulino, *Project Manager*
- [x] Adele Sands, *Educational Liaison*

Item No.	Action	Discussion
01.01	Record	**Meeting # 1 Agenda** • Welcome & introductions • Overview of the Advisory Team process & milestones • Goals & aspirations discussion - listening • Next Steps
01.02	Record	**Overview of Advisory Team Process & Milestones** • Four Advisory Teams - not individual silos of discussion; all are connected but each team gives space for deeper discussion ○ Each team will produce a set of recommendations for the full SBC to review and approve • Objective of Sustainability & MEP Systems: Reviews preferred MEP systems, sustainable design features and components, healthy materials; site design and landscape features for environmentally friendly design. • Sustainable Design Givens include: MSBA Green School Policy, Massachusetts Specialized Stretch Energy Code, and Medford Sustainable Goals and Guidelines. **Overall process: 4 meetings** • Listen > Review & Respond > Confirm & Recommend > Reconvene • If there are any additional comments following this meeting, any comments can be sent to Matt Gulino for distribution (mgulino@leftfieldpm.com)
01.03	Record	**Goals & Aspirations Discussion**

- Participant has previous experience working with sustainability in school projects and is co-chair for Carbon Leadership Forum in Boston. Focus on holistic approach to sustainability (not only thinking about daylight & views). Carbon is very important and would like to see what portions of the school can be saved, and understanding embodied carbon. Daylight studies are important as it impacts students' ability to learn and for staff retention. Consider circularity for materials and also health of individuals creating the materials for the school. There is a community outside of Medford to consider for local materials and labor. For vocational school, would like to see interaction of that and core academics and how each can benefit. Outdoor spaces can be tricky on this site. Energy efficiency is a given; geothermal seems cost-effective, and with vocational programs, can be used to teach students and tax payers. Bringing them along is important and getting that message to the community.
- Energy efficiency is given and low-hanging fruit. Solar and storage should be on board to bring overall energy down. We should understand what steps can be taken to get solar and storage to cover as much as possible from outside. As a future parent, there is a demand for electricians and vocational programs. Creating a building so that it is part of the education is important, including an environment with access to solar and storage so that students can directly learn from it. As goals are being put together, what steps can the City take to make some financial decisions that can lock in future benefits (safe harboring); benefits need to be realized. Working with utility as the school is going to be one of the larger loads for the City.
- Has seen how small decisions are not taking into account the bigger picture and taking account of Medford as a whole (example of using compostable materials, but it is being sent to landfill to be burned). Water is a big issue. Need to make sure money and effort results into something that works. Regarding the section of the building redone recently, and there are many things that are not working. Roof has been repaired at least 4 times and still leaking. It may not be realistic or feasible to not have sort of gas line for the culinary department or science labs (not for heating). Vocational and high school are integrated learning. Big proponent of the Fells and outdoor space access is important. Would like to see green space in building for health and wellness, as well as a green roof.
- Consider what things are available to our community including energy efficiency and cost incentives. Do not repeat what Medford is known for (cheap buildings that don't work).
- Projects on this scale should focus on simplicity to be successful. Excited for the project for the community and LEED standard.
- There is a lot of experience on this committee. We need to pick efficient systems that work properly for acoustics. Daylighting is important. Consider light shelves for daylighting. Need extra ventilation for kitchen, janitor closets, and CTE, which will increase energy use. The building may need gas because of the CTE programs. High ceiling fans are not ideal and difficult to get access to the equipment. MassSave programs are important for incentives. It is very important for the facilities staff to be involved in the design process as they will be maintaining the systems long-term and monitoring energy efficiency once occupied. Would like to see the LEED highlights at next meeting.
- It is important to focus on outcomes, and knows firsthand what works & what does not. Interested to see energy cost projections and those become budget drivers. We should try to reduce energy costs. Interested in Commissioning (Cx) process and repeat Cx to make sure things are functioning properly. Ensure the staff is fully trained to maintain the building.
- Importance of embodied carbon. Think about siting and passive approaches to energy and sustainability, not fully relying on the systems to do the work. Think about how occupants interact with building. Facilities team needs to understand how the building works. Learning and using the building as a classroom by including it in education (signage, engagement strategies). Commissioning and retro-commissioning are important. Fault detection systems used to flag issues on a regular basis.
- Net Zero building with no fossil fuels, solar, ground source, air tight enclosure, passive house strategies, reduced embodied carbon. Wiring for EV stations to include wiring for future buses. Consider indoor air quality (LEED strategies). Consider reducing impermeable surfaces (Green Score for buildings) as flooding has occurred in the past.
- Understand the pros and cons of solar. Think about practicality and gas-fired emergency generator. Interested in embodied carbon and potential renovation in certain spaces. Would like to see survey of the MEP systems in the surrounding schools, including LEED rating and energy use. Additionally, would like to see the LCCA and cost analysis (total costs/operating costs, payback, break even chards). Would like to see assessment of vertically tall new build on the current grass practice fields, and understand there will be many different options. Need to understand energy needs of the pool.
    - MSBA Heat Pump May 2025 Report: https://massschoolbuildings.org/sites/default/files/edit-contentfiles/Programs/ARP/MSBA_Heat_Pump_Report_Final_Summary_Website.pdf
    - Somerville High School MSBA Report: https://www.shsproject.org/resources/2016.06.03-Somerville-PSR-Submission---FULL-COMPILED.pdf

- Wants to be proud of this project for the Medford community and to change the stigma of Medford having broken school systems. Important for the school to be maintained and not too complex for those running the school. Issue with power company and it is a massive undertaking, challenged with electrification process and lack of infrastructure. Need to engage with utility company early.

		• Interested in passive building strategies as the focus is on outcomes. Issues with power company - previously purchased induction range and the grid couldn't handle it, and had to buy new gas equipment. Cost is always increasing with time. Review MSBA Report for initial costs and system options comparison. • School first - not a sustainable building. School needs to be functional and reliable for the students and staff. Tight envelope is important - need to educate people to operate building properly. Specialized Stretch code is a success, no need to go beyond.
01.04	MR	Next Steps • Meeting #2: Hybrid setup to allow for ease of communication. The design team will speak to the priorities brought up today, as well as: ○ Medford Public Schools experience with systems – best practices and lessons learned ○ All-electric MEP systems ○ Renewable Energy ○ Net-Zero Energy ○ Exterior Materials & Massing/Orientation ○ Embodied Carbon ○ Healthfulness • Interior materials • Indoor air quality • Access to daylight & outdoors ○ Sustainable Sites • Meeting #2 is scheduled for 1/15 at 5:30 pm.