LEFTFIELD

WAKEFIELD PERMANENT BUILDING COMMITTEE WAKEFIELD HIGH SCHOOL BUILDING COMMITTEE	WAKEFIELD MEMORIAL HIGH SCHOOL MEETING NOTES #16

Date:	Thursday March 03, 2022
Location:	Virtual "Zoom" Meeting
Time:	7:00pm
Prepared BY:	Timothy Baker – LeftField PM

Name			Present
Joseph Conway	Director of Public Works	(Non-Voting)	×
Julie Smith Galvin	Town Council	(Non-Voting)	×
Stephen P. Maio	Town Administrator	(Non-Voting)	✓
Thomas Markham	School Committee Member	(Non-Voting)	×
Kevin Piscadlo	School Committee Member	(Non-Voting)	✓
Doug Lyons	Superintendent of Schools	(Non-Voting)	×
Tim O'Brien	Facilities Director	(Non-Voting)	✓
Joseph B. Bertrand	Permanent Building Committee, Chair	(Voting)	✓
Timothy Demers	Permanent Building Committee	(Voting)	✓
Charles L. Tarbell	Permanent Building Committee, Secretary	(Voting)	✓
Jason Cohen	Permanent Building Committee	(Voting)	✓
Janine R. Fabiano	Permanent Building Committee	(Voting)	✓
John McDonald	Permanent Building Committee	(Voting)	✓
Tom Galvin	Permanent Building Committee	(Voting)	✓
Marc Moccio	Permanent Building Committee	(Voting)	✓
Philip Renzi	Permanent Building Committee	(Voting)	×
Nasos Phillips	Permanent Building Committee	(Non-Voting)	×
Wayne Hardacker	Permanent Building Committee	(Non-Voting)	✓
Amy McLeod	Wakefield Memorial High School Principal	(Non-Voting)	×
Joseph Mullaney	Wakefield Memorial High School Asst. Principal	(Non-Voting)	×
James Sullivan	Finance Committee	(Non-Voting)	×
Ian McKinnon	Community Member	(Non-Voting)	×
Jeffrey Cohen	Community Member	(Non-Voting)	×
Elizabeth Martin	Community Member	(Non-Voting)	✓
Ray Thompson	Community Member	(Non-Voting)	×
Eric Lambiaso	Community Member	(Non-Voting)	×
Thomas Stapleton	Community Member	(Non-Voting)	×
Robert Arcari	Community Member	(Non-Voting)	×
Dylan Forester	Community Member	(Non-Voting)	×
Christopher Sallade	Community Member	(Non-Voting)	✓
Sandra Clarey	Community Member	(Non-Voting)	×
Eric Hubert	Community Member	(Non-Voting)	×
Christine Bufagna	Community Member	(Non-Voting)	×
Jonathan Chines	Community Member	(Non-Voting)	×
Kim Hartman	Community Member	(Non-Voting)	×
Greg Liakos	Community Member	(Non-Voting)	×
William Karvouniaris	Community Member	(Non-Voting)	×
Kevin Pskadlo	Community Member	(Non-Voting)	✓
Robin Greenberg	Community Member	(Non-Voting)	✓

Name		Present
Lynn Stapleton	Leftfield Project Management	✓
Adam Keane	Leftfield Project Management	✓
Jim Rogers	Leftfield Project Management	✓

Timothy Baker	Leftfield Project Management	✓
Helen Fantini	SMMA	✓
Matt Rice	SMMA	✓
Brian Black	SMMA	✓
Martine Dion	SMMA	✓
Lorraine Finnegan	SMMA	✓
Lana Prokupets	SMMA	✓
Nick Ferzacca	SMMA	✓
Anthony Gray	SMMA	✓
Michael Dowhan	SMMA	✓
Meagan Collins	SMMA	✓

1. Meeting called to order at approximately 7:03PM. A quorum was present.
2. Public Participation

   There was no public participation.
3. Administrative Actions

   A. Lynn Stapleton informed members of the Building Committee that Shane Nolan has left Leftfield to pursue a new career path. Lynn Stapleton continued by introducing Tim Baker who will be working with her on Wakefield Memorial High School Project

   B. *Meeting Minutes*

   The meeting minutes of the 02/10/22 Permanent Building Committee/School Building Committee: Wakefield Public Safety/Memorial High School projects were presented for review.
   Jason Cohen made a motion to approve the Wakefield Memorial High School Meeting Minutes as presented. Seconded by Janine Fabiano. Motion was approved unanimously.

   B. *Invoices*

   Two (2) invoices in the total amount of $93,500.00 for the Wakefield Memorial High School Project were presented for review and approval.

   1) Leftfield LLC Invoice #10 dated 02/28/22 in the amount of $22,000.00.
   2) SMMA Invoice #56308 dated 2/11/22 in the amount of $71,500.00.

   Charles Tarbell made a motion to approve Leftfield LLC Invoice #10 dated 02/28/22 in the amount of $22,000.00 *as presented. Seconded by Jason Cohen. On a roll call vote, the motion was approved unanimously.*

   Charles Tarbell made a motion to approve Invoice #56308 dated 2/11/22 in the amount of $71,500.00 as *presented. Seconded by Jason Cohen. On a roll call vote, the motion was approved unanimously.*

   C. Update on MSBA PDP Review Comments

   Lynn Stapleton updated the committee on comments received from the MSBA on the Project's PDP Submission. The predominate theme of the MSBA comments was the request for additional information on the categories of space that exceeded MSBA Guidelines and how the individual spaces are utilized,

staffed and their role within the District's Educational Plan. This information will help the MSBA to determine how much of the overage in square footage that the MSBA will participate in reimbursement to the District.

The overage in square footage of some of the spaces such as the District Office, WCAT, Black Box Theater, and Governor Volpe Archives were determined to be acceptable but ineligible for reimbursement. The Field House was the only space that was noted to be against MSBA Policy and therefore categorically ineligible.

MSBA indicated that they would participate in up to 18,000 SF, if substantiated, and would not participate at all in a project that exceeded 18,000 SF. MSBA has been asked the parameters for which the Town could separately fund a Field House to maintain MSBA participation in funding the High School project. Joe Bertrand inquired if the MSBA would allow the additional square footage to be constructed concurrently with the rest of the High School project if the additional costs are separated out of the MSBA funding agreement similar to the culvert scope of work completed concurrently with the Galvin Middle School Project. LS stated that she inquired with the MSBA and would follow-up with them.

4. Wakefield Environmental Sustainability Committee

SMMA noted the majority of schools in MA pursue and achieve the LEED certification and that LEED would be their preference over the NE-CHPS program. NE-CHPS requires more criteria to be met and additional paperwork and filings to be made by the Town. Joseph Bertrand suggested that the Wakefield Environmental Sustainability Committee (WESC) should be consulted on which certification to pursue . Due to the tight schedule for submitting responses to the MSBA PDP comments, Robin Greenberg was asked to help facilitate a meeting with WESC for next week. RG stated she would follow-up with the WESC. RG also stated that the Galvin Middle School's certification was MA-CHPS instead of the stated LEED certification. LS confirmed.

Marc Moccio inquired about the status of Wakefield becoming a Green Community. RG stated that the Town is in the process of applying to become a Green Community and that the Town has one remaining item to finalize before submitting.

5. Mechanical, Electrical, Plumbing & Fire Protection Systems Review – SMMA

SMMA stated that the Project Team met with MEP Focus Group to review proposed mechanical, electrical, plumbing, and fire protection systems. Martine Dion reminded the PBC/SBC that the new MA Stretch Code would be implemented during the design phase of the project and so will need to be met. Therefore, the various systems presented and the evaluations/recommendations should be considered in that context.

Lana Prokupets from SMMA began by presenting the various mechanical systems to be considered for design. More detailed information about the various systems can be found in the attached SMMA meeting presentation. Wayne Hardacker inquired about the cost of a geothermal system after visiting the Belmont High School Project where it seemed quite expensive. LP replied that while there is a big upfront cost, there are significant lifecycle savings associated with geothermal systems due to the creation of a local power source. MD stated that a decision regarding these systems does not need to be made until the next phase of the project in Schematic Design. The project will be required to compare three systems as part of the decision-making process. MD stated that test wells would need to be drilled soon to present a better design/cost estimate for a geothermal system in Schematic Design. Chip Tarbell

inquired about feedback from the MEP Focus Group. MD stated that the Focus Group recommended designing a fossil fuel free building with geothermal. This recommendation will be refined before a decision needs to be made. LS noted that a meeting will be scheduled for the MEP Focus Group to review this presentation and provide feedback at the 3/10/22 PBC/SBC Meeting.

Nick Ferzacca continued the presentation by describing the various general electrical systems to be considered for the project design. Chip Tarbell inquired if including a generator would automatically trigger the new building to be utilized as an emergency shelter. NF replied that it would not. NF continued by presenting the enhanced efficiency of the new electrical systems.

Anthony Gray continued the presentation by describing the various plumbing systems to be considered for the project design, as well as, various plumbing fixtures and emergency equipment for utilization in science labs and the new building's fire safety systems.

6. Design Alternative Review – SMMA

Brian Black from SMMA continued the presentation by discussing the current PSR Space Program which included the spaces totaling 275,900 SF for the new school and the initial feedback received on the design thus far. BB presented the idea of classroom "neighborhoods," as well as, presenting design concepts for interdisciplinary learning.

Referring back to the MSBA PDP comments regarding the size of a new Field House. BB discussed Swampscott High School as an example. SHS' design included a 33,000 SF Field House and was the last project that the MSBA allowed to have a Field House of this size. BB continued by presenting updated versions of the various design options under consideration including Design Alternate 3B – Options 1, 2 3 and 4 (new construction) and Design Alternate 2A (addition/renovation).

7. Project Schedule

Lynn Stapleton presented the milestone schedule dates for the Feasibility Study PSR Phase. The Project Team is reviewing the MSBA review questions/comments received on March 01, 2022. Leftfield will be scheduling meetings over the next week to solicit feedback from school/community stakeholders. The PDP review milestone schedule is as follows:

- MSBA Review Comments Received March 1, 2022
- Initial Comments Review Meeting March 3, 2022
- Response Coordination Meeting March 8, 2022
- Responses Due to MSBA March 15, 2022

LS reminded the SBC/PBC that the PSR Submission date of May 4th is a hard deadline to attend the June 22, 2022 MSBA Board Meeting.

8. Next Permanent Building Committee/School Building Committee meeting: March 10, 2022

Attachments:

- LeftField Presentation 03/03/22
- SMMA Presentation 03/03/22

Town of Wakefield

Wakefield Public Schools

WAKEFIELD MEMORIAL HIGH SCHOOL

School Building Committee Meeting

March 03, 2022

SMMA LEFTFIELD

WAKEFIELD MEMORIAL HIGH SCHOOL

AGENDA:

1. **Administrative Actions**
    - Review of February 10, 2022 Permanent Building Committee/School Building Committee Meeting Minutes
    - Review of February 2022 Invoices
    - Update on MSBA PDP Comments

2. **Wakefield Environmental Sustainability Committee**

3. **Design Alternative Review – SMMA**

4. **Mechanical, Electrical, Plumbing & Fire Protection Systems Review – SMMA**

5. **PSR Schedule Review**

WAKEFIELD MEMORIAL HIGH SCHOOL

1. Administrative Actions

Review of February 10 , 2022 Permanent Building Committee/School Building Committee Meeting Minutes

LEFTFIELD

WAKEFIELD PERMANENT BUILDING COMMITTEE WAKEFIELD HIGH SCHOOL BUILDING COMMITTEE	WAKEFIELD MEMORIAL HIGH SCHOOL MEETING NOTES #14

Date:	Tuesday February 10, 2022
Location:	Virtual "Zoom" Meeting
Time:	7:00pm
Prepared BY:	Shane Nolan – LeftField PM

Name			Present
Joseph Conway	Director of Public Works	(Non-Voting)	×
Julie Smith Galvin	Town Council	(Non-Voting)	×
Stephen P. Maio	Town Administrator	(Non-Voting)	×
Thomas Markham	School Committee Member	(Non-Voting)	×
Kevin Piscadlo	School Committee Member	(Non-Voting)	×
Doug Lyons	Superintendent of Schools	(Non-Voting)	×
Tim O'Brien	Facilities Director	(Non-Voting)	×
Joseph B. Bertrand	Permanent Building Committee, Chair	(Voting)	✓
Timothy Demers	Permanent Building Committee	(Voting)	✓
Charles L. Tarbell	Permanent Building Committee, Secretary	(Voting)	×
Jason Cohen	Permanent Building Committee	(Voting)	✓
Janine R. Fabiano	Permanent Building Committee	(Voting)	✓
John McDonald	Permanent Building Committee	(Voting)	✓
Tom Galvin	Permanent Building Committee	(Voting)	✓
Marc Moccio	Permanent Building Committee	(Voting)	✓
Philip Renzi	Permanent Building Committee	(Voting)	✓
Nasos Phillips	Permanent Building Committee	(Non-Voting)	×
Wayne Hardacker	Permanent Building Committee	(Non-Voting)	✓
Amy McLeod	Wakefield Memorial High School Principal	(Non-Voting)	×
Joseph Mullaney	Wakefield Memorial High School Asst. Principal	(Non-Voting)	×
James Sullivan	Finance Committee	(Non-Voting)	×
Ian McKinnon	Community Member	(Non-Voting)	×
Jeffrey Cohen	Community Member	(Non-Voting)	×
Elizabeth Martin	Community Member	(Non-Voting)	✓
Ray Thompson	Community Member	(Non-Voting)	×
Eric Lambiaso	Community Member	(Non-Voting)	✓
Thomas Stapleton	Community Member	(Non-Voting)	✓
Robert Arcari	Community Member	(Non-Voting)	×
Dylan Forester	Community Member	(Non-Voting)	×
Christopher Sallade	Community Member	(Non-Voting)	✓
Sandra Clarey	Community Member	(Non-Voting)	×
Eric Hubert	Community Member	(Non-Voting)	×
Christine Bufagna	Community Member	(Non-Voting)	×
Jonathan Chines	Community Member	(Non-Voting)	✓
Kim Hartman	Community Member	(Non-Voting)	✓
Greg Liakos	Community Member	(Non-Voting)	×
William Karvouniaris	Community Member	(Non-Voting)	×

Name		Present
Lynn Stapleton	Leftfield Project Management	✓
Shane Nolan	Leftfield Project Management	✓
Helen Fantini	SMMA	✓
Martine Dion	SMMA	✓

LEFTFIELD

1. Meeting called to order at approximately 7:10PM
2. Public Participation
   There was no public participation
3. Administrative Actions
   A. *Meeting Minutes*
   The meeting minutes of the 01/27/22 Permanent Building Committee/School Building Committee: Wakefield Memorial High School were presented for review.
   Jason Cohen made a motion to approve the Wakefield Memorial High School Meeting Minutes as presented. Seconded by Janine Fabiano. Motion was approved unanimously.

   The meeting minutes of the 02/01/22 Permanent Building Committee/School Building Committee: Wakefield Memorial High School were presented for review.
   Jason Cohen made a motion to approve the Wakefield Memorial High School Meeting Minutes as presented. Seconded by Janine Fabiano. Motion was approved unanimously.

   B. *Invoices*
   One (1) invoice in the total amount of $22,000.00 was presented for review and approval.

   1) Leftfield LLC Invoice #9 dated 01/31/22 in the amount of $22,000.00
   Jason Cohen made a motion to approve the Leftfield as presented. Seconded by Janine Fabiano. On a roll call vote the motion was approved unanimously.
4. Preferred Schematic Report
   Shane Nolan gave an overview of the Preferred Schematic Report (PSR). This is the second submission required by MSBA during the Feasibility Study phase. SN noted the contents of the PSR is based on the MSBA requirements. SN presented a list of the sections and the information include within each section. The PSR will include the development of the designs approved for further review as part of the PDP submission. At the end of the PSR the SBC will be required to select a preferred solution. This will be the single design solution that will be recommended to the MSBA for Schematic Design. This recommendation will be reviewed with the MSBA's Facilities Assessment Subcommittee (FAS) and then brough to the MSBA Board of Directors for approval prior to beginning the Schematic Design phase. The expectation is that we will submit the PSR in early May 2022 and attend the MSBA Board meeting in June 2022.

   Phil Renzi asked whether MSBA would ask about gauging public support for the project. SN noted that the public forums have been well attended and the PSR document will include a list of all meetings and the materials presented at those. However, it's hard to gauge the level of support in terms of the public vote for the project at this point. The vote is not expected to happen until early 2023.
5. Project Schedule
   Shane Nolan presented the milestone schedule dates for the Feasibility Study, noting the PDP has been submitted to MSBA and is being reviewed. Once comments are received, they will be communicated to the Building Committee. SN noted that PSR submission date of May 4th is a hard deadline in order to attend the June 2022 MSBA Board meeting.
6. MSBA Reimbursement Policy
   Shane nolan gave an overview of the MSBA reimbursement policy and eligible costs. SN noted that Wakefield's base reimbursement rate is currently 49.94%. There will be an opportunity to increase that through MSBA incentive points program. The project will target additional points for Green School program (2% points) and Best Practice for Routine and Capital Maintenance (up to 2% points). If an

LEFTFIELD

addition/renovation design scheme is selected there may be addition points available – up to 5% depending on the level of renovation. Sn noted the final reimbursement rate and grant value will be established at the end of Schematic Design.

Wayne Hardacker asked about the Routine and Capital Maintenance incentive points. SN advised MSBA calculates that based on information submitted by the School District. SN noted that is the 2% points are not awarded feedback would be solicited from MSBA on why.

Shane Nolan reviewed the MSBA eligible costs including caps on certain classification of cost. This included caps on OPM and Design fees, caps on construction costs and sitework costs, caps on furniture and equipment and other soft costs. There is also a cap on the reimbursable contingency expenditure based on whether the project is new construction or addition/renovation.

Jonathan Chines asked about the reimbursement cap on the construction costs. SN confirmed that the construction cap is currently $360/sf. Current construction cost exceed that value, Wakefield conceptual estimates were in the $630/sf range. Cost above $360/sf must be funded entirely by the Town.

Liz Martin and Joe Bertrand asked how the construction cap is dealt with in terms of inflation. SN advised the cap is reviewed annually by MSBA, but it does not necessarily adjust the cap annually. The last increase was in June 2021. Liz Martin asked when the cap is locked in. SN confirmed it would be at the time the Schematic Design is approved.

Shane Nolan reviewed the list of MSBA that are ineligible for reimbursement. Significant ineligible items that may have an impact on the Wakefield project include field house and temporary modular/swing space depending on which option is selected.

7. Upcoming Meeting
   Shane Nolan presented a list of upcoming meetings including PBC/SBC meeting and anticipated MSBA meetings through the end of PSR phase.
8. Sustainable Design Review
   Martine Dion gave an overview of the sustainability goals and requirements for the project. MD noted that MSBA required that the project meet LEED or MaCHP's program. MD references the MA Carbon 2050 policy and the desire to provide information on how these are addressed and incorporated in the project. MD gave an overview of the differences between LEED and MaCHP's. MD noted the majority of schools in MA pursue and achieve the LEED certification. MaCHP's required more criteria to be met and additional paperwork and filings t be made. It was suggested that the Towns Environmental Sustainability Committee should be consulted on which certification to pursue.

   Liz Martin asked about the cost analysis of pursuing different classification of LEED – certified, silver, gold or platinum. MD advised that the project should be able to meet silver rating through design without much cost impact. If gold or platinum is to be achieved a cost analysis would be done to calculate the upcharge.

   Martine Dion advised that the new MA stretch Code would be implemented during the design phase of the project and so will need to be met. This will include a requirement for net zero readiness. Phil Renzi asked for a clarification on what "readiness" means. MD replied it means there must be a certain area of the roof dedicated to allow for future installation of PV panels and that the building must be designed and constructed with the infrastructure to allow for PV. MD clarified the code only required the roof to be PV read but she recommended that provisions parking canopies also be considered.

   Martine Dion presented the metrics by which energy use is measured – Energy Use Intensity (EUI). The goal is to achieve an EUI in the range of 25-30. By comparison the existing schools EUI is estimated to be 112EUI.

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WAKEFIELD PERMANENT BUILDING COMMITTEE WAKEFIELD HIGH SCHOOL BUILDING COMMITTEE	WAKEFIELD MEMORIAL HIGH SCHOOL MEETING NOTES #14

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Location:	Virtual "Zoom" Meeting
Time:	7:00pm
Prepared BY:	Shane Nolan – LeftField PM

Name			Present
Joseph Conway	Director of Public Works	(Non-Voting)	×
Julie Smith Galvin	Town Council	(Non-Voting)	×
Stephen P. Maio	Town Administrator	(Non-Voting)	×
Thomas Markham	School Committee Member	(Non-Voting)	×
Kevin Piscadlo	School Committee Member	(Non-Voting)	×
Doug Lyons	Superintendent of Schools	(Non-Voting)	×
Tim O'Brien	Facilities Director	(Non-Voting)	×
Joseph B. Bertrand	Permanent Building Committee, Chair	(Voting)	✓
Timothy Demers	Permanent Building Committee	(Voting)	✓
Charles L. Tarbell	Permanent Building Committee, Secretary	(Voting)	×
Jason Cohen	Permanent Building Committee	(Voting)	✓
Janine R. Fabiano	Permanent Building Committee	(Voting)	✓
John McDonald	Permanent Building Committee	(Voting)	✓
Tom Galvin	Permanent Building Committee	(Voting)	✓
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Nasos Phillips	Permanent Building Committee	(Non-Voting)	×
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Joseph Mullaney	Wakefield Memorial High School Asst. Principal	(Non-Voting)	×
James Sullivan	Finance Committee	(Non-Voting)	×
Ian McKinnon	Community Member	(Non-Voting)	×
Jeffrey Cohen	Community Member	(Non-Voting)	×
Elizabeth Martin	Community Member	(Non-Voting)	✓
Ray Thompson	Community Member	(Non-Voting)	×
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Robert Arcari	Community Member	(Non-Voting)	×
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Greg Liakos	Community Member	(Non-Voting)	×
William Karvouniaris	Community Member	(Non-Voting)	×

Name		Present
Lynn Stapleton	Leftfield Project Management	✓
Shane Nolan	Leftfield Project Management	✓
Helen Fantini	SMMA	✓
Martine Dion	SMMA	✓

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3. Administrative Actions
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   Martine Dion presented the metrics by which energy use is measured – Energy Use Intensity (EUI). The goal is to achieve an EUI in the range of 25-30. By comparison the existing schools EUI is estimated to be 112EUI.

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MD gave an o overview of some of the strategies that can be implemented to achieve this including insulation, electric heating and cooling, efficient lights and controls, plug load control and commissioning.

Liz Martin asked about Passive House strategy. MD noted that the project is not pursuing Passive House certification at this time.

9. Next Permanent Building Committee/School Building Committee meeting: February 24, 2022

Attachments:

- LeftField Presentation 02/10/22
- SMMA Presentation 02/10/22

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WAKEFIELD MEMORIAL HIGH SCHOOL

1. Administrative Actions

Review of February Invoices

INVOICES						
ProPay Code	**Budget Category**	**Vendor**	**Invoice #**	**Date**	**Amount**	**Balance After Invoice**
0001-0000	OPM Feasibility Study	LeftField	10	02/28/22	$ 22,000.00	$ 191,000.00
0002-0000	A&E Feasibility Study	SMMA	56308	02/11/22	$ 71,500.00	$ 647,000.00
					$ 93,500.00	

MEMORANDUM

To: Joseph Bertrand

From: Lynn Stapleton, LeftField, LLC

Date: March 3, 2022

Re: Wakefield Memorial High School Project – February 2022 Invoice Summary

cc: Adam Keane, LeftField, LLC

Enclosed for approval and processing, please find the following invoices:

INVOICES						
ProPay Code	**Budget Category**	**Vendor**	**Invoice #**	**Date**	**Amount**	**Balance After Invoice**
0001-0000	OPM Feasibility Study	LeftField	10	02/28/22	$ 22,000.00	$ 191,000.00
0002-0000	A&E Feasibility Study	SMMA	56308	02/11/22	$ 71,500.00	$ 647,000.00
					$ 93,500.00	

If you have any questions, please contact Shane Nolan, Owners Project Manager, LeftField at (617) 921 2830

LEFTFIELD

Joseph B. Bertrand
Permanent Building Committee Chair
Town of Wakefield
1 Lafayette Street
Wakefield, MA 01880

Invoice Date: 02/28/22
Invoice No: 10

FOR: Owner's Project Management Services
Wakefield Memorial High School Project
60 Farm Street, Wakefield MA 01880

Professional Services from February 1 - February 28, 2022

OPM Services	Amount
Basic Services - Feasibility Study Phase	$22,000

Total Fees: $ 22,000.00

Reimbursable Expenses	Amount
Reimbursables	$0.00

Total Reimbursable Expenses: $0.00

Total this Invoice: $ 22,000.00

OPM Basic Services	Budget	Previous	Current	Total To Date	Balance
Feasibility Study/Schematic Design Phase	$375,000	$162,000	$22,000	$184,000	$191,000
Design Development Phase	$0	$0	$0	$0	$0
Construction Documents Phase	$0	$0	$0	$0	$0
Bidding Phase	$0	$0	$0	$0	$0
Construction Phase	$0	$0	$0	$0	$0
Close-out Phase	$0	$0	$0	$0	$0
OPM Basic Services Total:	$375,000	$162,000	$22,000	$184,000	$191,000

Reimbursable Services	Budget	Previous	Current	Total To Date	Balance
Reimbursable Expenses Total:	$0	$0	$0	$0	$0

Total Contract:	$375,000	$162,000	$22,000	$184,000	$191,000

Please Remit Payment To:
LeftField, LLC
17 Highfield Lane
Norwell, MA 02061

APPROVED BY:

Joseph Bertrand/Chip Tarbell
Chairman/Secretary
Permanent Building Committee

Date:

SMMA

Mr. Joseph B. Bertrand
Permanent Building Committee Chair
Town of Wakefield
1 Lafayette Street
Wakefield, MA 01880

February 11, 2022
Project No: 21081.00
Invoice No: 0056504

Project 21081.00 Wakefield Memorial High School

Professional Services from December 25, 2021 to January 21, 2022

Fee

Billing Phase	Fee	Percent Complete	Earned	Previous Fee Billing	Current Fee Billing
Feasibility Study	550,000.00	56.00	308,000.00	236,500.00	71,500.00
Schematic Design	405,000.00	0.00	0.00	0.00	0.00
Total Fee	955,000.00		308,000.00	236,500.00	71,500.00
		Total Fee			**71,500.00**
				Total this Invoice	**$71,500.00**

Outstanding Invoices

Number	Date	Balance
0056308	1/25/2022	131,399.95
Total		**131,399.95**

Billings to Date

	Current	Prior	Total
Fee	71,500.00	236,500.00	308,000.00
Consultant	0.00	89,746.03	89,746.03
Totals	**71,500.00**	**326,246.03**	**397,746.03**

Authorized By: Helen Fantini

APPROVED
Leftfield PM
02/17/2022

APPROVED BY:

Joseph Bertrand/Chip Tarbell
Chairman/Secretary
Permanent Building Committee

Date:

1000 Massachusetts Avenue
Cambridge, MA 02138

275 Promenade Street, Suite 275
Providence, RI 02908

617.547.5400
www.smma.com

WAKEFIELD MEMORIAL HIGH SCHOOL

1. Administrative Actions

Update on MSBA PDP Review Comments

The predominate theme of the MSBA comments was the request for additional information on the categories of space that exceeded MSBA Guidelines – how the individual spaces are utilized, staffed and their role within the District's Educational Plan. This information will help the MSBA to determine how much of the overage in square footage that the MSBA will participate in reimbursement on.

The overage in square footage of some of the spaces such as the District Office, WCAT, Black Box Theater, Governor Volpe Archives, etc. were determined to be acceptable but ineligible for reimbursement.

The Field House was the only space that was noted to be against MSBA Policy and therefore categorically ineligible. MSBA indicated that they would participate in up to 18,000 SF, if substantiated, and would not participate at all in a project that exceeded 18,000 SF. MSBA has been asked the parameters for which the Town could separately fund a Field House in order to maintain MSBA participation in funding the High School project.

Schedule

MSBA Review Comments Received	March 1, 2022
Initial Comments Review Meeting	March 3, 2022
Response Coordination Meeting	March 8, 2022
Responses Due to MSBA	March 14, 2022

ATTACHMENT A
MODULE 3 – PRELIMINARY DESIGN PROGRAM REVIEW COMMENTS

District: Town of Wakefield
School: Wakefield Memorial High School
Owner's Project Manager: Leftfield, LLC
Designer Firm: Symmes Maini & McKee Associates, Inc.
Submittal Due Date: March 09, 2022
Submittal Received Date: February 03, 2022
Review Date: February 3 – February 24, 2022
Reviewed by: M. Esdale, V. Dagkalakou, C. Forde, C. Alles, J. Jumpe

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MSBA REVIEW COMMENTS

The following comments[1] on the Preliminary Design Program ("PDP") submittal are issued pursuant to a review of the project submittal document for the proposed project presented as a part of the Feasibility Study submission in accordance with the MSBA Module 3 Guidelines.

3.1 PRELIMINARY DESIGN PROGRAM

Overview of the Preliminary Design Program Submittal	Complete	Provided; *Refer to comments following each section*	Not Provided; *Refer to comments following each section*	Receipt of District's Response; *To be filled out by MSBA Staff*
OPM Certification of Completeness and Conformity	☐	☒	☐	☐
Table of Contents	☒	☐	☐	☐
3.1.1 Introduction	☐	☒	☐	☐
3.1.2 Educational Program	☐	☒	☐	☐
3.1.3 Initial Space Summary	☐	☒	☐	☐
3.1.4 Evaluation of Existing Conditions	☐	☒	☐	☐
3.1.5 Site Development Requirements	☐	☒	☐	☐
3.1.6 Preliminary Evaluation of Alternatives	☐	☒	☐	☐
3.1.7 Local Actions and Approvals Certification(s)	☐	☒	☐	☐
3.1.8 Appendices	☒	☐	☐	☐

An OPM Certification of Completeness and Conformity was not provided with the initial submittal but was subsequently submitted to the MSBA electronically on February 14, 2022. The District and project team is reminded of the importance of such certifications and future submittals should not be

[1] The written comments provided by the MSBA are solely for purposes of determining whether the submittal documents, analysis process, proposed planning concept and any other design documents submitted for MSBA review appear consistent with the MSBA's guidelines and requirements, and are not for the purpose of determining whether the proposed design and its process may meet any legal requirements imposed by federal, state or local law, including, but not limited to, zoning ordinances and by-laws, environmental regulations, building codes, sanitary codes, safety codes and public procurement laws or for the purpose of determining whether the proposed design and process meet any applicable professional standard of care or any other standard of care. Project designers are obligated to implement detailed planning and technical review procedures to effect coordination of design criteria, buildability, and technical adequacy of project concepts. Each city, town and regional school district shall be solely responsible for ensuring that its project development concepts comply with all applicable provisions of federal, state, and local law. The MSBA recommends that each city, town and regional school district have its legal counsel review its development process and subsequent bid documents to ensure that it is in compliance with all provisions of federal, state and local law, prior to bidding. The MSBA shall not be responsible for any legal fees or costs of any kind that may be incurred by a city, town or regional school district in relation to MSBA requirements or the preparation and review of the project's planning process or plans and specifications.

transmitted to the MSBA without the OPM's thorough review of the documentation and accompanied with the certification of completeness and conformity. Please acknowledge.

3.1.1 INTRODUCTION

	Provide the following Items	Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Summary of the Facility Deficiencies and Current S.O.I.	☒	☐	☐	☐
2	Date of invitation to conduct a Feasibility Study and MSBA Board Action Letter	☒	☐	☐	☐
3	Executed Design Enrollment Certification	☒	☐	☐	☐
4	Narrative of the Capital Budget Statement and Target Budget	☐	☒	☐	☐
5	Project Directory with contact information	☒	☐	☐	☐
6	Updated Project Schedule	☒	☐	☐	☐

MSBA Review Comments:

4) The information provided in this submittal indicates that the estimated total project cost for this project could range from $150-$232 million, exclusive of MSBA reimbursement. For reference, the OPM Request for Services indicated an estimated total project cost range of $100-$200 million, and the Designer Request for Services indicated an estimated construction cost range of $90-$140 million. In response to these review comments, describe this variation and provide information that indicates that the District has discussed and acknowledged the increase in estimated costs. Also, please indicate how the District and design team intend to maintain the District's project budget through schematic design.

No further review comments for this section.

3.1.2 EDUCATIONAL PROGRAM

Provide a summary and description of the existing educational program, and the new or expanded educational vision, specifications, process, teaching philosophy statement, as well as the District's curriculum goals and objectives of the program. Include description of the following items:

	Provide the following Items	Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Grade and School Configuration Policies	☒	☐	☐	☐
2	Class Size Policies	☐	☒	☐	☐
3	School Scheduling Method	☐	☒	☐	☐
4	Teaching Methodology and Structure				
	a) Administrative and Academic Organization/Structure	☒	☐	☐	☐

	b) Curriculum Delivery Methods and Practices	☐	☒	☐	☐
	c) English Language Arts/Literacy	☐	☒	☐	☐
	d) Mathematics	☒	☐	☐	☐
	e) Science	☐	☒	☐	☐
	f) Social Studies	☒	☐	☐	☐
	g) World Languages	☐	☒	☐	☐
	h) Academic Support Programming Spaces	☒	☐	☐	☐
	i) Student Guidance and Support Services	☐	☒	☐	☐
5	Teacher Planning and Professional Development	☐	☒	☐	☐
6	Pre-kindergarten	☐	☐	☐	☐
7	Kindergarten	☐	☐	☐	☐
8	Lunch Programs	☐	☒	☐	☐
9	Technology Instruction Policies and Program Requirements	☐	☒	☐	☐
10	Media Center/Library	☐	☒	☐	☐
11	Visual Arts Programs	☐	☒	☐	☐
12	Performing Arts Programs	☐	☒	☐	☐
13	Physical Education Programs	☐	☒	☐	☐
14	Special Education Programs	☒	☐	☐	☐
15	Vocation and Technology Programs				
	a) Non-Chapter 74 Programming	☐	☒	☐	☐
	b) Chapter 74 Programming	☐	☐	☐	☐
16	Transportation Policies	☐	☒	☐	☐
17	Functional and Spatial Relationships	☐	☒	☐	☐
18	Security and Visual Access Requirements	☐	☒	☐	☐

MSBA Review Comments:

In response to these review comments, please address the comments below. As part of the District's Preferred Schematic Report ("PSR") include (2) copies of the updated educational program, (1) redlined copy and (1) clean copy. The updated educational program must address the comments below, include District updates, provide a Designer response for each component of the educational program, and align with the District's Preferred Schematic. Please acknowledge.

2) In response to these review comments, describe the anticipated utilization of both General and Elective courses, how they are intended to be managed and assigned, and demonstrate their need in the proposed project. Additionally, provide information that breaks down some of the General classroom size requirements.

3) The educational program notes that there are no planned changes to the school's current scheduling method. In response to these review comments, provide additional information that demonstrates how the current school schedule will accommodate the District's anticipated educational program goals.

Please consider using some of the 48-minute periods to split full classes so that some of the students are engaged in small-group project work while others are having advisory time.

Regarding the cafeteria scheduling, note that the MSBA guidelines provide for a cafeteria sized for three seating periods, not two as indicated in the educational program. The initial space summary appears to indicate a cafeteria based on the correct three seating standard. Please clarify and coordinate.

4b) In response to these review comments, provide additional information associated with the Large Group Instruction space that describes the scheduling, staffing, and overall utilization of this space. Also, describe potential adjacencies and common planning time relating to these programs.

4c) In encouraging a transition to more inter-disciplinary courses, please describe if schedules and physical facilities also support the inclusion of "specials" (visual and performing arts, physical education and health, English Language Learners) with the traditional academic disciplines.

4e) In response to these review comments, please provide the following information:

- *Describe if, during the second half of senior year, non-AP courses can provide students with the opportunity to explore intriguing/challenging ideas and subjects in a low-risk environment.*
- *Please note that the second half of senior year is an ideal time to provide students with the opportunity to explore topics and challenges they might otherwise not try either in high school or college.*

Additionally, please ensure that science/engineering spaces conform to MSBA guidelines that are designed to create safe laboratory spaces that have maximum flexibility to support present and future instruction with the least cost for future renovation and reconstruction.

4g) Please provide additional information regarding the World Language program and how it allows/encourages English Learners to participate in courses involving the ELL students primary language. Describe the District's plan to give the opportunity to ELL students to take World Language courses, if any.

4i) In response to these review comments, please describe the District's plan to have teachers identify course work and projects that engage multiple disciplines to explore topics that intrigue them, if any.

Additionally, please describe the District's plan to consider some of these courses/projects to be a semester long rather than year-long, if any. For example, a statistics course might be developed between math and science teachers that help students better understand how the FDA examines data for the approval of Covid-19 vaccines, tests, and drugs. But English, social studies and science teachers may wish to create a course that examines the ethics and social responsibilities related to science research and experimentation. They could examine current or historic human-subject experimentation and include reading The Immortal Life of Henrietta Lacks (Rebecca Skloot) and the Measure of Man (Stephen Jay Gould).

5) In response to these review comments, provide additional information that indicates the type of support services the District will provide to assist in the transition that teachers will need to make as the District moves from a more traditional high school to one that embraces more cross-disciplinary and collaborative learning, and future-looking education programs. Clarify the District's approach to scheduling teacher preparation periods in order to support interdisciplinary sharing, including sharing between teachers in core academic departments and specials.

In addition, please describe whether the District has considered providing additional professional and curricular development opportunities outside the regular school year that would enable teachers

extended times to prepare for changes in the curriculum and structure as a result of the proposed project.

8) In response to these review comments, please clarify whether the District provides breakfast for the student population.

The educational program notes that the preparation area will be a full-service kitchen. Provide additional information that describes any consideration of equipment and design to support maximum recycling and minimize food waste.

Additionally, the educational program describes two lunch periods. See comment (3) above regarding MSBA guidelines for cafeteria seating periods. Please acknowledge.

9) The MSBA suggests the District consider providing assisted listening technology in each classroom, as well as general use throughout educational spaces within the proposed project for hearing impaired accessibility. Please acknowledge.

Additionally, please provide the following information:

- *Please describe the District's plan for students to use their technology devices at home, if any.*
- *If yes, describe whether the District has a regular program to ensure that all students have access to internet at home.*
- *Additionally, please describe any arrangements that are in place to ensure all the devices are properly licensed to use the software required by the curriculum.*

10) In response to these review comments, provide additional information associated with professional staffing for the proposed Library/Media Lab. Please confirm that professional-level library-science and technical skills will be required by the District's staff to ensure that materials are properly vetted, and users acquire appropriate knowledge and skills in utilizing the technological equipment and services provided.

11) Please note art storage should include secure and appropriately ventilated space for toxic and hazardous materials as well as an accessible file of SDS (safety data sheets). Please acknowledge.

12) The educational program indicates that a dedicated room for uniform storage, percussion equipment, and sheet music storage will be provided. Please describe how this space will be safe, well organized, and easily accessible.

13) The educational program provided suggests incorporating a Fitness Center / Weight Room and a Physical Therapy & Athletic Training Treatment space. However, the MSBA notes that these spaces were not included in the space summary provided. Please clarify and coordinate.

Additionally, in response to these review comments, please describe how the Field House relates to the PE Alternatives and the Gymnasium, provide specific details and diagrams about these programs, and describe the space required to deliver these programs. Also, include additional information with preliminary diagrams that show the adjacencies to the proposed gymnasium space, and how the District will support the use of such space by special-needs students such as for adaptive PE and physical therapy.

Please provide the following information:

- *Please describe the District's plan for students to engage in rigorous physical activity every day during the school year, especially on days and/or semesters when a Wellness class is not scheduled, if any.*
- *Please provide additional info on whether the schedule for Wellness class includes sufficient time for students to change and shower.*

15a) In response to these review comments, provide additional information that describes the scheduling, staffing, and overall utilization of these spaces.

16) The educational program indicates several challenges with the current transportation policies. However, there are no proposed changes. Please describe how these challenges will be addressed in the subsequent submittals. Please acknowledge.

17) In response to these review comments, please provide additional information that further describes the connections of the proposed spaces.

18) In response to these review comments, please confirm that first responding emergency representatives will be consulted in the planning process and associated requirements will be incorporated into the Preferred Schematic.

Please note additional comments on the educational plan beyond those listed above may be forthcoming.

3.1.3 INITIAL SPACE SUMMARY

Provide the following Items		Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Space summary; one per approved design enrollment	☐	☒	☐	☐
2	Floor plans of the existing facility	☒	☐	☐	☐
3	Narrative description of reasons for all variances (if any) between proposed net and gross areas as compared to MSBA guidelines	☒	☐	☐	☐

MSBA Review Comments:

1) The MSBA has performed a preliminary review of the new construction space summary for 1,000 students in grades 9-12 and offers the following:

- ***Core Academic** – The proposed square footage for this category exceeds the MSBA guidelines by 14,090 net square feet ("nsf"). Based on the information provided, the following spaces have been proposed for the District to deliver its educational program:*

Anticipated Core Academic Spaces	***Grades 9-12 for 1000students***		
	Proposed No. Rooms	*MSBA Guidelines No. Rooms*	*Variance*
Classroom - General	*46*	*34*	*+12*
Teacher Planning	*46*	*34*	*+12*

Small Group Seminar (20-30 seats)	*2*	*2*	*0*
Science Classroom / Lab	*10*	*9*	*+1*
Prep Room	*9*	*9*	*0*
Central Chemical Storage Room	*1*	*1*	*0*
ELL Classroom	*1*	*0*	*+1*
Large Group Instruction	*1*	*0*	*+1*

The District is proposing the following spaces:

- ***Classroom – General –*** *The District is proposing (46) 825 nsf General Classrooms totaling 37,950 nsf, which exceeds the MSBA guidelines by (12) classrooms and a total of 9,050 nsf. Prior to considering this significant variation to the MSBA guidelines, the District must provide a narrative in response to these review comments that supports the need for the proposed number of classrooms. Please note that the proposed number of classrooms contributes to an overall utilization rate of approximately 60%, which is well below MSBA's target of 85% utilization. The MSBA encourages the District and its consultants to continue to seek opportunities to increase efficiencies to better align with MSBA guidelines. Additionally, note that 825 nsf is the minimum size for a high school General Classroom, and should any classroom be reduced to below 825 nsf during subsequent phases of design, the District will be required to adjust the design as necessary to meet these minimum criteria.*
- ***Teacher Planning*** *– The District is proposing (46) 100 nsf Teacher Planning areas totaling 4,600 nsf, which exceeds the MSBA guidelines by 1,200 nsf. In response to these review comments, provide information that describes the proposed location and adjacencies of the (46) Teacher Planning areas.*
- ***Small Group Seminar (20-30 seats)*** *– The District is proposing (2) 500 nsf Small Group Seminar areas totaling 1,000 nsf which aligns with the MSBA guidelines. No further preliminary comments.*
- ***Science Classroom / Lab*** *– The District is proposing (10) 1,440 nsf Science Classrooms totaling 14,440 nsf, which exceeds the MSBA guidelines by (1) 1,440 nsf space. Please note, prior to the MSBA accepting this variation to the guidelines, the District should provide a narrative that describes the need for an additional Science Lab exceeding the MSBA guidelines.*
- ***Prep Room*** *– The District is proposing (9) 200 nsf Prep Rooms totaling 1,800 nsf, which aligns with the MSBA guidelines. However, the District is proposing (10) Science Classrooms/Labs. Please note each Science Classroom/Lab must have a 200 nsf Prep Room associated with it. Please revise and acknowledge.*
- ***Central Chemical Storage Room*** *– The District is proposing one (1) 200 nsf Central Chemical Storage Room, which aligns with the MSBA guidelines. No further preliminary comments.*
- ***English Language Learners ("ELL")*** *– The District is proposing (1) 400 nsf ELL classrooms totaling 400 nsf, which exceeds the MSBA guidelines. In response to these*

review comments, describe how the proposed ELL classroom will be scheduled and staffed.

- ***Large Group Instruction*** *– The District is proposing (1) 2,000 nsf Large Group Instruction room totaling 2,000 nsf, which exceeds the MSBA guidelines. In response to these review comments, provide additional information that describes the scheduling, staffing, and overall utilization of this space. In the subsequent PSR submittal, the District must fully describe the function, intended users and scheduling of this space.*

- ***Special Education*** *– The proposed square footage for this category exceeds the MSBA guidelines by 2,025 nsf. In response to these review comments, please relocate the following spaces to the 'Administration and Guidance' category.*
  - *(1) 150 nsf SPED Coordinator Office;*
  - *(1) 400 nsf SPED Conference Room; and*
  - *(2) 150 nsf School Psychologist spaces, totaling 300 nsf.*

  Please note that the Special Education program is subject to approval by the Department of Elementary and Secondary Education ("DESE"). The District should provide the required information required with the Schematic Design submittal. Formal approval of the District's proposed Special Education program by the DESE is a prerequisite for executing a Project Funding Agreement with the MSBA. Please acknowledge

- ***Art & Music / Vocations & Technology*** *– The combined proposed square footage for these categories exceeds the MSBA guidelines by 4,175 nsf. The MSBA encourages the District and its consultants to continue to seek opportunities to increase efficiencies and align with MSBA guidelines. Please relocate "Band Storage" to the non-programmed category of the space summary. Please note that square footage exceeding MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.*

- ***Health & Physical Education*** *– The proposed square footage for this category exceeds the MSBA guidelines by 7,375 nsf. Please relocate the following space:*
  - *(1) 825 nsf Health Classroom to the 'Core Academic' category. Additionally, note that any square footage exceeding MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.*

  Please refer to the attached memo regarding the MSBA's policy on physical education square footage in excess of the MSBA guidelines. The policy states: "The district may choose to build a gymnasium and related spaces in excess of MSBA guidelines, but in no event shall the gymnasium exceed 18,000 nsf. The MSBA will participate in a gymnasium of up to 12,000 nsf unless adjusted by the MSBA to increase teaching stations for enrollment and/or the educational plan." Additionally, areas in excess of the MSBA guidelines will be at the sole expense of the district; and the MSBA will exclude from its grant the cost of the total gross square foot ("gsf") in excess of the guidelines for these areas. Square footage in excess of the guidelines will be considered ineligible for reimbursement. Please acknowledge.

  In addition, the Space Summary includes a 12,000 nsf Field House in the 'Other' category. However, in the educational program, it is described as part of the 'Health & Physical Education' category. Refer to comment above in Section 3.1.2, Item 13. Please note that the MSBA will not participate in a new construction option that includes square footage that exceeds

the physical education policy referenced above. The proposed design and space summary should be adjusted accordingly in advance of further development of new construction options. Please acknowledge.

- ***Media Center*** *– The proposed square footage for the category exceeds the MSBA guidelines by 600 nsf. Please further describe how the proposed square footage is required to meet the needs of the educational program and provide student utilization and any other information that explains the need for the additional space. The MSBA encourages the District and its consultants to continue to seek opportunities to increase efficiencies and align with MSBA guidelines. Please note that square footage exceeding MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.*

- ***Auditorium/Drama*** *– The proposed square footage for this category aligns with the MSBA guidelines. No further preliminary comments.*

- ***Dining & Food Service*** *– The proposed square footage for this category aligns with the MSBA guidelines. Please note the MSBA guidelines are based on three seatings for high school populations. Please indicate how many lunches the District proposes to have moving forward and explain the District's rationale for the proposed number of seatings.*

- ***Medical*** *– The proposed square footage for this category aligns with the MSBA guidelines. No further preliminary comments.*

- ***Administration & Guidance*** *– The proposed square footage for this category exceeds MSBA guidelines by 1,720 nsf. The MSBA encourages the District and its consultants to continue to seek opportunities to increase efficiencies and align with MSBA guidelines. Please note that square footage exceeding MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.*

- ***Custodial & Maintenance*** *– The proposed square footage for this category aligns with the MSBA guidelines. No further preliminary comments.*

- ***Other*** *– The District is proposing 23,866 nsf for this category which exceeds the MSBA guidelines. The following spaces are proposed:*

    - ***Wakefield Public School ("PS") Central Office –*** *The District is proposing (1) 3,010 nsf Wakefield PS Central Office in excess of the MSBA guidelines. Please note that square footage exceeding MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.*

    - ***Wakefield Community Access TV ("WCAT") Studio –*** *The District is proposing (1) 5,200 nsf WCAT Studio in excess of the MSBA guidelines. Please note that square footage exceeding MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.*

    - ***Governor John Volpe Archives –*** *The District is proposing (1) 200 nsf Governor John Volpe Archives in excess of the MSBA guidelines. Please note that square footage exceeding MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.*

    - ***Field House –*** *It appears that the District is proposing a 12,000 nsf Field House in addition to the proposed square footage indicated in the Physical Education section*

above. Please also note that if this is an existing space, it is not listed in the space summary provided. Please clarify and provide an updated space summary to reflect accurate existing and proposed square footage, if necessary. Please note that the MSBA will not participate in a new construction option that includes square footage in excess of the physical education policy referenced above.
Note that square footage exceeding MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.

- ***Black Box Theater Replication 3456 –*** *The District is proposing (1) 3,456 nsf Black Box Theater Replication in excess of the MSBA guidelines. Please include additional information with preliminary diagrams that show the adjacencies to the proposed Black Box Theater space and how the District will support the use of such space by special-needs students. Please note that square footage exceeding MSBA guidelines will be considered ineligible for reimbursement. Please acknowledge.*

Please note that upon selection of a Preferred Schematic, the District may be required to adjust spaces/square footage that exceeds the MSBA guidelines and is not supported by the educational program provided.

No further review comments for this section.

3.1.4 EVALUATION OF EXISTING CONDITIONS

Provide the following Items		Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Confirmation of legal title to the property.	☒	☐	☐	☐
2	Determination that the property is available for development.	☒	☐	☐	☐
3	Existing historically significant features and any related effect on the project design and/or schedule.	☐	☒	☐	☐
4	Determination of any development restrictions that may apply.	☐	☒	☐	☐
5	Initial Evaluation of building code compliance for the existing facility.	☒	☐	☐	☐
6	Initial Evaluation of Architectural Access Board rules and regulations and their application to a potential project.	☐	☒	☐	☐
7	Preliminary evaluation of significant structural, environmental, geotechnical, or other physical conditions that may impact the cost and evaluations of alternatives.	☒	☐	☐	☐
8	Determination for need and schedule for soils exploration and geotechnical evaluation.	☐	☒	☐	☐
9	Environmental site assessments minimally consisting of a Phase I: Initial Site Investigation performed by a licensed site professional.	☐	☒	☐	☐

Provide the following Items		Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
10	Assessment of the school for the presence of hazardous materials.	☐	☒	☐	☐
11	Previous existing building and/or site reports, studies, drawings, etc. provided by the district, if any.	☐	☒	☐	☐

MSBA Review Comments:

3) The information provided indicates a Project Notification Form ("PNF") will be submitted to the Massachusetts Historical Commission ("MHC") during schematic design. Please note MHC approval is required prior to construction bids. Additionally, the District should keep the MSBA informed of any decisions and/or proposed actions and should confirm that the proposed project is in conformance with Massachusetts General Law 950, CRM 71.00. Please acknowledge.

4) The information provided indicates that the development at the existing site will require a Notice of Intent filing with the Wakefield Conservation Commission and it requires a Stormwater Management Permit by the Wakefield Department of Public Works. In response to these review comments, identify any potential issues and steps that may be required for these resolutions if any. Additionally, please ensure that future versions of the project schedule will include dates of anticipated approvals and key steps.

6) A review of accessibility requirements was not found. In response to these review comments, describe how these would be applied to a potential project.

8) The report provided by Lahlaf Geotechnical Consultants, indicates that additional testing should be done during the SD phase to explore borings with rock cores and test pits as well as groundwater observation to monitor the groundwater level at the site. Provide any updated information in the subsequent PSR submittal. Also, in response to these review comments, provide the timeline associated with this work and note that all cost increases subsequent to a Project Scope and Budget Approval from the MSBA's Board of Directors will be the sole responsibility of the District. Please acknowledge.

9) The report provided by ADS Environmental Engineering identified two fuel oil underground storage tanks ("USTs") at the property and recommended that both UST areas need to be assessed for releases of fuel oil to the environment. The report also recommends subsurface explorations and chemical testing as part of Phase II. Note that all costs associated with abatement of contaminated soil from any source, and abatement of fuel storage tanks must be itemized in the cost estimates in subsequent submittals and is considered ineligible for MSBA reimbursement. Please acknowledge.

10) Note that all costs associated with the removal of flooring and ceiling materials containing asbestos are ineligible for MSBA reimbursement. The project team should be aware of the current policies associated with MSBA's participation in the abatement and removal of hazardous materials. Please acknowledge.

11) In response to these review comments, provide any previous existing building and/or site reports, studies, drawings, etc. provided by the District.

No further review comments for this section.

3.1.5 SITE DEVELOPMENT REQUIREMENTS

Provide the following Items		Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	A narrative describing project requirements related to site development to be considered during the preliminary and final evaluation of alternatives.	☐	☒	☐	☐
2	Existing site plan(s)	☐	☒	☐	☐

MSBA Review Comments:

1) The information provided indicates that the District considered the following 3 parcels for development:

- *Wakefield Memorial High School Parcel, 10.6 acres that include the existing high school building.*
- *Beasley Oval Parcel, 9.9 acres is located east of the existing high school building, and it is one of the three individual properties that comprise the existing Wakefield Memorial High School Campus owned by the Town.*
- *Walsh Field Parcel, 22.6 acres is located south of the existing High School parcel, and it is one of the three individual properties that comprise the existing Wakefield Memorial High School Campus owned by the Town.*

In response to these review comments, please describe how the site constraints are impacting the design options explored in the Preliminary Evaluation of Alternatives section.

Additionally, describe how the onsite number of parking spaces for each of staff, student drivers, and visitors will be determined. Describe whether the required parking will be determined by school needs, after-hours athletic/performance needs, and/or local zoning requirements. In addition, provide a timeline associated with the needed permits, filings, and reviews discussed in this section.

Also, as part of the District's PSR submittal, provide site section(s) that illustrates how the Preferred Schematic sits on the site and how the proposed location impacts access and circulation. Please acknowledge.

2) In response to these review comments, provide the following:

- *Circulation diagrams that identify the existing:*
  - *Bus and parent drop-off/pick-up locations;*
  - *Vehicular and pedestrian circulation; and*
  - *Emergency vehicle access.*
- *Also, provide diagram(s) and a narrative that describes how a physically challenged individual currently accesses the existing building.*

In the subsequent PSR submittal, provide site plans in 11"x17" format that clearly identify the following features for the site of the Preferred Schematic:

- *Structures and fences;*
- *Site access and circulation;*
- *Parking and paving;*
- *Accessibility requirements;*
- *Easements;*
- *Wetlands and/or flood restrictions;*
- *Emergency vehicle access;*
- *Safety and security requirements;*
- *Utilities and drainage; and*
- *Site orientation and other location considerations.*

No further review comments for this section.

3.1.6 PRELIMINARY EVALUATION OF ALTERNATIVES

Provide the following Items		Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Analysis of school district student school assignment practices and available space in other schools in the district	☒	☐	☐	☐
2	Tuition agreement with adjacent school districts	☒	☐	☐	☐
3	Rental or acquisition of existing buildings that could be made available for school use	☒	☐	☐	☐
4	Code Upgrade option that includes repair of systems and/or scope required for purposes of code compliance; with no modification of existing spaces or their function	☒	☐	☐	☐
5	Renovation(s) and/or addition(s) of varying degrees to the existing building(s)	☒	☐	☐	☐
6	Construction of new building and the evaluation of potential locations	☒	☐	☐	☐
7	List of 3 distinct alternatives (including at least 1 renovation and/or addition option) are recommended for further development and evaluation.	☐	☒	☐	☐

MSBA Review Comments:

7) As part of the Preliminary Evaluation of Alternatives, the District explored the following (11) options. The (3) options denoted with an asterisk (*) are the options that the District intends to further evaluate as part of their PSR submittal:

- ***Option 1*:*** *Code Upgrade / Base Repair for grades 9-12 with an enrollment of 1,000 students at the existing Wakefield Memorial High School; with an estimated project cost of $154.2 million.*
- ***Option 2A*:*** *Addition/renovation (existing building footprint) for 1,000 students grades 9-12 at the existing Wakefield Memorial High School, renovating 106,373 gsf and totaling 256,900 gsf; with an estimated project cost of $218.1 million.*
- *Option 2B: Addition/renovation (existing building footprint) for 1,000 students grades 9-12 at the existing Wakefield Memorial High School, renovating 142,345 gsf and totaling 256,900 gsf; with an estimated project cost of $217.3 million.*
- *Option 2C: Addition/renovation (Field House Renovation on Walsh Field) for 1,000 students grades 9-12 at the existing Wakefield Memorial High School, renovating 34,575 gsf and totaling 256,900 gsf; with an estimated project cost of $224.6 million.*
- *Option 2D: Addition/renovation (Field House Renovation on Walsh Field) for 1,000 students grades 9-12 at the existing Wakefield Memorial High School, renovating 34,575 gsf and totaling 256,900 gsf; with an estimated project cost of $218.6 million.*
- *Option 3A: New Construction (Grafton High School Model School design) for 1,000 students grades 9-12 at the existing Wakefield Memorial High School site on Beasley Oval, totaling 209,228 gsf; with an estimated project cost of $181.7 million.*
- ***Option 3B****: New Construction for 1,000 students grades 9-12 at the existing Wakefield Memorial High School site on Beasley Oval, totaling 275,900 gsf; with an estimated project cost of $225.9 million.*
- *Option 3C: New Construction for 1,000 students grades 9-12 at the existing Wakefield Memorial High School site on Beasley Oval, totaling 275,900 gsf; with an estimated project cost of $225.9 million.*
- *Option 4A: New Construction (North Middlesex Regional High School Model School design) for 1,000 students grades 9-12 at the existing Wakefield Memorial High School site on Walsh Field, totaling 198,126 gsf; with an estimated project cost of $180.1 million.*
- *Option 4B: New Construction for 1,000 students grades 9-12 at the existing Wakefield Memorial High School site on Walsh Field, totaling 275,900 gsf; with an estimated project cost of $231.8 million.*
- *Option 4C: New Construction for 1,000 students grades 9-12 at the existing Wakefield Memorial High School site on Walsh Field, totaling 275,900 gsf; with an estimated project cost of $231.8 million.*

The information provided on page 47 of Section 3.1.6 states:

> *"The addition/renovation Alternative 2a and new construction Alternative 3b represent the best and most cost-effective opportunities to meet the project goals and educational program. Alternative 1 is proposed to also be advanced into the PSR submittal as a significantly lower cost option."*

According to the information provided, the District voted to eliminate the following (8) options for further development:

- *Option 2B: The Addition/renovation of the existing building footprint. The District eliminated the option due to the concern for the potential for its cluster organization to translate to a building with greater clarity of form and expression of its community space and major circulation.*
- *Option 2C and 2D: The Addition/renovation (Field House Renovation on Walsh Field). The District chose to eliminate these options due to concerns with disruptions to student and education delivery due to the displacement of field house activities during the renovation.*
- *Option 3A: New Construction of the Grafton High School Model School on the Beasley Oval. This option was eliminated due to the lack of prominent school presence from Farm Street and the model school not providing the full desired program.*
- *Option 4A: New Construction of the North Middlesex Regional High School Model School on the existing Walsh Field. This option was eliminated due to constraints of the site with Farm Street vehicular traffic and the proximity to wetland resource area limits towards the rear of the building. The District also expressed concern with the limited understanding of the geotechnical factors and impact of the existing culvert under the existing Walsh Field site.*
- *Option 4B and 4C: New Construction on the existing Walsh Field. This option was eliminated due to constraints of the site with Farm Street vehicular traffic and the proximity to wetland resource area limits towards the rear of the building. The proposed options were also higher costs compared to renovation or model school options.*

Therefore, on February 1, 2022, after receiving the PDP submission, the District voted to include the following (3) options for further development:

- ***Option 1:** Code upgrade option at the existing Wakefield Memorial High School.*
- ***Option 2A**: Addition/renovation option on the existing footprint of the Wakefield Memorial High School.*
- ***Option 3B**: New construction option on the Beasley Oval of the existing Wakefield Memorial High School site.*

In response to these review comments, provide a narrative that describes criteria and constraints that prevented optimized solar orientation of the proposed building design. Also please address features and apparent constraints associated with 'Option 3B' regarding significant regrading and retaining walls, and limited access to the rear of the building due to the presence of wetland resources. This option also indicates potential relocation/re-alignment of Hemlock Road which is under the DCR jurisdiction. Please describe the process associated with this potential work. In addition, a portion of the proposed building appears to be within the buffer zone of wetland resources for this option. Please describe how the project team intends to address this constraint.

As part of the District's PSR submittal, please provide floor plan diagrams that include a key/legend for clarity that showcase all the spaces with adjacencies to further understand the connections of the proposed spaces. Please acknowledge.

Additionally, please provide a narrative that clearly documents why "Option 3C" was eliminated from further consideration.

No further review comments for this section.

3.1.7 LOCAL ACTIONS AND APPROVAL

Provide the following Items		Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Signed Local Actions and Approvals Certification: (original)	☐	☒	☐	☐
2	Certified copies of the School Building Committee meeting notes showing specific submittal approval vote language and voting results, and a list of associated School Building Committee meeting dates, agenda, attendees, and description of the presentation materials	☐	☒	☐	☐

MSBA Review Comments:

1) A signed Local Actions and Approvals certification was not provided with the initial submittal but was subsequently submitted to the MSBA electronically on February 14, 2022. The District is reminded of the importance of this document as it certifies that the signatories have a thorough understanding of the process and the contents of each submittal prior to transmitting to the MSBA. Owner's Project Managers ("OPM") should not transmit submittals to the MSBA that do not include signed Local Actions and Approvals certifications. Please acknowledge.

2) As noted in the OPM's cover letter, the School Building Committee minutes for the meeting in which the PDP was approved for submission to the MSBA are in draft form. Please provide a certified copy of the SBC meeting minutes, when available. Please acknowledge.

No further review comments for this section.

3.1.8 APPENDICES

Provide the following Items		Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Current Statement of Interest	☒	☐	☐	☐
2	MSBA Board Action Letter including the invitation to conduct a Feasibility Study	☒	☐	☐	☐
3	Design Enrollment Certification	☒	☐	☐	☐

MSBA Review Comments:

No review comments for this section.

Additional Comments:

The MSBA issues project advisories from time to time, as informational updates for Districts, OPMs, and Designers in an effort to facilitate the efficient and effective administration of proposed projects currently pending review by the MSBA. The advisories can be found on the MSBA's website. In response to these review comments, please confirm that the District's consultants have reviewed all project advisories and they have been incorporated into the proposed project as applicable.

Regarding Past Projects:
Both the MSBA's enabling legislation, M.G.L. c. 70B, and the MSBA's regulations, 963 CMR 2.00 et seq. specifically address the issue of past projects. MSBA records show a total MSBA payment of $97,758 for the Wakefield Memorial High School Addition/Renovation Project #201003050505 completed in January 2011. Additionally, MSBA records show the District received a lump sum payment of $94,009 in December 2007 for Project # W20034357.

Pursuant to these requirements and depending on the School District's ultimate plan for the School, the MSBA may recover a pro-rated portion of the financial assistance that the School District has received for previous renovation grants. The exact amount recovered will be established at the conclusion of the Schematic Design / Total Project Budget phase. Please see the MSBA website to view the MSBA's regulations, statute and closed school bulletin for additional information.

End

WAKEFIELD MEMORIAL HIGH SCHOOL

2. Wakefield Environmental Sustainability Committee

Project Input

TOWN OF
WAKEFIELD

ENVIRONMENTAL
SUSTAINABILITY COMMITTEE

WAKEFIELD MEMORIAL HIGH SCHOOL

5. PSR Schedule Review

- Permanent Building Committee Meetings for March and April 2022

- Confirm Dates for Public Forums

LEFTFIELD

WAKEFIELD MEMORIAL HIGH SCHOOL

MEETING SCHEDULE & AGENDA
Updated Mrch 2, 2022

WMHS Leadership Group	03/02/22	10:00AM		• Review MSBA PDPD Comments
Permanent Building Committee/ School Building Committee	03/03/22	7:00PM	Virtual ZOOM meeting	Wakefield Environmental Sustainability Committee MSBA PDP Review Comments Design Alternatives Review MEP System Review
WMHS Leadership Group	03/09/22	10:00AM	Virtual ZOOM meeting	
Permanent Building Committee/ School Building Committee	03/10/22	7:00PM	Virtual ZOOM meeting	Design Alternatives Review Site Review Define Sustainability & MEP Systems (incl. LEED or CHPs)
Submit info to Cost Estimators	03/11/22			
WMHS Public Forum #5 - TBC	03/15/22	7:00PM		• Design Alternatives • Sustainability Goals • MSBA Eligible and Reimbursable Costs Review
School Committee Meeting - TBC	03/15/22 or 03/29/22 TBC			
WMHS Leadership Group	03/16/22	10:00AM	Virtual ZOOM meeting	
Permanent Building Committee/ School Building Committee	03/17/22	7:00PM	Virtual ZOOM meeting	• Design Alternatives Review (if necessary)
WMHS Leadership Group	03/23/22	10:00AM	Virtual ZOOM meeting	
WMHS Public Forum #6 - TBC	03/24/22	7:00PM	Virtual ZOOM meeting	• Design Alternatives
WMHS Leadership Group	03/30/22	10:00AM	Virtual ZOOM meeting	
Focus Group - Exterior & Interior Group				TBD - Late March
Permanent Building Committee/ School Building Committee	03/31/22	7:00PM	Virtual ZOOM meeting	• Design Alternatives Review - SELECT PREFERRED OPTION • Project and Construction Costs
WMHS Leadership Group	04/06/22	10:00AM	Virtual ZOOM meeting	
WMHS Leadership Group	04/13/22	10:00AM	Virtual ZOOM meeting	
Permanent Building Committee/ School Building Committee	04/14/22	7:00PM	Virtual ZOOM meeting	• Advanced Preferred Option Review • Project and Construction Costs • DRAFT PSR TO PBC/SBC
WMHS Leadership Group	04/20/22	10:00AM	Virtual ZOOM meeting	
Permanent Building Committee/ School Building Committee	04/21/22	7:00PM	Virtual ZOOM meeting	APPROVE PSR SUBMISSION TO MSBA
WMHS Leadership Group	04/27/22	10:00AM	Virtual ZOOM meeting	
Permanent Building Committee/ School Building Committee	04/28/22	7:00PM	Virtual ZOOM meeting	APPROVE PSR SUBMISSION TO MSBA (if necessary)
SMMA SUBMIT PSR TO OPM	04/29/22			
SUBMIT PSR TO MSBA (MSBA Deadline)	05/04/22			

WMHS Leadership Group	03/02/22	10:00AM		• Review MSBA PDPD Comments
Permanent Building Committee/ School Building Committee	03/03/22	7:00PM	Virtual ZOOM meeting	Wakefield Environmental Sustainability Committee MSBA PDP Review Comments Design Alternatives Review MEP System Review
WMHS Leadership Group	03/09/22	10:00AM	Virtual ZOOM meeting	
Permanent Building Committee/ School Building Committee	03/10/22	7:00PM	Virtual ZOOM meeting	Design Alternatives Review Site Review Define Sustainability & MEP Systems (incl. LEED or CHPs)
Submit info to Cost Estimators	**03/11/22**			
WMHS Public Forum #5 - TBC	03/15/22	7:00PM		• Design Alternatives • Sustainability Goals • MSBA Eligible and Reimbursable Costs Review
School Committee Meeting - TBC	03/15/22 or 03/29/22 TBC			
WMHS Leadership Group	03/16/22	10:00AM	Virtual ZOOM meeting	
Permanent Building Committee/ School Building Committee	03/17/22	7:00PM	Virtual ZOOM meeting	• Design Alternatives Review (if necessary)
WMHS Leadership Group	03/23/22	10:00AM	Virtual ZOOM meeting	
WMHS Public Forum #6 - TBC	03/24/22	7:00PM	Virtual ZOOM meeting	• Design Alternatives
WMHS Leadership Group	03/30/22	10:00AM	Virtual ZOOM meeting	
Focus Group - Exterior & Interior Group				TBD - Late March
Permanent Building Committee/ School Building Committee	03/31/22	7:00PM	Virtual ZOOM meeting	• Design Alternatives Review - SELECT PREFERRED OPTION • Project and Construction Costs
WMHS Leadership Group	04/06/22	10:00AM	Virtual ZOOM meeting	
WMHS Leadership Group	04/13/22	10:00AM	Virtual ZOOM meeting	
Permanent Building Committee/ School Building Committee	04/14/22	7:00PM	Virtual ZOOM meeting	• Advanced Preferred Option Review • Project and Construction Costs • DRAFT PSR TO PBC/SBC
WMHS Leadership Group	04/20/22	10:00AM	Virtual ZOOM meeting	
Permanent Building Committee/ School Building Committee	04/21/22	7:00PM	Virtual ZOOM meeting	APPROVE PSR SUBMISSION TO MSBA
WMHS Leadership Group	04/27/22	10:00AM	Virtual ZOOM meeting	
Permanent Building Committee/ School Building Committee	04/28/22	7:00PM	Virtual ZOOM meeting	APPROVE PSR SUBMISSION TO MSBA (if necessary)

SMMA SUBMIT PSR TO OPM	**04/29/22**
SUBMIT PSR TO MSBA (MSBA Deadline)	**05/04/22**

SMMA

LEFTFIELD

Wakefield Memorial High School

Permanent Building Committee / School Building Committee Meeting

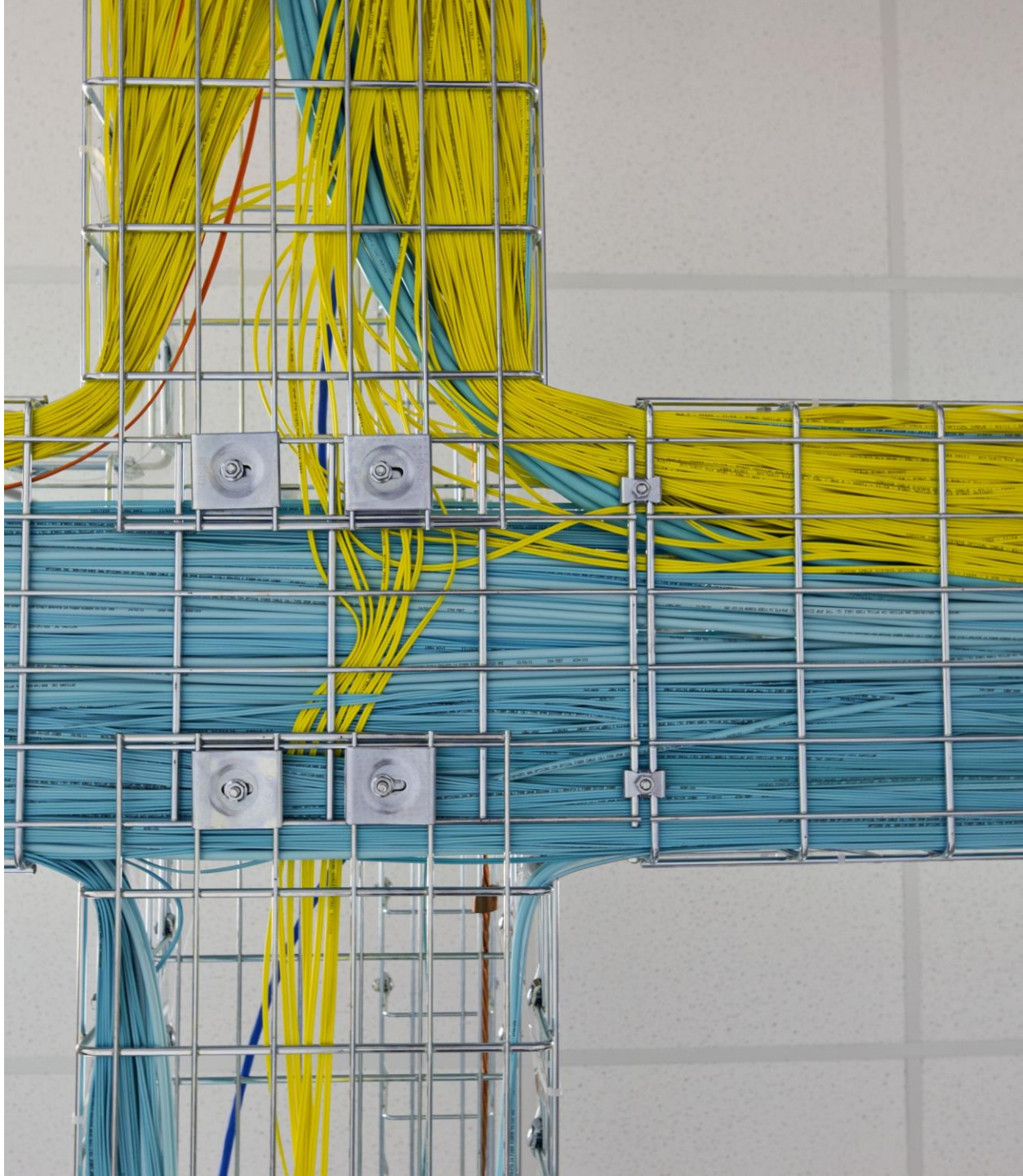
03.03.2022

Agenda

- Proposed Building Systems Review
- PSR Design Alternatives Progress Review

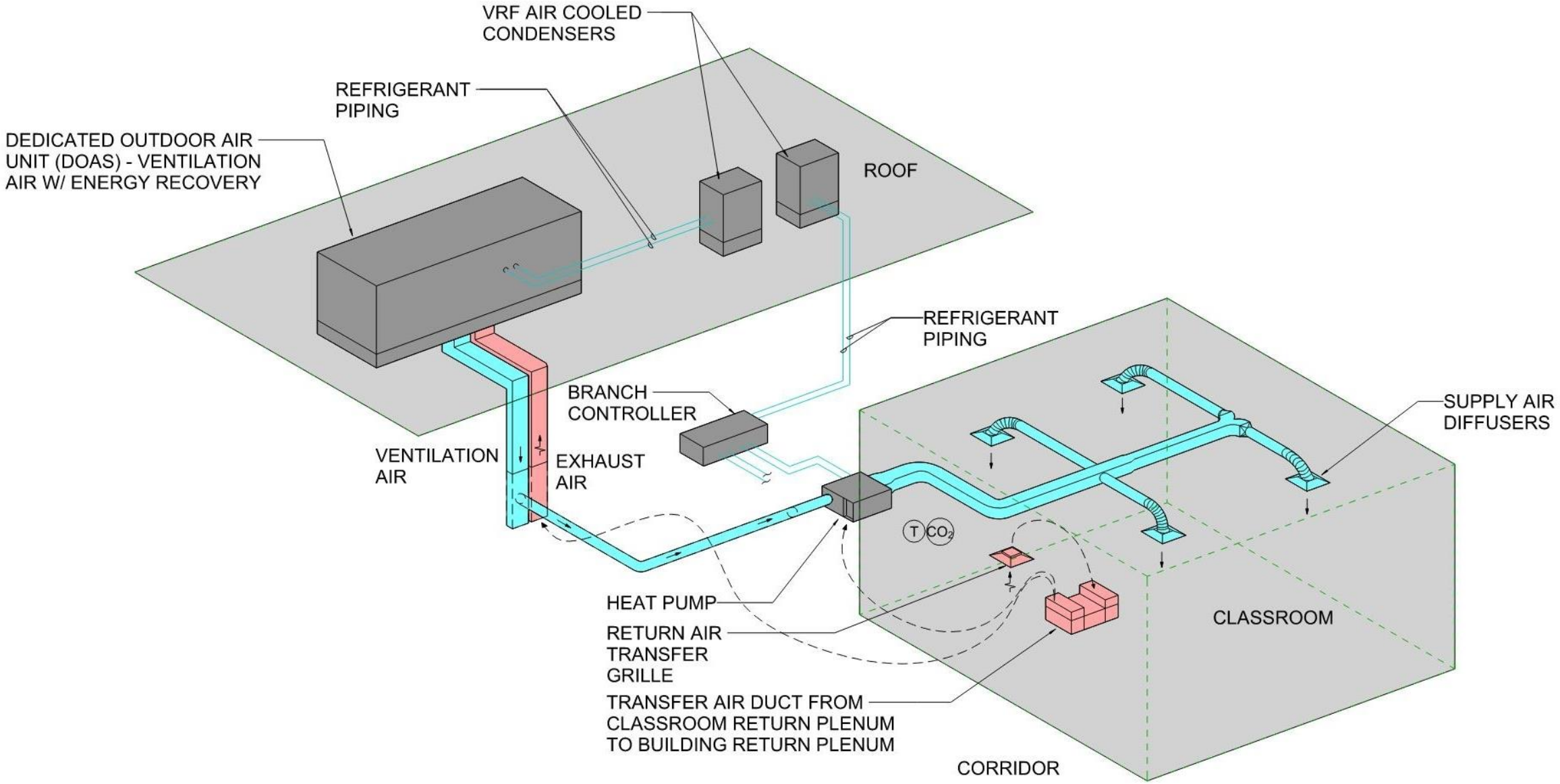
ENGINEERING

Proposed Building Systems Review



All Electric Direct Outdoor Air System (DOAS) with VRF

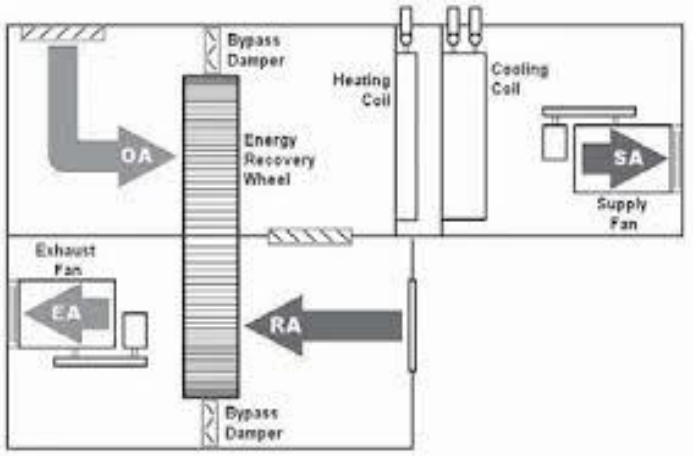
SMMA



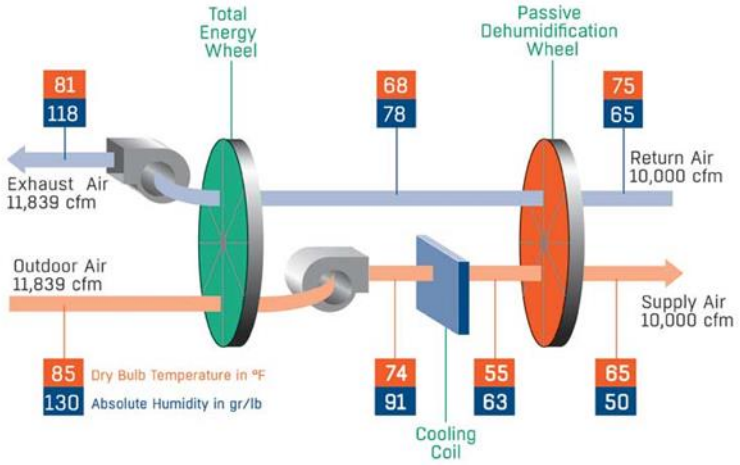
Direct Outdoor Air System (DOAS)

SMMA

- Provides ventilation air
- VRF-supported DX heat pump coils
- Energy recovery wheel(s)
- MERV 8 & MERV 13 Filtration
- EC motors



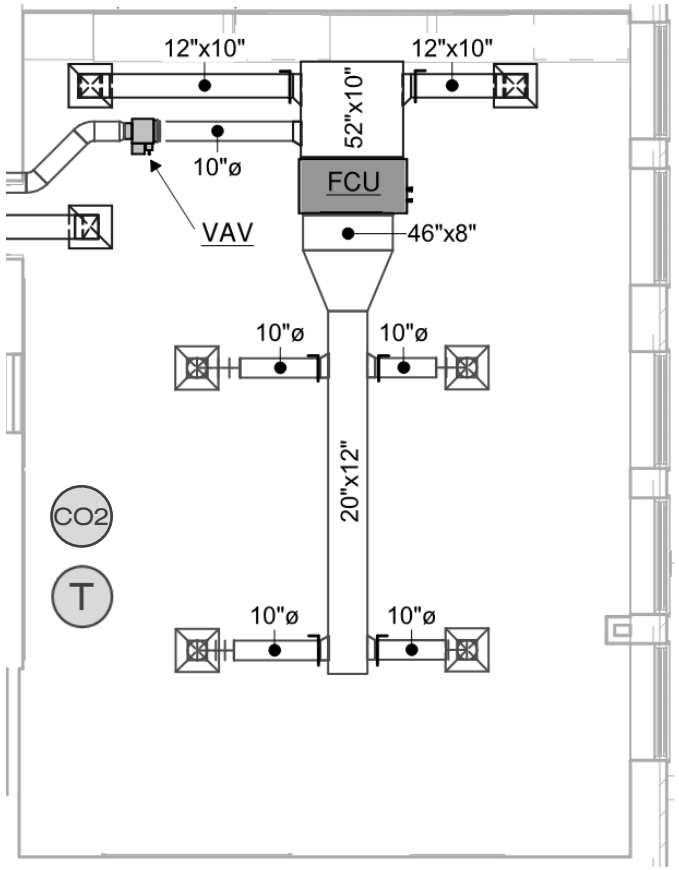
Single Wheel DOAS



Double Wheel DOAS

Air Source Variable Refrigerant Flow (VRF) System

SMMA



Typical Classroom

Ducted Heat Pumps

VAV Terminal

Air Cooled Condensing Units

VRF System Heat Pump Options

Wall Cassette

Ceiling Cassette

Electrical Auxiliary Equipment

Electric Radiant Panel

Electric Baseboard

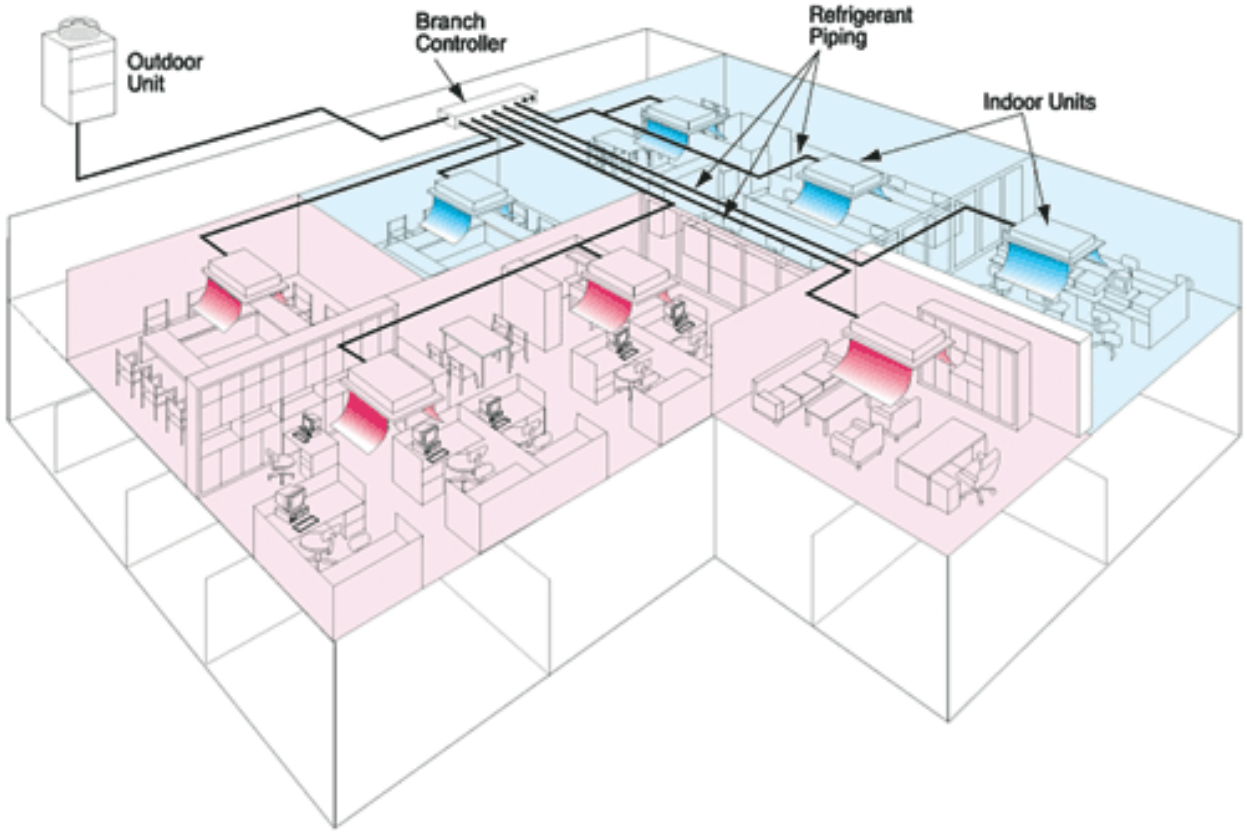
SMMA

VRF Energy Recovery System

SMMA

Pros:

- Cost effective
- Energy efficient
- Can support roof top unit DX coils of 3rd party equipment
- Can support simultaneous cooing and heating
- Independent zone temperature control and flexibility
- Decentralized systems – equipment is located close to load
- Used year-round on any schedule for any portion of the building



Cons:

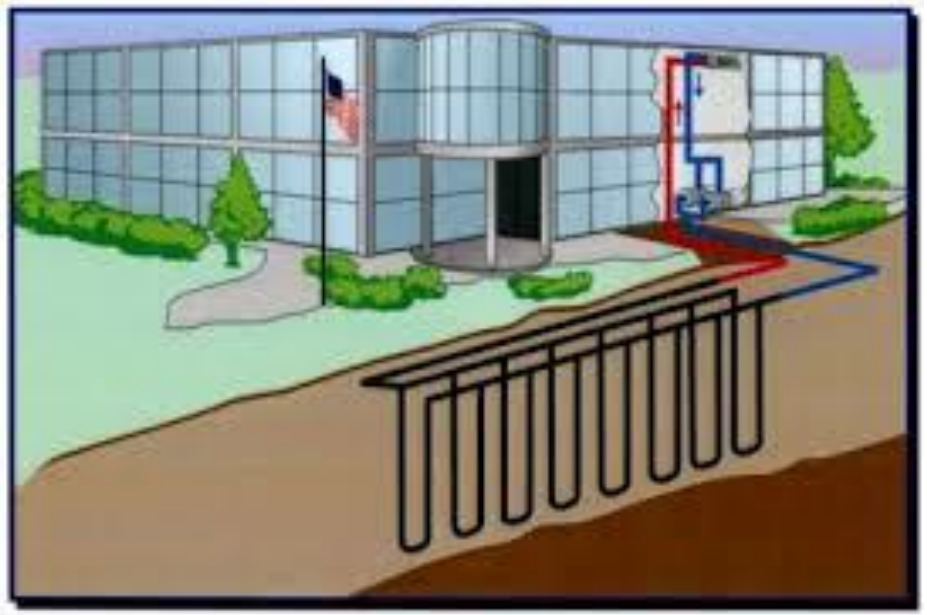
- Defrost cycles on air cooled condensers
- Can involve extensive refrigerant piping
- Useful life of compressors is more limited
- HW generation requires multiple small units
- Increased emergency generator capacity

SMMA

Geothermal System

Pros: - energy efficient (using in-ground energy source)
- enables use of centralized CHW/HW system

Cons: - high installation cost
- several test wells and flow tests required
- requires large area for geothermal wells installation
- geology variations, soil type and conductivity dependance
- wetlands impact
- temporary lake for construction water removal may be required
- short (seasonal) and long (year-to-year) inground heat balance
- may require hybrid plant (redundant chillers/boilers installation)



Heating/cooling generator

VAV Terminal

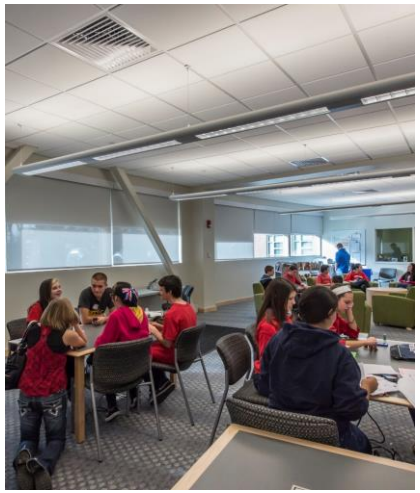
Heat Pumps

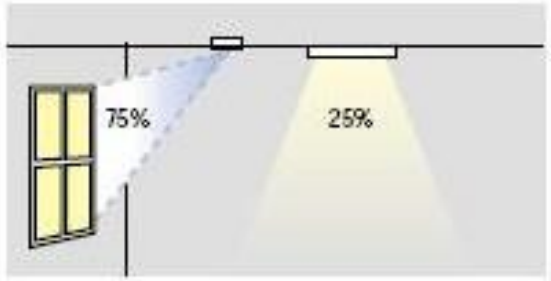
Chilled Beam

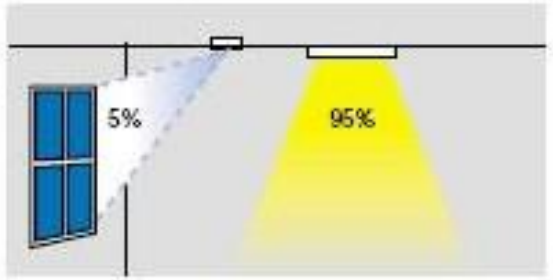
SMMA

General Systems

- New 480V Electrical Service.
- New generator system
- New voice evacuation and fire alarm system
- New LED lighting and Lighting controls

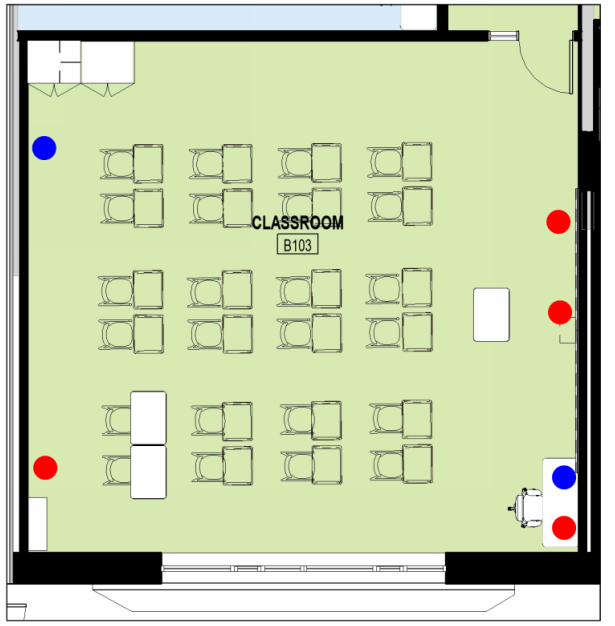






Enhanced Efficiency

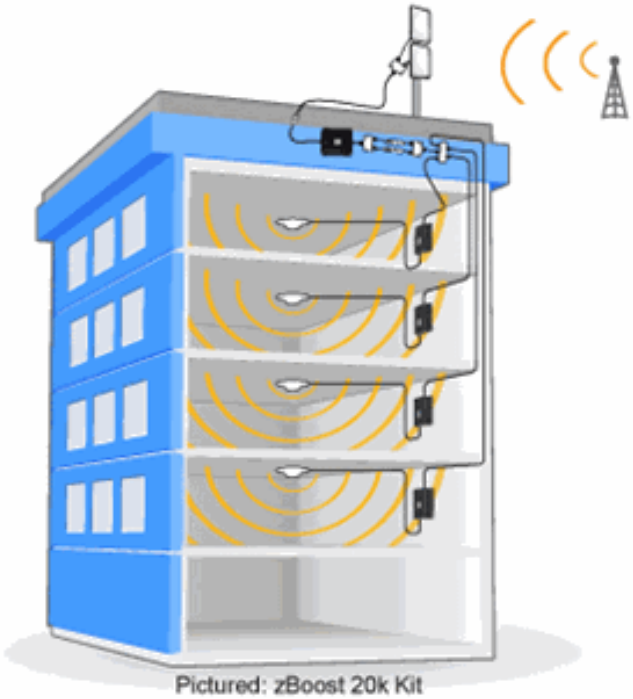
- PV ready – conduit pathways, electrical room space, and switchgear tie-in.
- Plug Load Controller controls individual receptacles or a group of devices on one common circuit
- Advanced metering
- Additional Electric Vehicle Readiness(Pr. 2022 stretch)
- Enhanced digital lighting controls (Pr. 2022 stretch)
- 15% reduced lighting power density (Pr. 2022 stretch)



SMMA

Other Building Enhancements

- School Radio Repeater System
- Vape Detection System

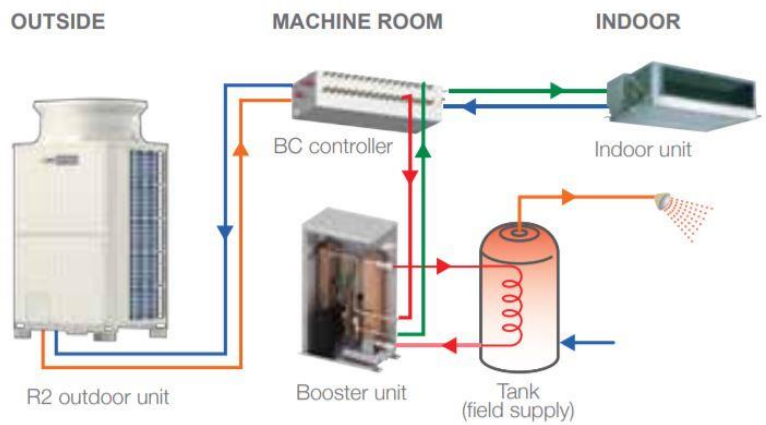


SMMA

Water Heaters

» All Electric Water Heating Options:

1. Heat Pump System with Heat Recovery from HVAC (most efficient).
2. Packaged Heat Pump water heaters.
3. Tankless Water Heaters.
4. Electric Tanks.



SMMA

Domestic Booster Pump

- Pump may be needed depending on incoming water pressure available at building

Water Metering

- Whole Building (recorded in monthly and annual usage)
- Submetering Option
  - Whole Building
  - Irrigation Water
  - Plumbing Fixtures
  - Hot Water
  - Mechanical/Process

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Faucets

- Lavatory Faucets – 0.5 GPM (Solar/Battery Powered)

Electric Water Cooler & Drinking Fountain

Water Closets

Flush options

American Standard

BARRIER FREE

AFWALL® MILLENIUM™ FloWise® ELONGATED FLUSHOMETER TOILET LESS EVERCLEAN®

- Wall-mounted flushometer valve toilet
- Vitreous china
- Conventional glaze
- High Efficiency, Low Consumption. Operates in the range of 1.1 gpf to 1.6 gpf (4.2 Lpf to 6.0 Lpf)
- Meets definition of HET (High Efficiency Toilet) when used with a high efficiency flush valve (1.1 gpf - 1.6 gpf or 1.28/1.1 gpf dual flush)
- Maximum Performance (MaP) score of 1,000 grams at 1.1 gpf - 1.6 gpf
- Condensation channel
- Concealed trapway design
- Elongated bowl
- Powerful direct-fed siphon jet action
- 1-1/2" inlet spud
- Fully-glazed 2-1/8" trapway
- 10" x 12" water surface area
- Static weight load of 1,000 lbs.*

Urinals

AFWALL® MILLENNIUM™ FloWise® ELONGATED FLUSHOMETER TOILET
VITREOUS CHINA LESS EVERCLEAN®

KOHLER®

BARDON™ 1/8th GPF

Features

- *Vitreous china*
- *Washout*
- *3/4" top spud*
- *14" (356 mm) extended rim*
- *0.125 gpf (0.47 lpf) to 1.0 gpf (3.8 lpf)*
- *WaterSense® compliant when used with WaterSense flushometer*
- *Will replace K-4960-ET urinal*

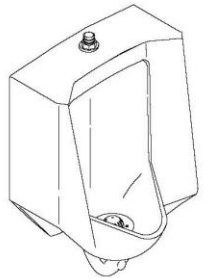
Codes/Standards Applicable

Specified model meets or exceeds the following:

- *ADA*
- *ICC/ANSI A117.1*
- *ASME A112.19.2/CSA B45.1*
- *EPA WaterSense®*

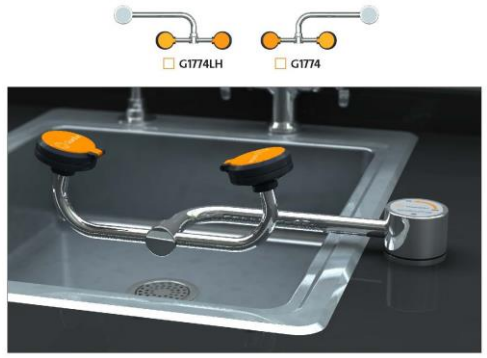
HIGH EFFICIENCY URINAL (HEU)
K-4904-ET

ADA WaterSense



Emergency Equipment

Barrier Free Units



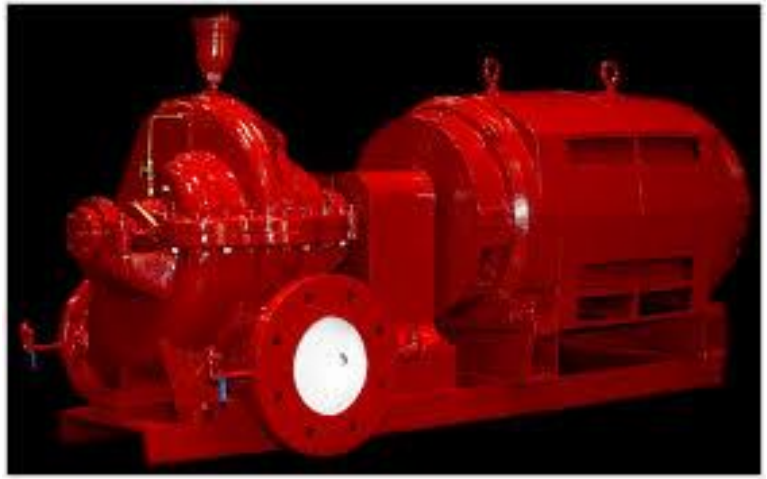
Eye Wash

Note: Shown with optional AP280-235 electric light and alarm horn unit (sold separately).

Recessed Lab Units

Fire Pump

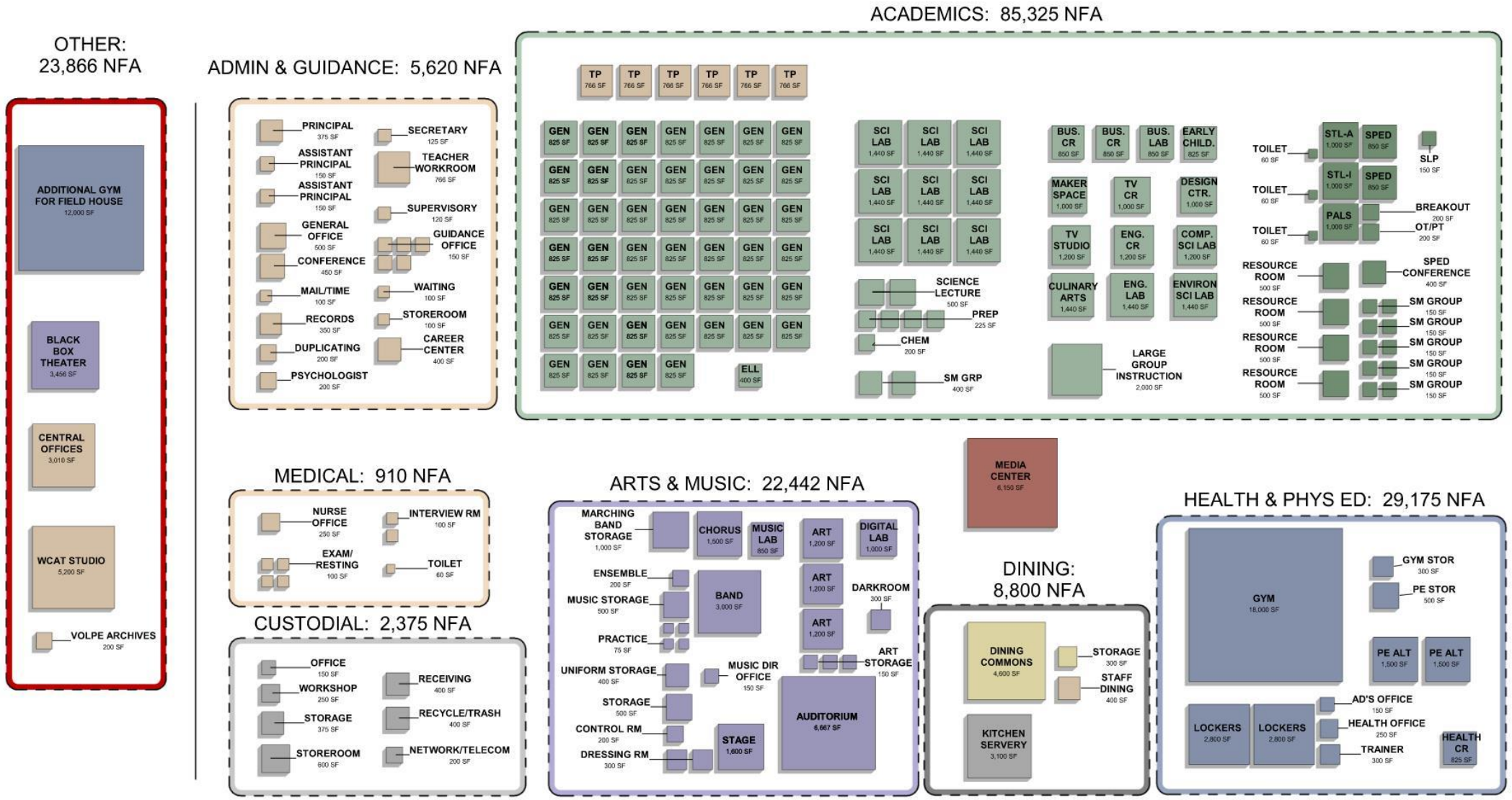
- Pump may be needed depending on hydrant flow test
- Fully sprinklered building



ARCHITECTURE

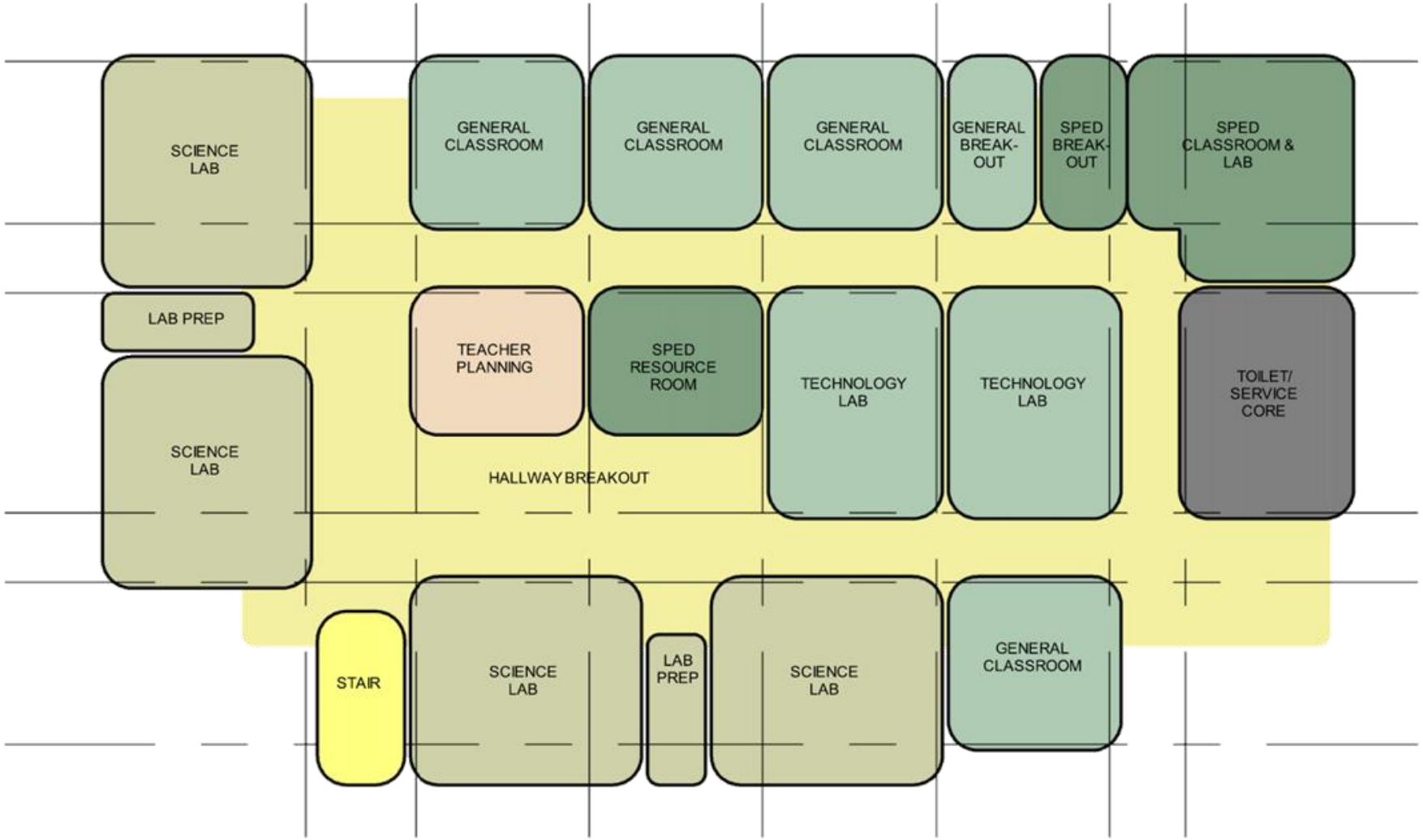
PSR Alternatives Progress Review

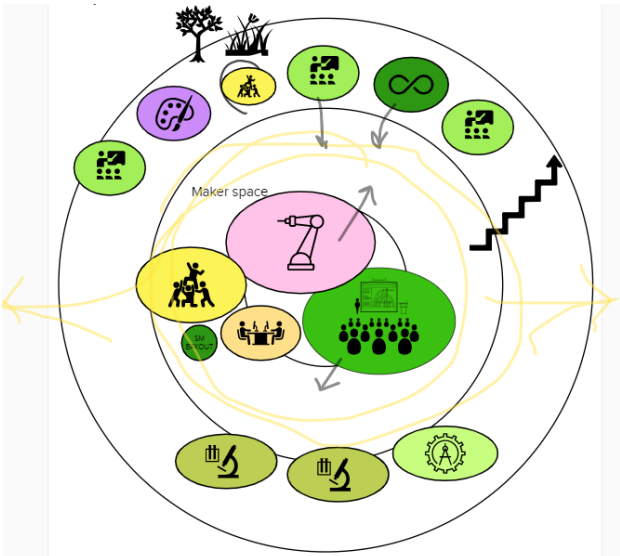
Current PSR Program – 275,900 GFA



WAKEFIELD MEMORIAL HIGH SCHOOL

Classroom Neighborhoods





1. Gen ed classrooms in vicinity of breakout rooms
2. Common areas between rooms
3. Staircase to connect levels and attract activity
4. Presence of Art in the cluster
5. Integrative learning - cross disciplinary
6. Flexibility
7. Space radiating from a center or hub
8. Fosters interaction
9. Teacher planning space is important

Interdisciplinary Pod Template

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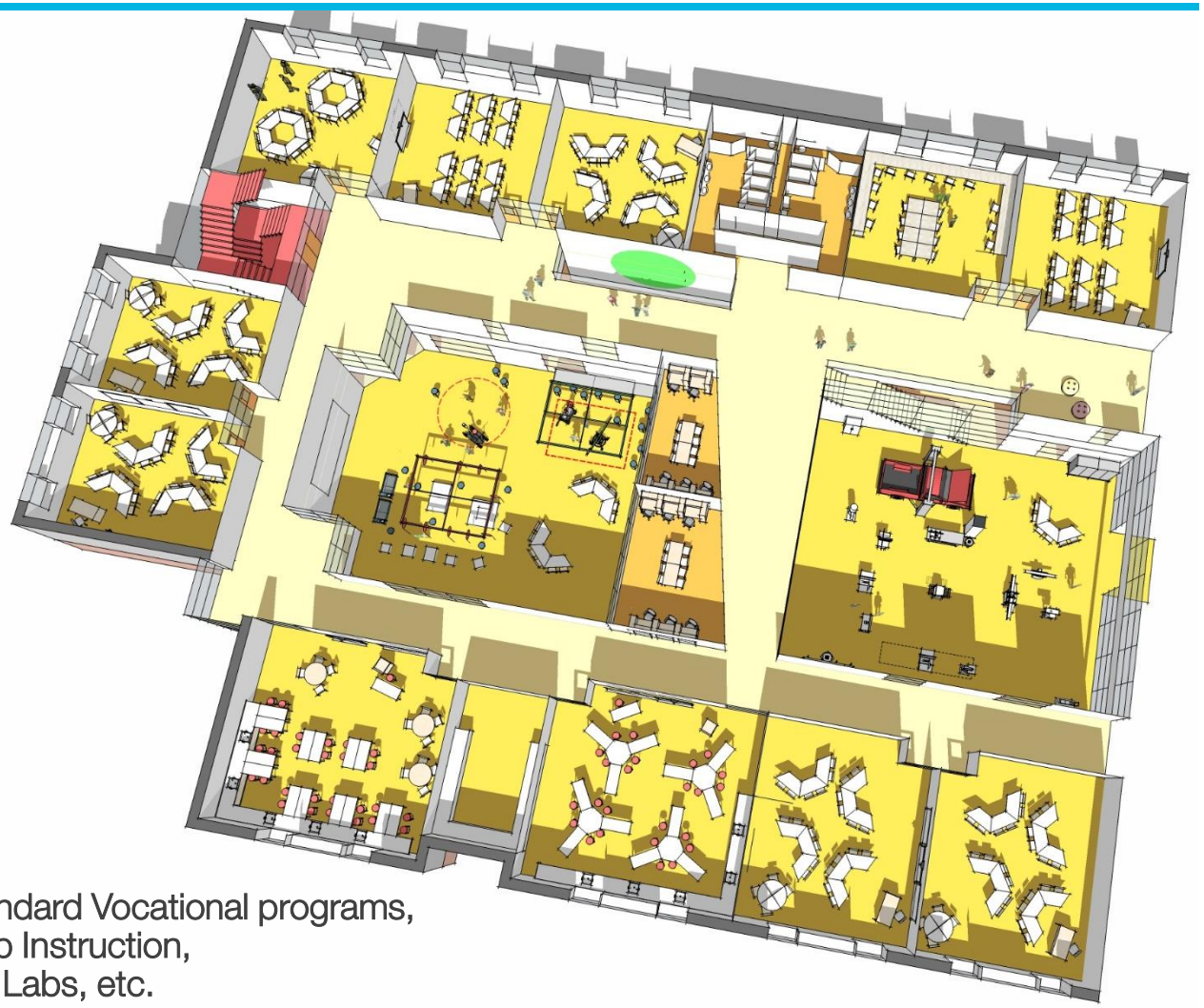
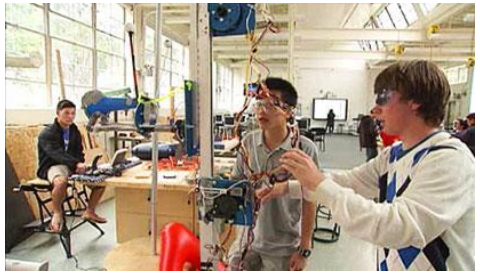
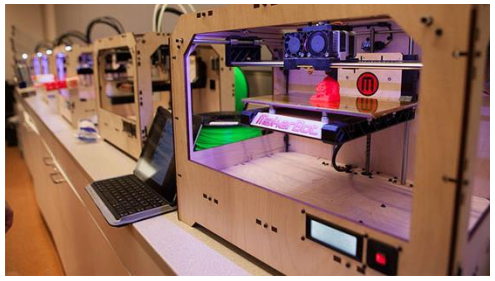
WAKEFIELD MEMORIAL HIGH SCHOOL

Planning for Interdisciplinary Learning







- Center: Standard Vocational programs, Large Group Instruction, Technology Labs, etc.
- Perimeter: Academic Programs, General Classrooms, Math & Humanities

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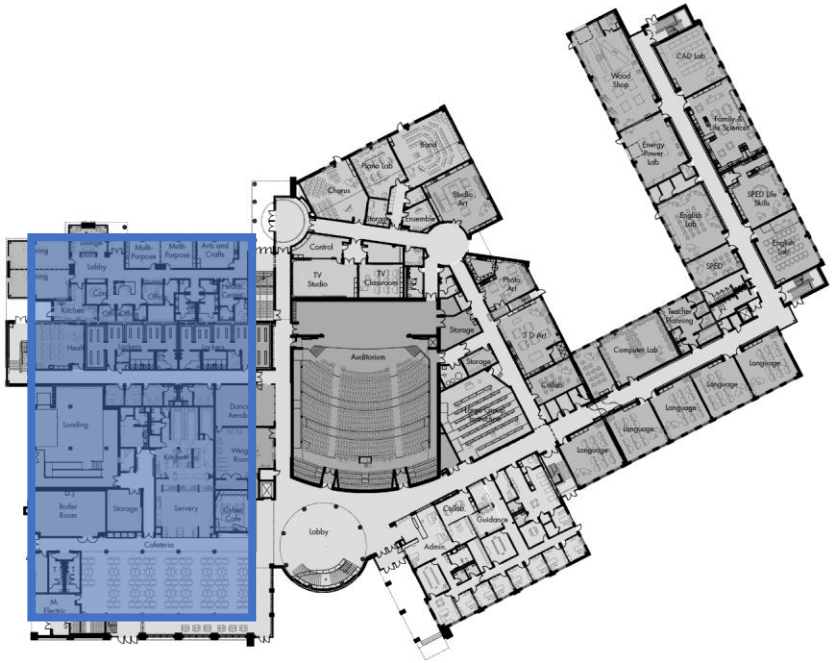
FIELD HOUSE PRECEDENT

Swampscott High School



- 30,000 sf Field House
- Gym floor is at Level 2
- Spaces below gym:
  - Locker Rooms
  - Dance Room
  - Weight Room
  - PE/Athletics Offices
  - Health Classroom
  - Dining Commons
  - Kitchen & Servery
  - Custodial Suite
  - Loading Dock
  - Senior Center

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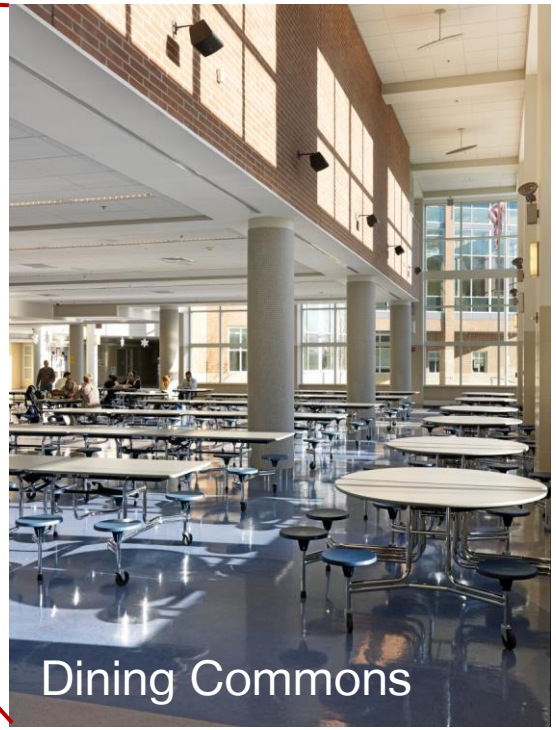
FIELD HOUSE PRECEDENT

Swampscott High School

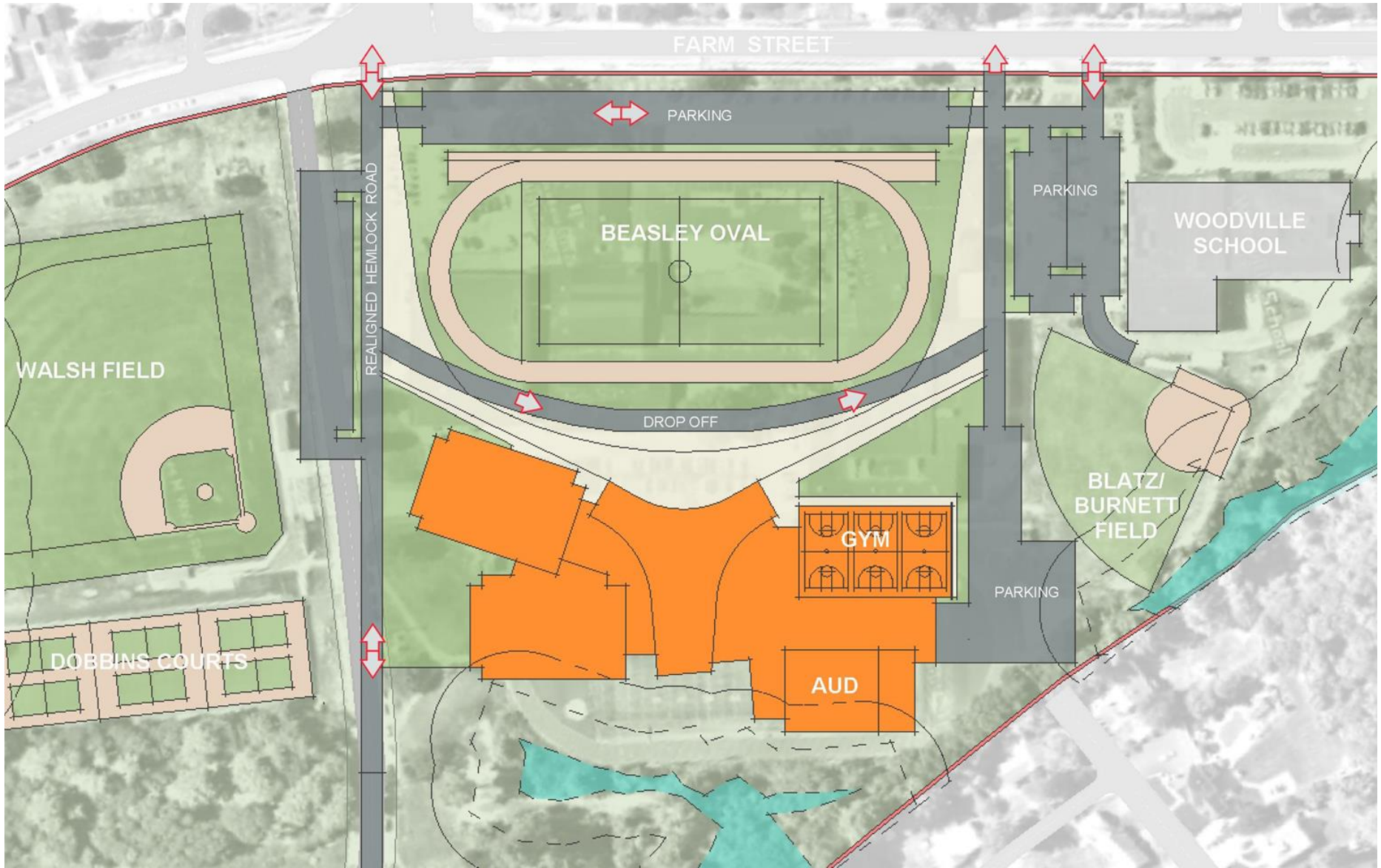
Dining Commons ‘wrapper’ provides scale and transparency to front of Field House volume.



Dining Commons

Entry Rotunda

PDP Alt. 3b – New Construction



- New building on existing Beasley Oval with reconstruction of track and field facilities on existing HS site.
- Study of Program Cluster options was requested during PDP phase.

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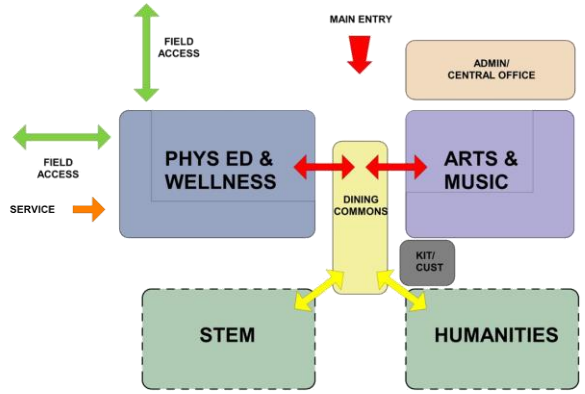
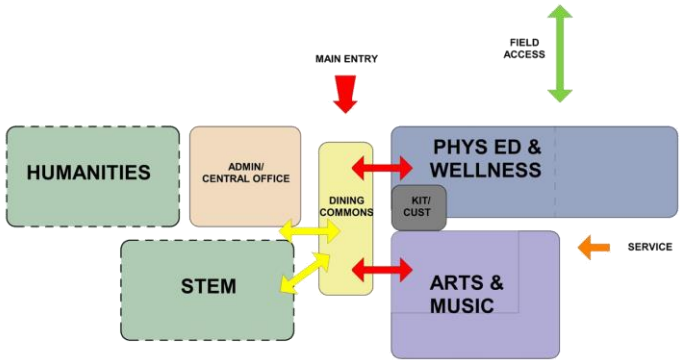
Alt. 3b – Program Organization Diagrams

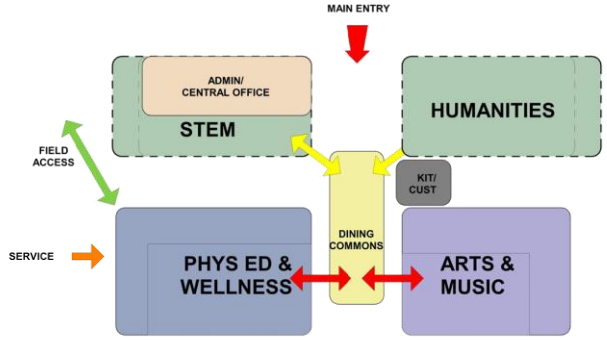
» 1 - Community Space Up Front



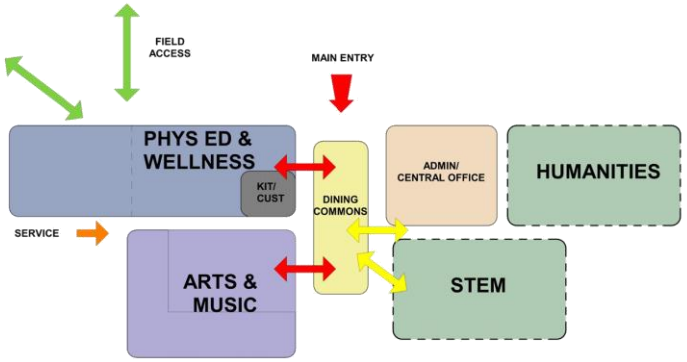
» 3 – Classrooms Facing South



» 2 – Highly Visible Academics



» 4 – Classrooms Facing North



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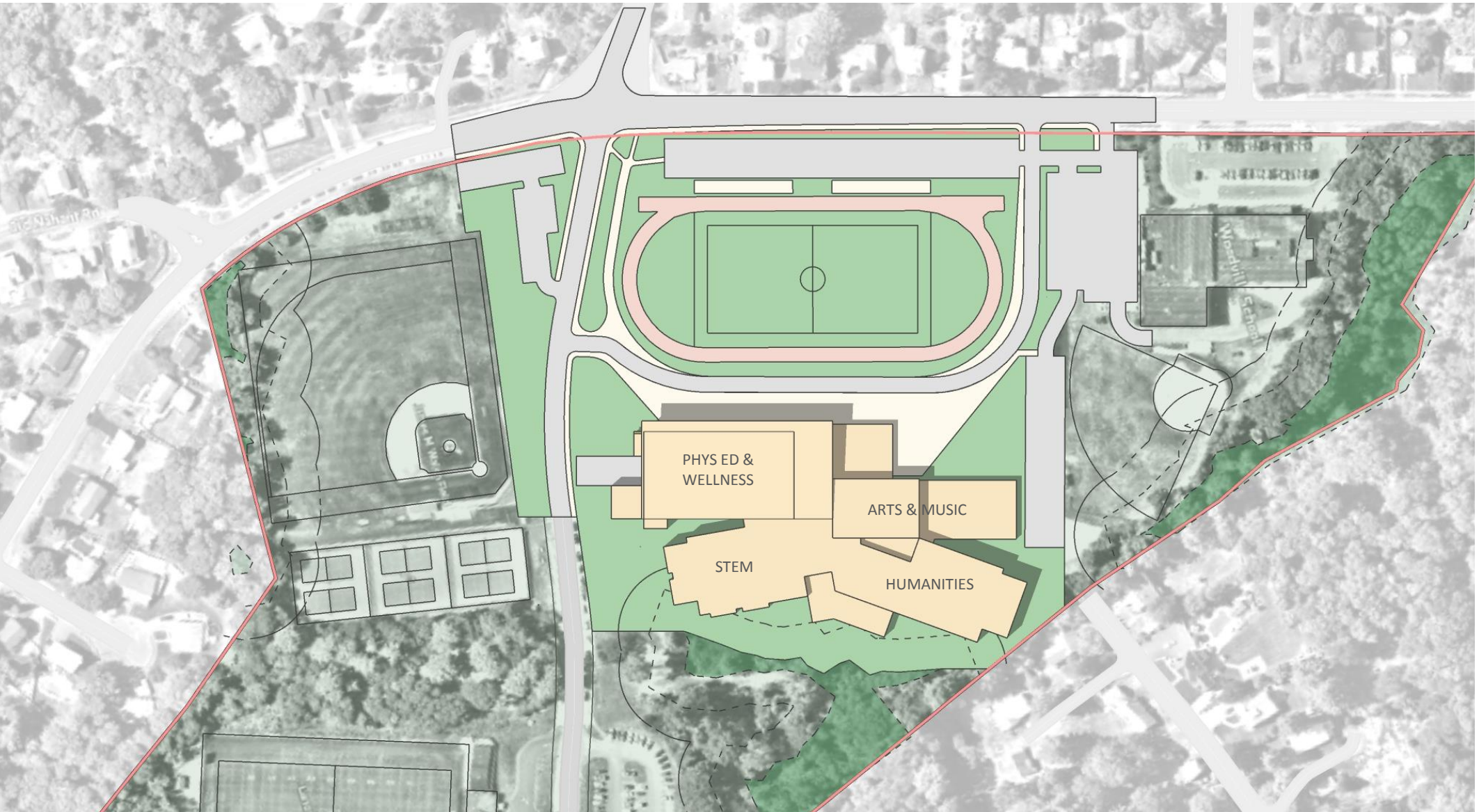
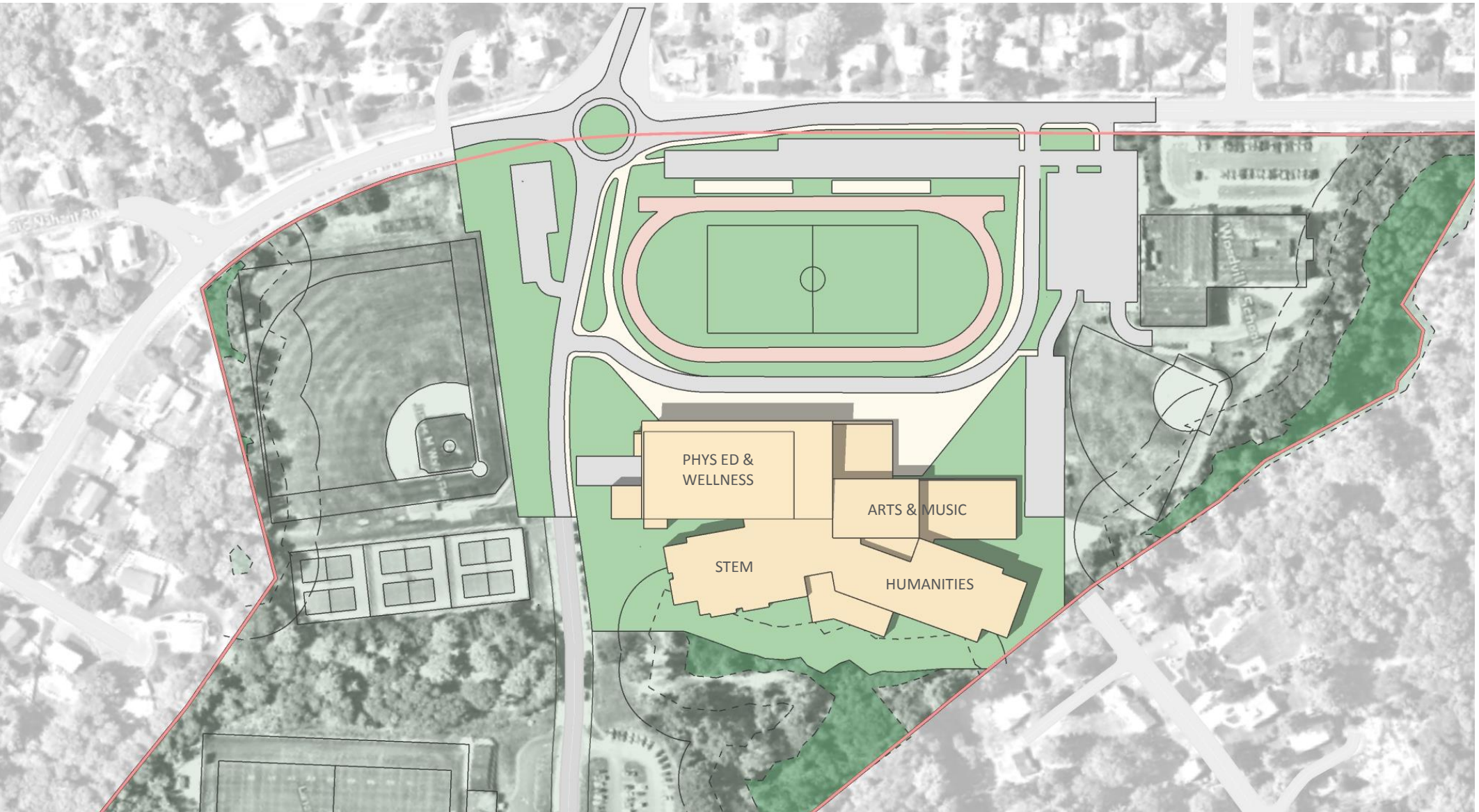
WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 3b – Site Plan Option 1



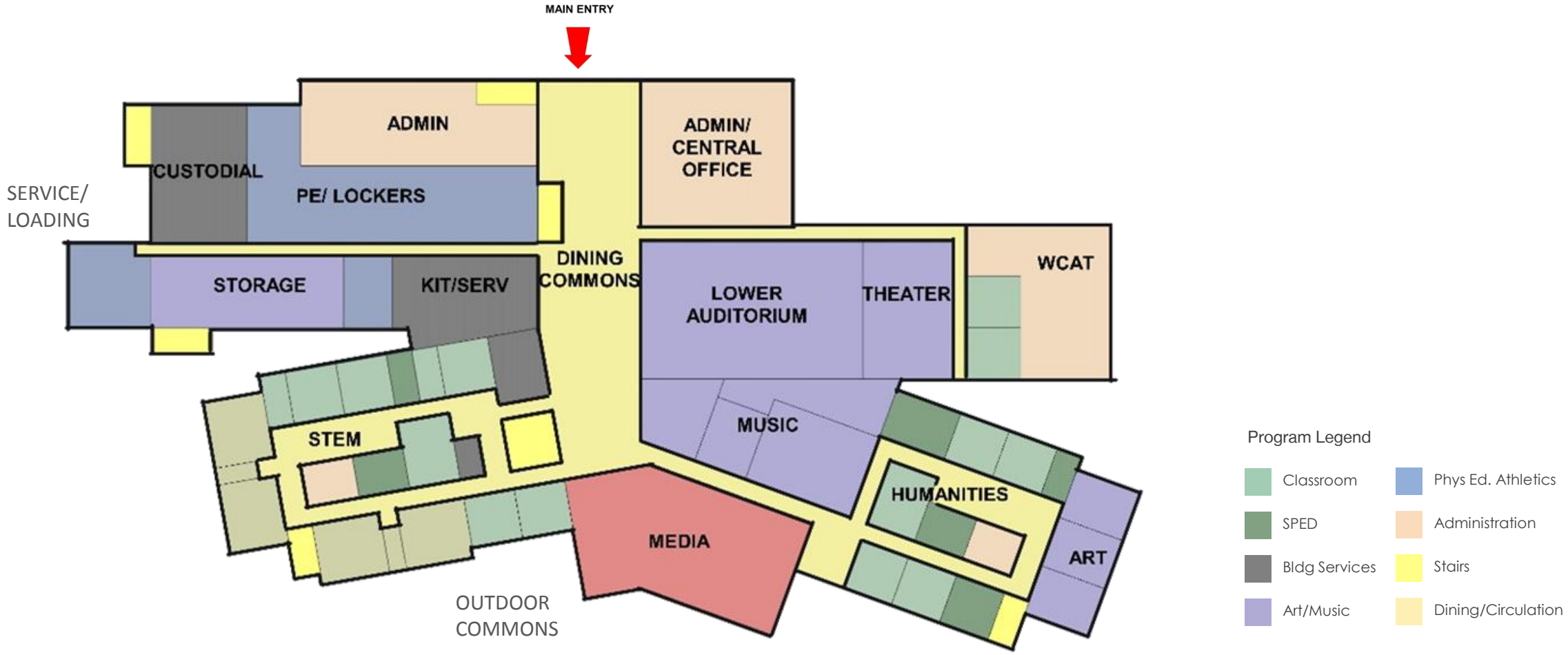
WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 3b – Site Plan Option 1 (with Roundabout)



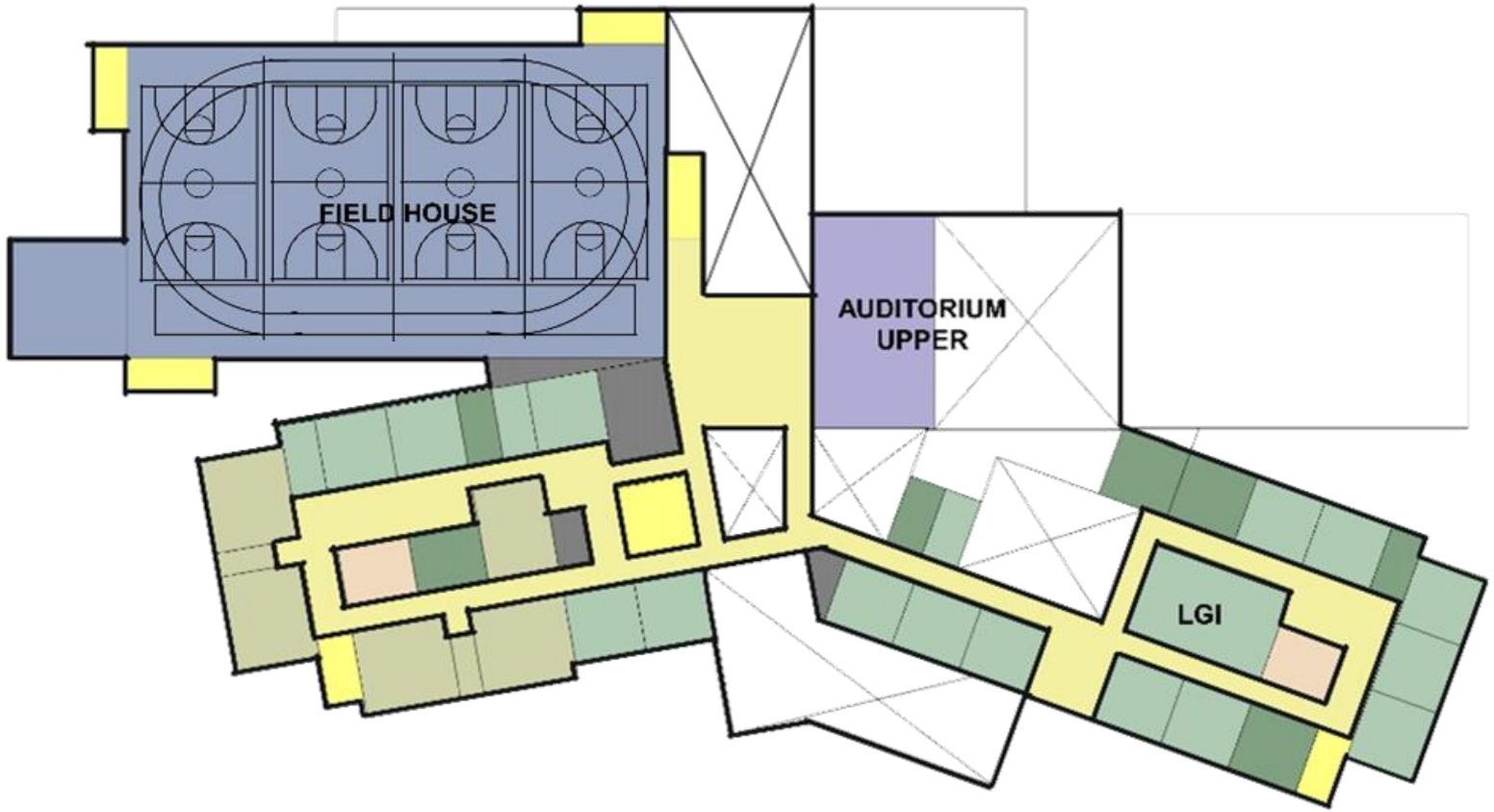
Alt. 3b – Plan Option 1

» Level 1



Alt. 3b – Plan Option 1

» Level 2

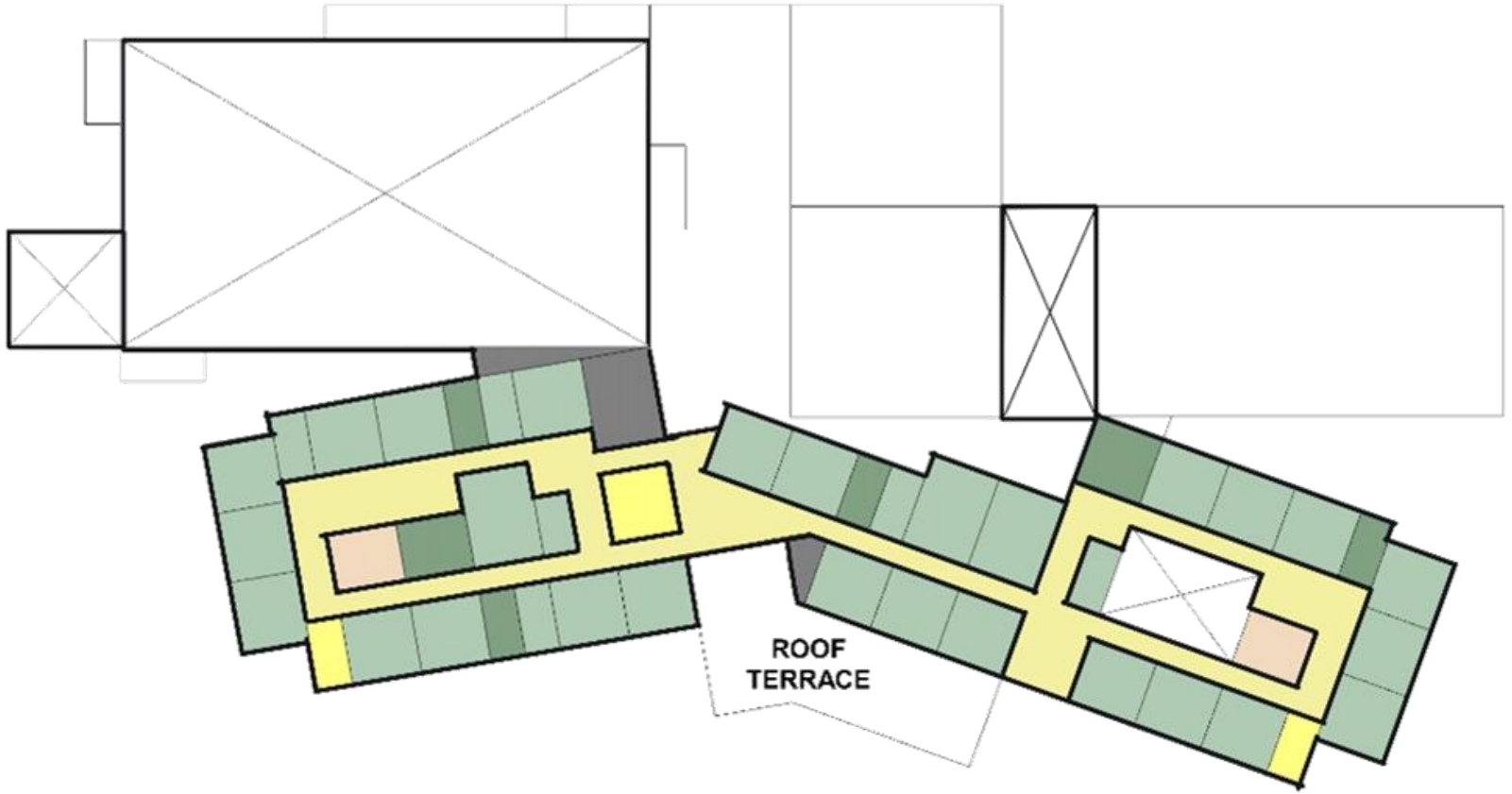


Program Legend

- Classroom
- SPED
- Bldg Services
- Art/Music
- Phys Ed. Athletics
- Administration
- Stairs
- Dining/Circulation

Alt. 3b – Plan Option 1

» Level 3



Program Legend

- Classroom
- SPED
- Bldg Services
- Art/Music
- Phys Ed. Athletics
- Administration
- Stairs
- Dining/Circulation

WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 3b –Option 1 Massing Views

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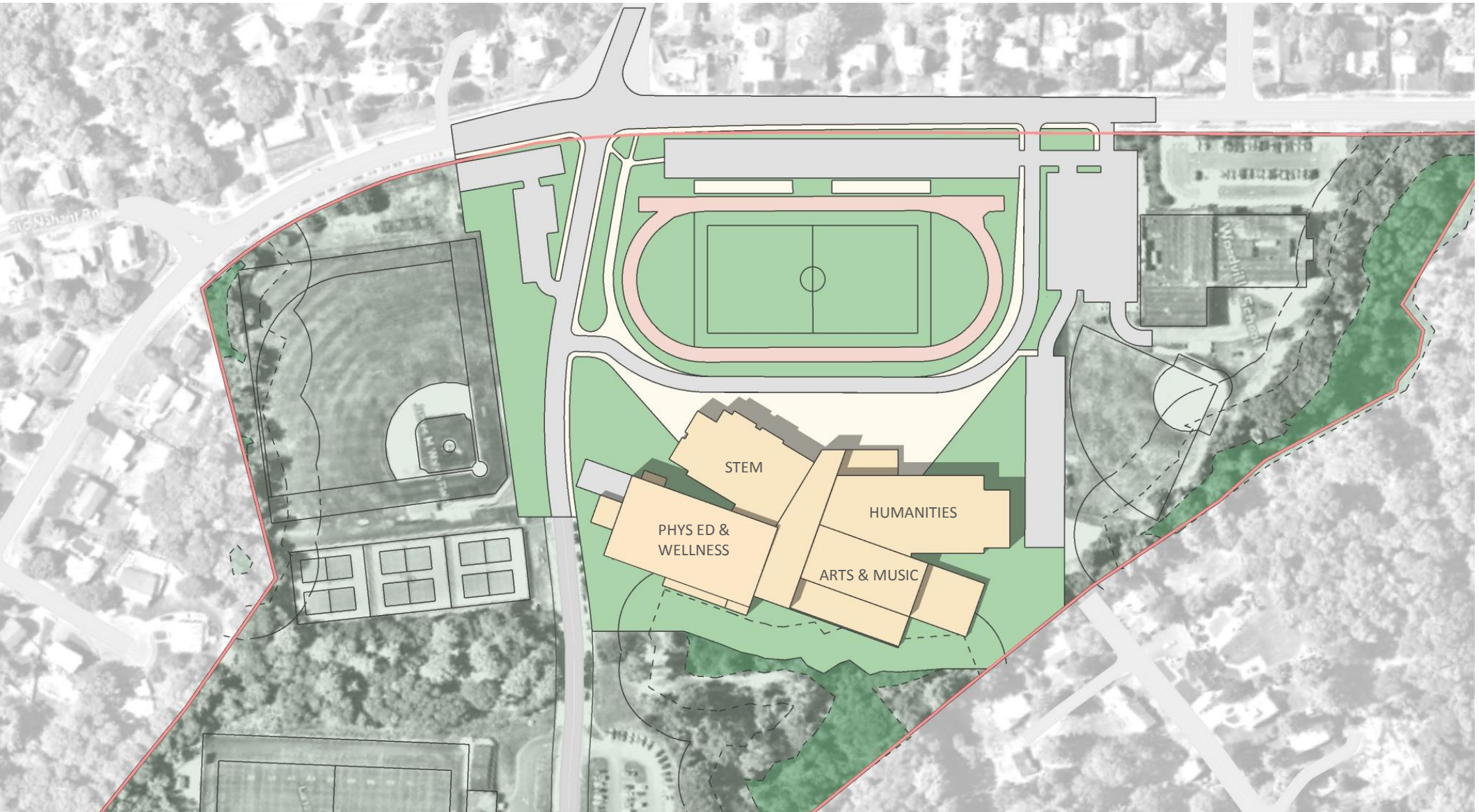
WAKEFIELD MEMORIAL HIGH SCHOOL

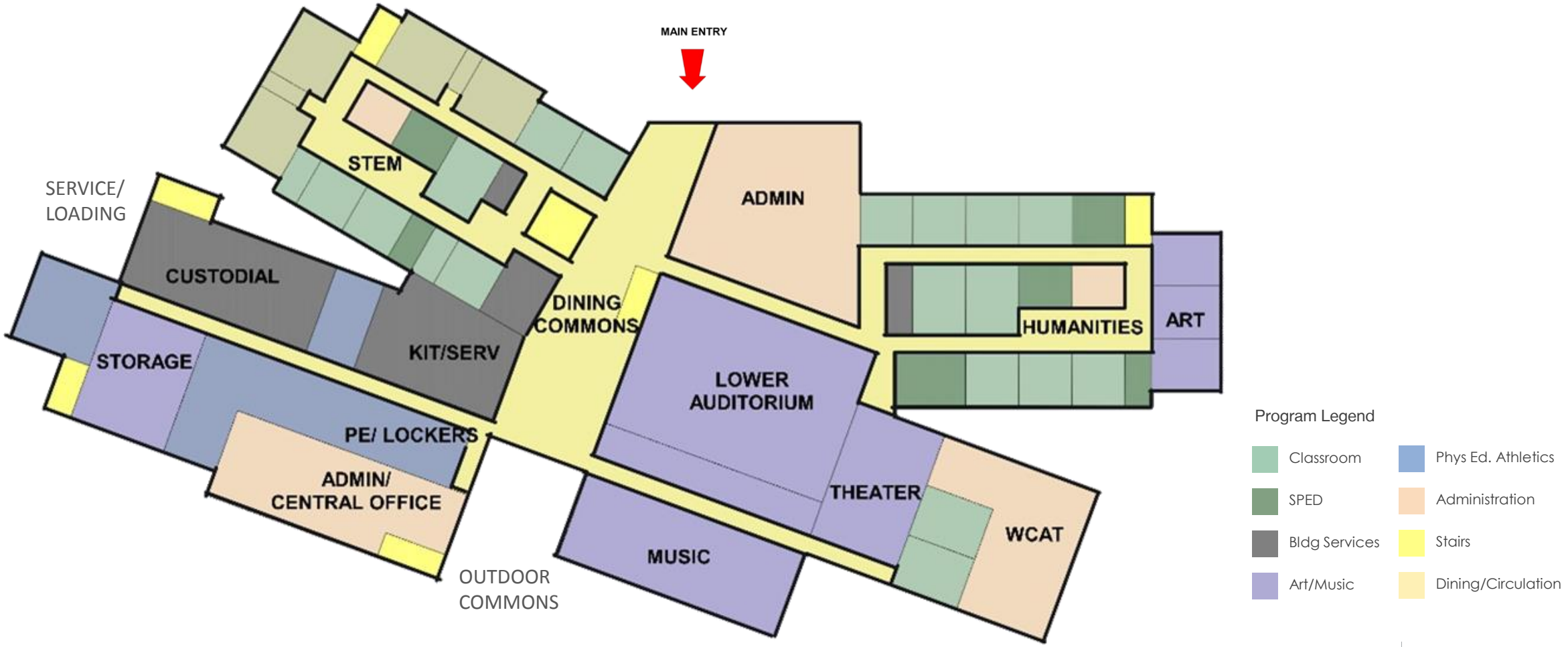
Alt. 3b – Site Plan Option 2



WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 3b – Plan Option 2

» Level 1



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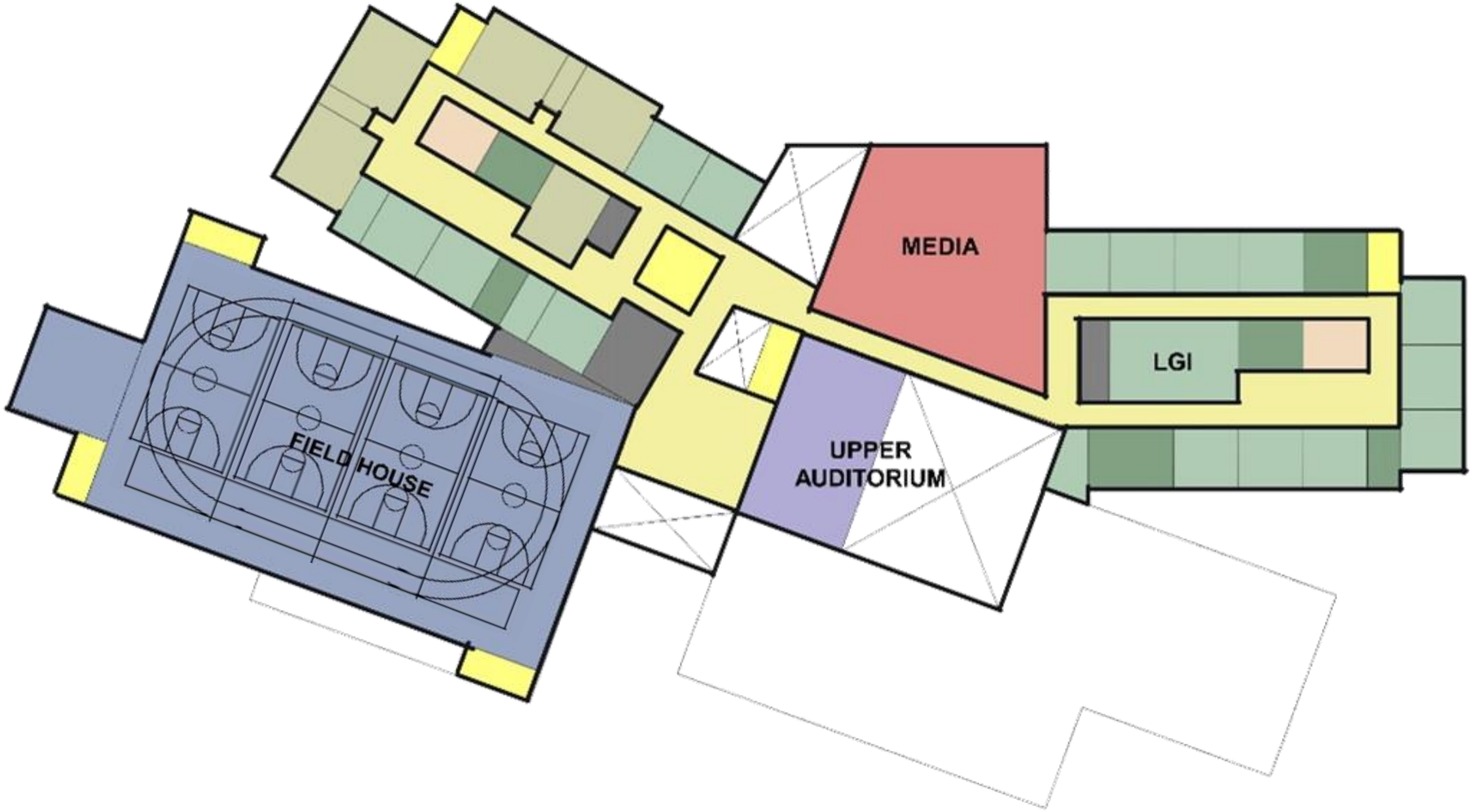
WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 3b – Plan Option 2

» Level 2



Program Legend

- Classroom
- SPED
- Bldg Services
- Art/Music
- Phys Ed. Athletics
- Administration
- Stairs
- Dining/Circulation

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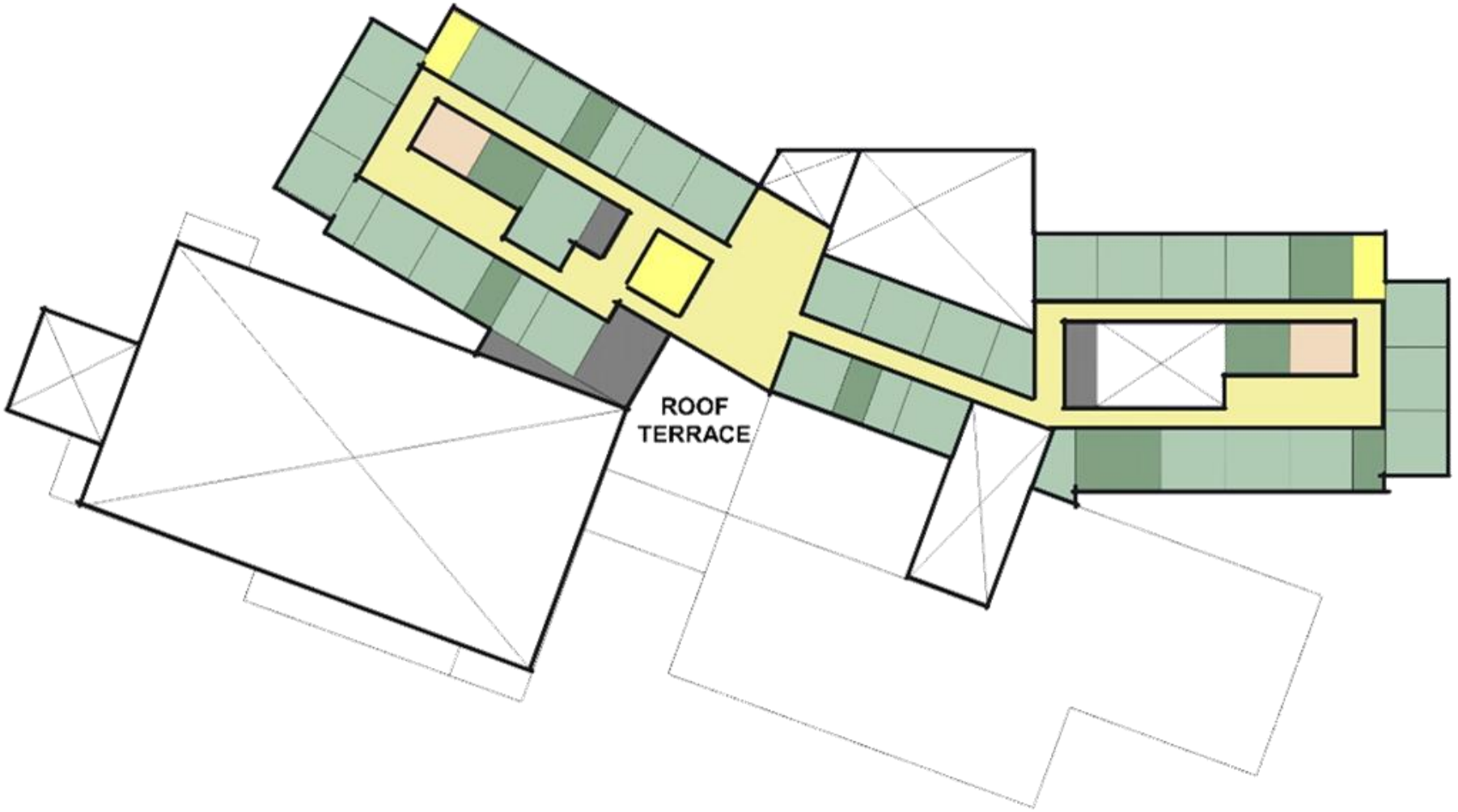
WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 3b – Plan Option 2

» Level 3



Program Legend

- Classroom
- SPED
- Bldg Services
- Art/Music
- Phys Ed. Athletics
- Administration
- Stairs
- Dining/Circulation

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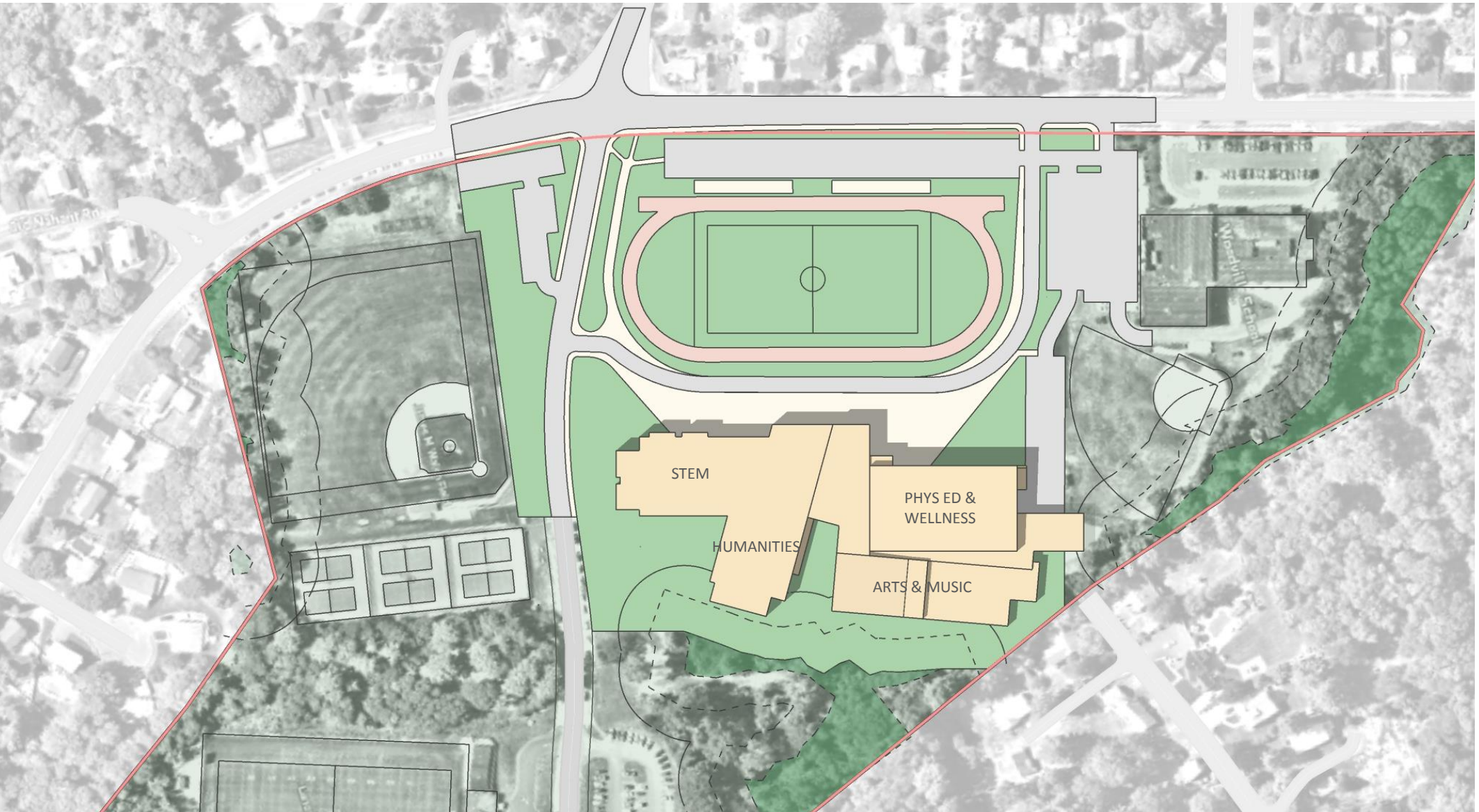
WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 3b –Option 2 Massing Views

WAKEFIELD MEMORIAL HIGH SCHOOL

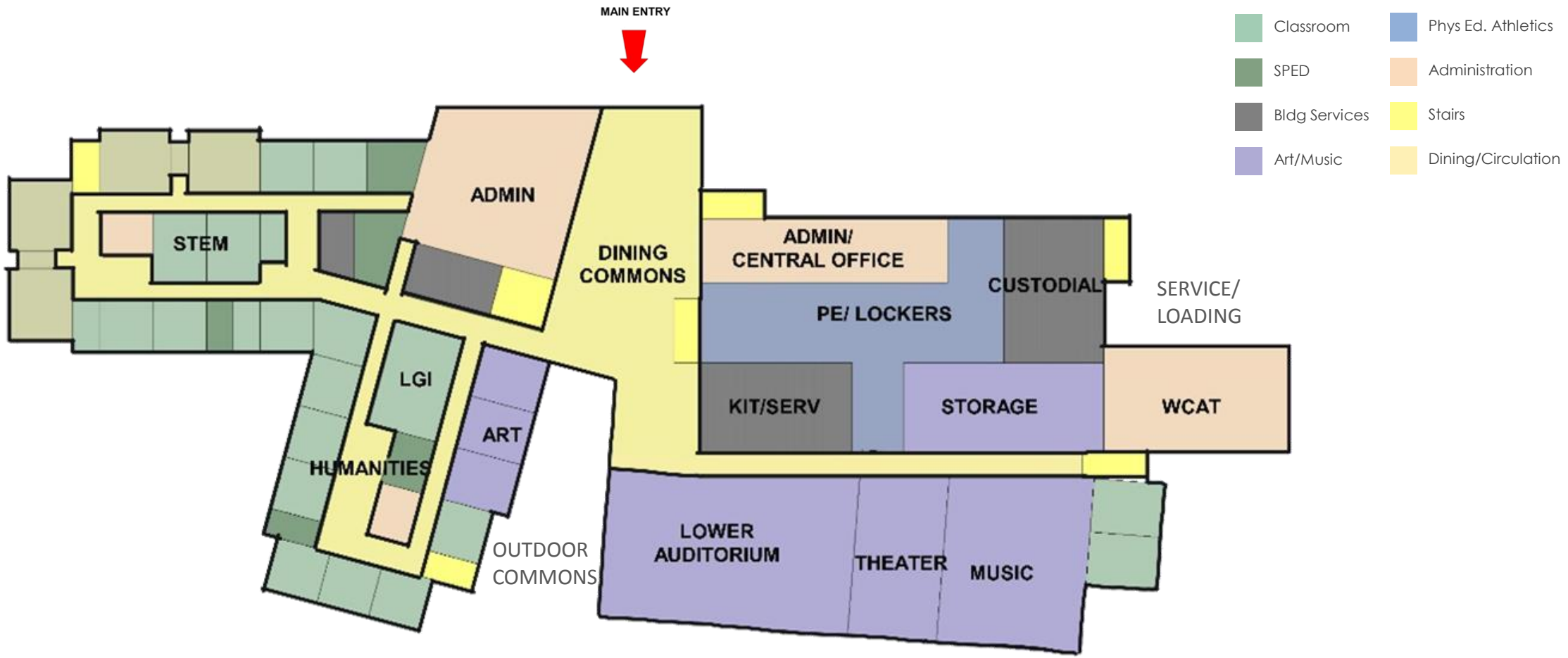
Alt. 3b – Site Plan Option 3



WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 3b – Plan Option 3

» Level 1



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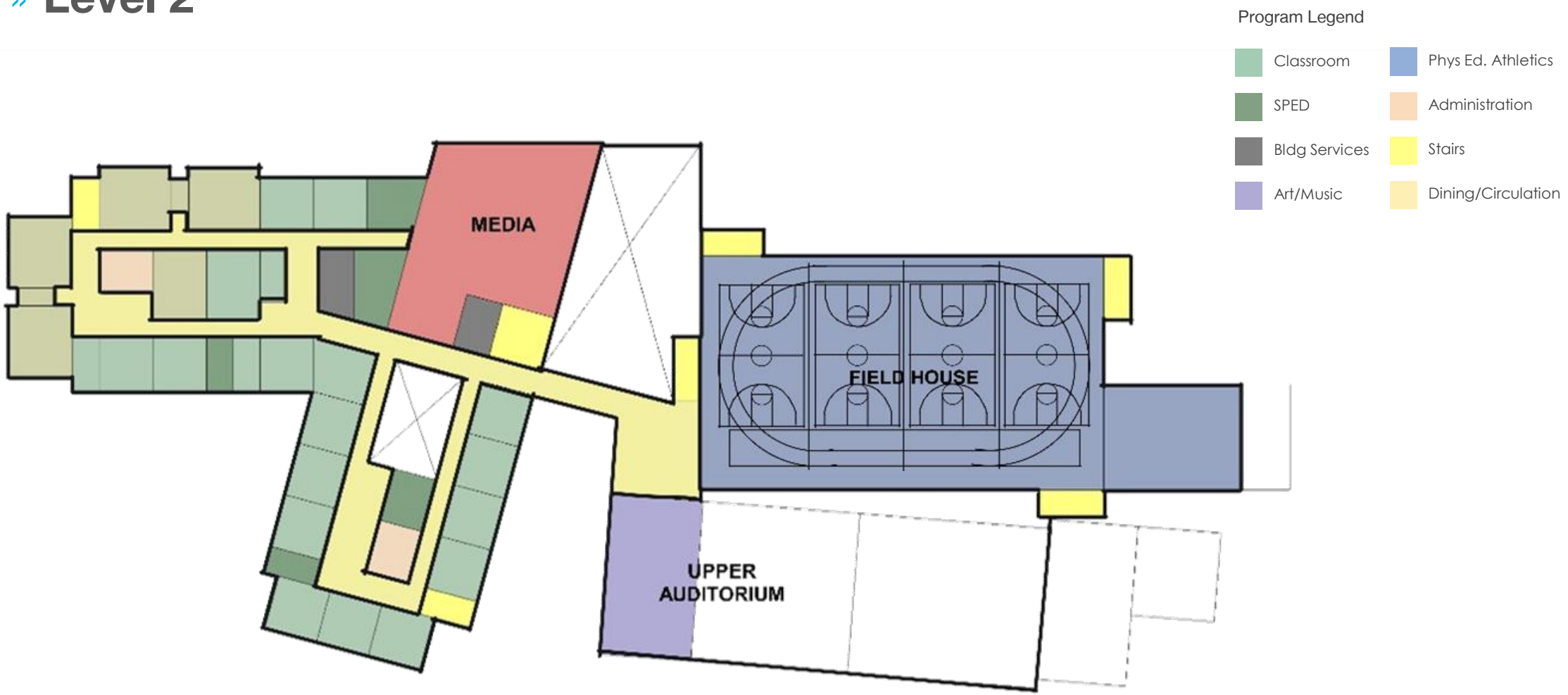
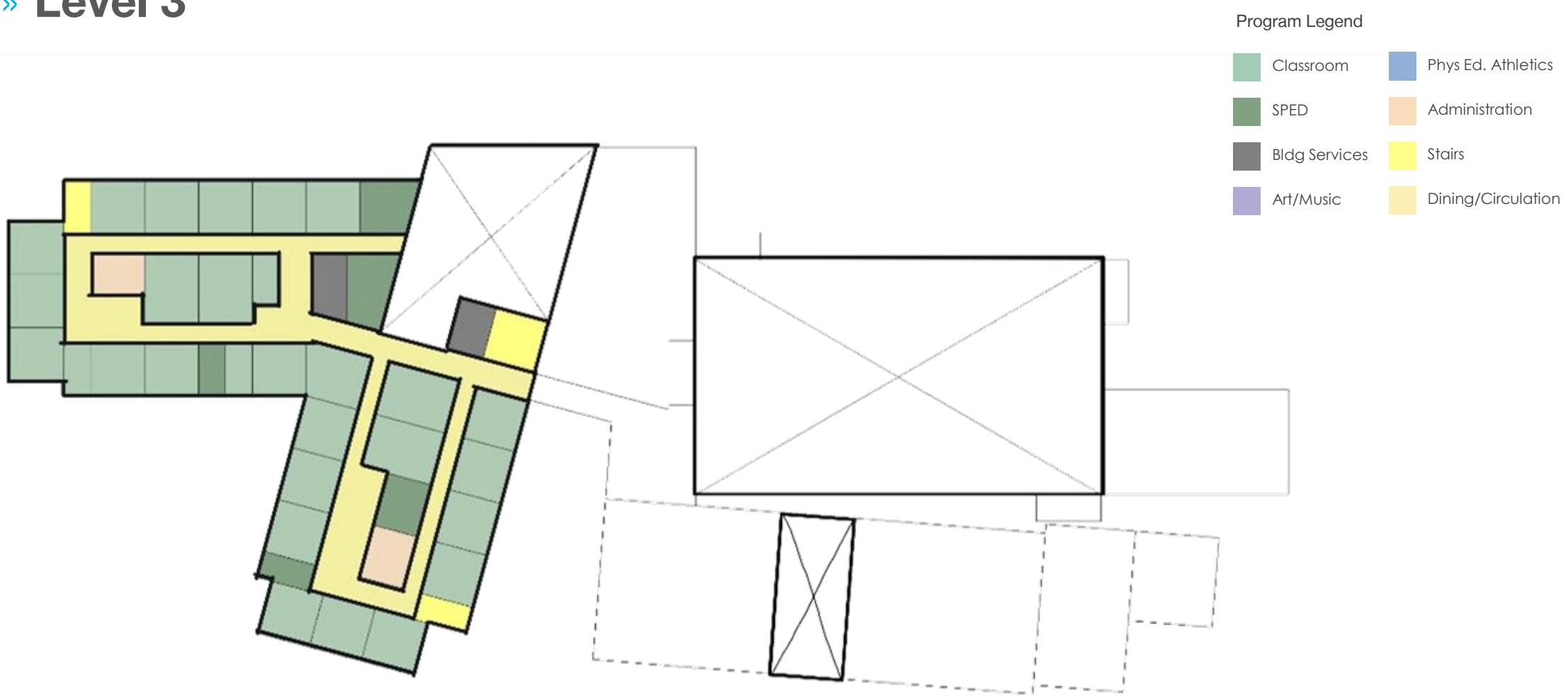
Alt. 3b – Plan Option 3

» Level 2



Alt. 3b – Plan Option 3

» Level 3

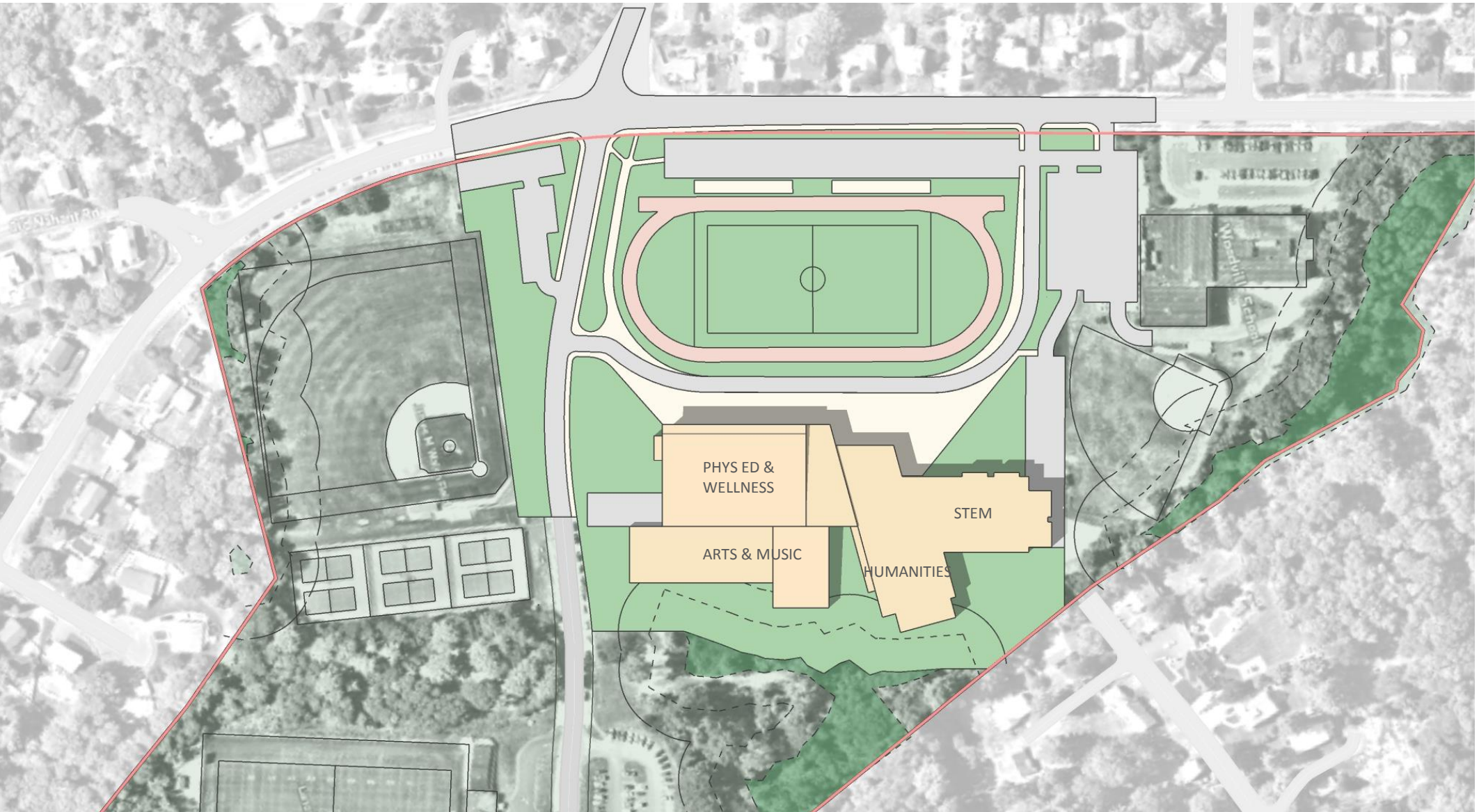


WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 3b –Option 3 Massing Views

WAKEFIELD MEMORIAL HIGH SCHOOL

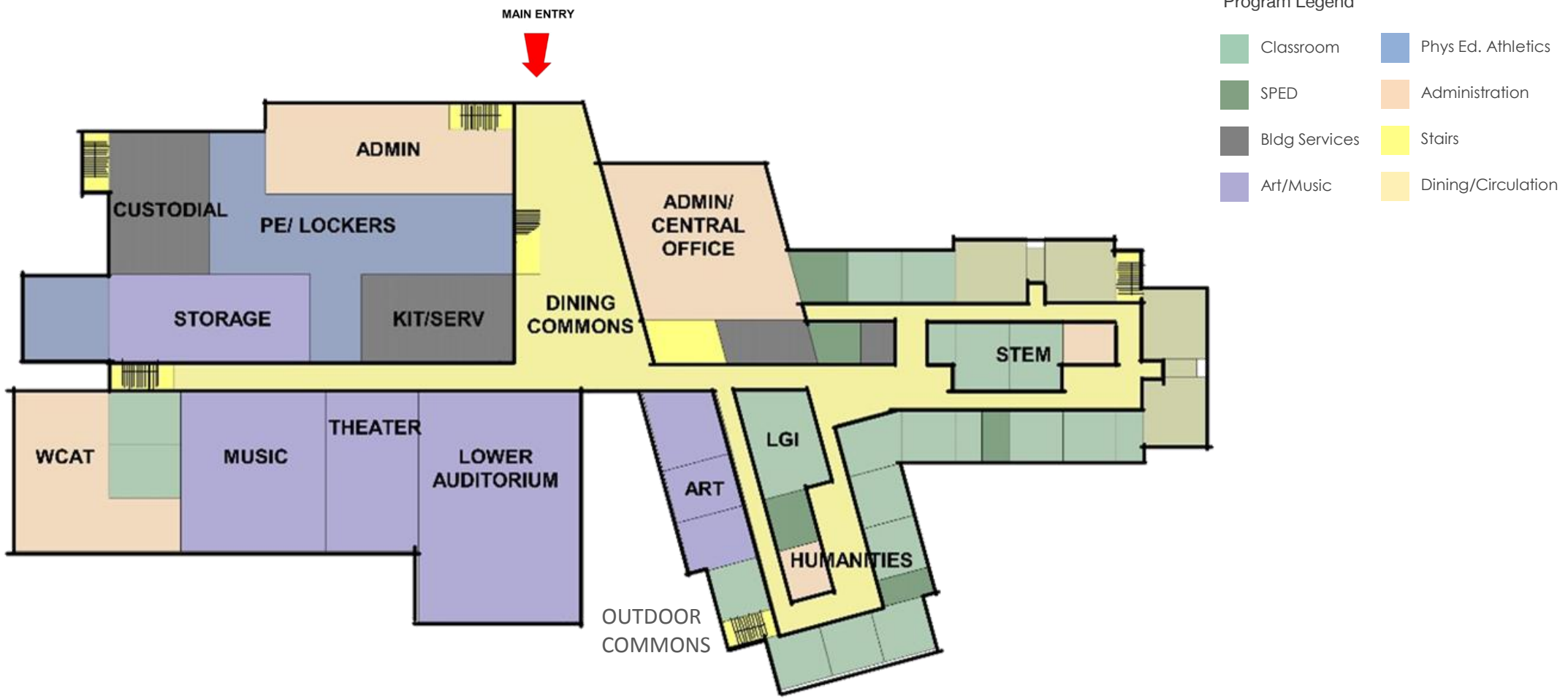
Alt. 3b – Site Plan Option 4



WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 3b – Plan Option 4

» Level 1



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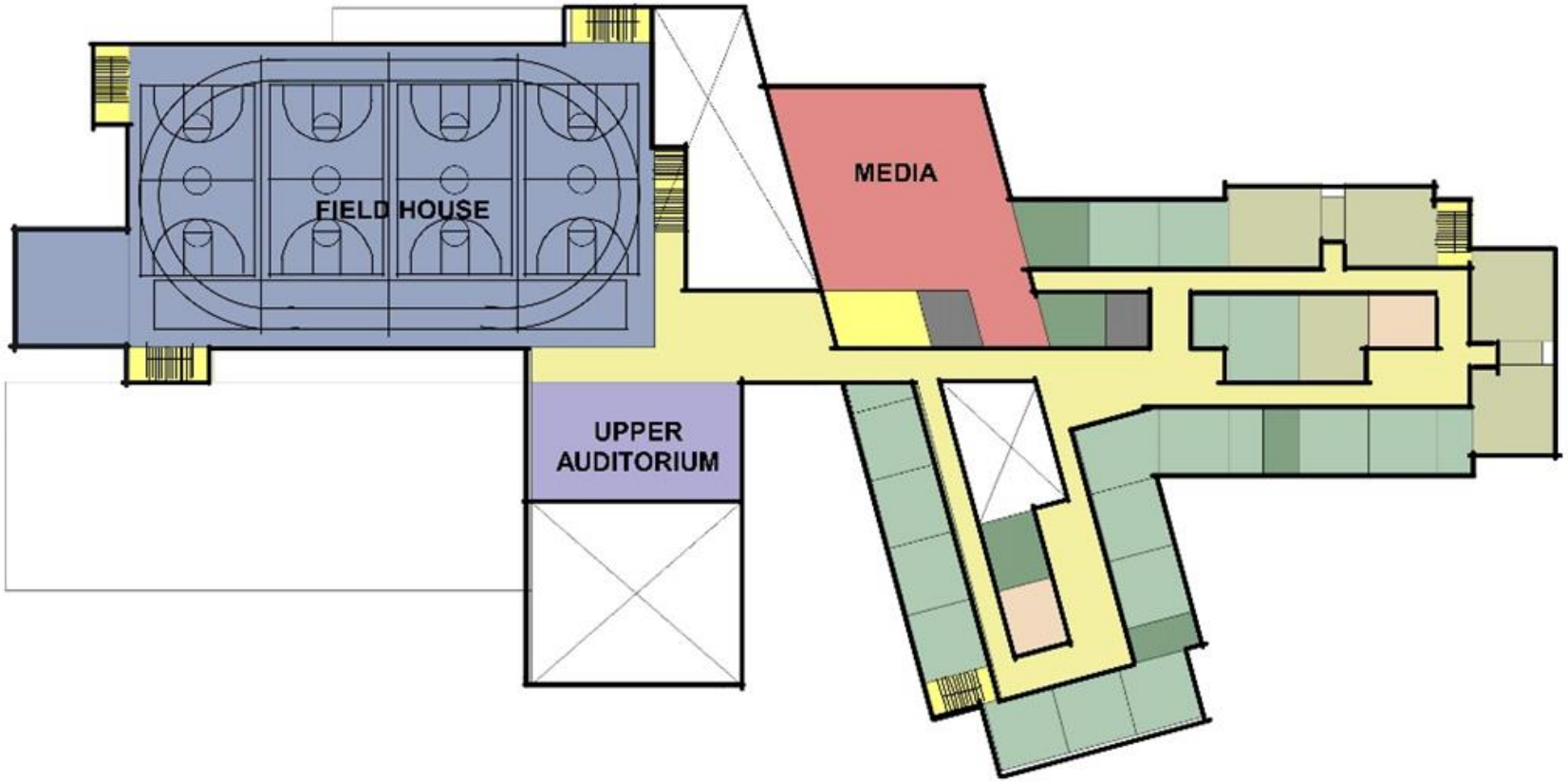
WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 3b – Plan Option 4

» Level 2



Program Legend

- Classroom
- Phys Ed. Athletics
- SPED
- Administration
- Bldg Services
- Stairs
- Art/Music
- Dining/Circulation

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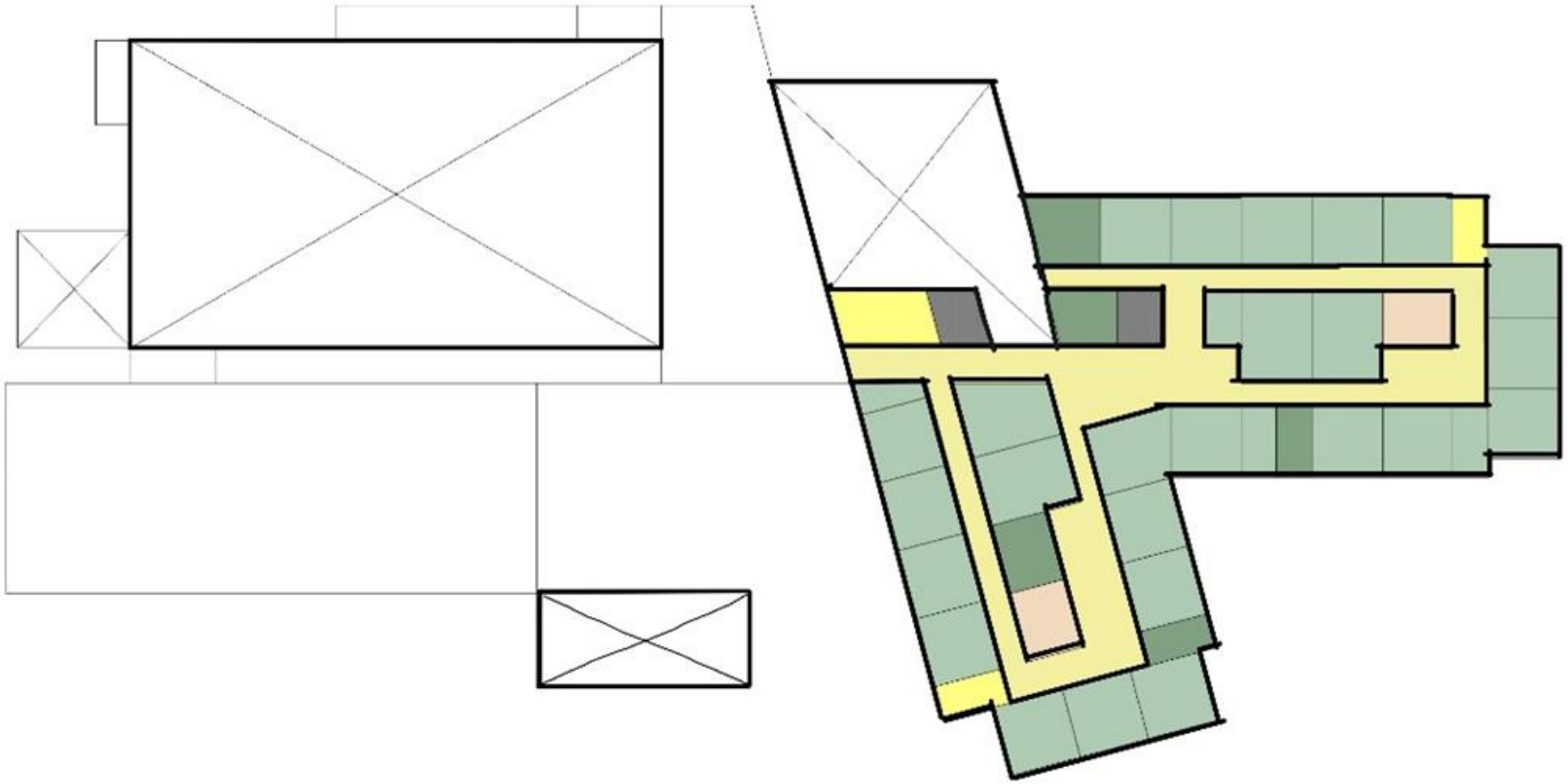
Alt. 3b – Plan Option 4

» Level 3



Program Legend

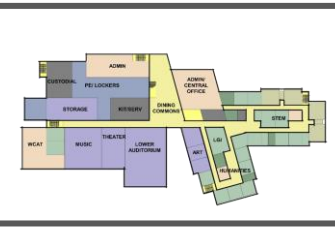
- Classroom
- SPED
- Bldg Services
- Art/Music
- Phys Ed. Athletics
- Administration
- Stairs
- Dining/Circulation

WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 3b –Option 4 Massing Views

WAKEFIELD MEMORIAL HIGH SCHOOL

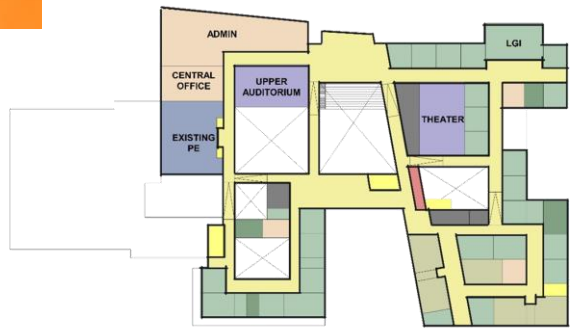
Alt. 3b – “March Madness”



3b – Program Options

3b – Preferred Option

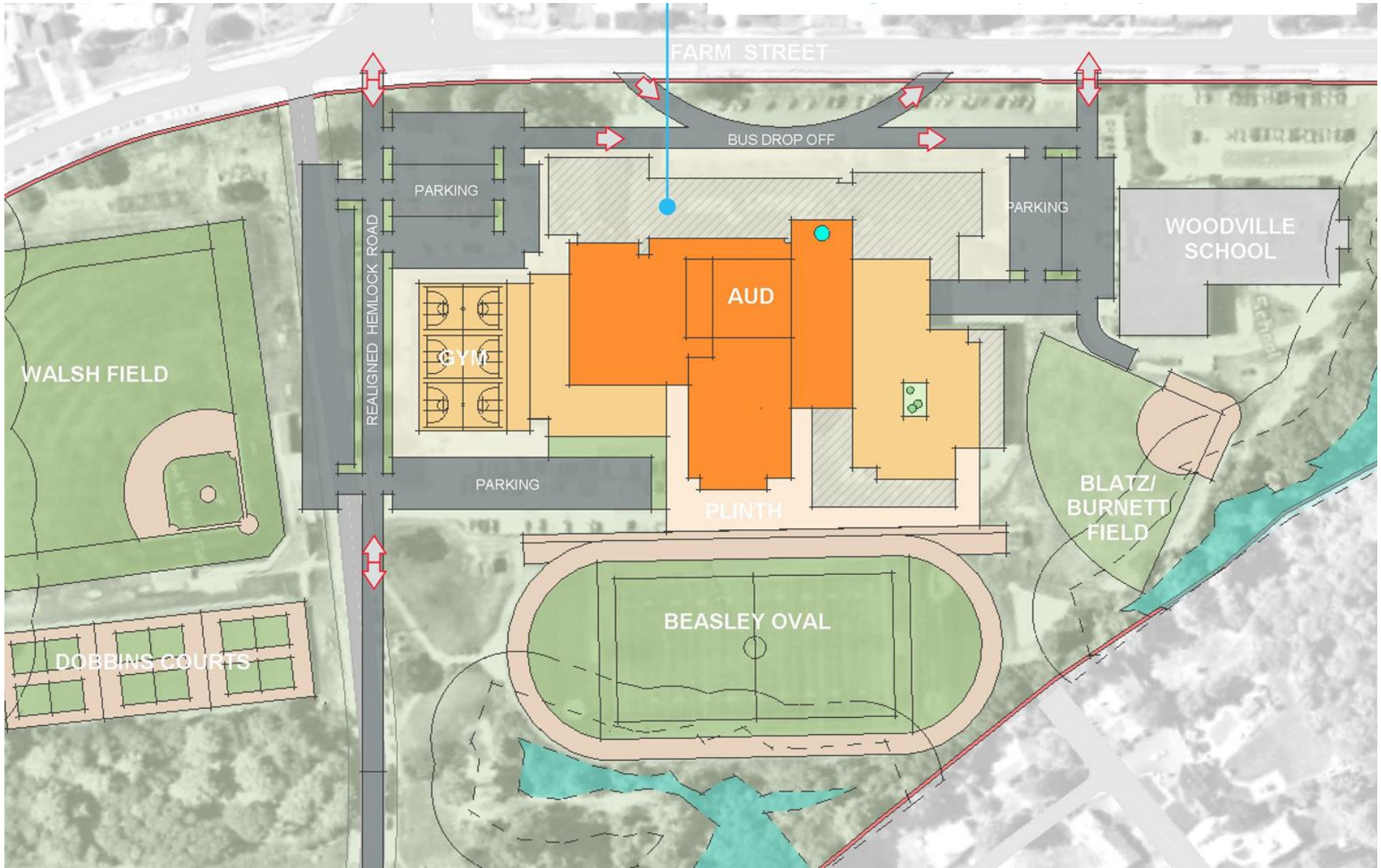
vs



2a Add/Reno Alternative

SMMA

PDP Alt. 2a – Addition and Renovation



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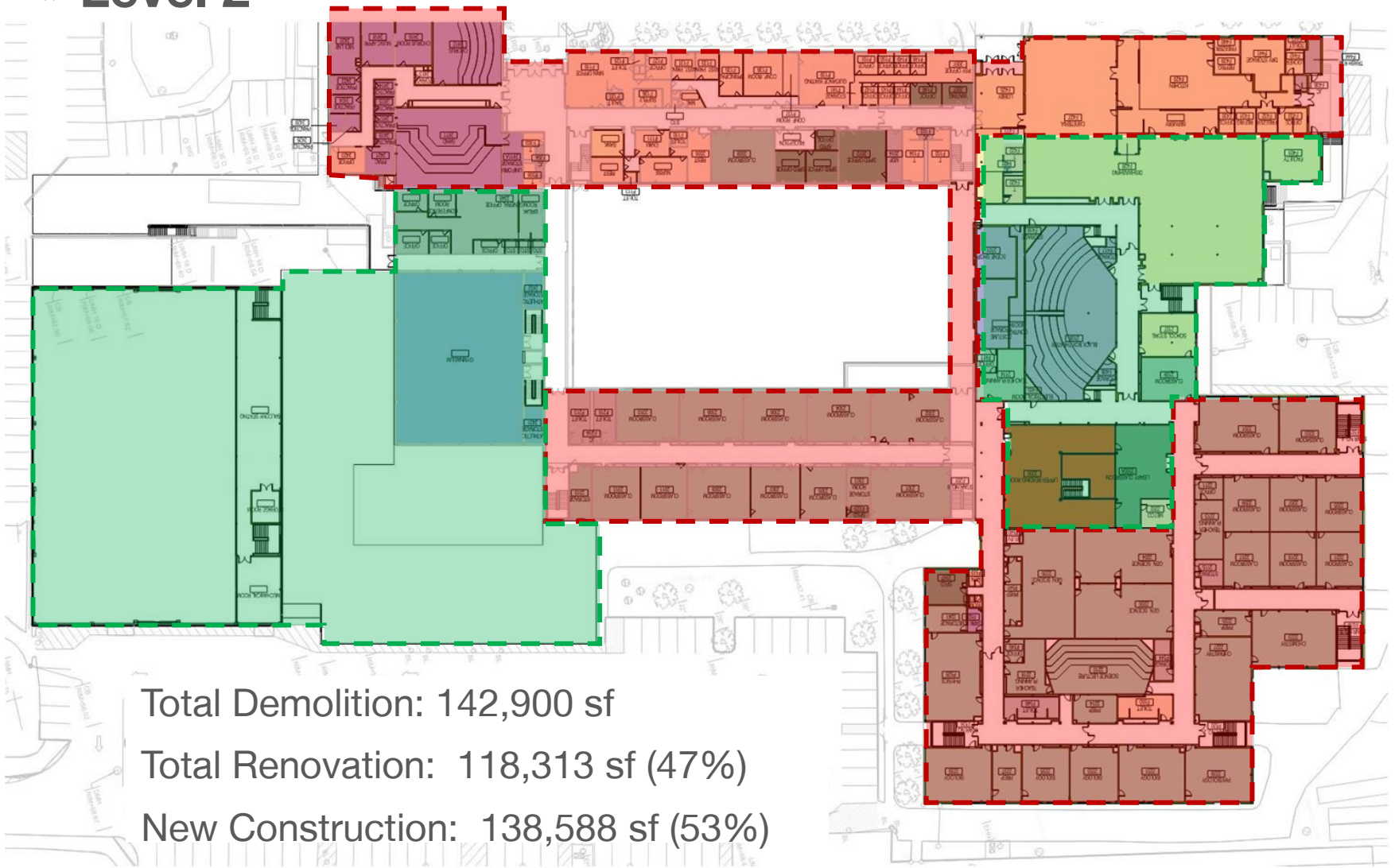
WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 2a – Addition and Renovation

Existing Plan

» Level 2



Total Demolition: 142,900 sf

Total Renovation: 118,313 sf (47%)

New Construction: 138,588 sf (53%)

Program Legend

- Classroom
- SPED
- Bldg Services
- Art/Music
- Phys Ed. Athletics
- Administration
- Stairs
- Dining/Circulation

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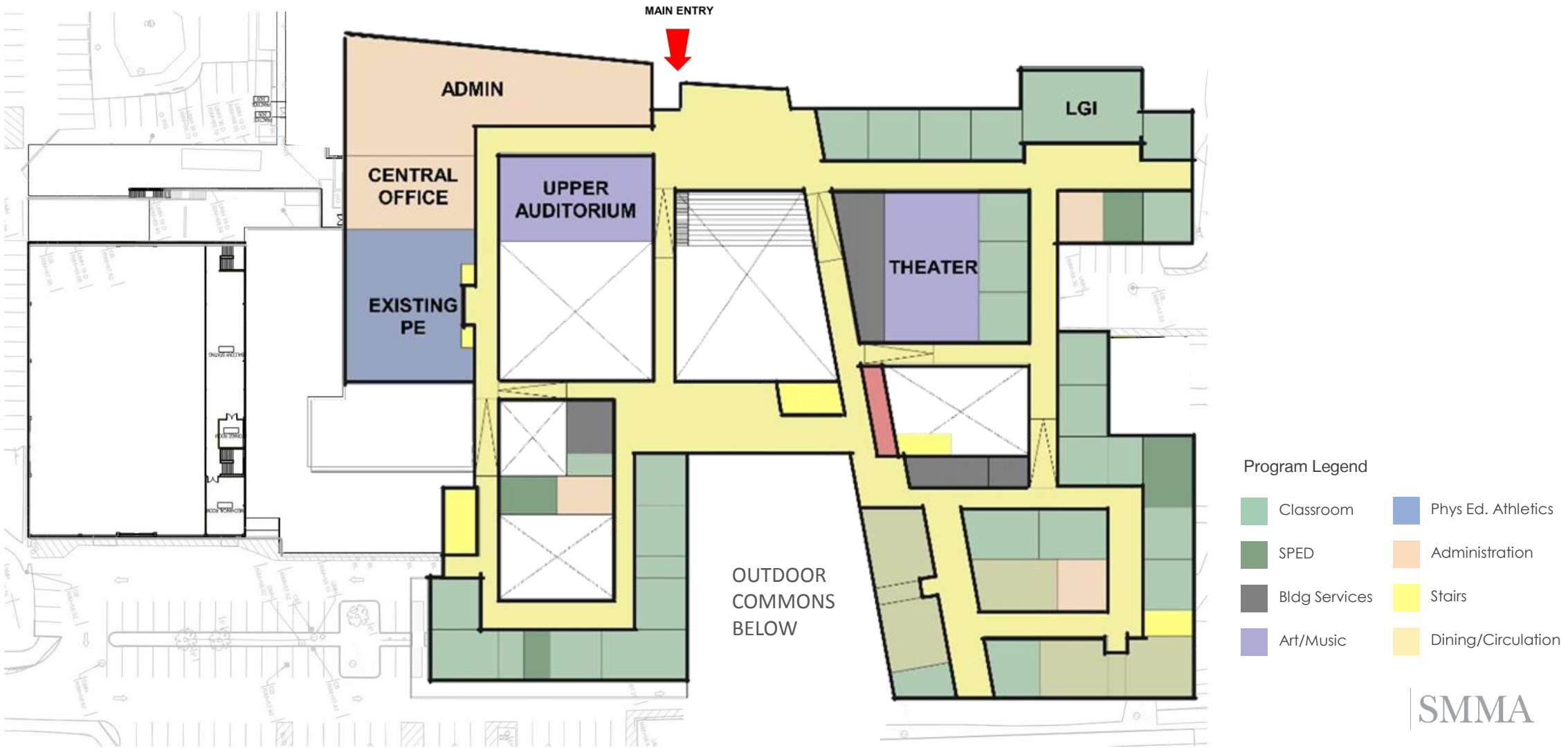
Alt. 2a – Plan

» Level 2



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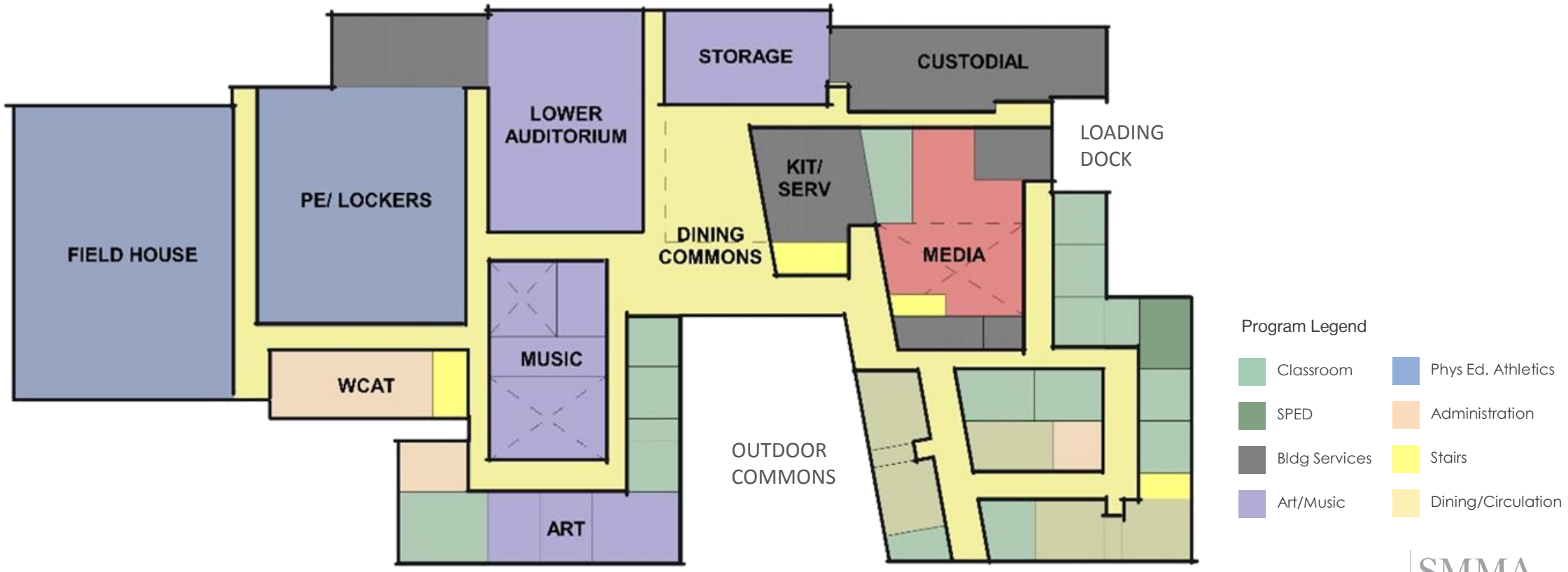
Alt. 2a – Plan

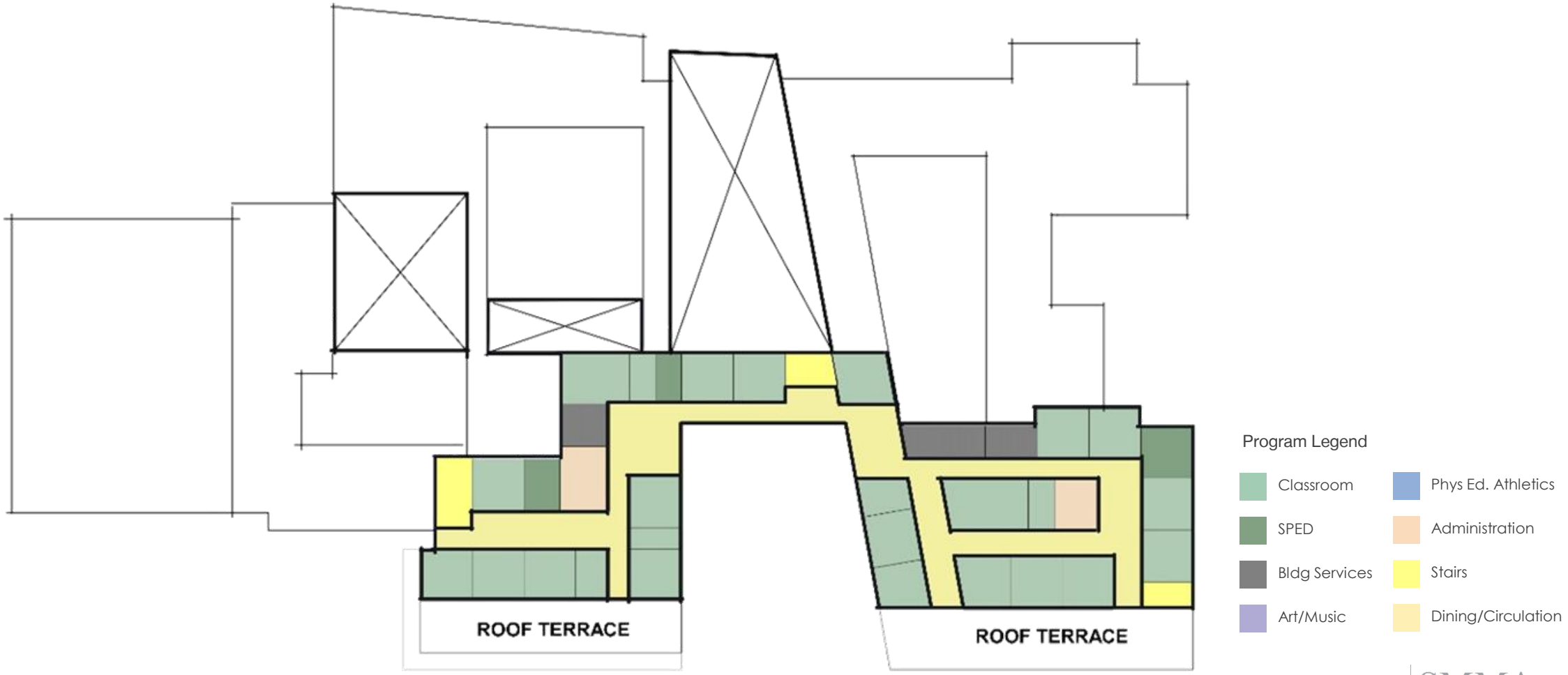
» Level 1



SMMA

Alt. 2a – Plan

» Level 3



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WAKEFIELD MEMORIAL HIGH SCHOOL

Alt. 2a – Massing Views

SMMA

WAKEFIELD MEMORIAL HIGH SCHOOL

Thank You!