

March 18, 2024

Lexington High School Project

School Building Committee Meeting No. 9

March 18, 2024, 12:00 PM



1. Call to Order & Intro**2. Previous Meeting Minutes Approval (Vote Expected) (5 minutes)**

- 2/26/24 Meeting Minutes
- 3/4/24 Meeting Minutes
- 3/11/24 Meeting Minutes

3. Design Update

- Accept Proposed Space Summary (15 minutes)
- Accept Site Development Requirements (15 minutes)
- Review Concept Massing Alternatives (20 minutes)

4. Community Meeting Feedback (10 minutes)**5. Communications Working Group Update (10 minutes)****6. Upcoming Meetings (10 minutes)****7. Other Topics not Reasonably Anticipated 48 hours prior to the meeting (5 minutes)****8. Public Comment (10 minutes)****9. Adjourn**

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Previous Meeting Minutes

- Meeting minutes approval from
2/26/24
- 3/4/24
- 3/11/24

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Lexington High School

School Building Committee
Meeting

03.18.2024



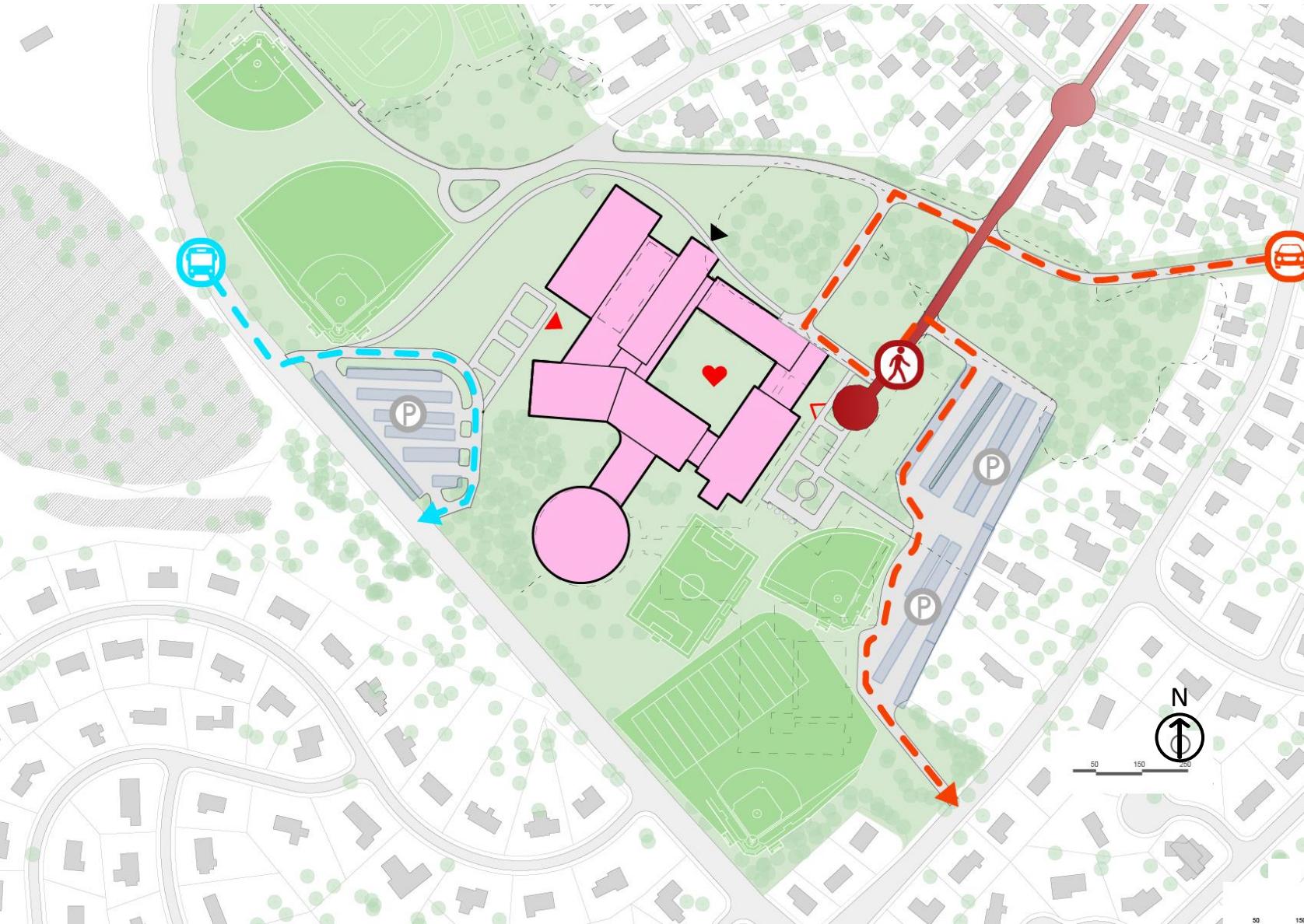
dw
DORE + WHITTIER

SMMA

Working Summary of Construction Alternatives

	A. Code Upgrade	B. Renovation & Addition	C. New Construction – One Phase								D. Multi Phase	
Alternative	A.1	B.1	B.2	C.1a	C.1b	C.2a	C.2b	C.3a	C.4a	C.4b	C.5	D.1

B.2 Renovation and Addition – Center Shift



Building Footprint: 246,800 sf
Floors: 2-4

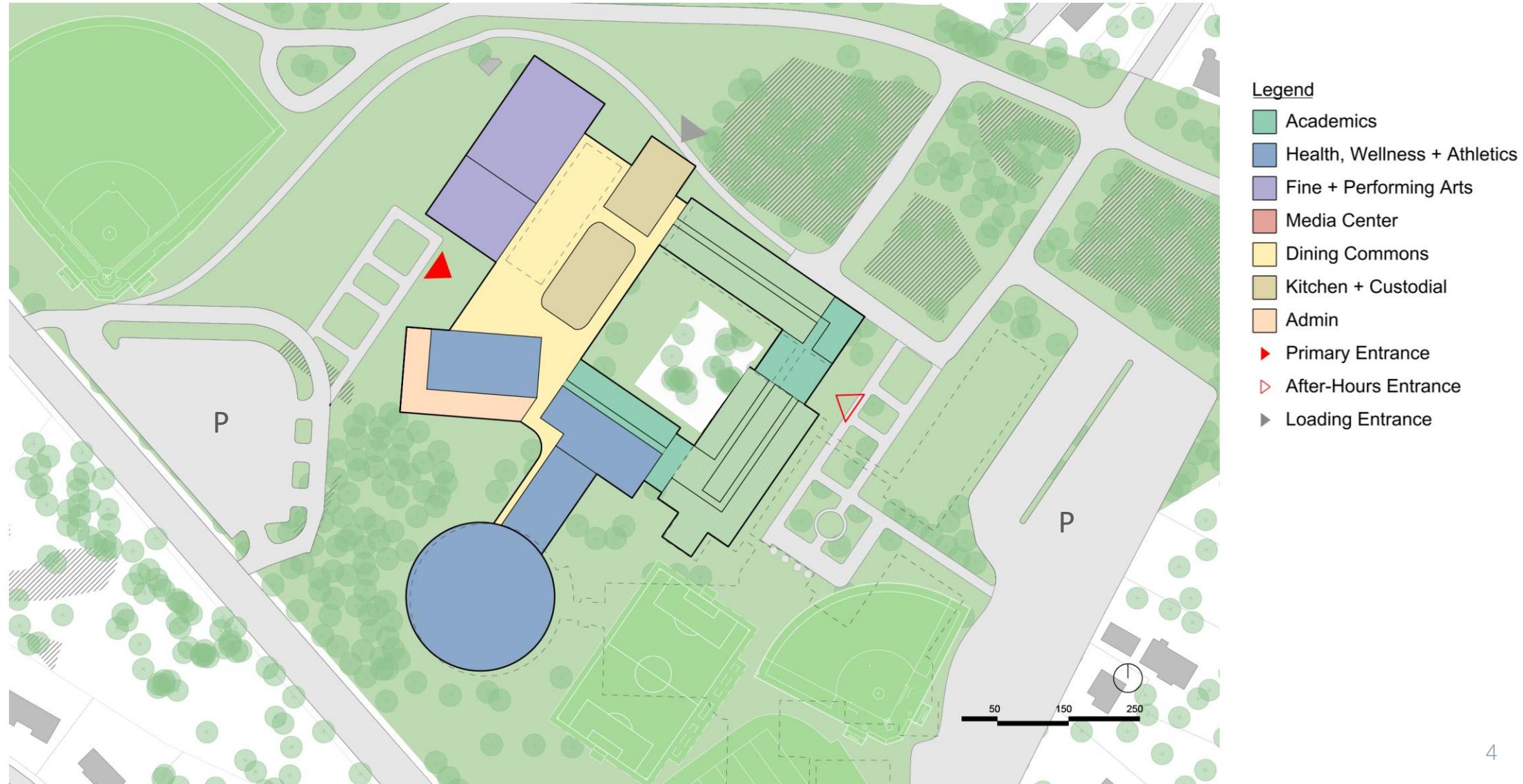
Pros:

- More Dense Massing Further From Neighborhood
- Preserves Existing Building G, and J Concrete Structures
- Access to Outdoors
- Enclosed Courtyard

Cons:

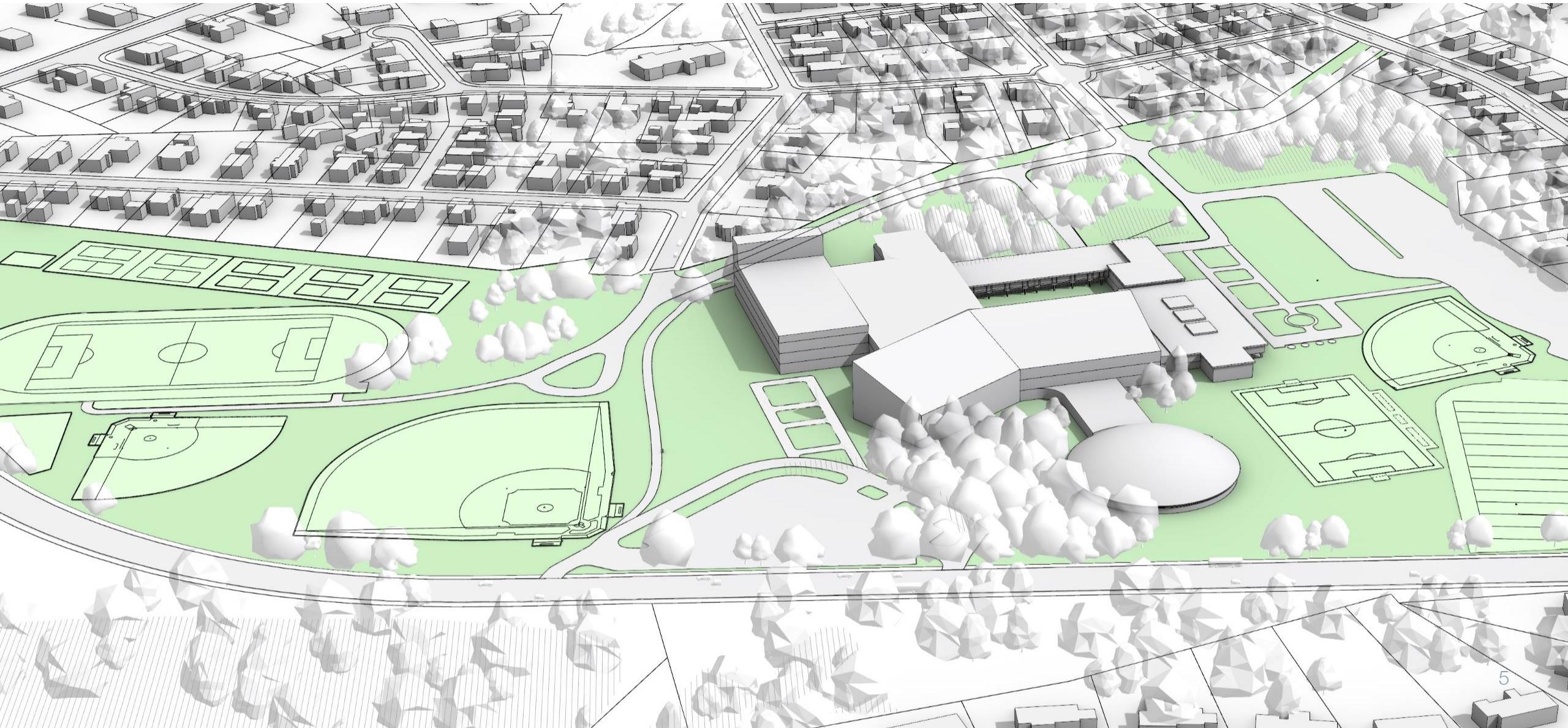
- Multi-Phase Construction
- Displaces Some Athletic Fields
- Renovations Down to Structure
- Low Headroom in Existing

B.2 Renovation and Addition – Center Shift

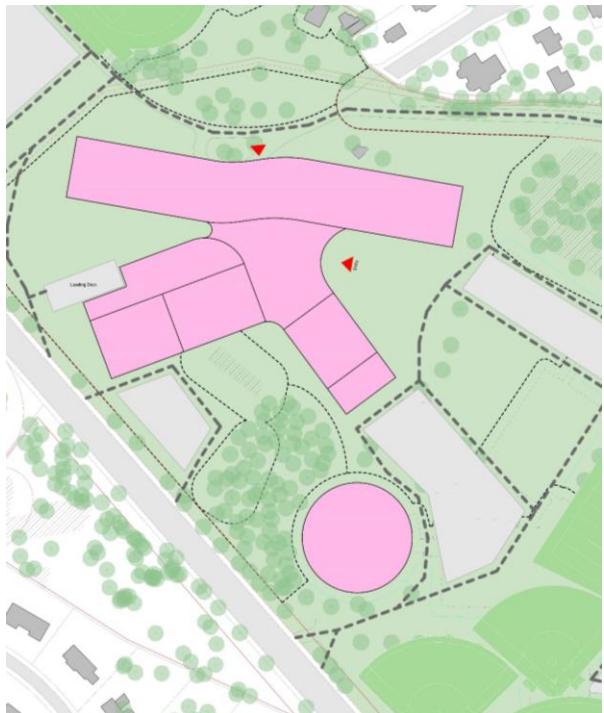


CONCEPT MASSING STUDIES

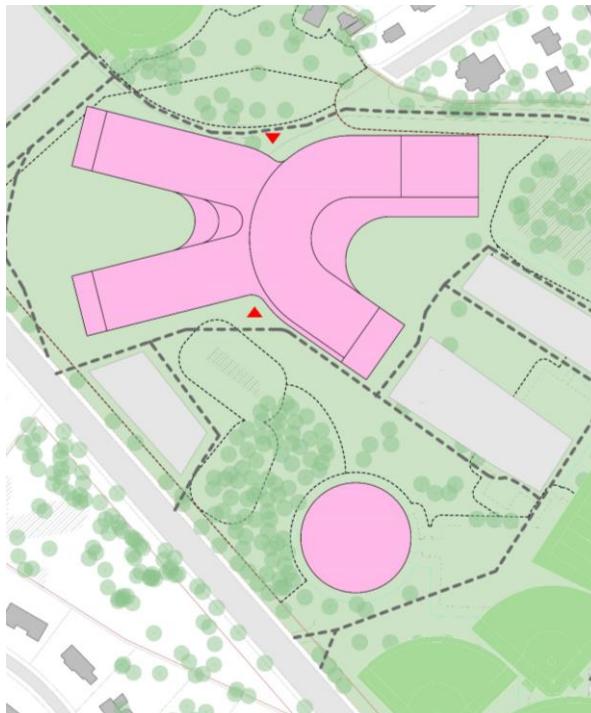
B.2 Renovation and Addition – Center Shift



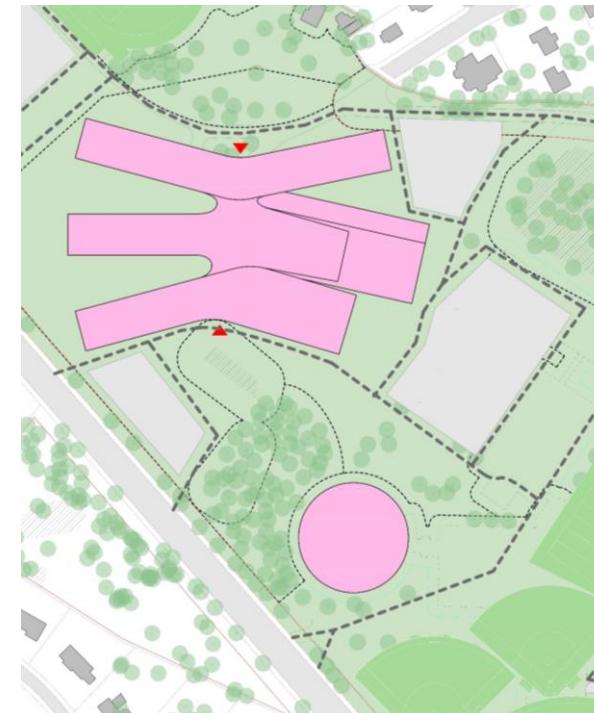
C New Construction in One Phase – 3 Stories



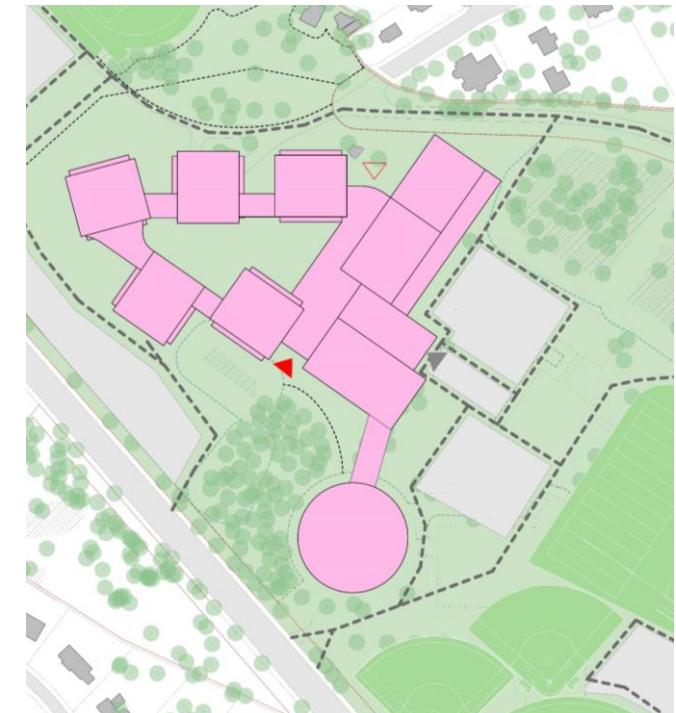
C.1a



C.2a

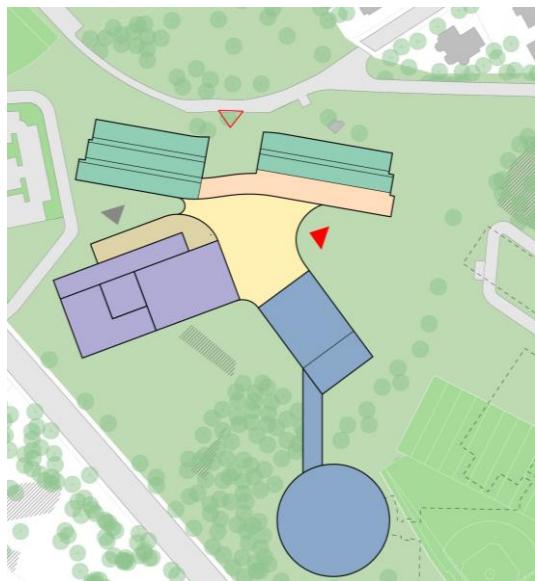


C.3a

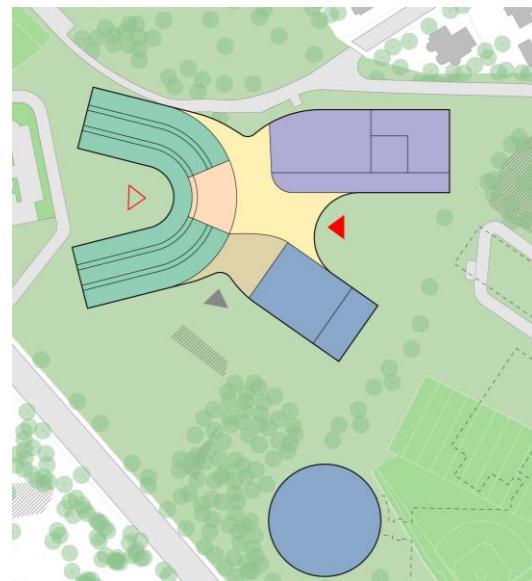


C.4a

C New Construction in One Phase - 4 to 5 Stories



C.1 b&c



C.2b

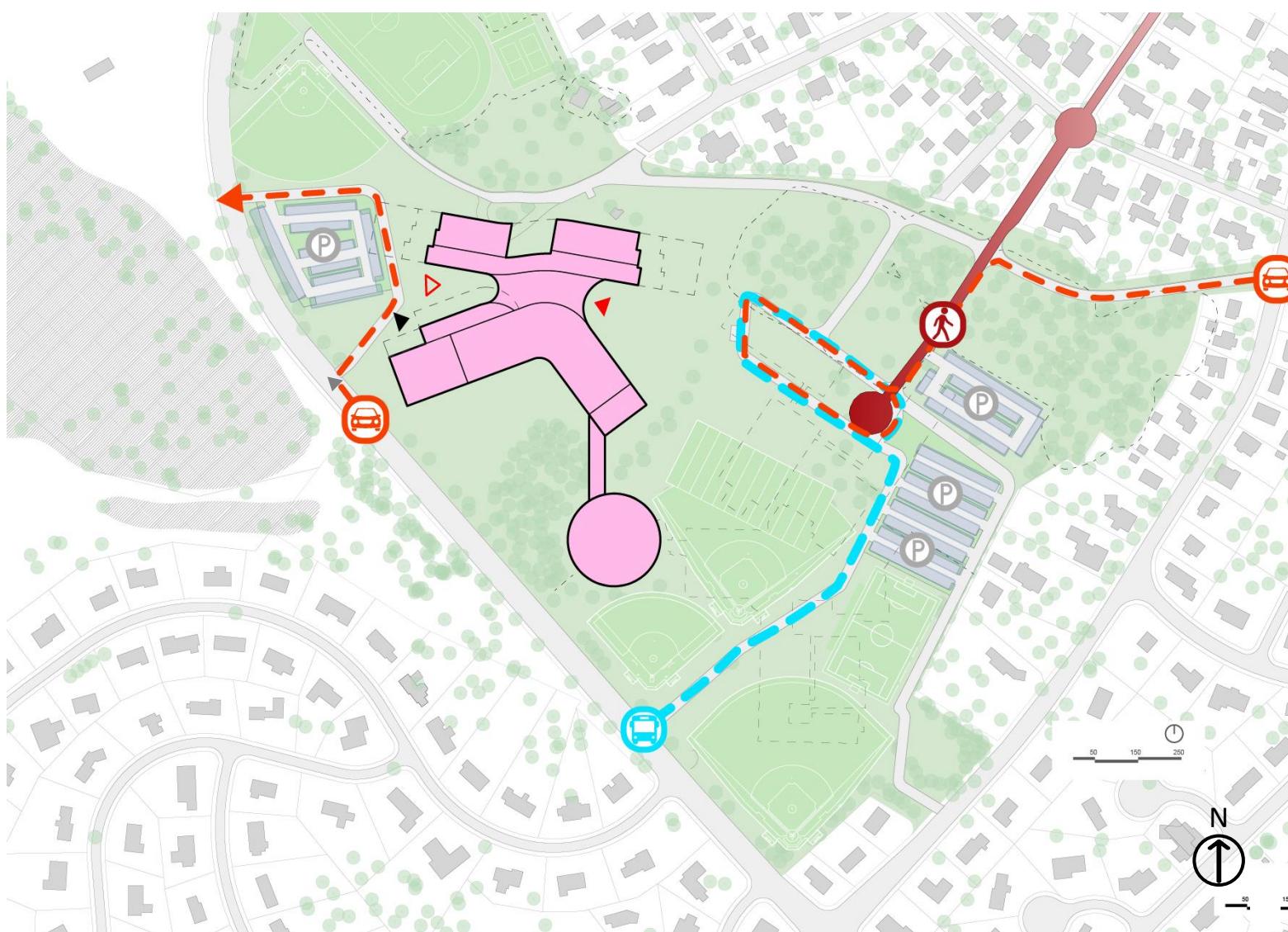


C.4b



C.5

C.1 New Construction – Wide Academic Bar North



Base Educational Program
Renovated Field House
Floors: Varies – See Plan

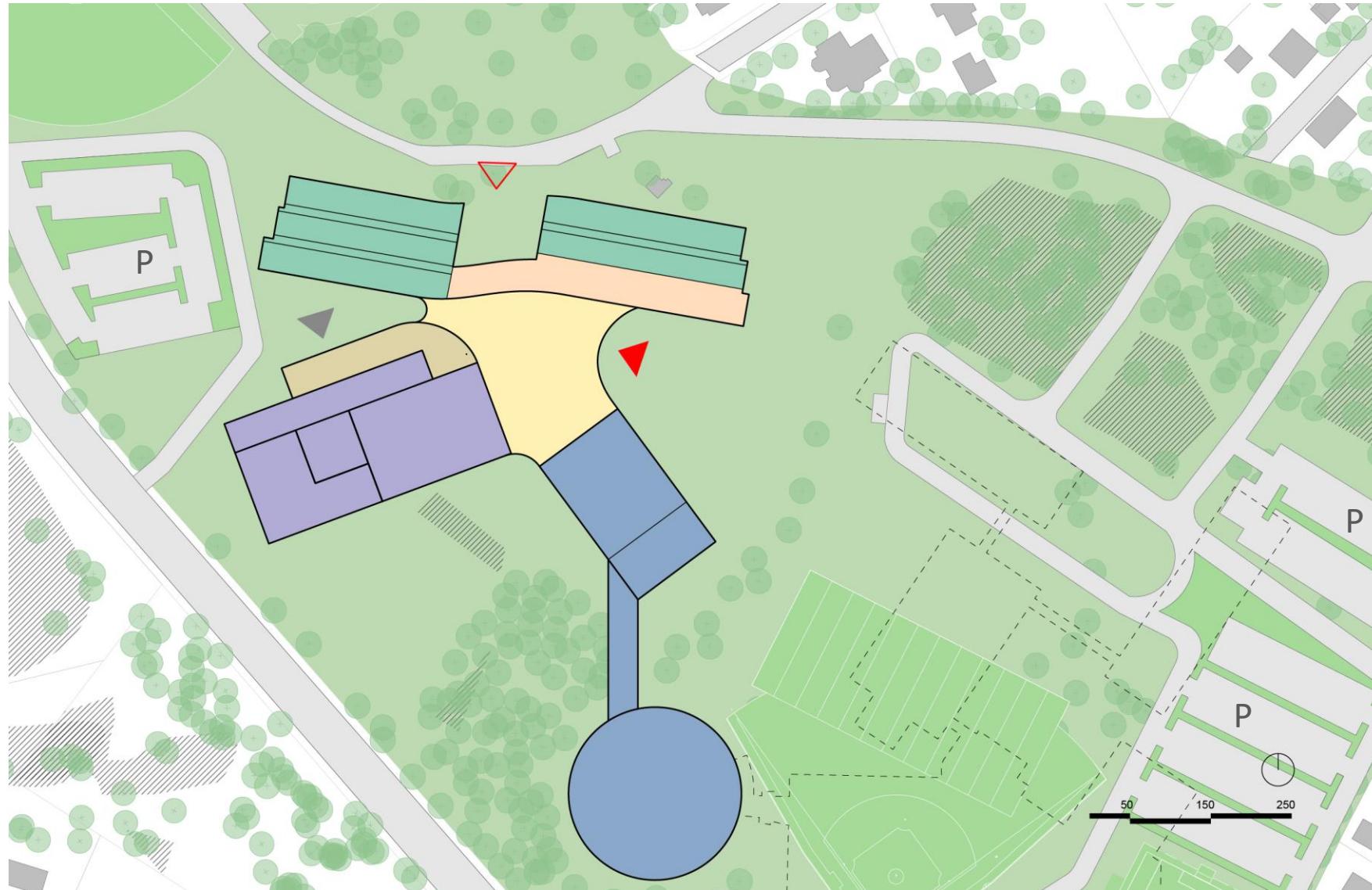
Pros:

- Current Building Remains in Use Throughout Construction
- Solar Orientation
- Access to Outdoors
- Generous Entry at East

Cons:

- Fields Separate from Center Rec Complex

C.1b New Construction – 4 Story Academics



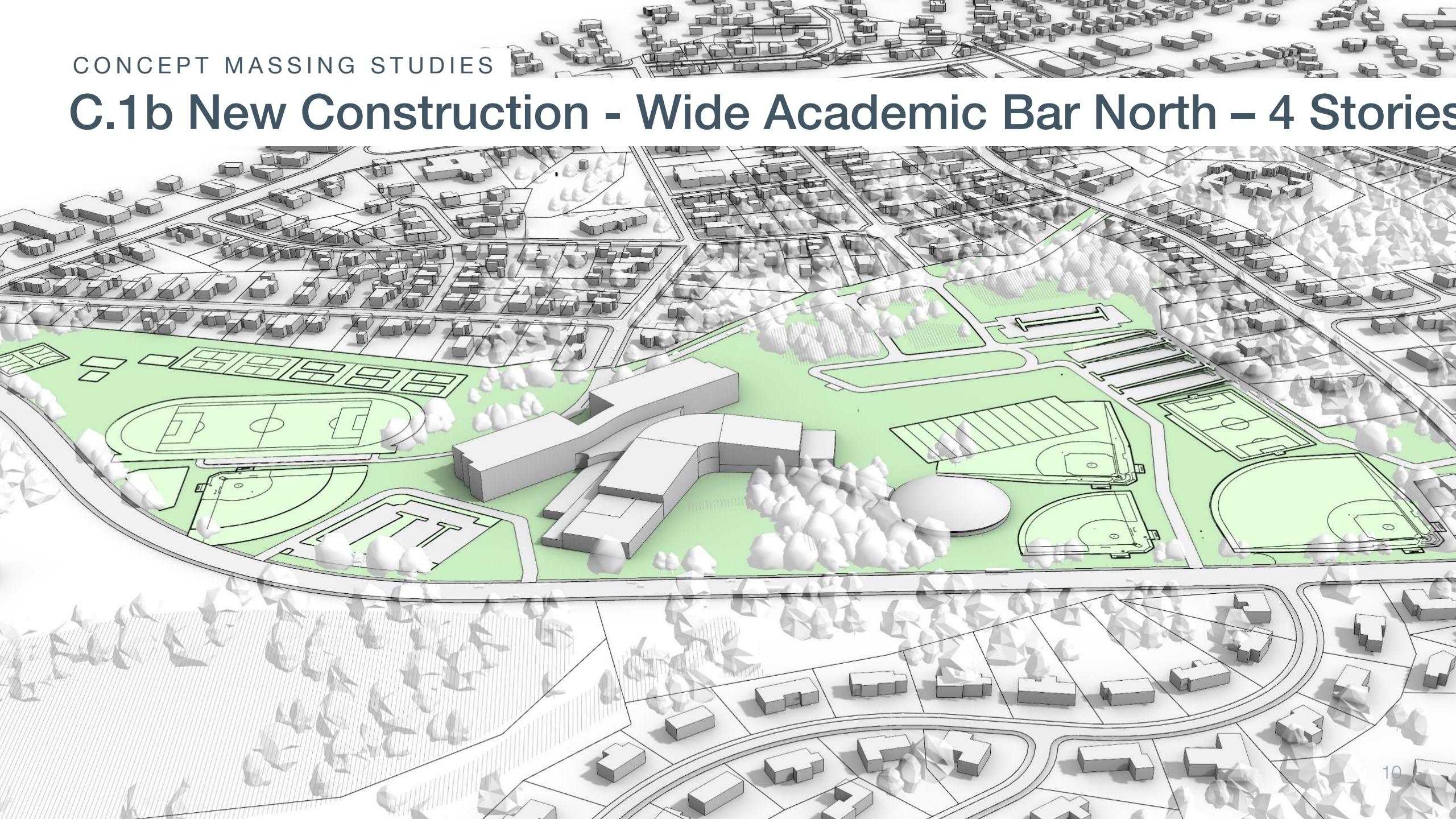
Building Footprint:
218,400 sf

Legend

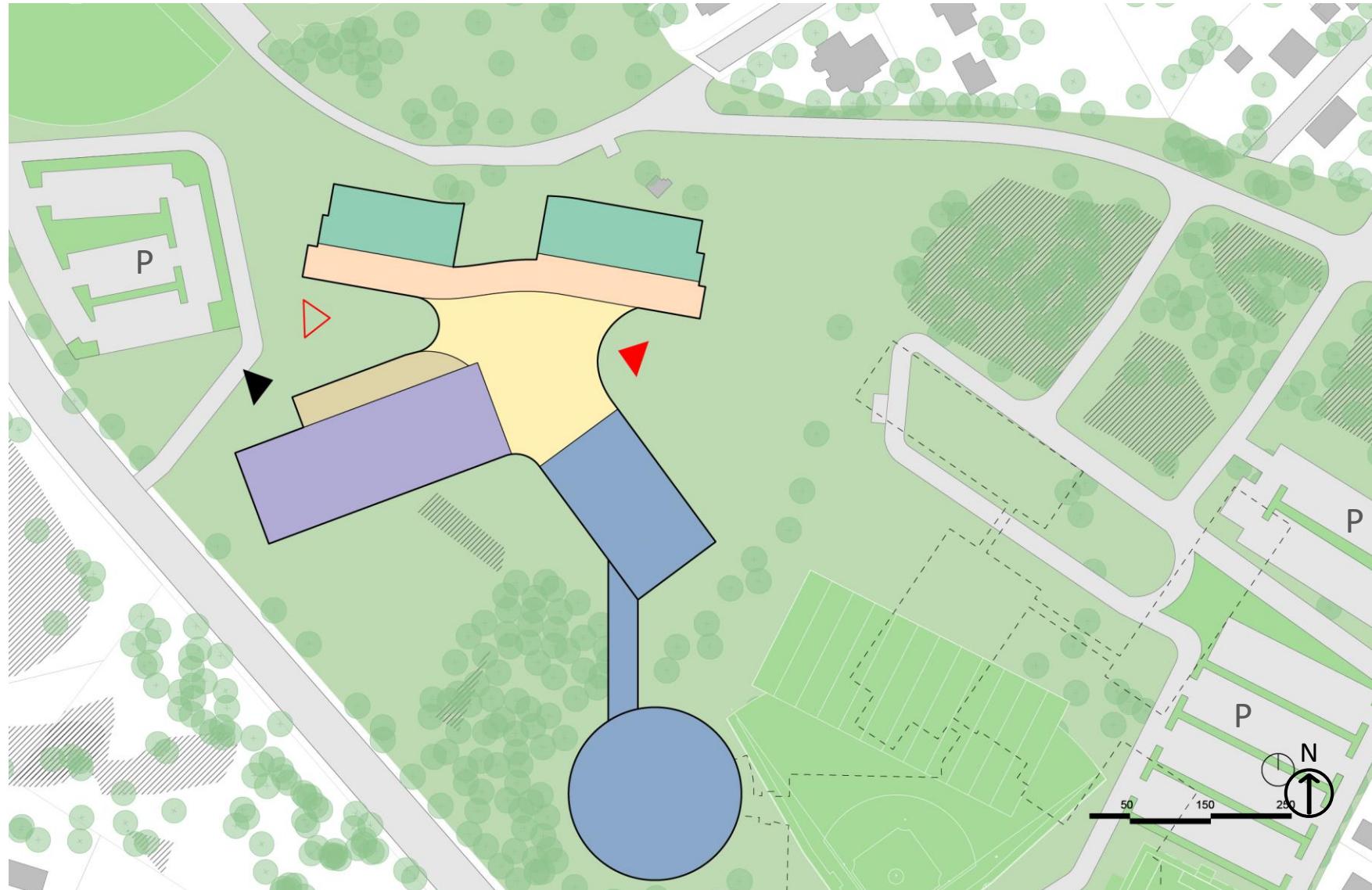
- Academics
- Health, Wellness + Athletics
- Fine + Performing Arts
- Media Center
- Dining Commons
- Kitchen + Custodial
- Admin
- Primary Entrance
- After-Hours Entrance
- Loading Entrance

CONCEPT MASSING STUDIES

C.1b New Construction - Wide Academic Bar North – 4 Stories



C.1c New Construction – 5 Story Academics



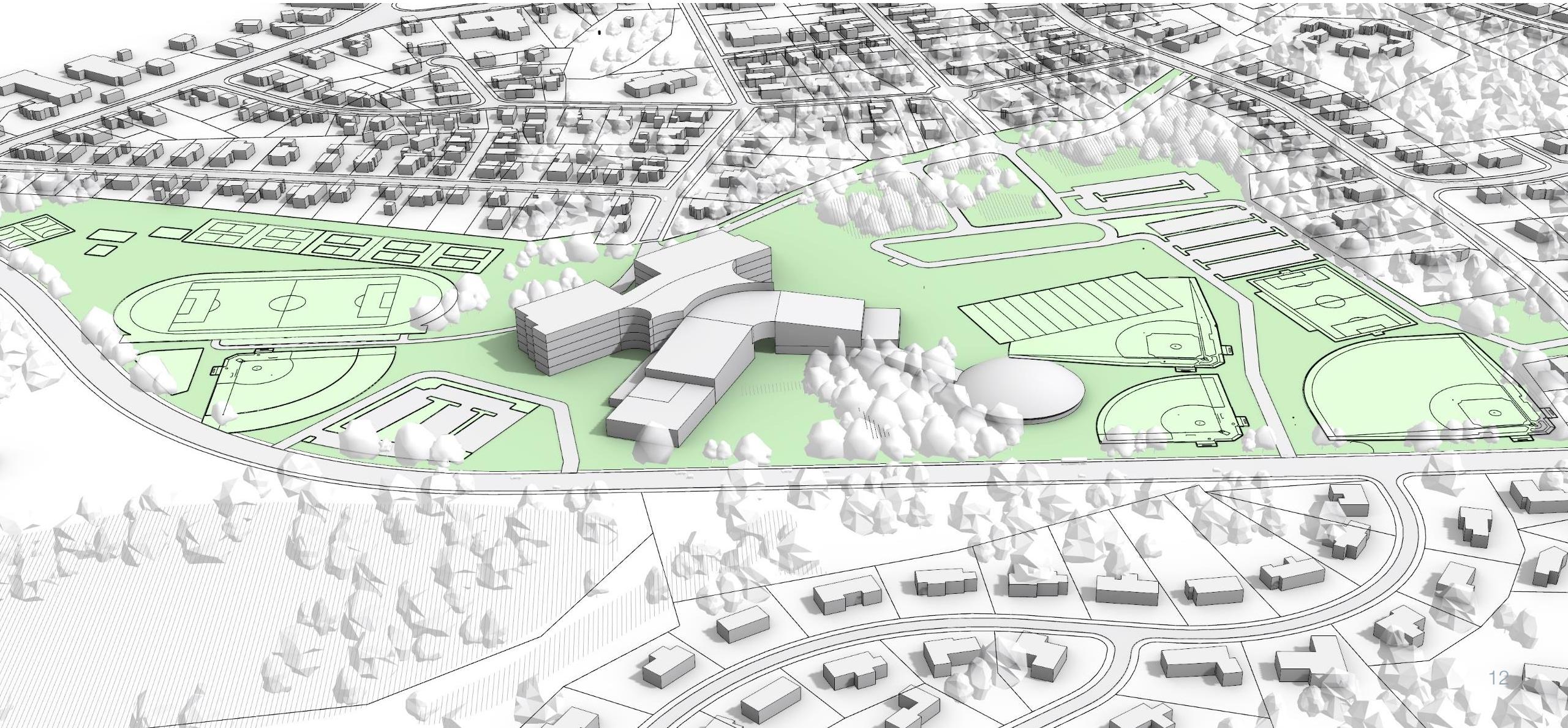
**Building Footprint:
206,000 sf**

- Legend
- Academics
 - Health, Wellness + Athletics
 - Fine + Performing Arts
 - Media Center
 - Dining Commons
 - Kitchen + Custodial
 - Admin
 - Primary Entrance
 - After-Hours Entrance
 - Loading Entrance

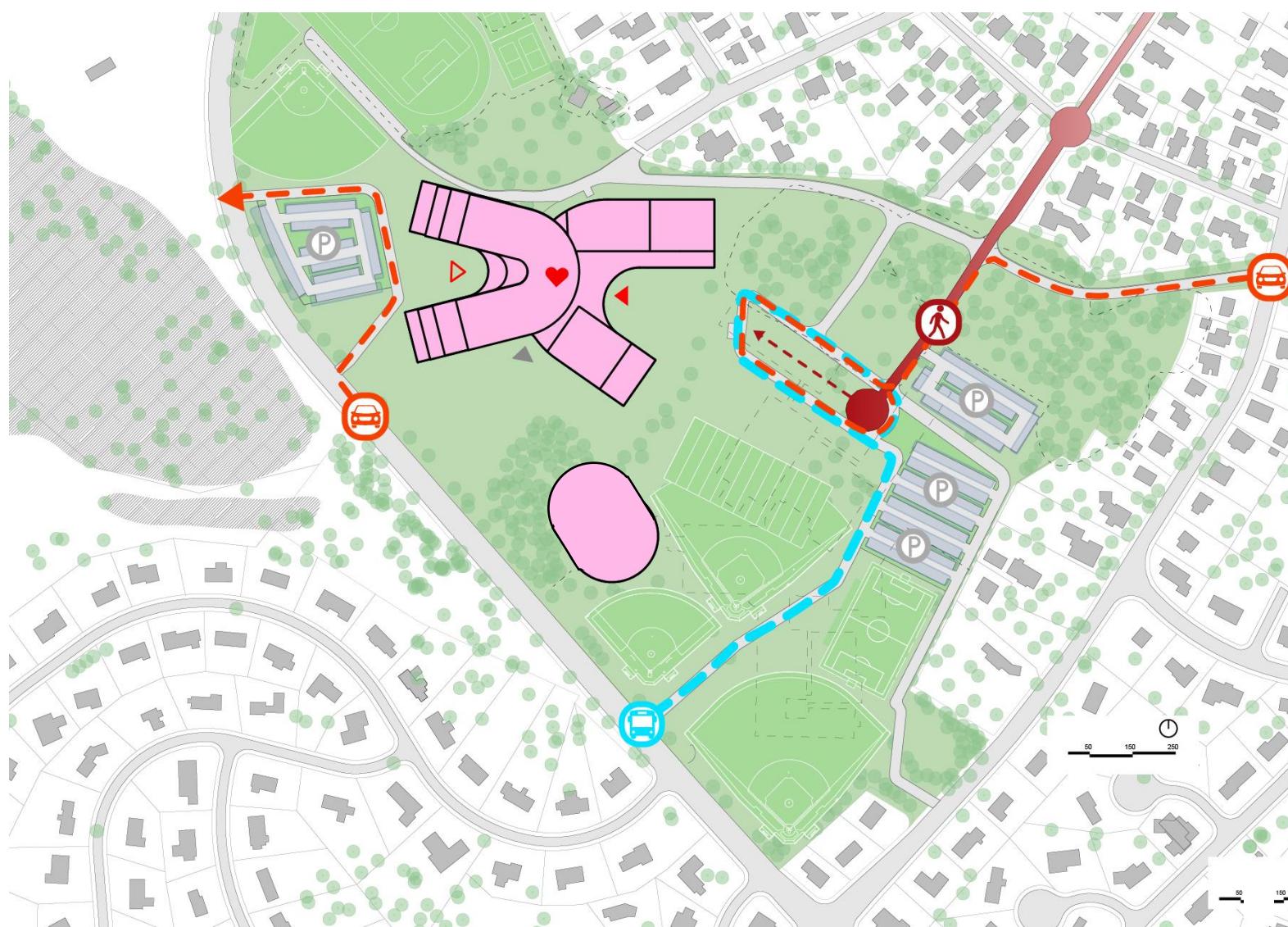
CONCEPT MASSING STUDIES



C.1c New Construction - Wide Academic Bar North – 5 Stories



C.2 New Construction - Wide Academic Bars West



Base Educational Program
Renovated Field House (Enlarged)
Building Footprint: 229,000 sf
Floors: 4

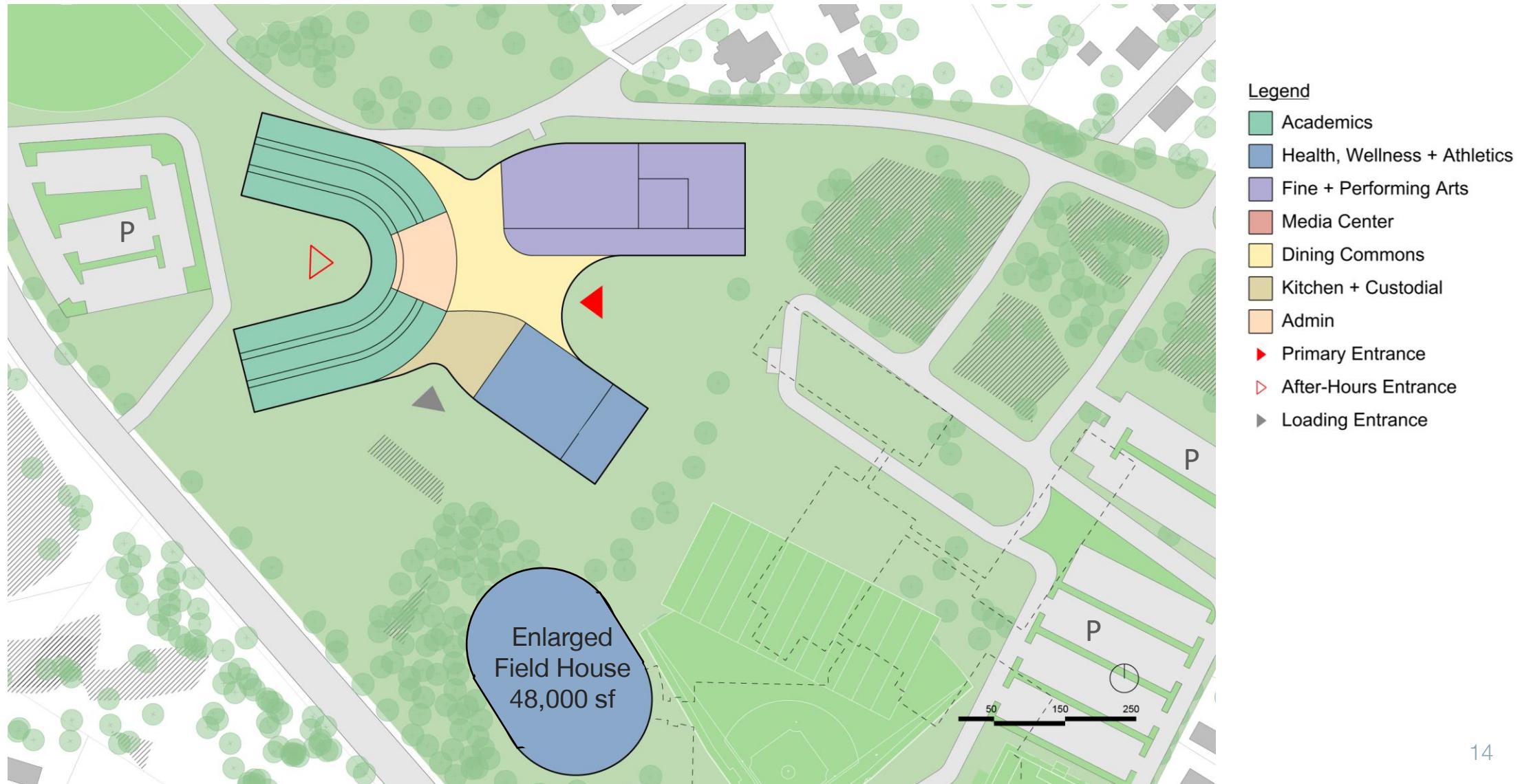
Pros:

- Current Building Remains in Use Throughout Construction
- Solar Orientation
- Access to Outdoors
- 200m Track

Cons:

- Fields Separate from Center Rec Complex
- Monumental Appearance
- No Direct Field House Connection

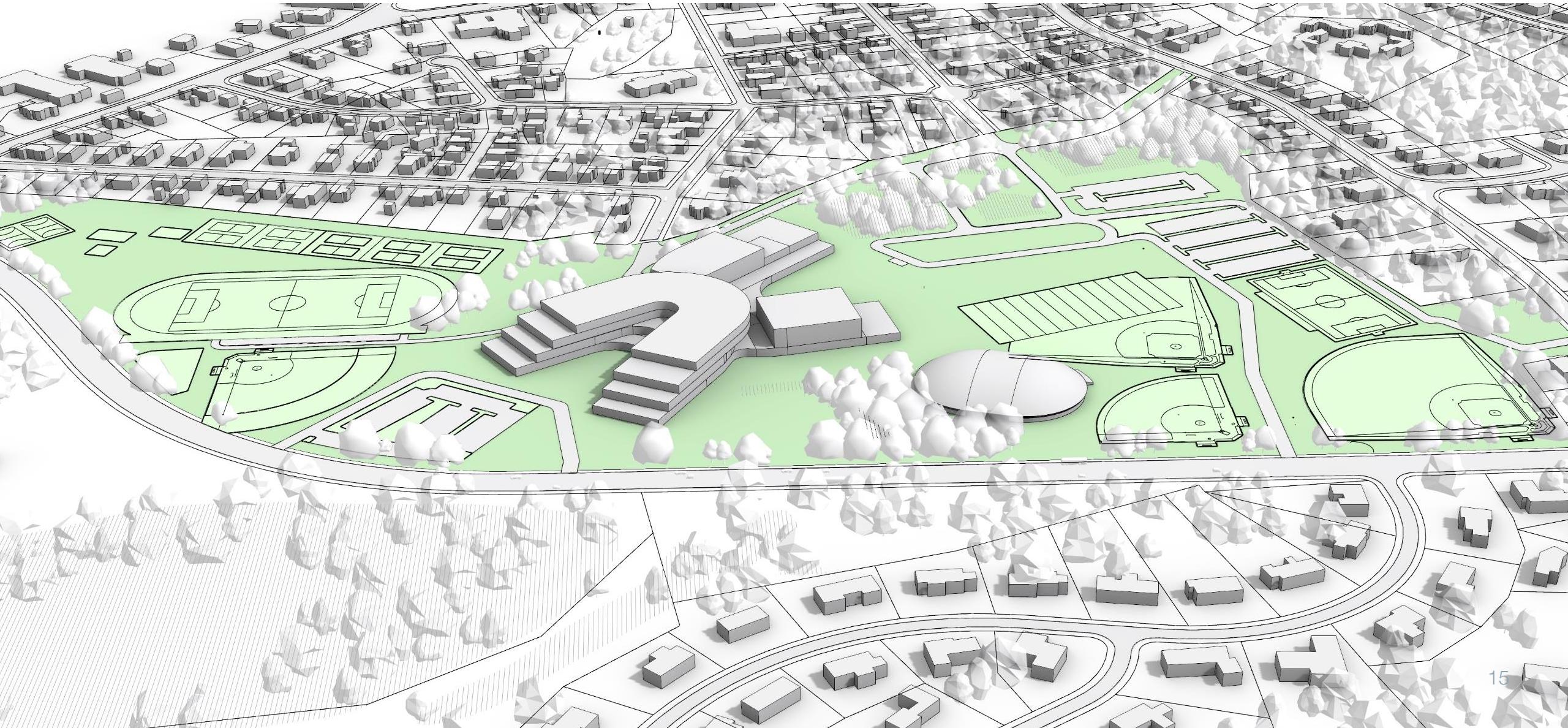
C.2b New Construction - Wide Academic Bars West



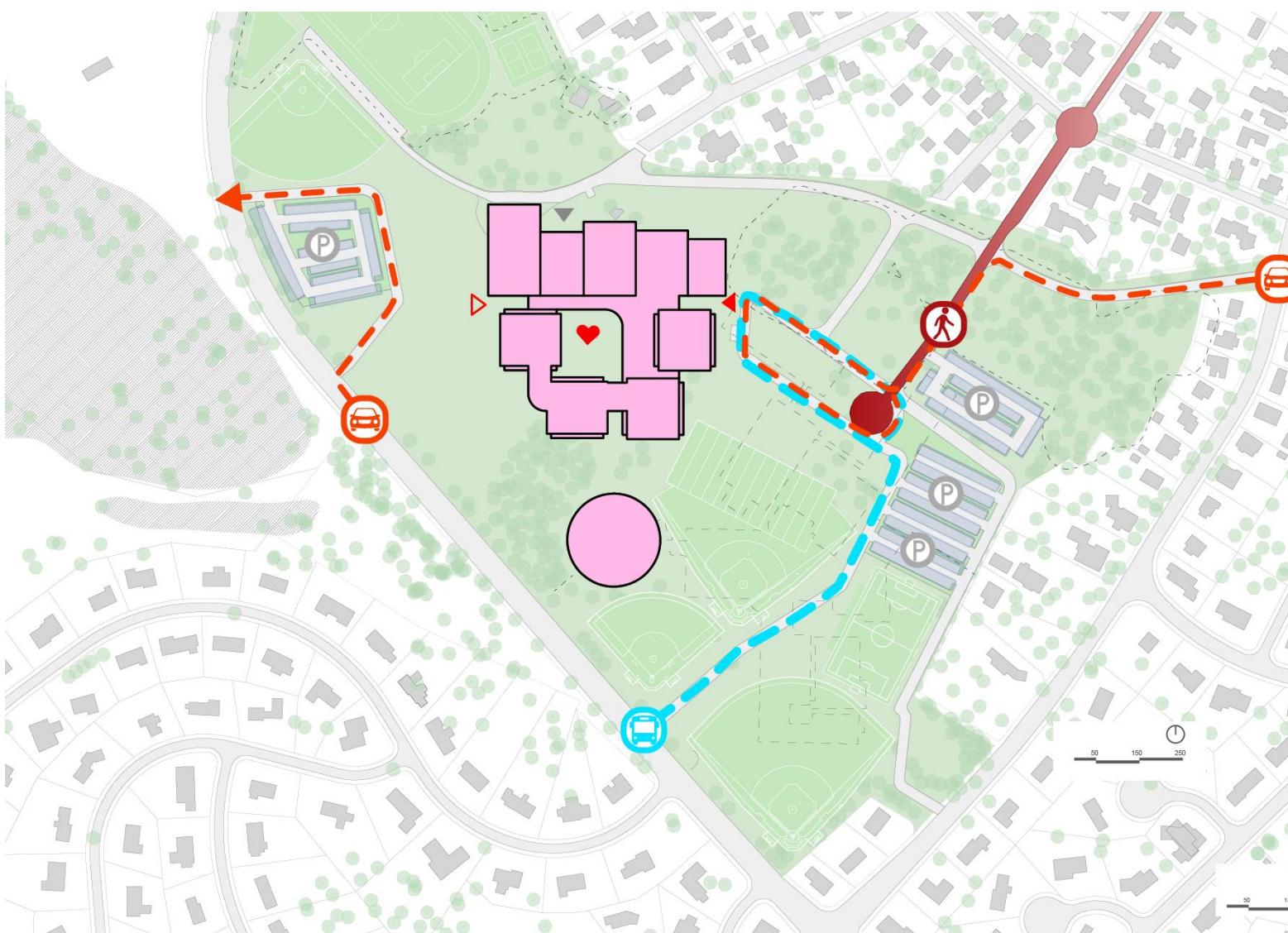
CONCEPT MASSING STUDIES



C.2b New Construction - Wide Academic Bars West



C.4b New Construction – Academic Village



Base Educational Program
Renovated Field House
Building Footprint: 232,750
Floors: 4

Pros:

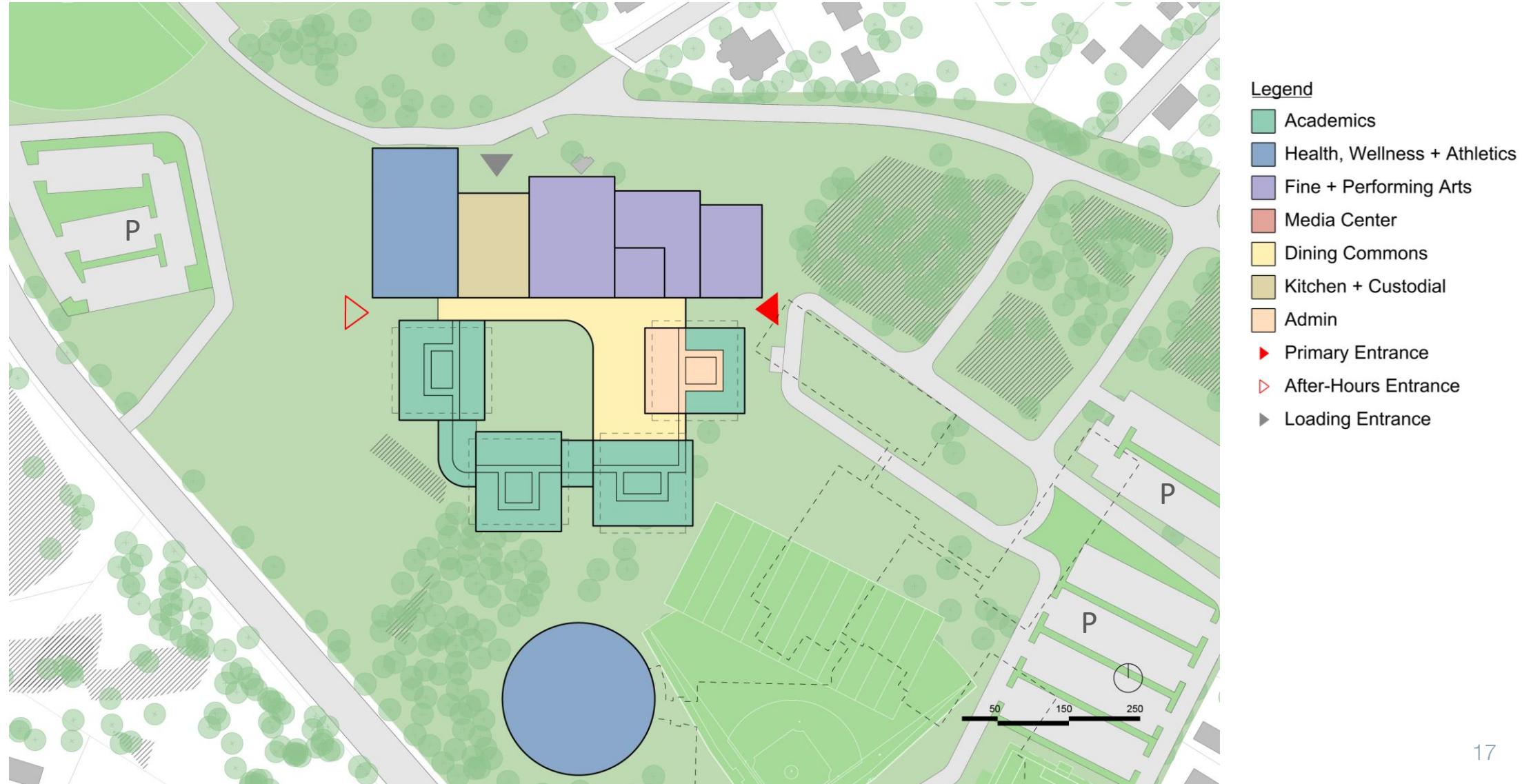
- Current Building Remains in Use Throughout Construction
- Access to Outdoors
- Highly Differentiated Educational Clusters
- Enclosed Courtyard

Cons:

- Fields Separate from Center Rec Complex
- Mix of Façade Orientations

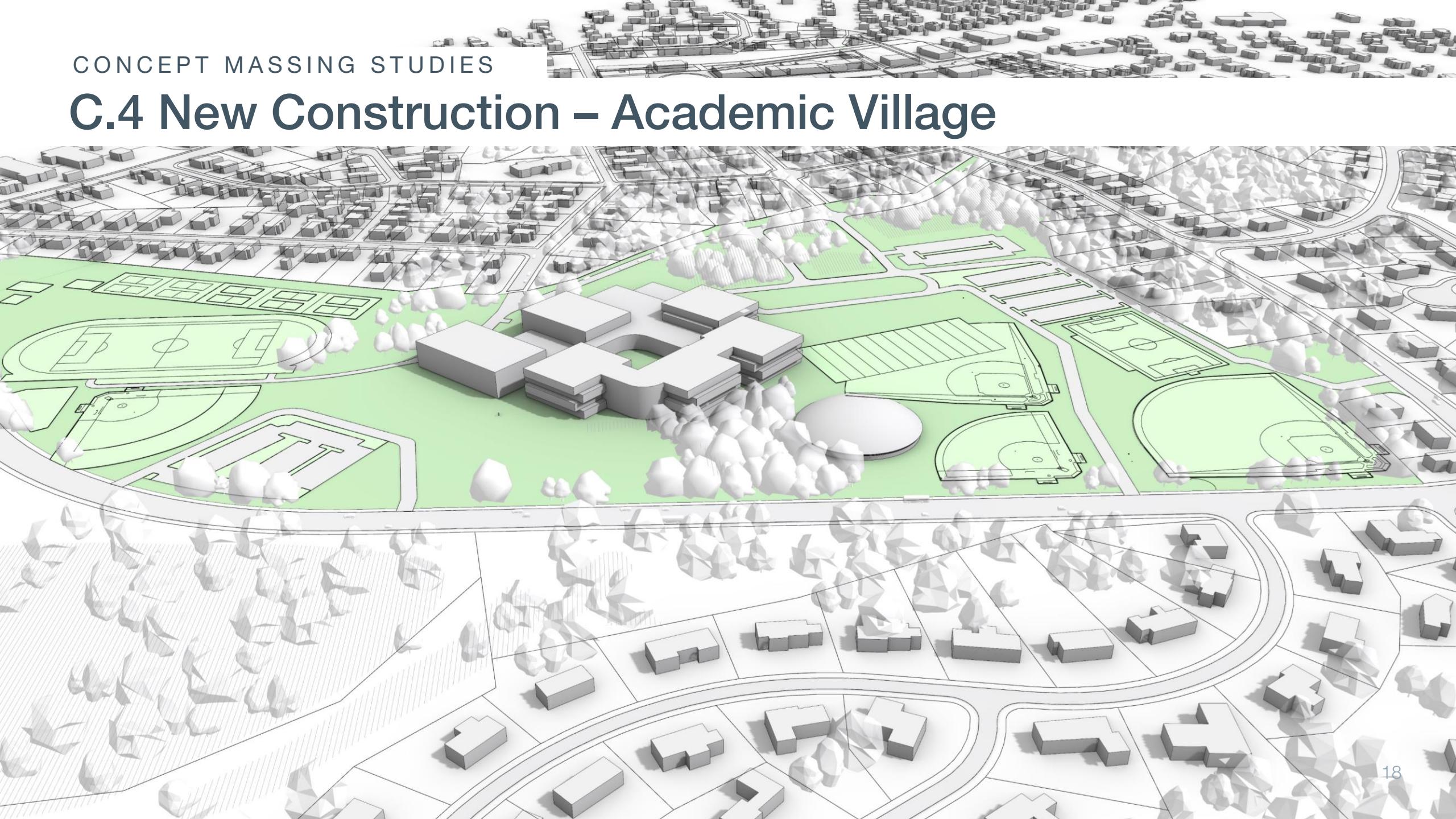
Site Plan

C.4b New Construction – Academic Village

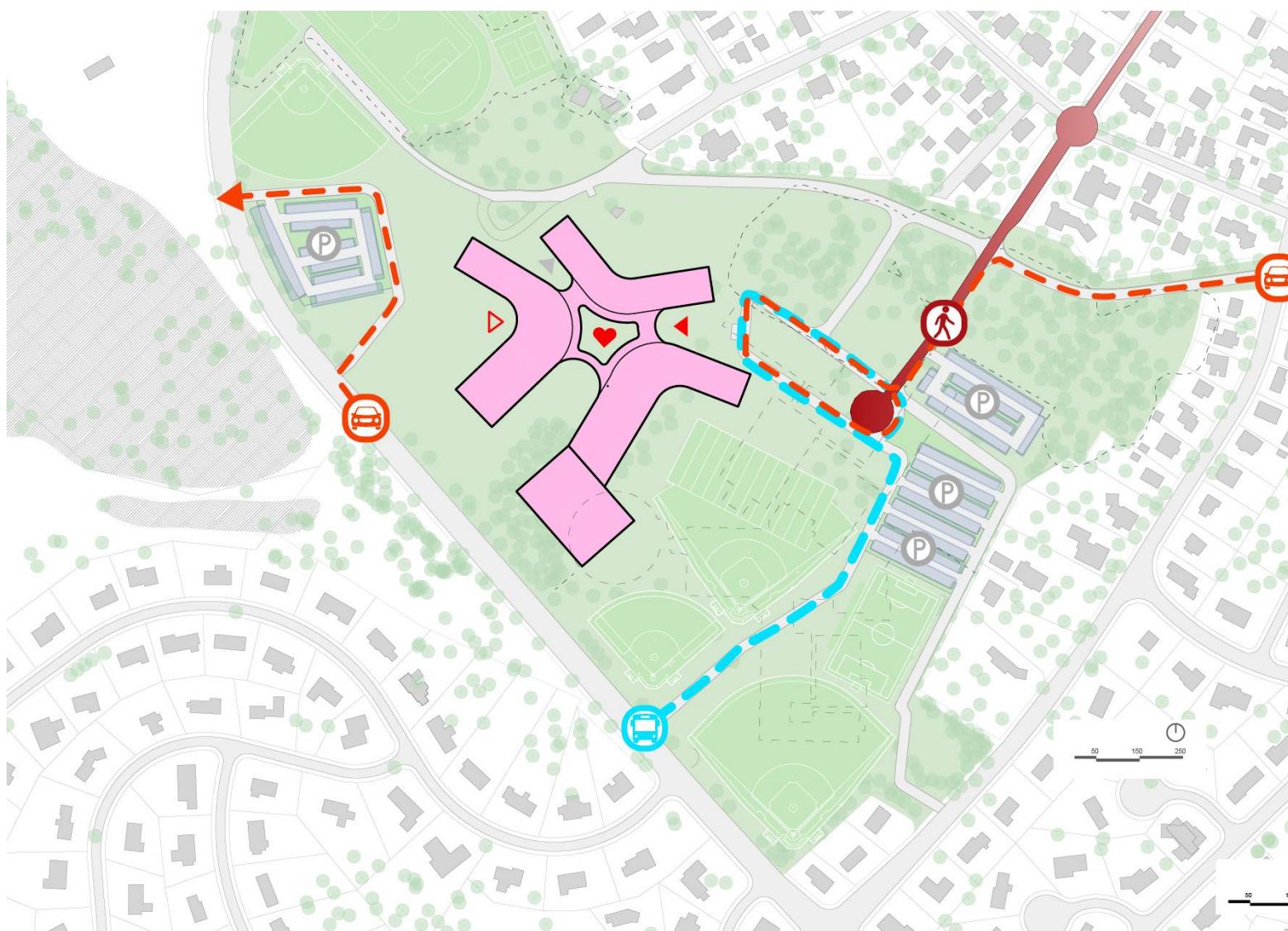


CONCEPT MASSING STUDIES

C.4 New Construction – Academic Village



C.5 New Construction



Base Educational Program
New 36,000 sf Field House
Building Footprint: 196,000
Floors: 4

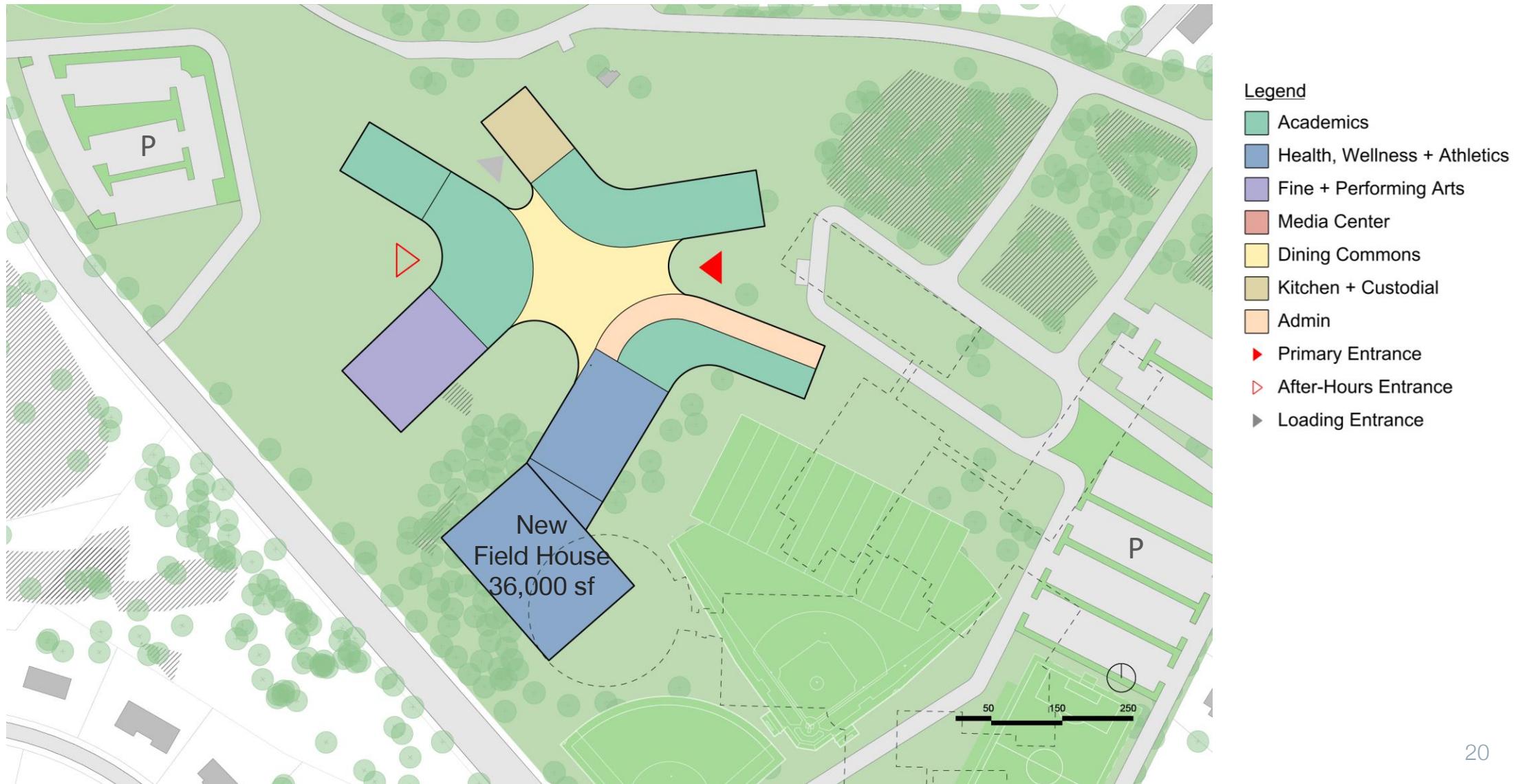
Pros:

- Current Building Remains in Use Throughout Construction
- Access to Outdoors
- Highly Differentiated Educational Clusters
- Enclosed Courtyard
- Direct Connection to Field House
- 146m Track

Cons:

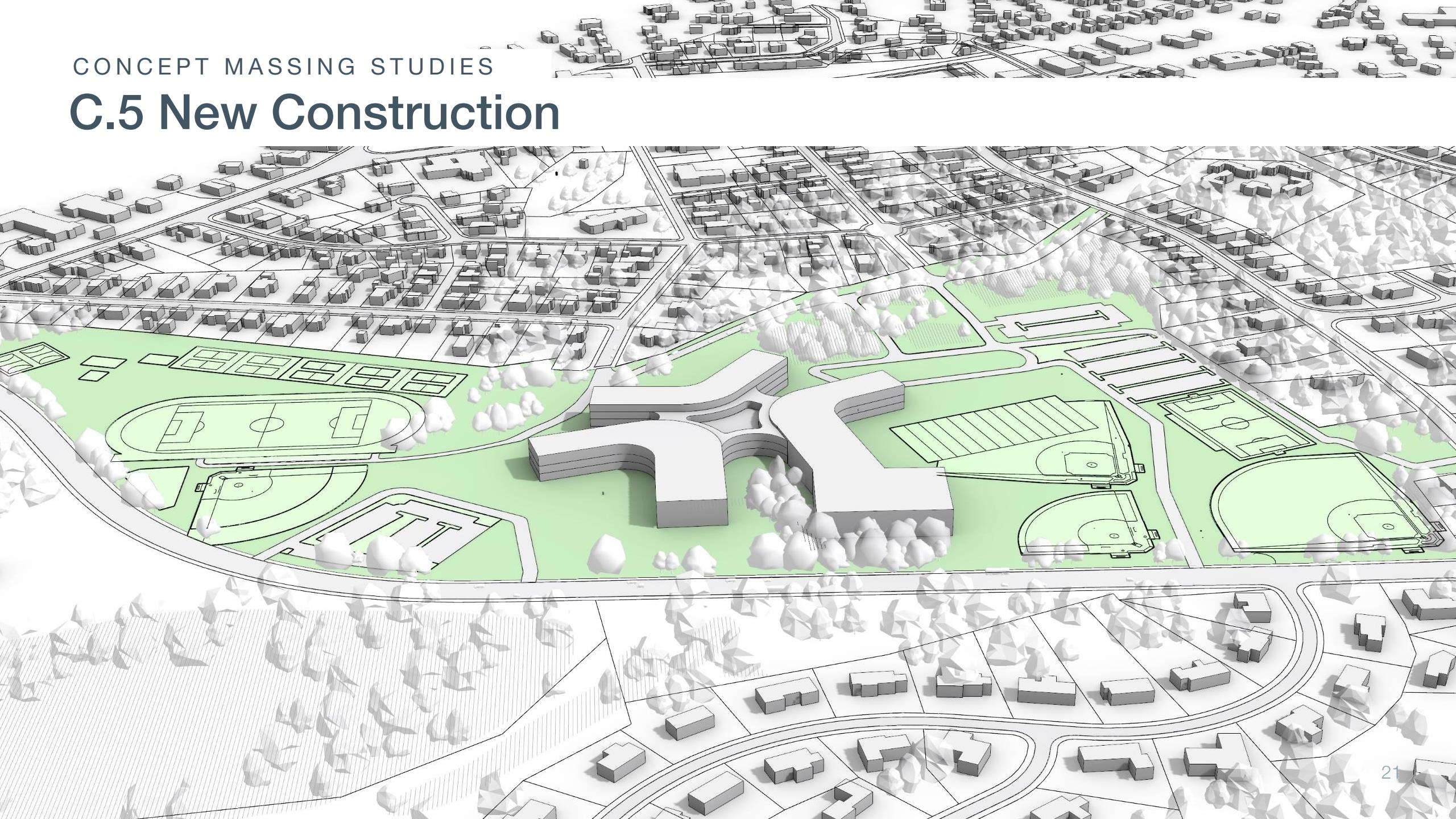
- Fields Separate from Center Rec Complex
- Mix of Façade Orientations

C.5 New Construction

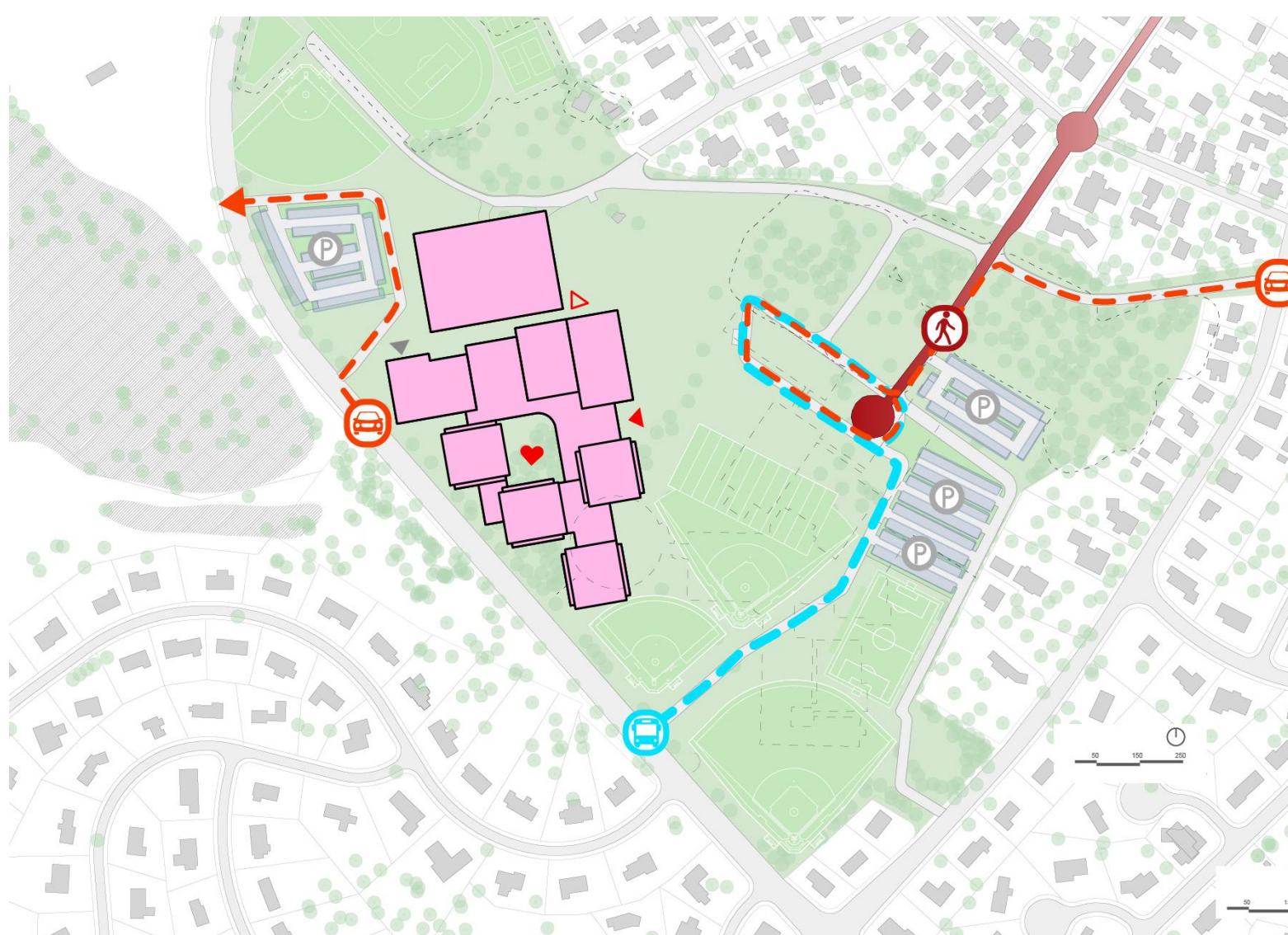


CONCEPT MASSING STUDIES

C.5 New Construction



D.1 New Construction – Phased with New Field House



Base Educational Program
New 72,000 sf Field House
Building Footprint: 279,000
Floors: 4

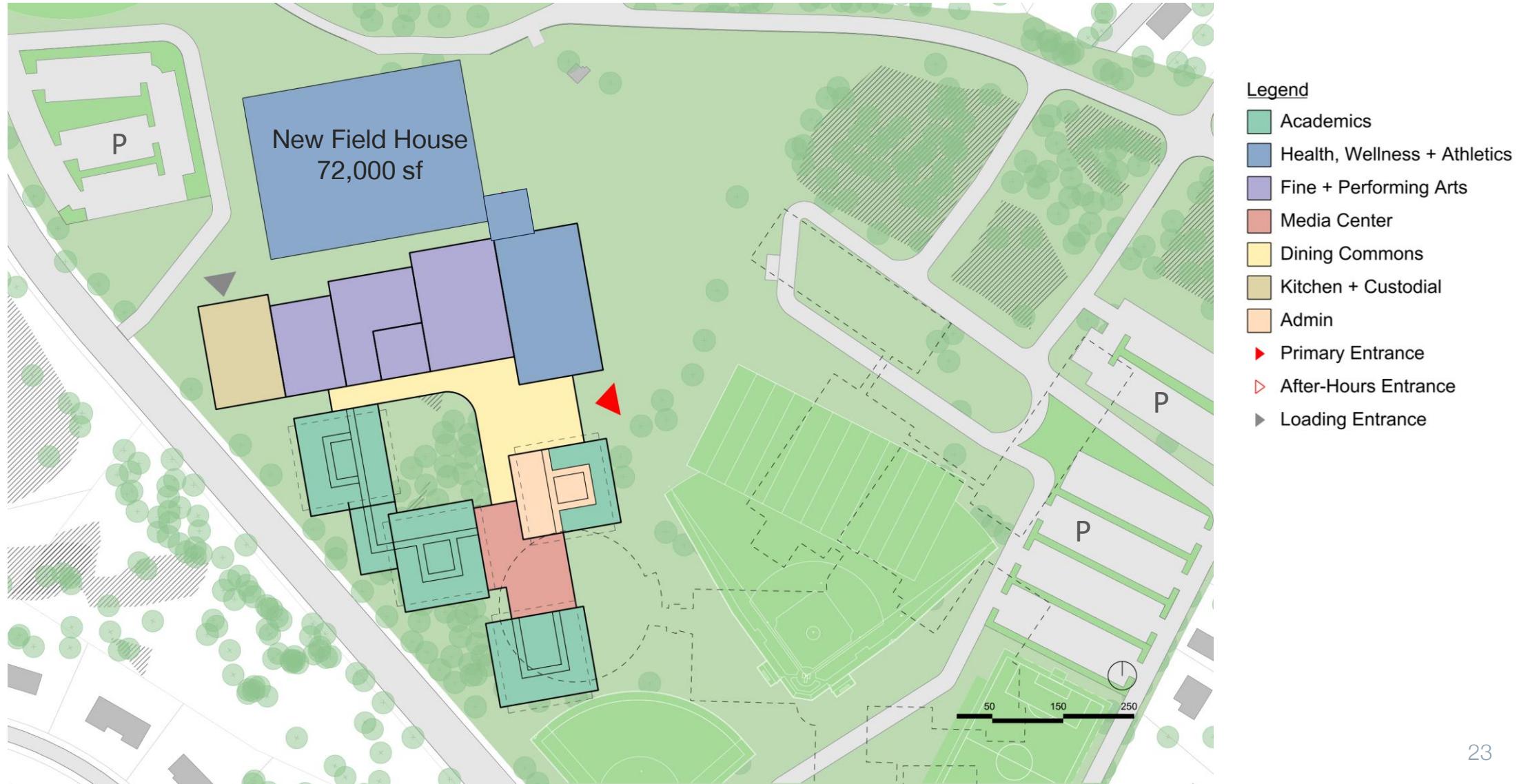
Pros:

- Current Building Remains in Use Throughout Construction
- Access to Outdoors
- Highly Differentiated Educational Clusters
- Enclosed Courtyard
- 200m Track

Cons:

- Fields Separate from Center Rec Complex

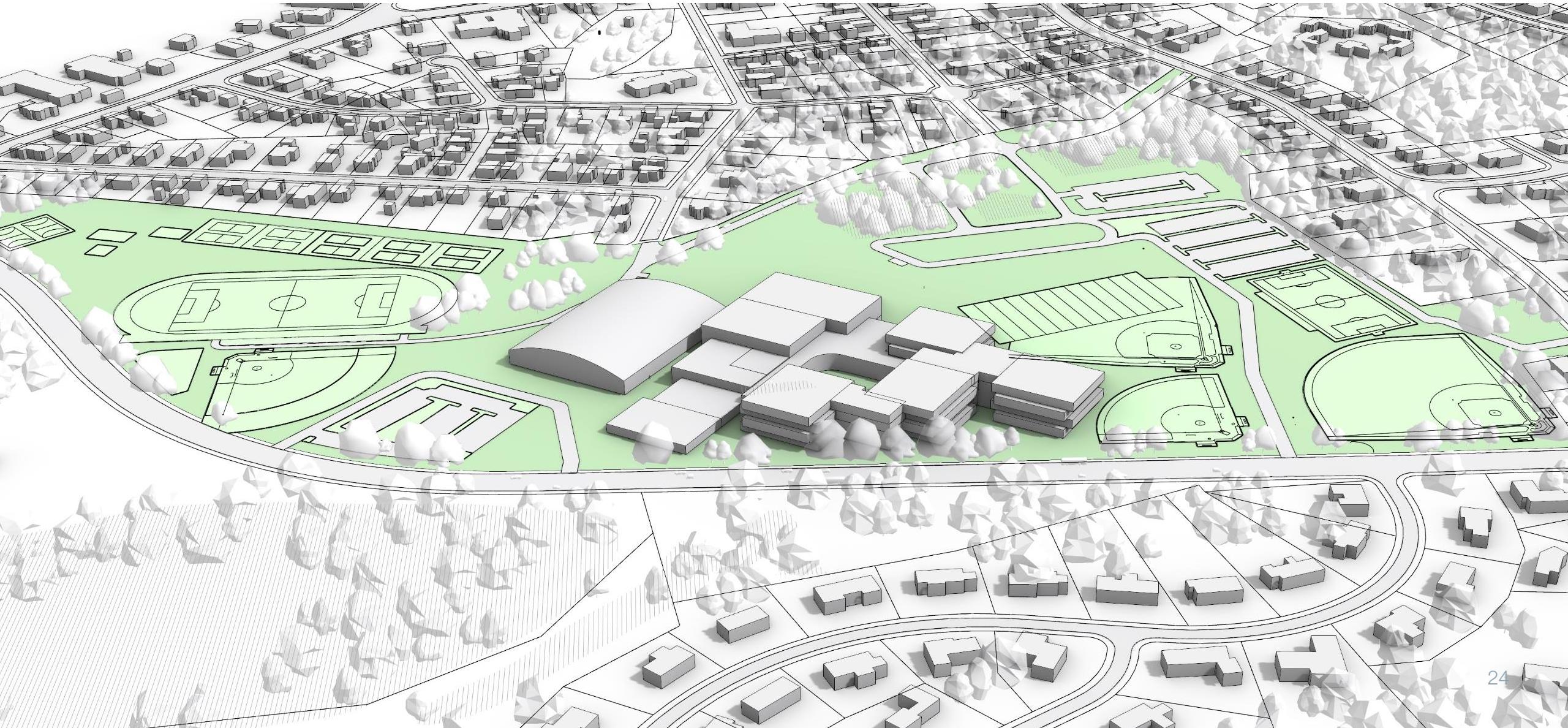
D.1 New Construction – Phased with New Field House



CONCEPT MASSING STUDIES



D.1 New Construction – Phased with New Field House



Field House

Where does Lexington High School Indoor Track Compete?

The TRACK at New Balance

- 250,000 SF
- 200-meter hydraulic banked track
- Cost \$200 million in 2022

Reggie Lewis Track & Athletic Center

- 130,000 SF athletic center
- 70,000 SF track facility
- 200-meter banked track
- Cost \$17 million in 1995
- \$5.7 million renovation in 2014

Boston University Track and Tennis Center

- 83,000 SF
- 200-meter banked track
- Part of \$200 million Hancock Student Village project in 2002

Middlesex League Precedents



Reading High School

- » 55,000 SF
- » 4 lane oval
- » 6 lane straight
- » 1 regulation size basketball court
- » 2 practice courts

Middlesex League Precedents



Woburn Middle School

- » 70,000 SF
 - Include hockey rink
- » 4 lane oval
- » 8 lane straight
- » 1 regulation basketball court

Middlesex League Precedents



Belmont High School

- » 34,000 SF
- » 160-meter oval
- » 3 lane oval
- » 4 lane straight
- » 1 regulation basketball court
- » 3 practice courts

Massachusetts High School Precedents



Fitchburg High School

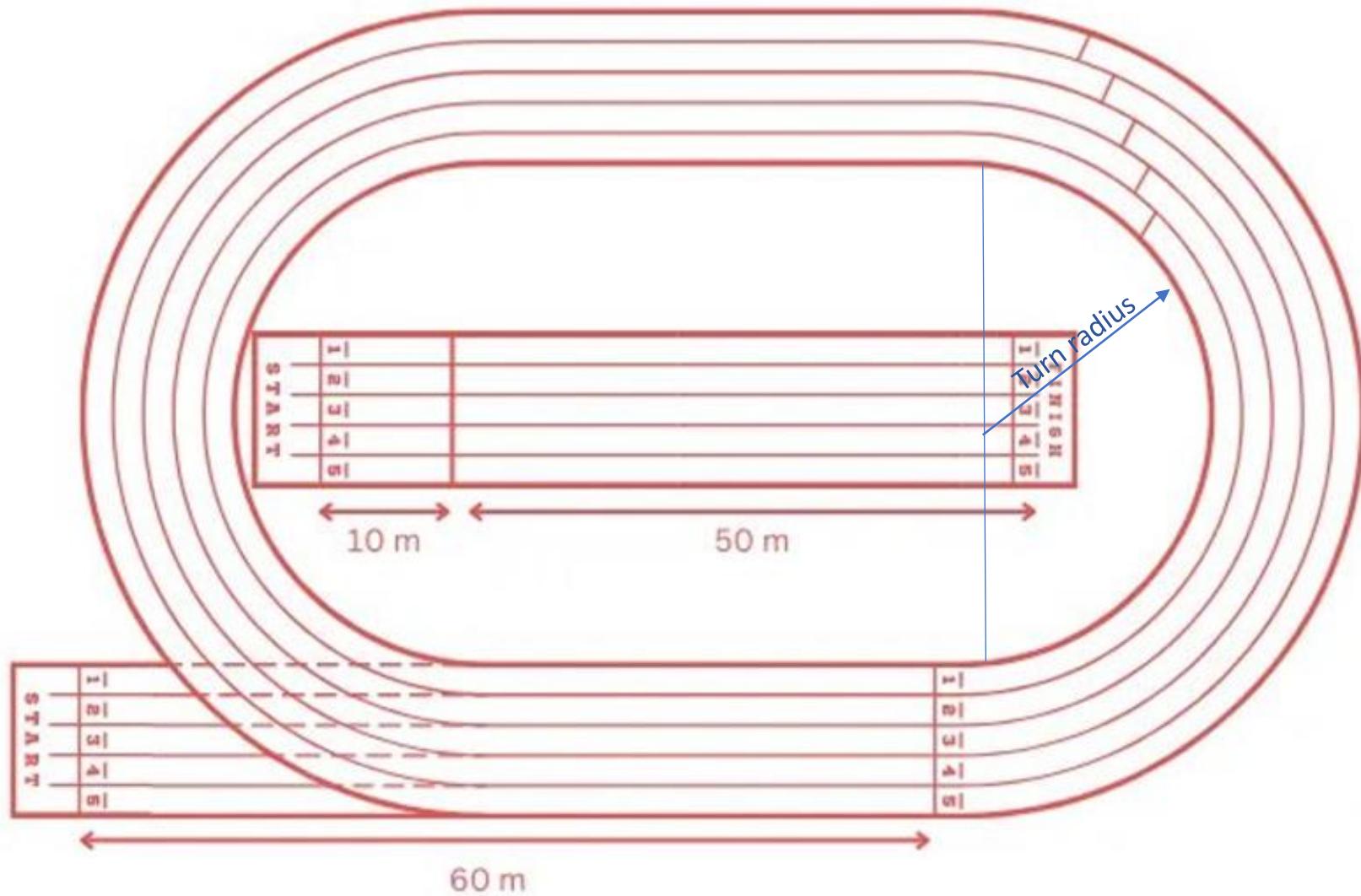
- » 33,000 SF
- » ~150-meter oval
- » 4 lane oval
- » 6 lane straight
- » 1 regulation basketball court
- » 2 practice courts

Massachusetts High School Precedents



Shrewsbury High School

- » 29,000 SF
- » 150-meter oval
- » 4 lane oval
- » 6 lane straight
- » 1 regulation basketball court
- » 4 practice courts



The benefit of a flat track is the ability to place the straightaway on the oval track and utilize the infield for other activities (i.e. turf field, tennis courts etc.)

High School Indoor Track Specifications

(National Federation of State High School Association)

- » 200-meter oval
 - 2 parallel straights
 - 2 semicircular curves
 - the radius of the curve is often influenced by available space
- » Field Event Areas: Long Jump runway, High Jump area, Shot Put circle
- » Obstacle free zone on the inside and outside of the track at least 1 meter in width

Standard Indoor Track Specifications

(Massachusetts Interscholastic Athletic Association)

Oval Lane Count

- Minimum: none
- Maximum: none

Oval Lane Width

- Minimum: none
- Maximum: none

Turn Radius

- Minimum: no
- Maximum: none



Standard Indoor Track Specifications

(International Amateur Athletic Federation)

Oval Lane Count

- Minimum: 4
- Maximum: 6

Oval Lane Width

- Minimum: 0.9 m
- Maximum: 1.1 m

Turn Radius

- Minimum: 15 m
- Maximum: 19 m



Standard Indoor Track Specifications

(Massachusetts Interscholastic Athletic Association)

Straightaway length:

- Minimum: 55 m

Straightaway lane count

- Minimum: 6
- Maximum: none

Bank Angle

- Minimum: none
- Maximum: 2% laterally, 1% downward



Standard Indoor Track Specifications

(International Amateur Athletic Federation)

Straightaway length:

- 60 meter
- 3 m clearance behind start
- 10 m clearance beyond finish

Straightaway lane

- Minimum: 6
- Maximum: 8

Bank Angle

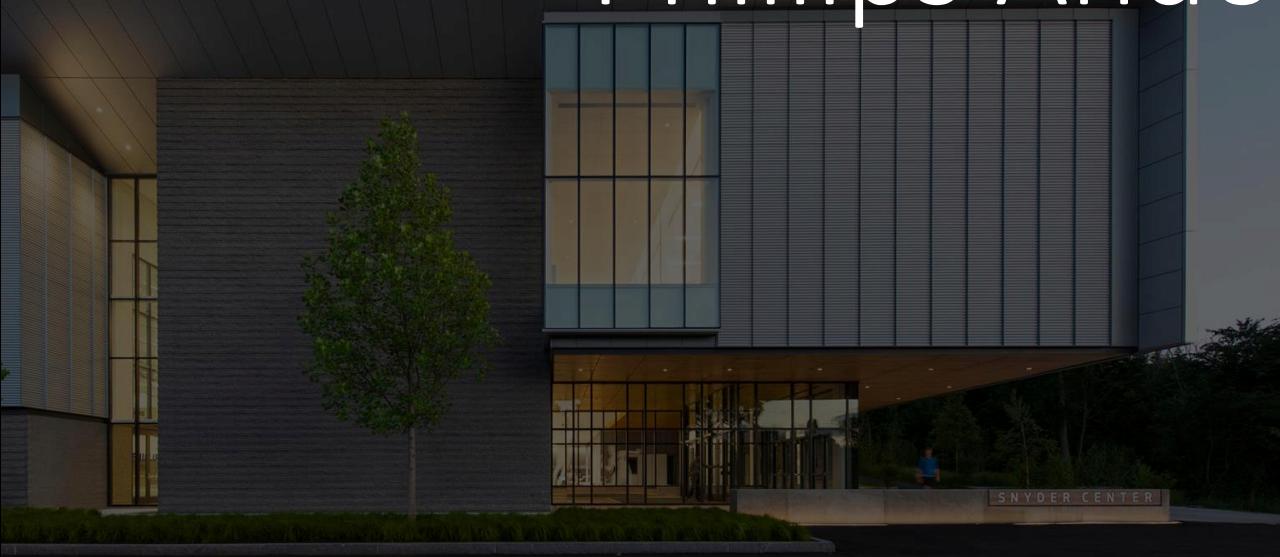
- Minimum: 10°
- Maximum: 15°



Precedent High School Field House Facilities



Phillips Andover Academy



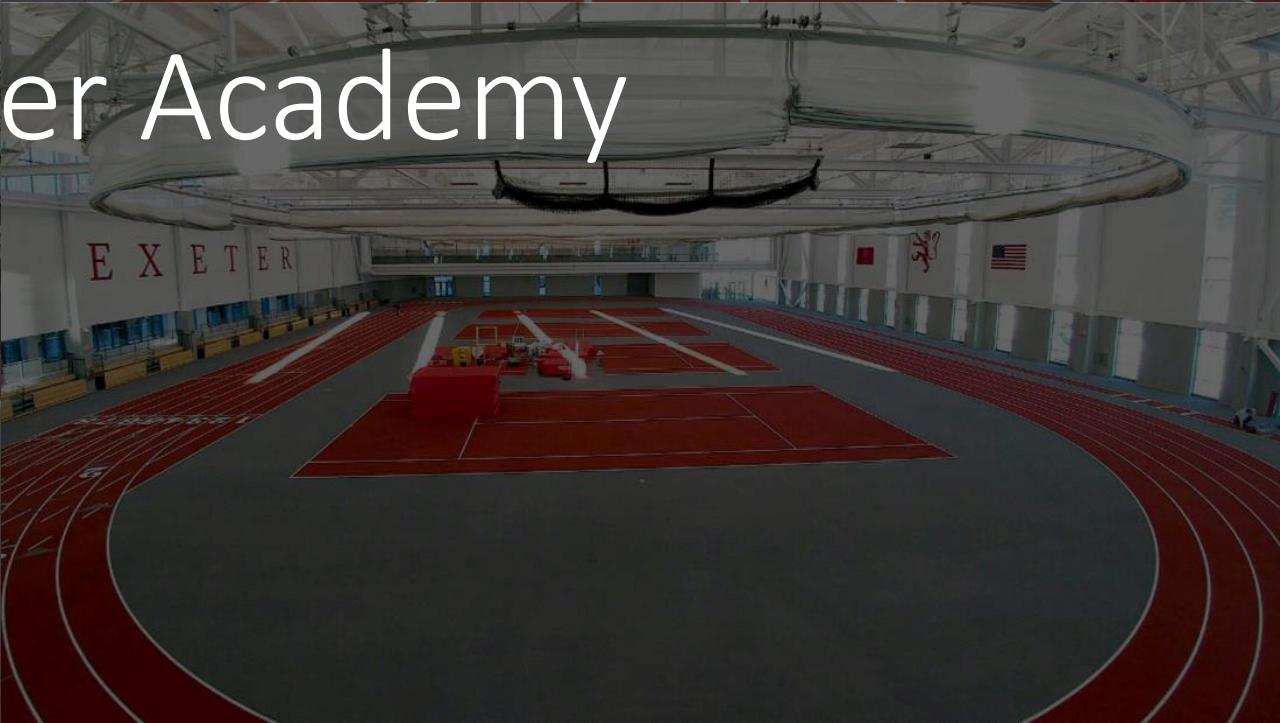
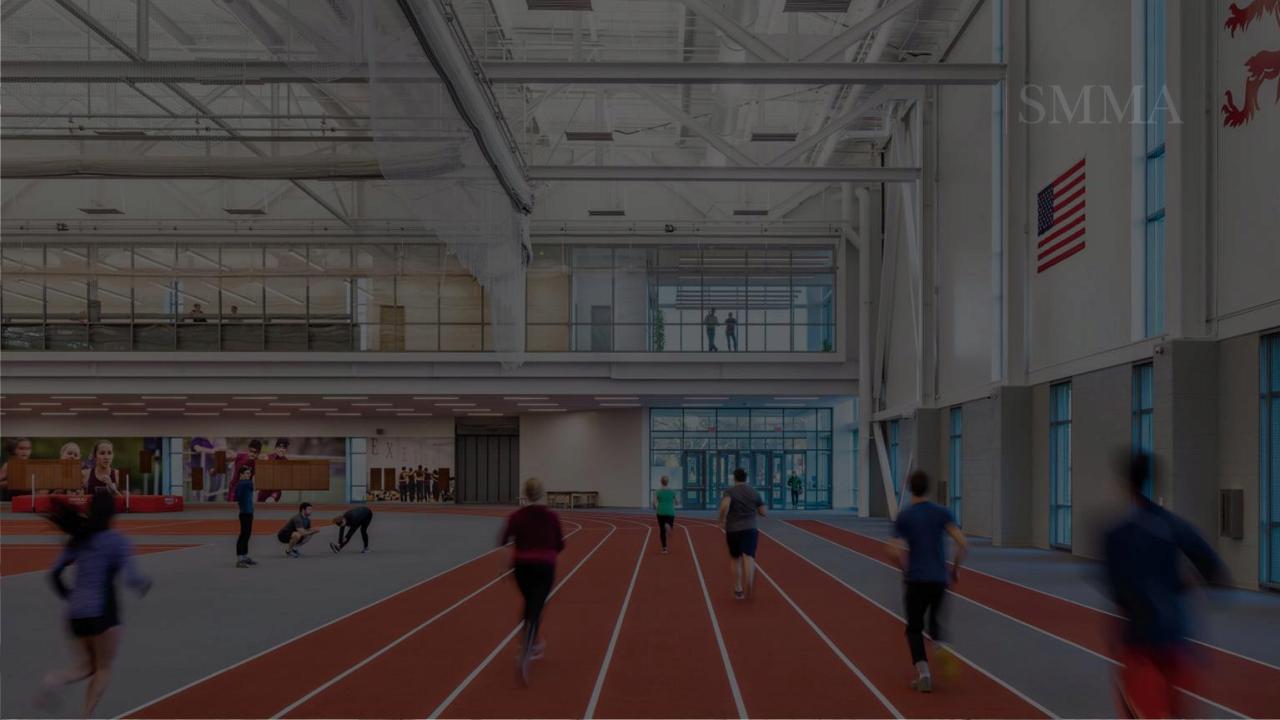
Phillips Academy
ANDOVER



Phillips Andover |SMMA

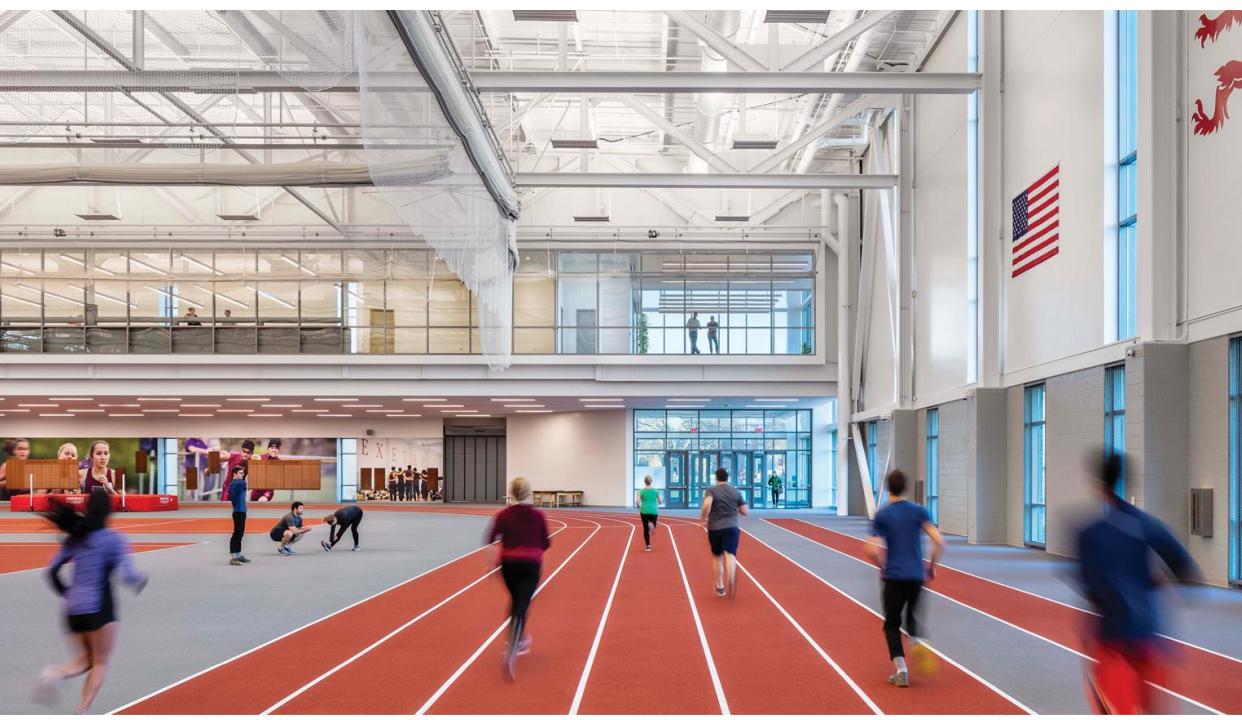
- » 98,000 SF
- » 200-meter oval
- » 4 lane oval
- » 8 lane straight
- » 4 basketball/tennis courts
- » 2,500 capacity
- » Additional Spaces
 - 12 squash courts
 - Fitness classrooms

SMMA



Phillips Exeter Academy

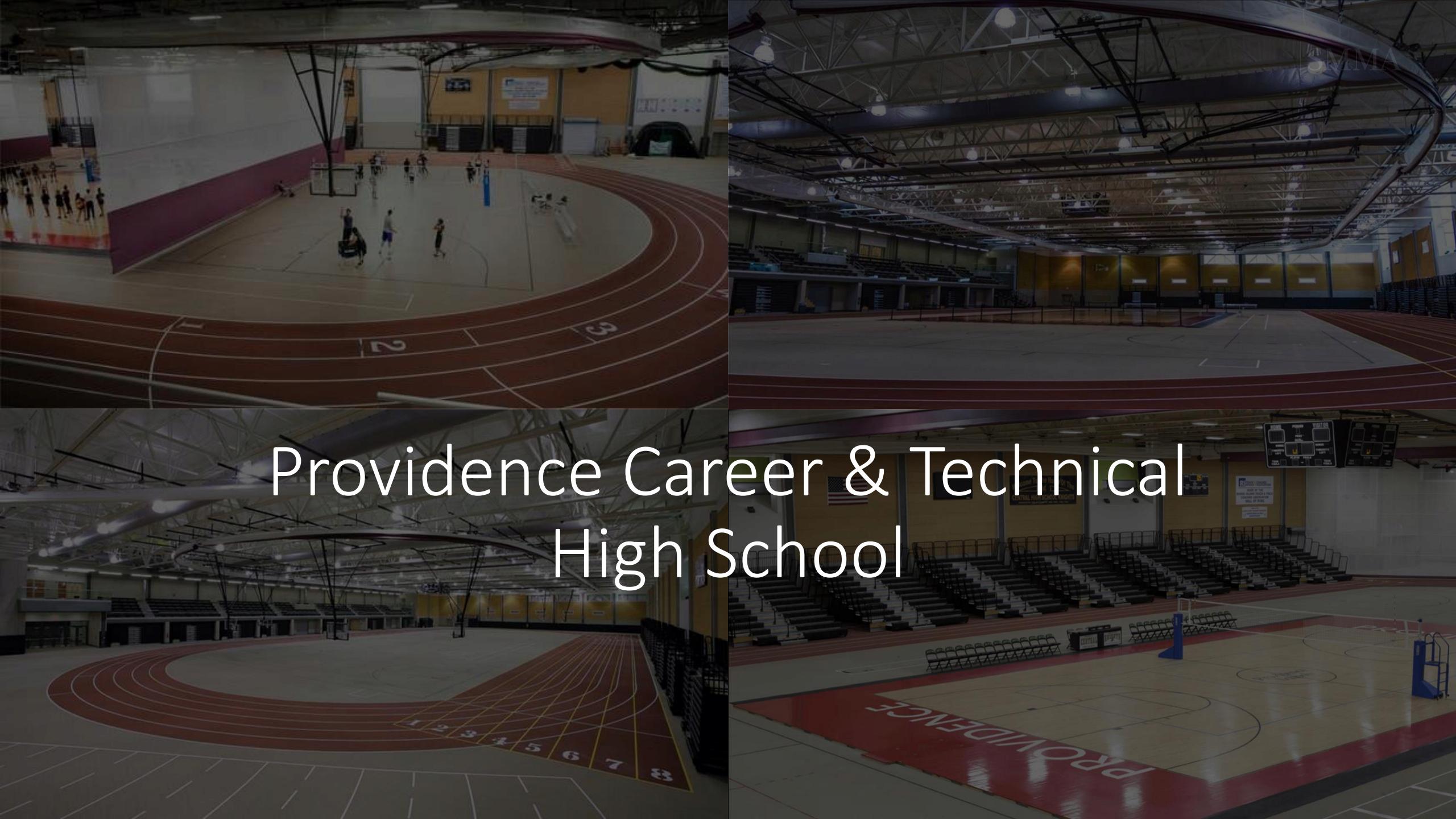
Phillips Exeter



- » 153,000 SF
- » 200-meter oval
- » 6 lane oval
- » 8 lane straight
- » 4 tennis courts
- » 500 spectator capacity
- » Additional Spaces
 - 12 squash courts
 - Fitness classrooms

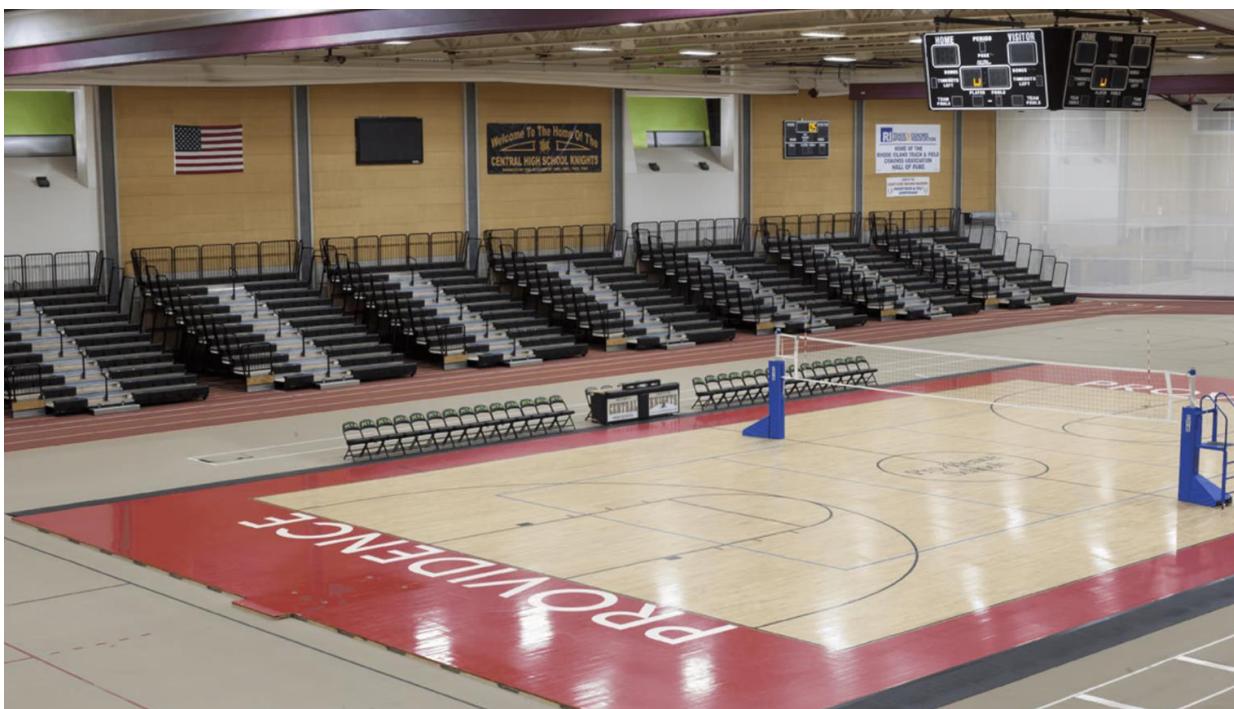
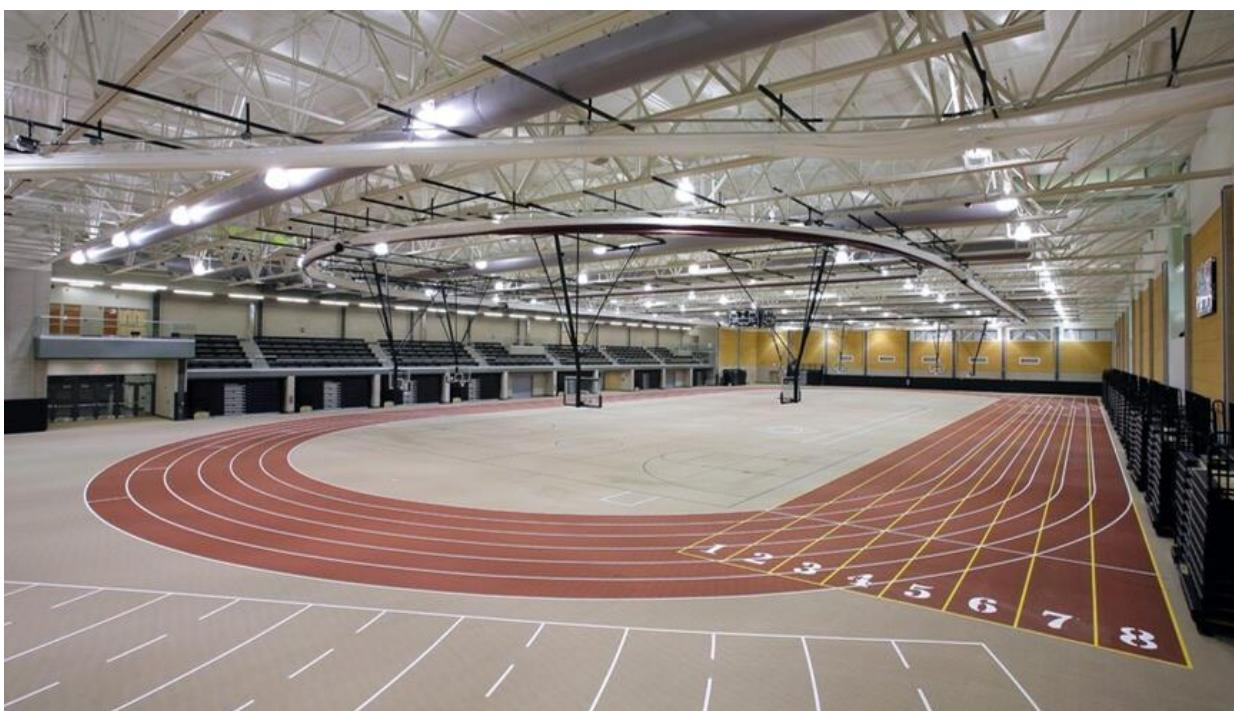
EXETER





The collage consists of three photographs. The top-left photo shows an indoor track and field facility with a running track and basketball hoops. The top-right photo shows a large gymnasium with tiered seating and a basketball court. The bottom-left photo shows another view of the indoor track and field facility.

Providence Career & Technical High School

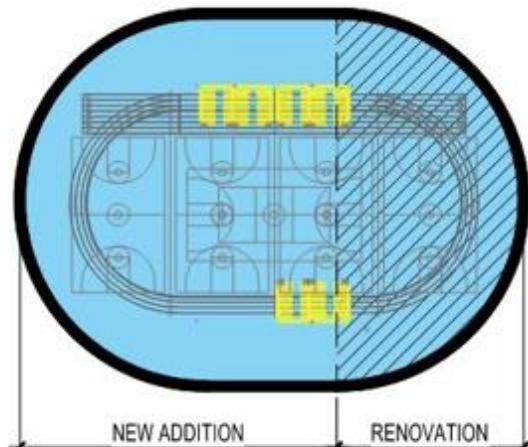


Providence Career & Technical High School

- » 65,000 SF
- » 200-meter oval
- » 6 lane oval
- » 8 lane straight
- » 1,800 spectator capacity



Field House Approaches

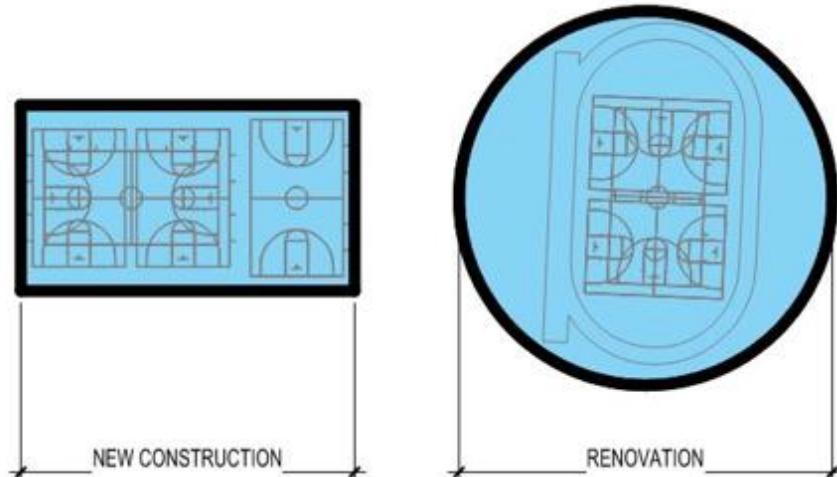


Expand?

1.) EXISTING FIELD HOUSE ADDITION/RENOVATION

GYMNASIUM FUNCTIONS TO TAKE PLACE WITHIN THE FIELD HOUSE

1/11th Mile (~146M) Track

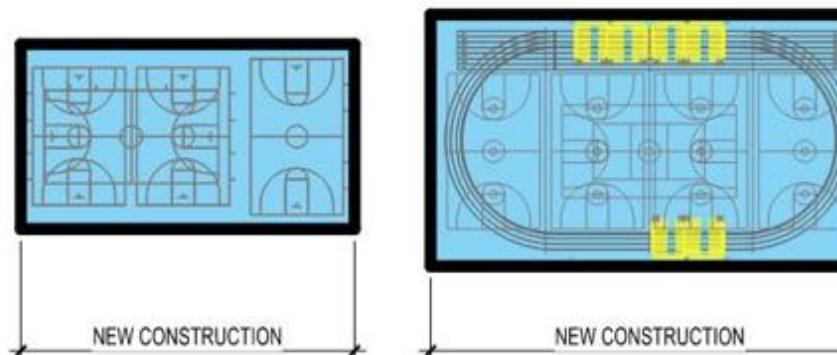


Renovate

1.) RENOVATE EXISTING FIELD HOUSE

2.) NEW 18K NSF GYM INCORPORATED INTO NEW/RENOVATED MAIN SCHOOL BUILDING

Existing Track



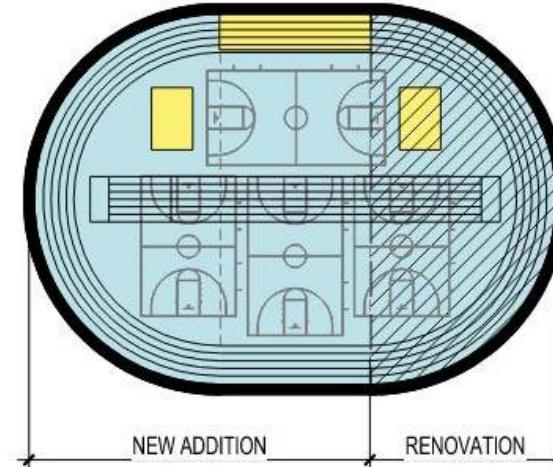
Replace

1.) NEW STAND-ALONE FIELD HOUSE

2.) NEW 18K NSF GYM INCORPORATED INTO NEW/RENOVATED MAIN SCHOOL BUILDING

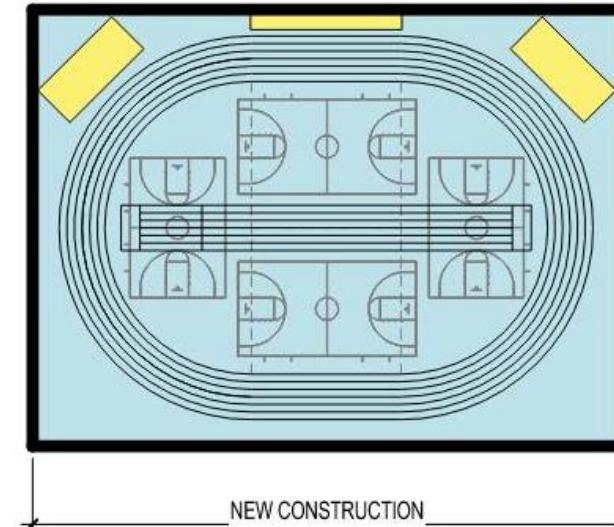
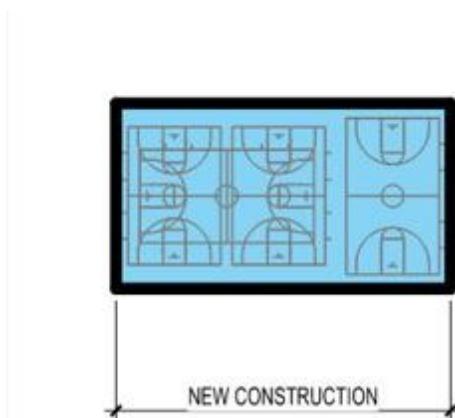
1/11th Mile (~146M) Track

Field House Approaches



Expand?

- 1.) Existing Field House Addition/Renovation
 - 200M Track
 - 4 Lane Oval



Replace

- 1.) New Stand-Alone Field House
 - 200M Track
 - 6 Lane Oval
- 2.) New 18K NSF Gym Incorporated Into New/Renovated Main School Building

Pool Building

Natatorium,
East Longmeadow



Potential Additional Program
Based on East Longmeadow
Building Footprint: 16,400 GFA

- 6-lane Pool
- Bleachers for 100
- Locker Rooms
- Multi-user Toilets
- Family Changing Room
- Pool Office
- Storage
- Building and Pool Mechanical Rooms
- Entry Lobby with separate and secure access
- Budget: \$16.7M
(2026 completion anticipated)



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Upcoming Meetings

- **Permanent Building Committee - March 14, 2024** Evaluation Criteria, Existing Conditions Draft Report, Space Summary, Massing Studies, Monthly Progress Update
- SBC#9 – **March 18, 2024** Accept proposed space summary, accept site development requirements, review concept massing alternatives

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