smma

Advisory Team - Sustainability & MEP Systems 4

Project Name:	Medford High School	Project Number:	25100
RE:	Advisory Team - Sustainability & MEP Systems	Meeting Date:	04/29/2026
Prepared by:	Helen Fantini	Meeting Number:	04
Distribution:	Attendees		

Owner

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

SMMA & Consultants

- ☑ Martine Dion, *Director of Sustainable Design*
- ☑ Brenda Lam, *Sustainable Design Project Coordinator*
- ☑ Helen Fantini, *Project Manager*
- ☑ Matt Rice, *Principal-in-Charge, Architect*
- ☐ Abigail Ransmeier, *Head of Research*
- ☐ Soala Ajienka, *Architectural Designer*
- ☐ Jamay Li, *Architectural Designer*
- ☑ Emily Ehlers, *Mechanical Engineer*
- ☐ Andrew Barros, *Electrical Engineer*
- ☑ James Job, *Plumbing & Fire Protection Engineer*, AKAL Engineering
- ☐ Tommaso Bitossi, Transsolar

Leftfield

- ☑ Jen Carlson, *Project Director*
- ☑ Matt Gulino, *Project Manager*
- ☐ Adele Sands, *Educational Liaison*

Item No.	Action	Discussion
04.01	Record	**Meeting #4 Agenda** • Welcome & introductions • Meeting Purpose - understanding LEED certification level differences between versions 4 and 5 to advise the SBC on what level should be pursued for this project • Next Steps
04.02		**LEEDv5 Overview** • Overall the LEEDv5 Categories are the same as in version 4, however the criteria was revised with heavier weight on an emphasis decarbonization, Quality of Life and Ecological conservation and restoration. • Overview of the LEEDv5 scorecard: ○ More pre-requisites (showed as "required") ○ ALL pre-requisites must be met to obtain base certification ○ A large part of the credits and pre-requisites criteria and requirements have been modified, with many being more stringent. ○ Four levels: Certified (40-49 points), Silver (50-59 points), Gold (60-79 points), Platinum (80+ points) • MHS LEEDv5 target: ○ MSBA's Green School Policy requires minimum LEEDv5 Silver ○ City of Medford's target of LEED Platinum under v4 – per project Request for Services. ○ To the best of our knowledge, within the context of this early assessment and the fact that few projects have undergone LEEDv5 certification documentation review, SMMA mentioned that a LEEDv5 Gold is likely the equivalent of LEEDv4 Platinum. ○ SMMA noted that a total of 20+ additional points are necessary to jump from gold and platinum, as well as a set of additional requirements [While the other thresholds have a 10 pts difference, i.e. 10 pts from Silver to Gold]. LEEDv5 Platinum Projects must include: ▪ Full electrification of heating and cooling systems (SMMA to verify requirements around CTE and science programs, as this may disqualify the project for Platinum) ▪ A minimum 24% savings from ASHRAE 90.1-2019or 2022 (PEI savings) ▪ 100% renewable energy (Net Zero Energy) ▪ 20% reduction in embodied carbon

- Pool and some CTE and science programs will likely require use of gas

Overview of Changes between LEED v4 and v5 *(refer to the power point presentation for further details)*

- Most categories have new credits and/or new pre-requisites and/or both
- **Integrative Process** - 3 new Pre-Requisites
- **Location & Transportation** - threshold increase to 5% to 10% EVs [10% is required to achieve Gold]
- **Sustainable Sites**
  - A few new credits, including one addressing resiliency
  - Site Assessment (credit in v4) now required as a pre-requisite
- **Water Efficiency** – mostly bundled a large portion of the credits/pre-requisites under one (potable and outdoor water). Fewer points available in v5 compared to v4.
- **Energy & Atmosphere** -
  - Additional pre-requisites
  - Most of the credits have changed from LEED v4.
  - Fundamental Cx is required beginning at Schematic Design. [we are still working to solve the issues associated with MSBA only supporting the DD Cx start.
  - Carbon and energy analyses are required. Targeting a low EUI (30-35 kBtu/sf/yr) will support the carbon and energy analysis.
  - New electrification credit - 5 points available. SMMA has yet to assess the nuances of the LEEDv5 criteria with the MHS project's plan to include all-electric heating and cooling. The pool and the CTE/Science programs may impact this credit. On-going assessment as we hone down on project design progress.
  - New reduction of peak thermal loads credit. Building envelope thermal performance is tied to this credit.
  - Enhanced refrigerant management likelihood of obtaining both points will be affected by CTE needs.
  - Renewable Energy: Solar PV opportunities throughout the building and site design
    - Question regarding potential offset of energy use.SMMA's preliminary assessment from the EUI 35 estimates the Solar PV system at 6.2-6.5 MW to offset estimated annual energy use.
    - USGBC will allow use of PPA to achieve goals with stipulations.
- **Materials & Resources** -
  - Reduction, reuse and recycled content emphasis.
  - New pre-requisite for zero waster operation planning.
  - Focus on reducing embodied carbon: Quantifying and assessment of embodied carbon is a pre-requisite
  - Building Product Selection and Procurement credit integrates use of Common Materials Framework
  - Red list optimization is a new credit.
  - Embodied Carbon Reduction strategies are integrated into the design, including low-carbon interior and exterior building materials, high recycled content in concrete and steel, and
- **Indoor Environmental Quality** -
  - Most credits have been modified.
  - No smoking Pre-requisite now includes a mandated a no vehicle idling requirement.
  - Thermal comfort/Daylighting/interior lighting/views/acoustics credits where bundled in v5.
  - SMMA noted that a specific list of ME and IEQ credits contribute to obtain additional MSBA reimbursement, including air quality testing and monitoring compliance. They would also need to be pursued for Gold.
- **Project Priorities** -
  - Revised Innovative In Design and Regional Priority categories. Formerly regional credits in v4 have been removed.
  - New set of credits combining innovative, pilot, exemplary have been proposed.
  - Joint use of facility (formerly in Sustainable Sites as a credit) is an option in this category.
  - Exemplary performance for EPDs and HPDs is no longer an option.

In summary, based on early information in this Feasibility phase:

- Silver is achievable
- Gold is more challenging, likely achievable
- Platinum is very challenging - would require 20+ points above Gold, plus the additional requirements

LEEDv5	LEEDv5 Silver (MSBA Base Req.) [50-59 points]	LEED Gold [60-79 points]	LEEDv5 Platinum [80+ points]
Integrated Process, Planning and Assessments	1	1	1
Location & Transportation	7	7	10
Sustainable Sites	9	9	11
Water Efficiency	4	4	6
Energy & Atmosphere	16	17	22
Materials & Resources	8	10	12
Indoor Environmental Quality	6	7	8
Project Priorities	6	8	10
Total	**57**	**63**	**80**

Discussion

- SMMA's assessment is that LEED Platinum in v4 is equivalent to LEED Gold in v5. No additional MSBA reimbursement for certification levels beyond LEEDv5 Silver. Additional reimbursement is provided: 3% for Specialized Stretch Energy Code and 1% for specific MR and EQ LEED credits (to be determined/confirmed).

		• Location and Transportation category will not provide as many points should a platinum goal is desired and there would be cost impacts that would need to be monitored. • Add/Reno and New construction options show little difference in ability to in achieving the desired target. And add/reno may yield more M&R points, however, a new option might counterpart with a low embodied carbon structure. • Pool impact on certification? Potentially an impact in an add/reno option, pending on fossil fuel heating vs. Electrification. [SMMA to assess LEEDv5 detailed requirements for electrification] • Platinum potential and strategies that will contribute to it: ○ Stretch energy code adoption by the City and potential for geothermal system of the project. It would be helpful to work with an embodied carbon goal (City to define). ○ SMMA to provide for a summary of required criteria and design impacts for Platinum ○ SMMA re-iterated that a total of 20+ additional points are necessary to jump from gold and platinum, as well as a set of additional requirements [While the other thresholds have a 10 pts difference, I.e. 10 pts from Silver to Gold]. Project must include: ▪ Full electrification of heating and cooling systems (SMMA to verify requirements around CTE and science programs, as this may disqualify the project for Platinum) ▪ A minimum 24% savings from ASHRAE 90.1-2019or 2022 (PEI savings) ▪ 100% renewable energy (Net Zero Energy) [SMMA to verify impact of PPA vs. Owned] ▪ 20% reduction in embodied carbon • Recommendation is that the focus in on the students - LEED v5 Platinum would be very difficult to achieve • Life cycle cost and carbon analysis information will be available for the May 20 SBC meeting • Request to include more information regarding PV coverage and related costs in PSR estimates
04.03	SMMA	**Next Steps** • Meeting #5, September 2026 • The Advisory Team will reconvene in September at the beginning of the SD phase to review the recommendations from this discussion as well as documentation of the Preferred Schematic Design, and finalize the list of recommendations that will be shared back to the full building committee.