Coakley Middle School

Norwood Public Schools

Middle School Building Committee

October 4, 2021

Agenda

September 13, 2021

- PSR, FAS, & Schedule update
- SD Design update

October 4, 2021

- Public Forum #5 update
- Schematic Design update
- D.B.B. vs. CMr update
- Auditorium size discussion/vote
- Turf field discussion/vote
- Sports lighting discussion/vote

COAKLEY MIDDLE SCHOOL

Ai3 architects

COMPASS PROJECT MANAGEMENT
A VERTEX COMPANY

Ai3 Architects, LLC
Compass Project Management

Community Forum #5

Coakley Middle School

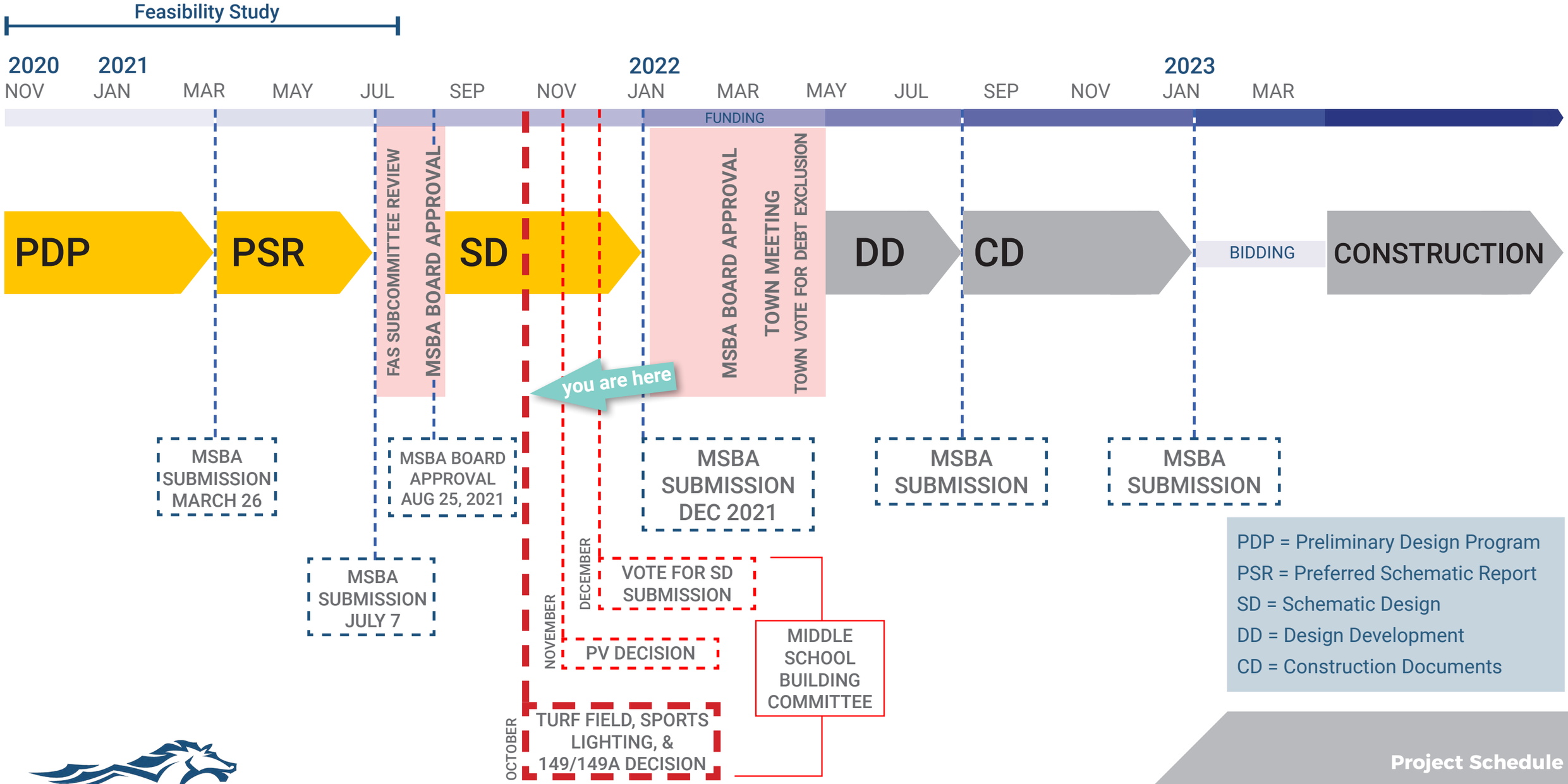
Agenda

September 23, 2021

- Introductions
- Agenda
- Project Schedule & Next Steps
- Design update
  - Floor Plans
  - Site Plan
  - Exterior Renderings
- Questions & Answers

COAKLEY MIDDLE SCHOOL

Project Schedule



PDP = Preliminary Design Program
PSR = Preferred Schematic Report
SD = Schematic Design
DD = Design Development
CD = Construction Documents

COAKLEY MIDDLE SCHOOL

NET ZERO & SUSTAi$_3$NABLE DESIGN

PATH TO NZE

1 Eliminate Fossil Fuels

Design an all electric building

2 Reduce Demand

Target a low EUI

3 Produce Electricity On-Site

New Coakley Middle School anticipated annual energy consumption:

1,376,400 kWh

Required PV to offset building use

- Approximately 30,000 sf of panels on the roof
- Approximately 30,000 sf of panels over parking spaces

SCHEMATIC DESIGN (SD)
TABLE OF CONTENTS

Table of Contents

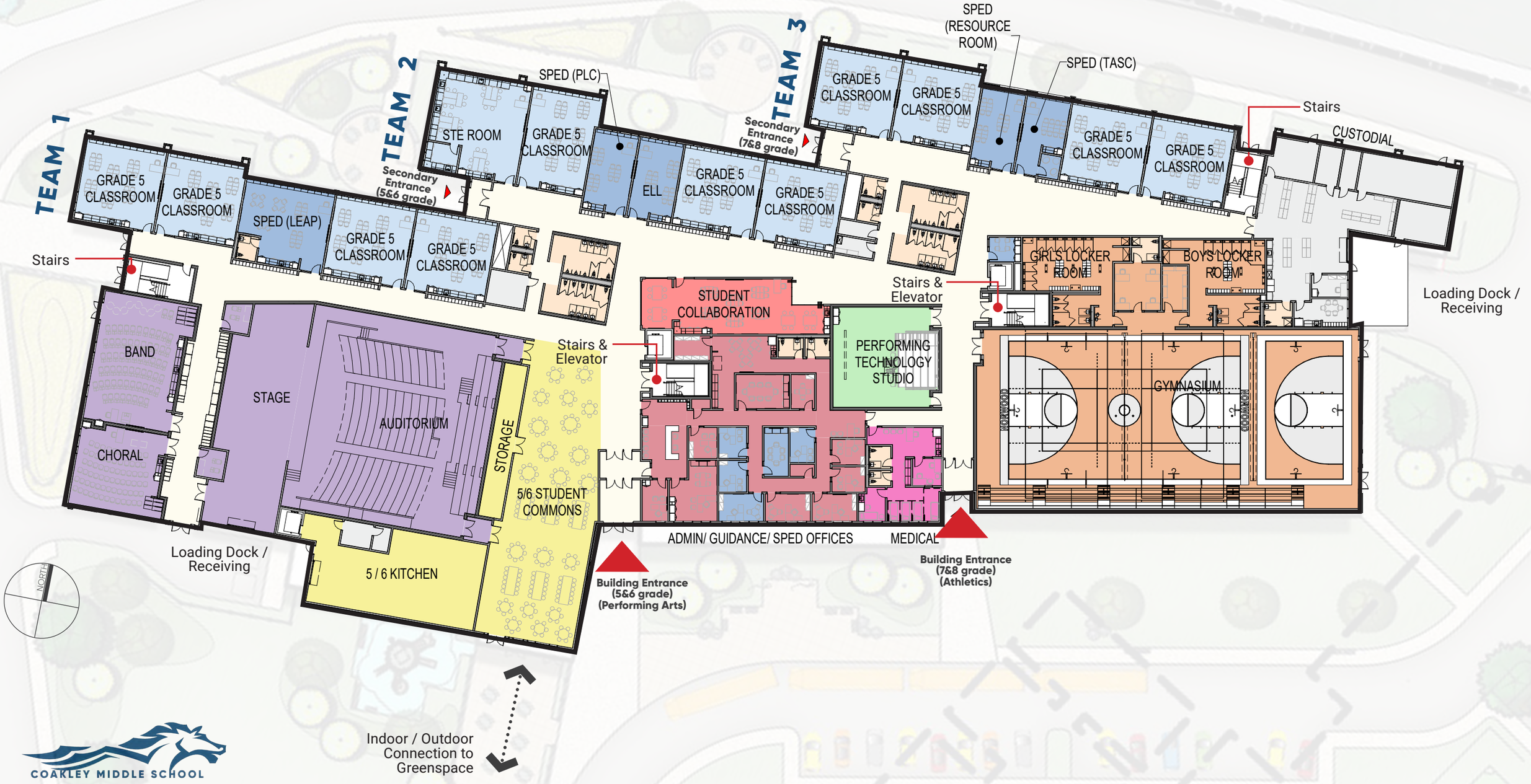
Dark Gray - Items related to the Building Option that is required for submission

Light Gray - Items submitted in previous PSR report that are required to be submitted again

COAKLEY MIDDLE SCHOOL

FLOOR 1

GRADE 5



COAKLEY MIDDLE SCHOOL

FLOOR 2

GRADE 6

COAKLEY MIDDLE SCHOOL

FLOOR 3

GRADE 7

COAKLEY MIDDLE SCHOOL

FLOOR 4

GRADE 8

COAKLEY MIDDLE SCHOOL

ATHLETIC STORAGE

GREENSCREEN FENCING

SERVICE

BIG BLOCK WALLS

STONE VENEER WALL

ATHLETIC STORAGE

STONE VENEER WALL

RAIN GARDEN

PATH TO FIELDS

OVERFLOW PARKING

DECORATIVE PAVEMENT

RAIN GARDEN

SIGN

RAIN GARDEN

GREENSCREEN FENCING

MEDIUM SHADE TREE

ATHLETIC STORAGE

ORNAMENTAL BENCH

SERVICE

DECORATIVE PAVING

FLAG POLE

ORNAMENTAL BENCH

BERM

STUDENT COMMONS PLAZA

BUFFER PLANTING

5TH GRADE PLAYGROUND

BERM

SIGN

LARGE SHADE TREE

BUS PARKING

SIGN

LANDSCAPED ACADEMIC AREA

SEAT WALLS/FURNITURE

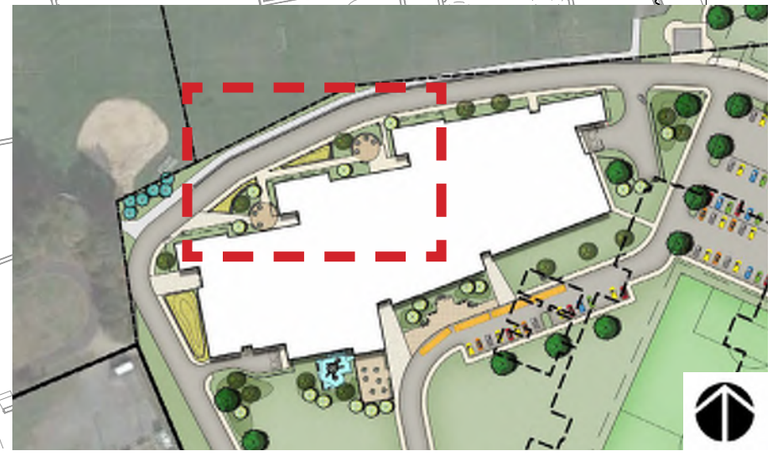
MULTI-FUNCTION PAVED OUTDOOR ACADEMIC SPACE

MOUNDED LANDSCAPE AREA

TO EXISTING WOODLAND TRAILS

CLASSROOMS

MULTI-FUNCTION PAVED OUTDOOR ACADEMIC SPACE



PROJECT SITE

STUDENT OUTDOOR ENGAGEMENT

SEAT WALLS/FURNITURE

CLASS & INDIVIDUAL OPPORTUNITIES

LANDSCAPE BOULDERS

Unifying Element

Industrialization -> Mill Buildings

"The industrialization of Norwood is the most significant and distinctive feature of its history. Beginning in the mid-19th century, local tanneries, printing presses, ink manufacturers and other industries helped transform Norwood into a booming and ethnically-diverse industrial town." *Norwood Historical Society*

NORWOOD HIGH SCHOOL

NORWOOD

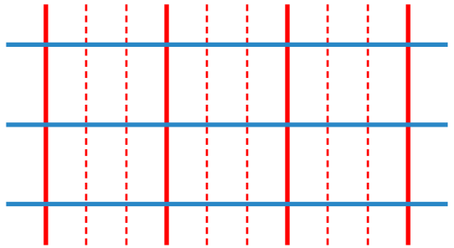
THE NEW COAKLEY MIDDLE SCHOOL

BALCH ELEMENTARY SCHOOL

Design Parameters: Existing Building Reflection

Patterns & Repetition

WHAT IS THE STRUCTURAL GRID AND BAY SPACING AND WHY?



Structural Grid - Then vs. Now

Penthouse | Roof Monitor | Addition

HOW ARE THE ELEMENTS AT THE TOP OF THE BUILDING TREATED?

ENTABLATURE

FIELD

Treatment of base of building | Connection to ground

HOW DOES THE BUILDING INTERACT WITH THE GROUND?

ENTABLATURE

FIELD

PLINTH

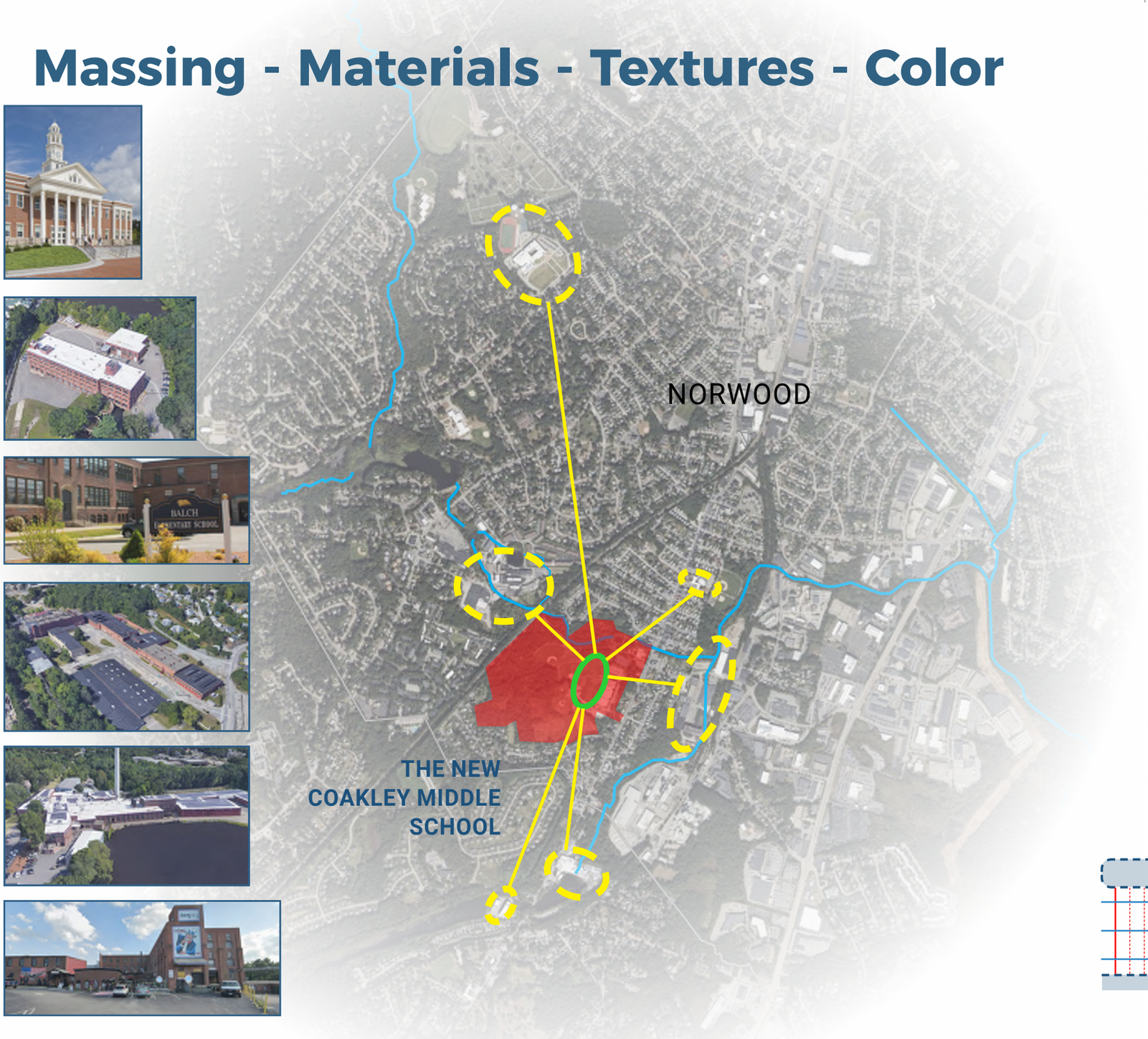
BUILDING INSET PANELS

BRICK CONTINUATION

BUILDING STORY INTEGRATION

COAKLEY MIDDLE SCHOOL

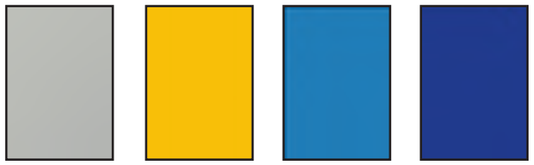
Massing - Materials - Textures - Color



COAKLEY MIDDLE SCHOOL MATERIALS PALETTE

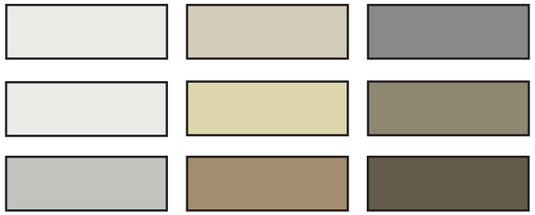
ACCENT

$$$ Metal panel cladding



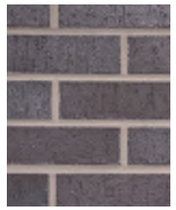
FIELD

$ Fiber Cement panels



$$ Brick

Brick Accent



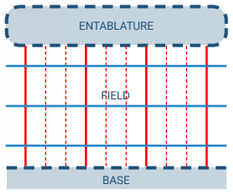
Brick Field

BASE

$$

Split-face CMU

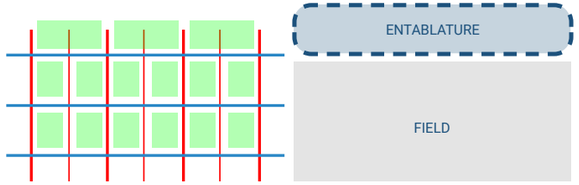
Brick

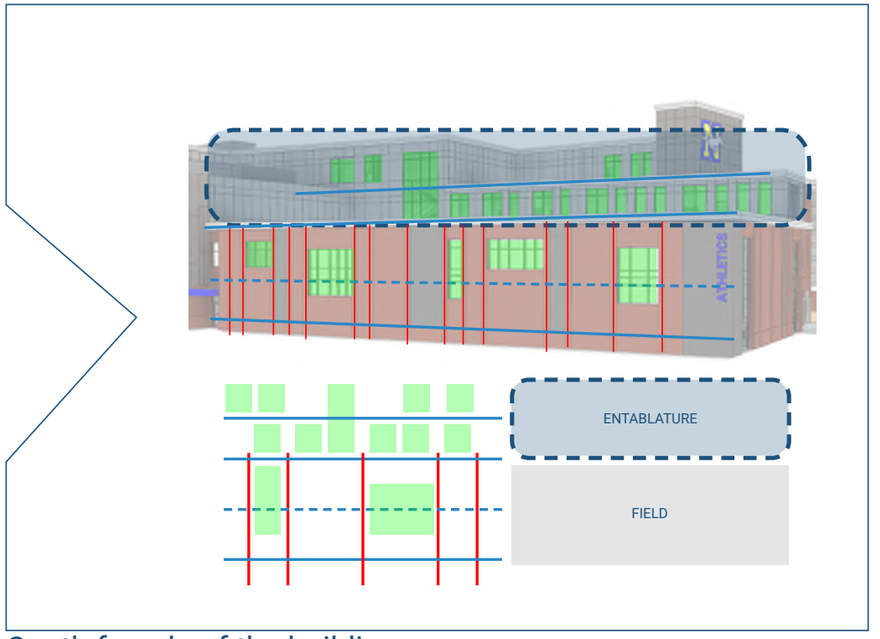


• UTILIZE DURABLE MATERIALS • PROVIDE IDENTIFIABLE ENTRY POINTS • HIGHLIGHT SPECIFIC BUILDING ELEMENTS • REDUCE BUILDING SCALE & MASSING • RELATE BUILDING AND MATERIALS TO SURROUNDING SITE & TOWN • PROVIDE BRANDING & IDENTITY FOR STUDENTS • DESIGN FOR SUSTAINABILITY

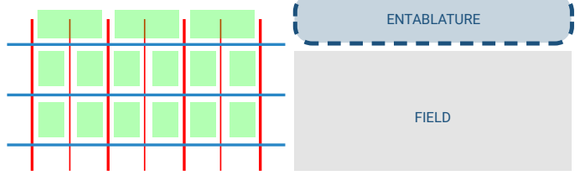
Taking the traditional

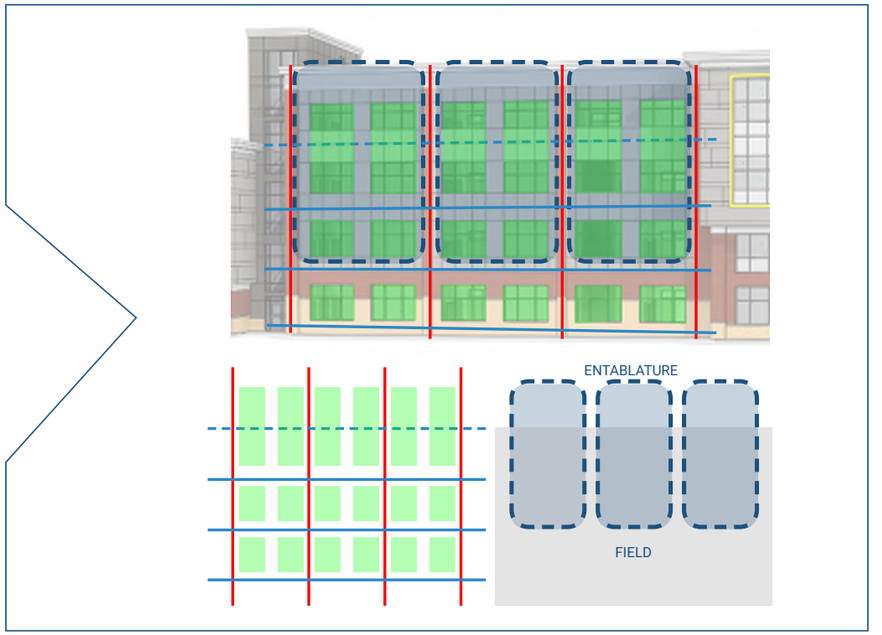
and REDEFINING THE LIMITS





South facade of the building





North facade of the building

COAKLEY MIDDLE SCHOOL

Performing Arts | Student Commons | Admin / Guidance / Nurse & Media Center | Athletics

COAKLEY MIDDLE SCHOOL

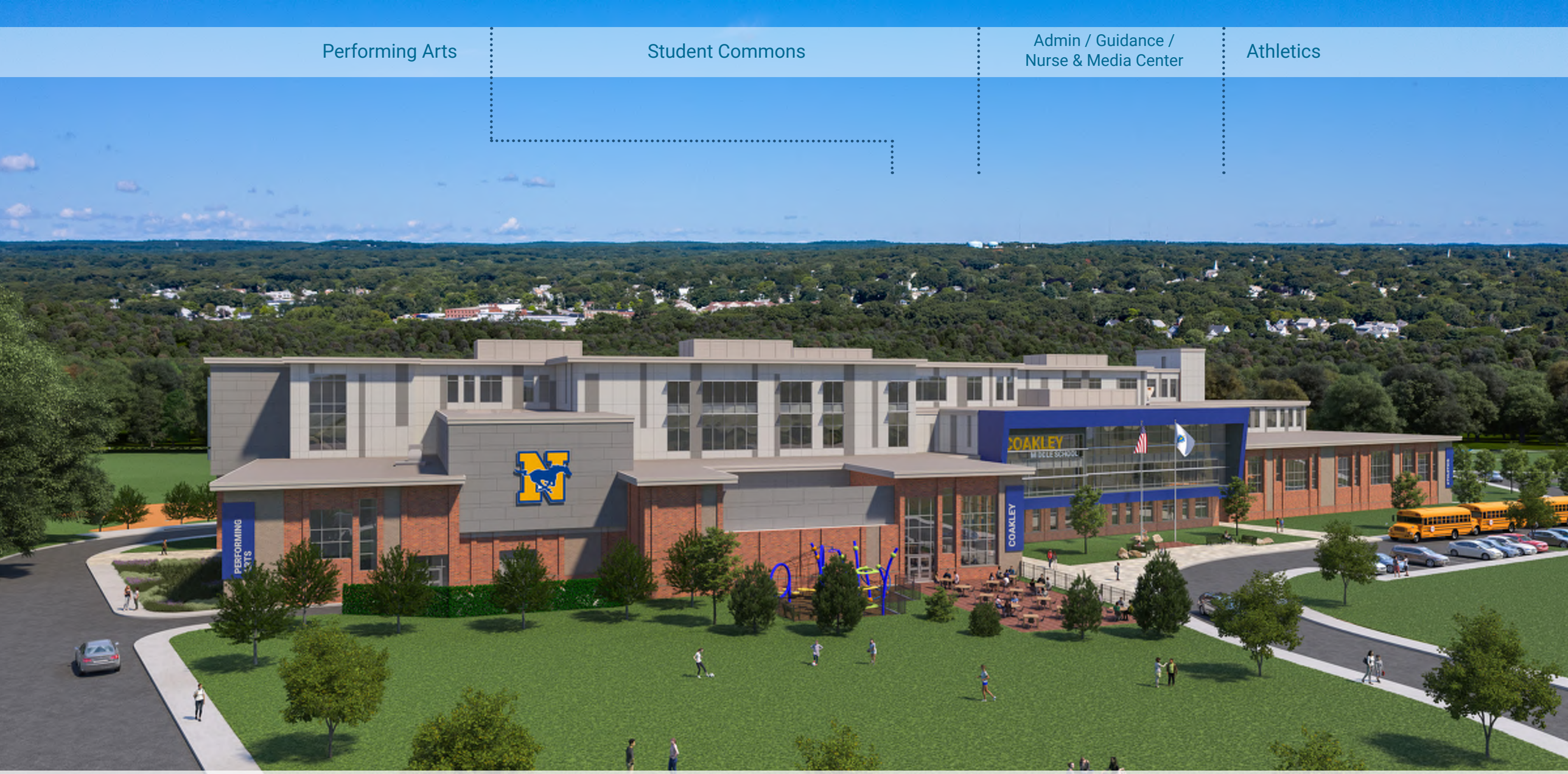
• UTILIZE DURABLE MATERIALS • PROVIDE IDENTIFIABLE ENTRY POINTS • HIGHLIGHT SPECIFIC BUILDING ELEMENTS • REDUCE BUILDING SCALE & MASSING • RELATE BUILDING AND MATERIALS TO SURROUNDING SITE & TOWN • PROVIDE BRANDING & IDENTITY FOR STUDENTS • DESIGN FOR SUSTAINABILITY

Performing Arts

Student Commons

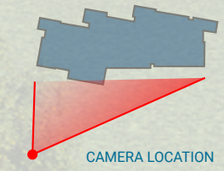
Admin / Guidance /
Nurse & Media Center

Athletics



COAKLEY MIDDLE SCHOOL

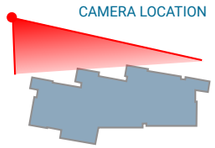
• UTILIZE DURABLE MATERIALS • PROVIDE IDENTIFIABLE ENTRY POINTS • HIGHLIGHT SPECIFIC BUILDING ELEMENTS • REDUCE BUILDING SCALE & MASSING • RELATE BUILDING AND MATERIALS TO SURROUNDING SITE & TOWN • PROVIDE BRANDING & IDENTITY FOR STUDENTS • DESIGN FOR SUSTAINABILITY



Art & Language | Team 3 | Team 2 | Team 1 | Performing Arts

COAKLEY MIDDLE SCHOOL

• UTILIZE DURABLE MATERIALS • PROVIDE IDENTIFIABLE ENTRY POINTS • HIGHLIGHT SPECIFIC BUILDING ELEMENTS • REDUCE BUILDING SCALE & MASSING • RELATE BUILDING AND MATERIALS TO SURROUNDING SITE & TOWN • PROVIDE BRANDING & IDENTITY FOR STUDENTS • DESIGN FOR SUSTAINABILITY



CM at Risk: Rationale

- For complex; phased project on a very tight site with existing school in operation.
- Limited staging/laydown area; The project needs a pro-active; flexible team player.
- Early Release/Enabling Packages (site roads; site demo; temp. facility set-up, etc) are critical to overall schedule and flexibility around the school's operations.
- Larger pool of potential CMs/More competition than "School" GCs.
- 65% of Middle School projects in MSBA uses CM@Risk method.

CM at Risk: Rationale

- Guaranteed Maximum Price “GMP” with open accounting of all costs.
- CM provides full professional team and shares in the “risk” via a GMP/ GMP Contingency.
- CM Pre-Construction services to help mitigate the Owner’s risk.
- Owner involved in de-scoping/award of all subcontractors. “Filed/Trade” subs still bid.
- Buy-out savings; unused GMP contingency; holds & allowances returned to the Owner. Reduces or “re-uses” some of the initial “cost premium”.

COAKLEY MIDDLE SCHOOL

CM at Risk: Rationale

- CM has more direct knowledge to the market condition and pricing during pre-construction which will allow for Norwood team to plan ahead before bidding and construction.

- CM can participate with the design team to work out options pending on the market condition such as choosing materials which are not in shortage or have delivery issues.

- It is possible to change from CM@Risk if the budget can not be met and move to a traditional Design Bid Build option. This would add three to six months to the project schedule and changes to contract documents. This would also reduce some of the higher cost of CM@Risk.

CM at Risk: Costs included in est. $105M construction cost

- Pre-Construction Fee: $200-500K
- General Conditions (i.e increased staffing) vs. DBB (+/- 1%) $1 M
- CM Fee (in addition to GCs; insurance; bonds, etc): (+/- 2%) negotiated $2 M
- CM GMP Contingency (within GMP): (+/- 2%) of cost of work; negotiated $2 M
- “Better” non-trade, sub-contractors: (+/- 1%) $1 M
- Initial “Cost Premium” total: 5-6% $5-6 M
- Often some costs are re-couped in buy-out savings and GMP contingency balances turned back to the Owner. These items are kept by GC in DBB.

COAKLEY MIDDLE SCHOOL

CM at Risk: Process, Timeline, Next Steps

Feb. 2022	• Prepare CM@Risk application
March 2022	• Submit CM@Risk Application to IG's Office
March – April 2022	• IG's office reviews the Application / Issues a Notice to Proceed
March 2022	• Prepare Request for Qualifications (RFQ)
April 2022	• Create Pre-qualification Committee • Issue RFQ and Receive Statements of Qualifications (SOQ)
May 2022	• Create Selection Committee • Pre-qualify at least three (3) CM@Risk firms • Prepare and Issue Request for Proposals (RFPs) • Receive, evaluate, and rank proposals
June 2022	• Interview finalists • Award CM@ Risk firm

COAKLEY MIDDLE SCHOOL

AUDITORIUM CAPACITY

5 - 8
grade configuration - 1,070 students

1/2 enrollment	535 seats	auditorium = 5,500 SF
1/2 enrollment plus staff	**600 seats**	**auditorium = 6,600 SF**
	700 seats	auditorium = 7,700 SF
	800 seats	auditorium = 8,800 SF
High School capacity	800 seats	auditorium = 8,860 SF
Coakley existing capacity	850 seats	auditorium = 8,320 SF

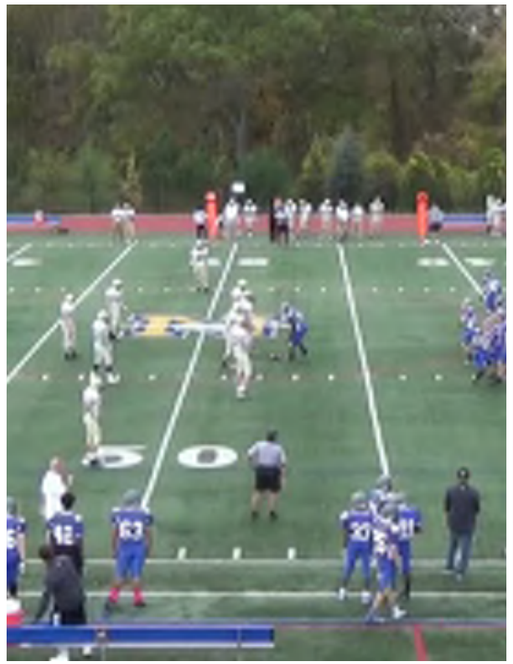
MSBA caps size of auditorium & associated spaces at 13,300 SF

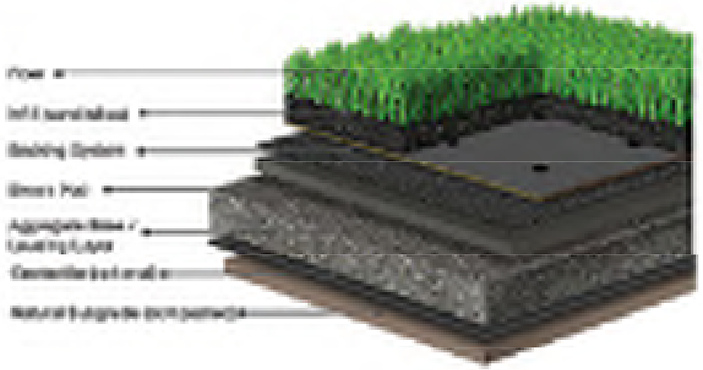
MSBC voted to proceed at PSR phase with Auditorium up to 600 seats

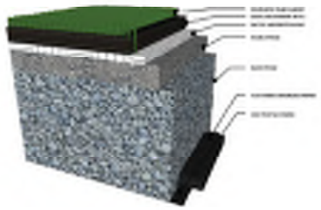
COAKLEY MIDDLE SCHOOL

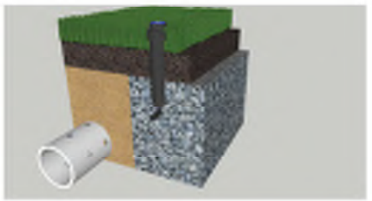
Why Synthetic Turf?

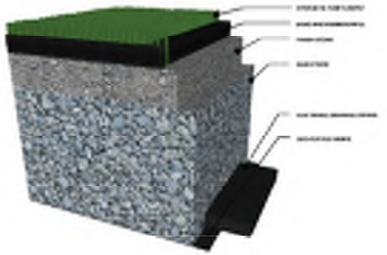
- Playability - 24/7/365
- Consistency
  - Field is usable in all seasons
  - Properly drained, field is usable in all weather conditions
  - Field synthetic turf provides a surface that is true and predictable for all athletes and sports. Specifically true for soccer, field hockey and lacrosse.
  - Consistency of field surface improves overall quality of play.
- Maintenance/Value
- Water Conservation

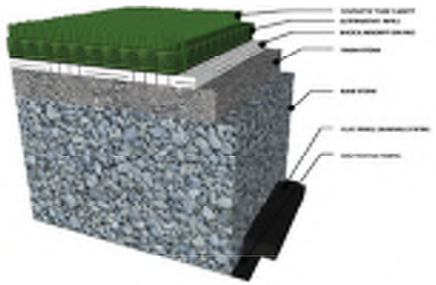








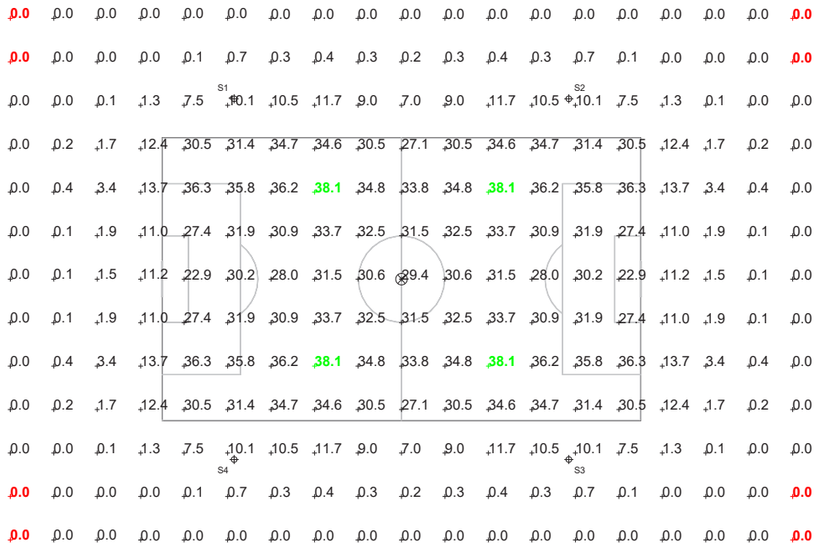


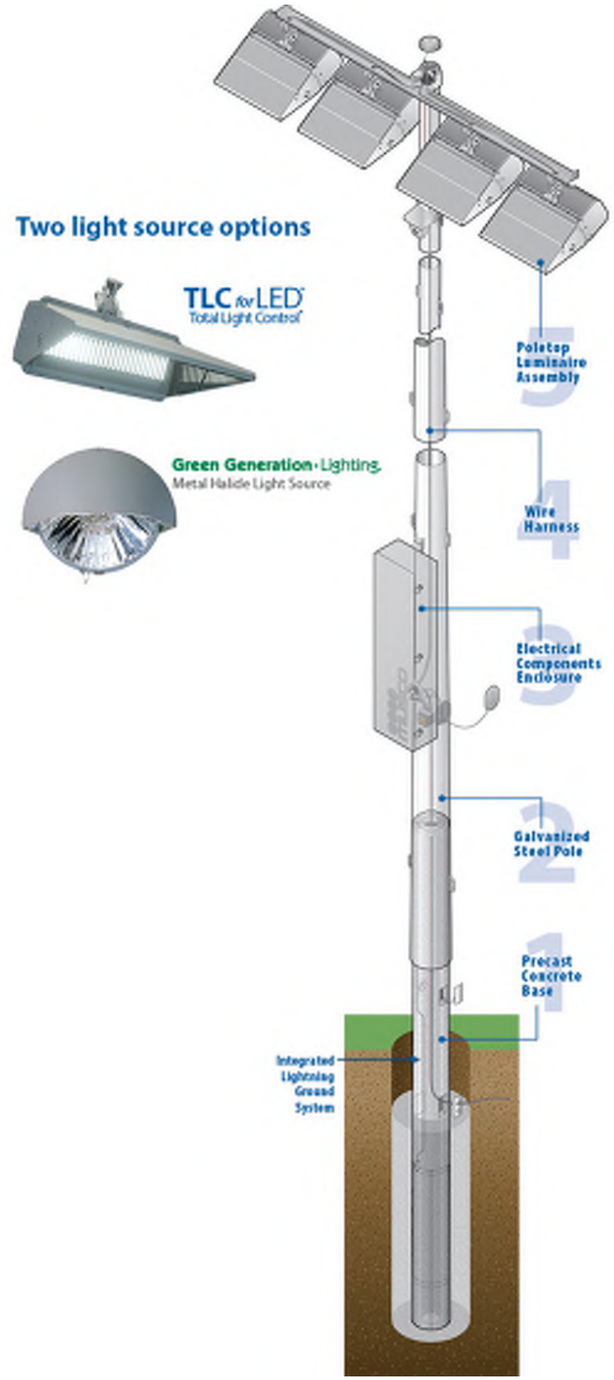


COAKLEY MIDDLE SCHOOL

Sport Lighting

- Photometric Study to determine the foot/ candles on the field surface and perimeter of 0.0 light spread
- Number and locations of lights
- Pole height required for lights (70’ ideal height for minimum light spread)
- Cut-off fixtures to control light spread
- Site sections and existing tree line to study relationships with abutters





COAKLEY MIDDLE SCHOOL

Question/Discussion

COAKLEY MIDDLE SCHOOL