# Medford High School

## Medford Comprehensive High School Building Committee Meeting

08/25/2026



smma

LeftField

Agency
Landscape + Planning

# Agenda

- Roll call
- Updates to MCHSBC Membership
- Approval of Meeting Minutes for July 22, 2026
- Approval of Invoices
- Update from Sustainability & MEP Systems Advisory Team
- Program Adjacencies and Related Efficiencies for:
  MCM, Community Partner Rentals, Community Meeting Space, Health & PE, Auditorium & Drama, Art, Music
  - Confirm Baseline Auditorium Size
- Design Update
- Adjournment

# Updates to MCHSBC Membership

(Per the 8/24/26 SC Meeting) Be it Resolved that the Medford School Committee thanks the following members of the Medford Comprehensive High School Building Committee for their service through the Feasibility Study Phase of the Medford Comprehensive High School Building Project:

**Voting Members**
- Emily Lazzaro
- Joan Bowen
- Marissa Desmond

**Non-Voting Members**
- John McLaughlin

Effective as of the 8/24/26 SC Meeting, the Medford School Committee welcomes the following new members:

**Voting Members**
- Liz Mullane, City Council Representative
- Tracy Keene, Community Member
- Jen Belanger, Teacher and Community Member

**Non-Voting Members**
- Kim Clinton, Assistant Superintendent for Special Education & Student Services

# Approvals

# Invoice Approvals – July 2026

| INVOICES (Payments) | | | | | | |
|---|---|---|---|---|---|---|
| **ProPay Code** | **Invoice Date** | **Vendor** | **Invoice #** | **Budget Category** | **Description of Services** | **Invoice $** |
| 0001-0000 | 7/31/2026 | LeftField | 198002 | OPM Feasibility Study/Schematic Design | OPM Feasibility Study Services from July 1 - 31, 2026 | $ 25,000.00 |
| 0002-0000 | 7/31/2026 | SMMA | 65024 | A&E Feasibility Study/Schematic Design | A&E Feasibility Study Services from July 1 - 31, 2026 | $ 90,000.00 |
| 0003-0000 | 7/31/2026 | SMMA | 64908 | Environmental & Site | Environment & Site Feasibility Study Services from July 1 - 31, 2026 | $ 19,354.50 |
| | | | | | **TOTAL:** | **$ 134,354.50** |

# Feasibility Study Budget Update

| Category | Feasibility Study Budget | Committed to Date | Spent to Date |
|---|---|---|---|
| **OPM Feasibility Study/Schematic Design** | $ 542,600 | $ 542,600 | $ 325,000 |
| **A&E Feasibility Study/Schematic Design** | $ 1,591,536 | $ 1,591,536 | $ 810,000 |
| **Environmental & Site** | $ 639,486 | $ 639,486 | $ 456,418 |
| **Other** | $ 226,378 | $ - | $ - |
| **SUB-TOTAL** | $ 3,000,000 | $ 2,773,622 | $ 1,591,418 |

| | |
|---|---|
| **Remaining Uncommitted** | $ 226,378 |

# Update from Sustainability & MEP Systems Advisory Team

# Sustainability & MEP Systems Update

## 7.20.26 - Medford School Committee meeting

- Voted and approved LEEDv4 Certification - Silver Level Minimum
- Voted and approved Sustainability Goals (next Slide)

## 7.21.26 - Medford Sustainability Advisory Team

- Medford School Committee Update
- PSR Life Cycle Cost Analysis update* (previously presented to SBC)
- Preliminary PSR Solar PV update*
- Preliminary Embodied Carbon Update*

**Previously presented to the SBC, 6.10.26.*

## Medford High School School Committee Motion
## [voted and approved by SC 7.20.26, reviewed with Sustainability Advisory Team 7.21.26]

The Comprehensive Medford High School project shall achieve a **minimum of LEED v4 Silver** certification to meet MSBA requirements; however, the project shall prioritize building performance, occupant health, and lifecycle cost over point accumulation. To that end, the project shall:

- **Strive to achieve net-zero energy** (as technically feasible) through integrated passive design strategies, all-electric high-efficiency systems, and on-site renewable energy generation;
- **Specify red list- free, healthy materials** for all materials except MEP/FP and prioritize LEED healthy materials credits necessary to obtain the maximum IAQ MSBA reimbursement to ensure superior indoor air quality for students and staff.
- **Prioritize water efficiency and stewardship** to reduce indoor potable water consumption by a minimum of 30%; while trying to eliminate potable water for irrigation use;
- **Minimize the total cost of ownership**, designing operational systems, controls and monitoring to substantially reduce energy, water, and maintenance costs over the life of the building.

The long-term cost of operating and maintaining the building shall remain at the forefront of every design decision.

## HVAC System Options for Schematic Design Life Cycle Cost Analysis (LCCA)

- Baseline System: Fossil Fuel Heating System (Stretch Code baseline)
- Main Building - 3 HVAC System Options:
  - Ground Source Heat Pump System-GSHP (100%)
  - Hybrid GSHP and AtWHP system (50% GSHP/50% AtWHP)
  - Air To Water Heat Pump (AtWHP) (100%)
- Pool Water Heating System:
  - All-electric system (AtWHP combined with electric boiler)
  - Natural Gas Boilers
  - Note: Pool HVAC system to be all-electric

# **Sustainability and MEP Systems Update** – Sustainable Design Givens

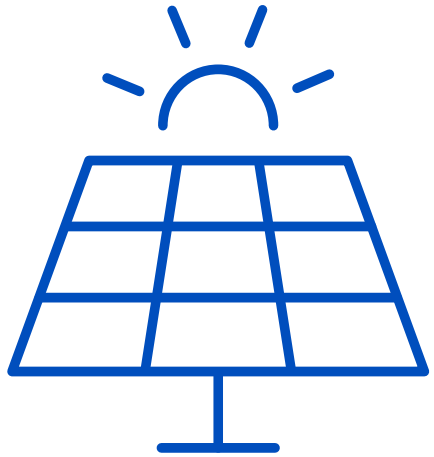



**MSBA Green School Policy:**

- LEED version 4 Silver (minimum)
- Stretch Energy Code
- MEP/BE/Ongoing LEED Commissioning
- 3 LEED MR/IEQ points

**MSBA 4% Additional Reimbursement:**

- Specialized Stretch Energy Code (3%)
- 5 LEED MR/IEQ points (1%)



**Specialized Stretch Energy Code**

1. **Full Compliance with the Standard Stretch Energy Code**
2. **Electrification Pathways**
   - All-Electric HVAC & DHW
   - Fossil Fuel Heating
     - Electrification of Heating Readiness
     - Renewable Energy Installation



**School Committee Voted/Approved**

- LEED version 4 (minimum)
- Net Zero Energy
- Healthy Materials (1% MSBA)
- Water Stewardship (30% reduction)
- Cost of Ownership (LCCA)

- **Eco-Charrette:** September 17th, 2026 (virtual via Zoom).
- **Sustainability/MEP Advisory Team Meeting:** September 23, 2026:
  - Net Zero Energy
  - Red-list Free Materials and IAQ for maximizing MSBA Reimbursement
  - Water Efficiency & Stewardship
  - Minimizing the Total Cost of Ownership
- **Non-Program Alternates**
  - Selection by the SBC on October 6th, 2026 (next slide)
- **Schematic Design LCCA and HVAC systems' selection**
  - Recommendation of preferred system by Sustainability Advisory Team to SC/SBC for:
    - Main Building - All-Electric Heating/Cooling System: GSHP (100%) vs. Hybrid (50%/50%) vs. AtWHP (100%)
    - Pool - HVAC system: All-electric vs. Natural Gas
    - Solar PV and Battery Storage Extent and Approach
    - Mass Timber Structure Opportunities and Approach

# Estimated Alternate Costs Associated with PV, HVAC System and Mass Timber

| Non-Program Alternate | Estimated Construction Cost | Total Project Cost |
|---|---|---|
| **PV1** - Provide Roof Mounted PV Panels overall available Roof Surface (assume City/District buys the panels) | $2,683,800 | $3,274,236 |
| **PV2** - Provide Canopy Structures only for PV Panels over Parking, Drive Aisles and CTE Yards for NetZero (assume PPA for all PV Panels) | $23,600,400 | $28,792,488 |
| **PV3** - Purchase Canopy Structures and all PV Panels (Roof and Canopy mounted) for NetZero (assume City/District buys the panels) | $48,649,200 | $59,352,024 |
| **HVAC1** - Change GSHP system to an air-source heat pump system (ASHP - Air to water type) | $(47,689,646) | $(58,181,368) |
| **HVAC2** - Change GSHP system to a hybrid ground source heat pump and air source heat pump system. | $(25,301,216) | $(30,867,483) |
| **HVAC3** - Change GSHP system to an air-source heat pump VRF system | $(57,533,023) | $(70,190,288) |
| **TIMB1** - Provide 50% of the new addition structural frame with mass timber members/systems | $14,615,339 | $17,830,714 |
| **TIMB2** - Provide 100% of the new addition structural frame with mass timber members/systems | $29,230,678 | $35,661,427 |

**Note:**

- No costs or credits associated with the Non-Program Cost Alternates noted above are currently included in the Project.
- The Project does currently account for a Power Purchase Agreement (PPA) provided PV array on the roof of the building only, a full Ground Source Heat Pump (GSHP) heating and cooling system, and a structural steel frame for the new addition (no mass timber).

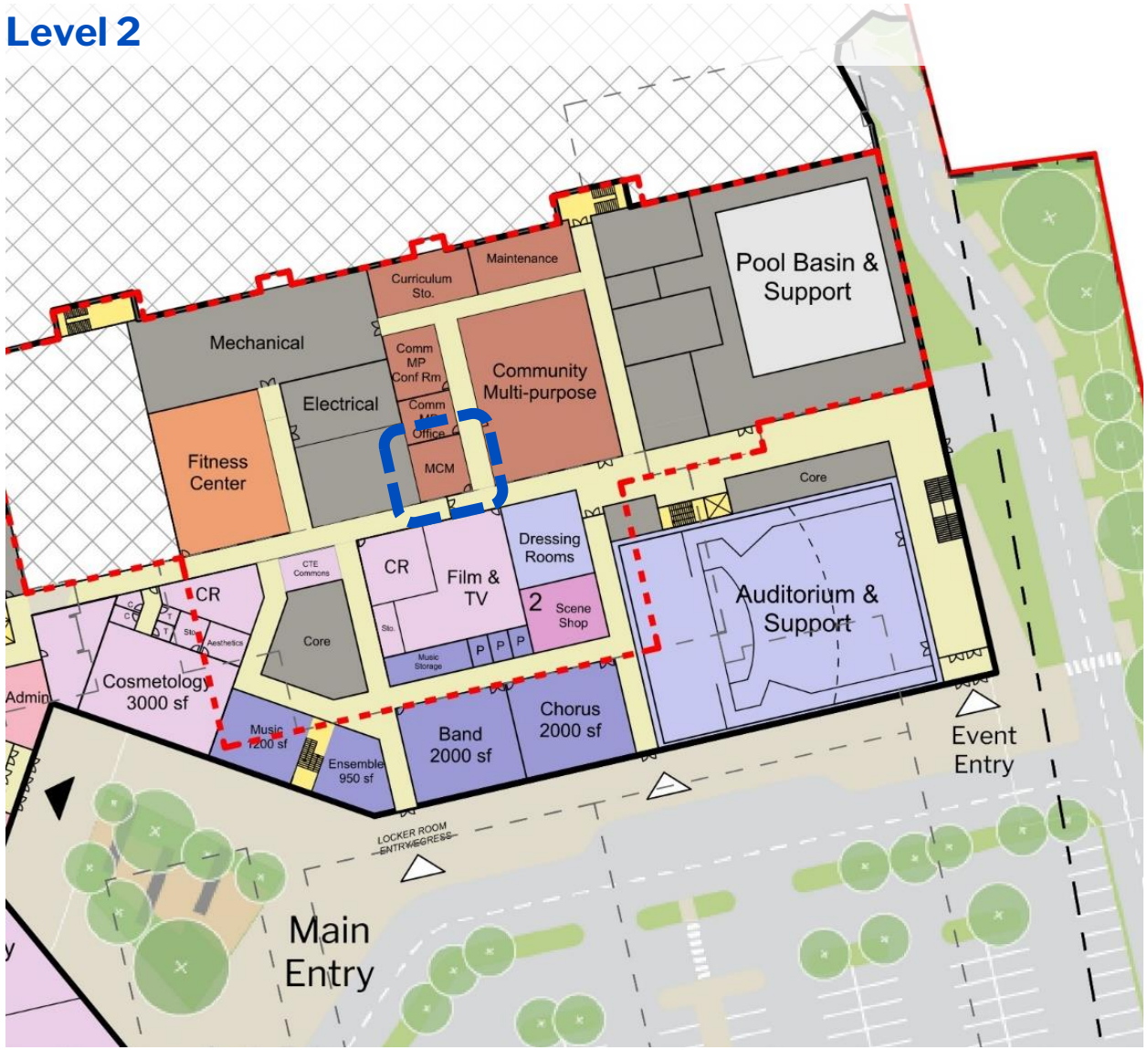
**Alternatives to be voted at SBC Meeting October 6th, 2026**

# Adjacencies & Efficiencies for:

- Medford Community Media (MCM)
- Community Partner Rentals
- Community Meeting Space
- Health & PE
- Auditorium & Drama
- Art & Music

# **Program Efficiencies & Plan Diagram** / Medford Community Media

## Level 2




The space summary currently provides for a separate facility for MCM.

- Today, MCM operates in a shared space with MHS' Film and Television Production CTE Program. MCM operates outside of school hours.

| ROOM TYPE | ROOM NFA | # OF ROOMS | AREA TOTAL | COMMENTS / REDUCTIONS |
|---|---|---|---|---|
| Open Office | 120 | 1 | 120 | |
| **Studio** | ~~**1,200**~~ | ~~**1**~~ | ~~**1,200**~~ | **Eliminate.** MCM will use CTE Film & TV program's studio |
| **Control Booth** | ~~**200**~~ | ~~**1**~~ | ~~**200**~~ | **Eliminate.** MCM will use CTE Film & TV program's control booth |
| Playback Room | 100 | 1 | 100 | |
| Edit Room | 100 | 1 | 100 | |
| Storage | 100 | 1 | 100 | |
| | | | | |

**Recommendation: Eliminate space from the program as noted above (1,400 net square feet) that would have provided for a separate MCM facility.** After reviewing the plans with the team, the Mayor, MCM and the MPS leadership, we feel confident that the current shared model will continue to work for all parties and reduce the costs associated with constructing a separate, non-reimbursable facility.

# **Program Efficiencies & Plan Diagram** / Community Partner Rental Spaces

## Level 2




The space summary currently provides for educational spaces for the Japanese Language School (JLS), as well as dedicated storage space for other Community Partners.

| ROOM TYPE | ROOM NFA | # OF ROOMS | AREA TOTAL | COMMENTS / REDUCTIONS |
|---|---|---|---|---|
| JLS Educational Prep Space | 150 | 1 | 150 | **Additional study required.** |
| JLS Educational Library Space | 1,700 | 1 | 1,700 | **Additional study required.** |
| **Storage** | ~~**160**~~ | ~~**1**~~ | ~~**160**~~ | **Eliminate.** |
| **Storage** | ~~**750**~~ | ~~**1**~~ | ~~**750**~~ | **Eliminate.** |

**Recommendation: Eliminate space from the program as noted above (910 net square feet) that aligns with the School Committee direction**. On 7/20/2026, the School Committee (as overseers of how District buildings are used by the public) voted to discontinue the practice of providing dedicated proposed Storage Space for Community Partner Rentals. This will not change the availability of our schools as rental spaces per the rental program.

Additional study will be conducted by the School Committee regarding the potential to create purpose-built space for non-school, non-district and non-City of Medford programs within a public facility.

# **Program Efficiencies & Plan Diagram** / Community Meeting Spaces and Language Lab

## Level 2




The space summary currently provides for dedicated Community Multipurpose spaces. School and District leadership have reviewed and approved a flexible space sharing model for these programs.

| ROOM TYPE | ROOM NFA | # OF ROOMS | AREA TOTAL | COMMENTS / REDUCTIONS |
|---|---|---|---|---|
| **Community Multipurpose Space** | ~~**4,400**~~ | ~~**1**~~ | ~~**4,400**~~ | **Eliminate.** |
| **Community Multipurpose Office** | ~~**500**~~ | ~~**1**~~ | ~~**500**~~ | **Eliminate.** |
| **Community Multipurpose Conference** | ~~**730**~~ | ~~**1**~~ | ~~**730**~~ | **Eliminate.** |
| **Language Lab** | ~~**1,200**~~ | ~~**1**~~ | ~~**1,200**~~ | **Eliminate. (In Core Academic space category)** |

**Recommendation: Eliminate areas from the program as noted above (6,830 net square feet) that would have provided dedicated Community Multipurpose Space and a Language Lab**. These program functions will instead be provided by locating the two Large Group Instruction (LGI) spaces next to each other, with an operable partition between them that allows the space to become a larger community meeting space. The LGI spaces will also be in proximity to the Community Entrance so this space can be used by the Medford community during the school day if it is not scheduled for high school use. Support functions will similarly take place in shared facilities vs. in dedicated office and conference spaces. Language Lab functionality will also be provided in the LGI spaces.

# **Program Efficiencies & Plan Diagrams /** PE & Health / Athletics / Pool

| ROOM TYPE | ROOM NFA | # OF ROOMS | AREA TOTAL | COMMENTS/ RECOMMENDATIONS |
|---|---|---|---|---|
| Gymnasium | 29,305 | 1 | 29,305 | 15,000 nsf of the Gym is reimbursable. |
| PE Alternatives | | | | |
| Gymnastics Gym | 4,100 | 1 | 4,100 | Reimbursable area to be determined by MSBA with SD submission. |
| Fitness Center/ Weight Training | 3,237 | 1 | 3,237 | Reimbursable area to be determined by MSBA with SD submission. |
| **Yoga/ CPR** | ~~**625**~~ | ~~**1**~~ | ~~**625**~~ | **Eliminate.** Can occur in a Classroom, Gymnasium, or Multipurpose area/ room as part of Fitness Center. |
| Batting Cage | 4,472 | 1 | 4,472 | Space to be used for pool spectating again. Viability study for flexible use of space for spectating and batting cages are currently being conducted. Reimbursable area to be determined by MSBA with SD submission. |
| Gym Storeroom | 656 | 1 | 656 | |
| **Locker Rooms - Boys and Girls with Toilets** | ~~**3,906**~~ **3,400** | **2** | ~~**7,812**~~ **6,800** | **Reduce to 6,800 total nsf.** Multiple showers not needed. (30) PE lockers per gender. Fully reimbursable. |
| PE Storage | 500 | 1 | 500 | Fully reimbursable. |
| Athletic Director's Office | 175 | 1 | 175 | 150 nsf is reimbursable. |
| Health Instructor's Office with Shower and Toilet | 250 | 2 | 500 | 250 nsf (1 Health Instructor's Office) is reimbursable. Two rooms provided for gender equity. |
| Trainer's Room | 600 | 1 | 600 | Not reimbursable. |
| Athletic Director's Admin. Assistant | 100 | 1 | 100 | Not reimbursable. |
| | | | | |
| Pool | | | | Not reimbursable. |
| Pool | 8,787 | 1 | 8,787 | |
| Boys Locker Room | 970 | 1 | 970 | |
| Girls Locker room | 1,230 | 1 | 1,230 | |
| Pool Storage | 604 | 1 | 604 | |

**Recommendation: Eliminate and reduce areas from the program as noted (1,637 net square feet total) that right-size the locker rooms and eliminate the dedicated Yoga/CPR room.** These proposed changes have been reviewed and approved by School and District Leadership, as Yoga and CPR instruction can occur in other spaces, and the desired locker program can still be met using the reduced locker room area.

# **Program Efficiencies & Plan Diagrams /** PE & Health / Athletics / Pool

## Level 2




## Level 3



# **Program Efficiencies & Plan Diagrams /** PE & Health / Athletics / Pool

## Level 4



# **Program Efficiencies & Plan Diagram** / Auditorium & Drama

## Level 2

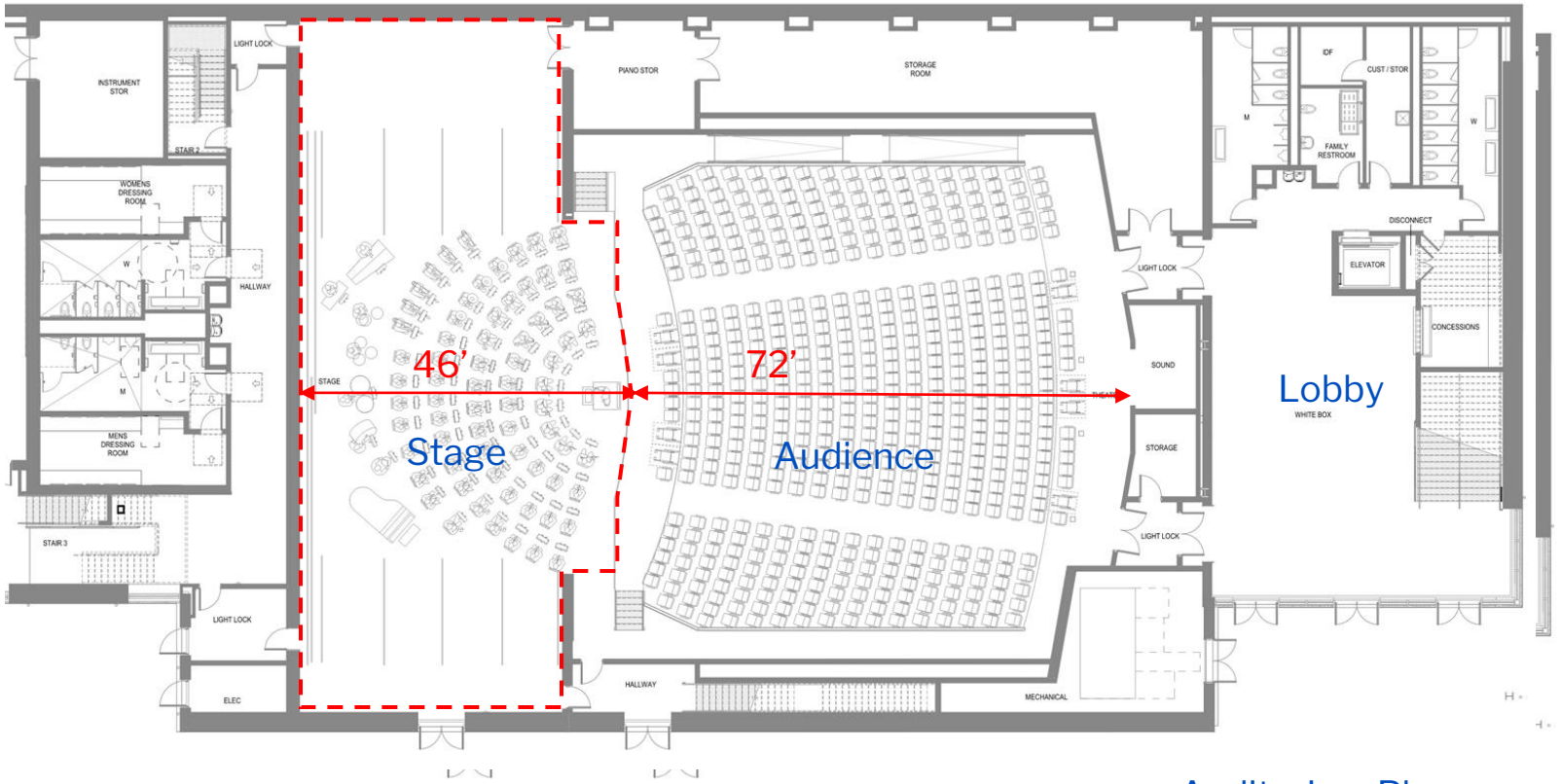



The space summary currently provides for an Auditorium that contains 1,000 seats, which requires 10,000 net square feet.

| ROOM TYPE | ROOM NFA | # OF ROOMS | AREA TOTAL | COMMENTS / REDUCTIONS |
|---|---|---|---|---|
| **Auditorium** | **~~10,000~~ 7,500** | **1** | **~~10,000~~ 7,500** | **Reduce to 7,500 sf.** 750 seats meets Educational Plan and MHS requirements, and is fully reimbursable by MSBA |
| Stage | 2,500 | 1 | 2,500 | |
| Auditorium Storage | 500 | 1 | 500 | |
| Make-up / Dressing Rooms | 200 | 3 | 600 | Includes (1) all-gender room |
| Controls / Lighting / Projection | 200 | 1 | 200 | |
| | | | | |
| Scene Shop | 800 | 1 | 800 | (under Technology / Engineering Rooms) |

**<u>Recommendation</u>: Reduce area from the program as noted above (2,500 net square feet) to provide an Auditorium that contains 750 seats**. School and District leadership have reviewed and approved this reduction in seating quantity within the Auditorium, as it will still provide the ability to have 2 full classes of students for assemblies, which was identified as a primary programmatic requirement.

# **Program Efficiencies & Plan Diagram** / Precedent 750 Seat Auditorium w/ Balcony




Auditorium Plan

750 Seat Auditorium

- 550 on 1st Floor
- 200 in Balcony
- Stage for 75 Performers
- Stage Depth = 46’



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# **Program Efficiencies & Plan Diagrams** / Art & Music

## Level 2

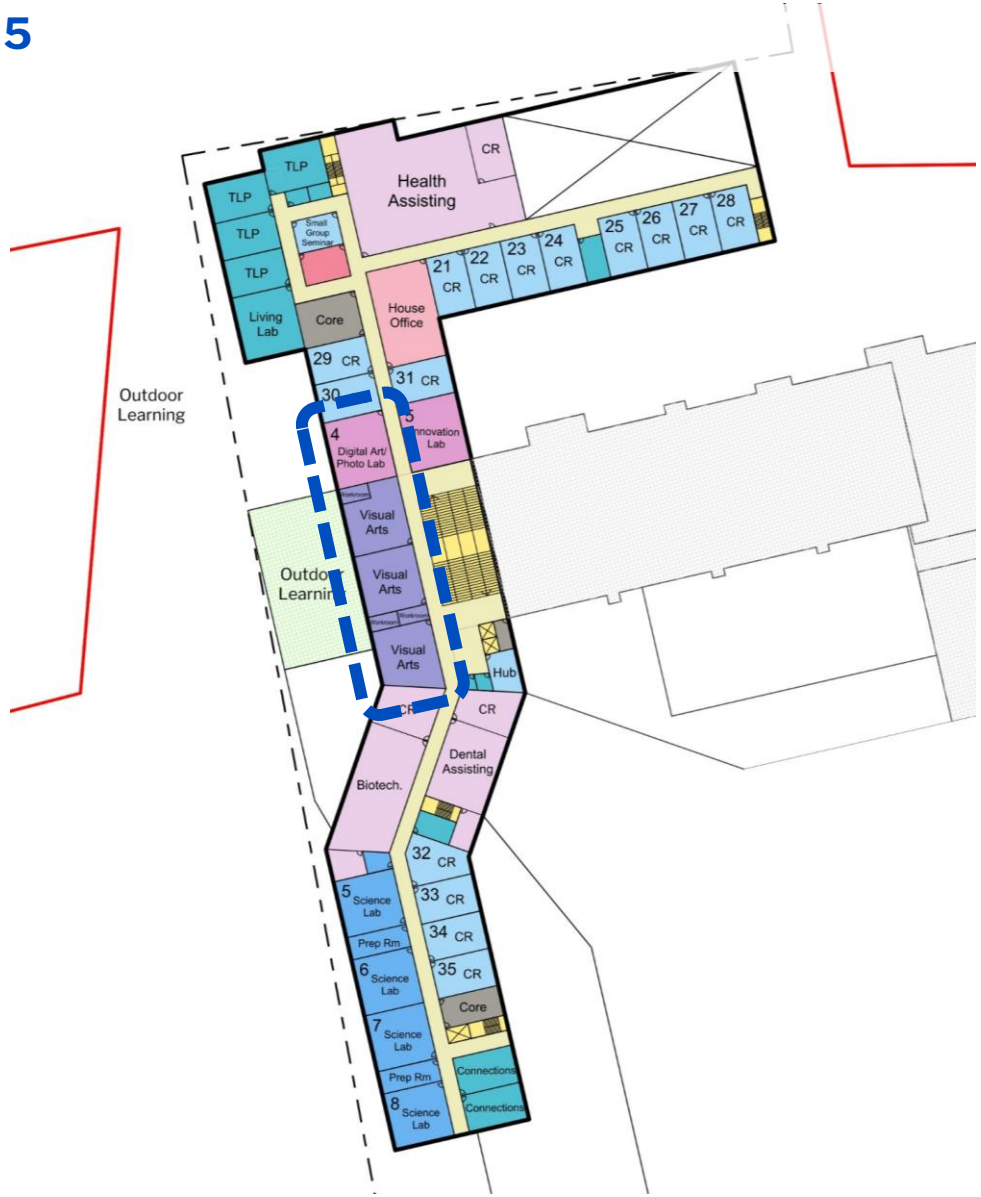



| ROOM TYPE | ROOM NFA | # OF ROOMS | AREA TOTAL | COMMENTS |
|---|---|---|---|---|
| Art Classroom | 1,200 | 3 | 3,600 | |
| Art Workroom with Storage and Kiln | 150 | 3 | 450 | |
| Band | 2,000 | 1 | 2,000 | |
| Chorus / Orchestra | 2,000 | 1 | 2,000 | |
| Ensemble | 950 | 1 | 950 | Guitar and other small group ensemble |
| Music Practice | 75 | 3 | 225 | |
| Music Storage | 500 | 1 | 500 | |
| Music Classroom | 1,200 | 1 | 1,200 | Gen. Music, MIDI/ piano instruction |
| | | | | |
| **Digital Art/ Photography Lab** | **~~1,440~~ 1,200** | **1** | **~~1,440~~ 1,200** | **Reduce to 1,200 sf.** Remove Darkroom component. |

**<u>Recommendation</u>: Reduce area from the program as noted above (240 net square feet), eliminating the traditional darkroom component from the Digital Art/Photo Lab space**. School and District leadership have reviewed and approved this adjustment to the photography program planned for the new building, as the envisioned curriculum will focus exclusively on digital photography to align with industry trends.

# **Program Efficiencies & Plan Diagrams** / Art & Music

## Level 5



# Program Efficiencies & Total Project Cost Reduction Summary

| | Gross Floor Area | Estimated Total Project Cost |
|---|---|---|
| 6.25.26 - Proposed Building in PSR Report | 608,792 GSF | $794,367,410* |
| Reduction with All Recommended Program Efficiencies presented Tonight | (20,276) GSF | ($22,090,000) |
| Savings on elimination of High-Rise code requirements based on design development of the building height and average grade plane surrounding the building | | ($3,700,000) |
| **8.25.26 - Proposed Building with All Recommended Program Efficiencies** | **588,516 GSF** | **$768,577,410** |

*Proposed building in PSR includes the following:

- High School and Vocational Programming (existing and 4 new)
- Curtis Tufts
- Central Office/Welcome Center
- Kids Corner
- MFN
- MEEP Pre-K Consolidation
- Pool as currently designed
- 1,000 seat auditorium
- Community Meeting Space, Teen Health Center, Community Rental, Medford Community Media Dedicated Space
- Full geothermal implementation
- Solar Ready Roof (panels through power purchase), No Mass Timber
- No Deck Over Parking
- No Secondary Access Permitting/Construction Cost

# Design Update

- Draft Parking Program
- MSBA Preferred Schematic Report (PSR) Comments and Responses

Study of existing parking to inventory current site

- 451 striped and informal spaces on existing site

Study of parking utilization onsite

- Parking is well utilized, about 88% when observed

Transportation Study of Students and Staff

- March 2026 survey: 713 student responses and 146 teacher/staff
- 40% of students use bus as primary mode of transportation
- 90% of teachers/staff drive to work every day

Program needs of project

# **Review of DRAFT Parking Program** / Program Needs & Recommendations

| Program | Teachers & Staff | Fleet & Van | Visitor | Student |
|---|---|---|---|---|
| High School | | | | |
| Teachers & Staff | 242 | | | |
| Visitors – HS & General | | | 9 | |
| Visitors – CTE | | | 25 | |
| Fleet Vehicles HS (15) & CTE (6), Box Truck (1) | | 22 | | |
| Central Office | | | | |
| Staff | 27 | | | |
| Kid's Corner | | | | |
| Staff | 15 | | | |
| Visitor & Arrival/Dismissal | | | 4 | |
| Medford Family Network | | | | |
| Staff | 7 | | | |
| Visitors | | | 10 | |
| Van | | 1 | | |
| Pool | | | | |
| Staff | 3 | | | |
| Visitors | | | 16 | |
| Teen Health Clinic | | | | |
| Staff | 3 | | | |
| Curtis Tufts | | | | |
| Teachers & Staff | 12 | | | |
| Visitors | | | 2 | |
| Medford Early Education Program | | | | |
| Teachers & Staff | 43 | | | |
| Visitor | | | 8 | |
| *Subtotal* | *352* | *23* | *74* | |
| Recommended 10% reduction of Teachers & Staff Spaces per Transportation Survey | 317 | | | |
| Recommended 50% reduction of Visitor Spaces to account for space sharing | | | 37 | |
| Recommended Spaces for student drivers | | | | 100 |
| *Revised Subtotal* | *317* | *23* | *37* | *100* |
| ***Grand Total*** | ***477 spaces*** | | | |



PSR Site Plan

SMMA also recommends authorizing Ken Lord, COO, to formally approve removal of associated parking quantity from the proposed total parking program if the project removes building program*

*MCHSBC will be notified of any changes at next scheduled meeting

# MSBA PSR Comments & Team Response Summary

- Comments on the PSR (Preferred Schematic Report) were received from the MSBA on 7/29/2026.
- The MSBA provided comments in two documents, **Attachment A** and **Attachment B**, which is the typical format for their feedback.

- **Attachment A**: This document contains general comments on all portions of the PSR submission, with the exception of the Proposed Space Summary. The scope of the comments include requests for clarification, additional information and acknowledgements, including:
    - Clarification and timeline for process to evaluate other City properties to accommodate programs in the Other category as well as space efficiencies review;
    - Request for updates on any impacts associated with the deed restriction;
    - Information on process for proceeding with Construction Manager at Risk project delivery method;
    - Confirmation of sustainability goals;
    - Information on cost drivers;
    - And reminders that all project scope must be known and costed by Schematic Design.
    - Comments received for this project were typical of those that are received by other MSBA-grant funded projects at this phase.

# MSBA PSR Comments & Team Response Summary

- **Attachment B**: This document contains the MSBA's review of the Proposed Space Summary. The scope of the comments includes comparisons to the MSBA guidelines, requests for more information on planned utilization of spaces.
    - These comments continue a dialogue begun at PDP to clarify what the MSBA may as deem allowable square footage for reimbursement;
    - An updated Educational Plan was provided as an attachment to align with responses provided;
    - The Space Summary will again be updated for the Schematic Design submission in February 2027 and will include the results of all space efficiency reviews and approvals.

- The District, LeftField, and SMMA have collaborated to generate responses to the comments. The response was returned to the MSBA on 8/12/2026.

- On August 19th, the MSBA confirmed that the Medford High School project will be recommended for action at the Board of Directors meeting on August 26th.

# Upcoming Meetings

# Upcoming MCHSBC & Community Meetings

- **9/10  MCHSBC Meeting** Review Project Efficiencies, Design Update
- **9/17 Community Meeting #6** Sustainability Charrette
- **9/22 MCHSBC Meeting** Report on Curtis Tufts Building Uses, Project Efficiencies
- **10/6 MCHSBC Meeting** Vote to confirm project scope, Vote to approve CM selection
- **11/12 Community Meeting #7** Design Update
- **11/16 MCHSBC Meeting** Approve Advisory Team recommendations, CM Introduction
- **12/14 MCHSBC Meeting** Review Schematic Design Estimating Package

# Thank you.

