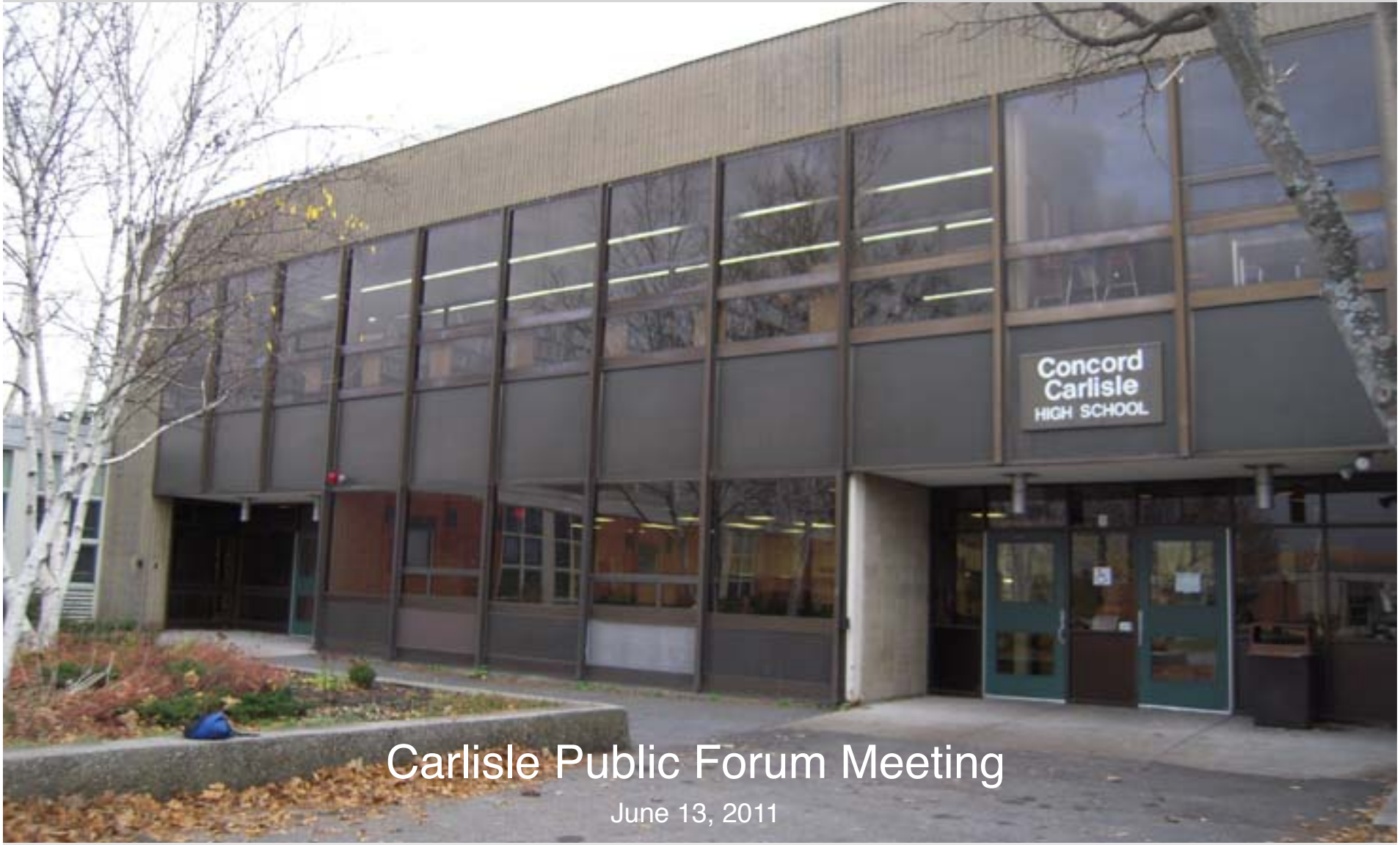
Concord-Carlisle Regional High School



Carlisle Public Forum Meeting

June 13, 2011

omr architects

Agenda

- Process Overview
- Site and Building Conditions Summary
- Space Program Summary
- Development of Alternatives
- Conceptual Plans
- Summary
- Q & A

CCHS School Building Committee

Karla Johnson
Co- Chairperson

Jerry Wedge
Co- Chairperson

Diana Rigby
Superintendent of Schools

Louis Salemy
2010-11 CCRSD School Committee Chair

John Flaherty
Deputy Superintendent

Dave Anderson
Director of Facilities

Bill Tice
Carlisle Board of Selectmen

Elise Woodward
Concord Board of Selectmen

Peter Badalament
CCHS Principal

John Linder
CCHS Teacher

Brian Miller
CCHS Teacher

Margaret Waterman
CCHS Student

Chris Whelan
Concord Town Manager

Joseph Morahan
Police Sergeant

Stan Durlacher
Carlisle Citizen

Tim Hult
Carlisle Citizen

Jeff Adams
Concord Citizen

Walter Birge
Concord Citizen

Michelle Ernst
Concord Citizen

Charlie Sample
Concord Citizen

Sergio Siani
Concord Citizen

Richard Waterman
Concord Citizen

Peter Nobile
Sustainable Energy Committee

Radha Jalan
FinCom Observer

Carol Wilson
FinCom Observer

Design Team

OMR Architects
Architect

KV Associates
Owner's Project Manager

Consultant Team

Nitsch Engineering, Inc.
Civil Engineer & Surveyor

Brown / Sardina, Inc.
Landscape Architect

Foley Buhl Roberts & Associates Inc.
Structural Engineer

Garcia Galuska DeSousa Consulting Engineers Inc.
MEP/FP Engineer

D.G. Jones International, Inc.
Cost Estimator

Colburn & Guyette Consulting Partners Inc.
Kitchen Consultants

KEMA, Inc.
Sustainability Consultant

CDW Consultants, Inc.
Hazardous Materials & ESA Consultant

Wiss, Janney, Elstner Associates, Inc.
Building Envelope Consultant

Nobis Engineering, Inc.
Geotechnical Consultant

CCHS Project Schedule

CCHS Master Plan Study	2009-2010
CCHS receives Approval to Proceed into Feasibility Study	September 29, 2010
CCHS procures OPM	November 2010
CCHS procures Designer	Mid- February 2011
Preliminary Design Program issued	April 1- April 7, 2011
FAS / Preliminary Design Program meeting with MSBA	May 11, 2011
* Preferred Schematic Report issued	June 16, 2011
FAS / Preferred Schematic Report meeting with MSBA (potential)	June 22, 2011
CCHS/ OMR possibly commences Schematic Design	June 23, 2011
MSBA BOD scheduled to approve CCHS to proceed into SD	July 27, 2011
Schematic Design Submittal to be issued	August 19, 2011
FAS / Schematic meeting	September 14, 2011
PSBA (Project Scope and Budget Agreement)	September 2011
MSBA BOD scheduled to approve SD Submission	September 28, 2011
Concord & Carlisle Town Meetings and Ballot Votes	November 2011
Begin Design Development	Early 2012
Possible Construction Commencement	Spring 2013

CCHS Feasibility Study Work Plan

Groundwork	○ *Prepare contract* ○ *Obtain and review all available/ pertinent documents* ○ *Prepare schedule and work plan*	○ *Review existing conditions information* ○ *Attend Site Based Committee Meeting* ○ *Conduct User Group meetings and Prepare Space Summary*
Meeting # 1	**Goals, Values and Space Summary**	
3/09/11	**Objectives** ○ Review schedule and process ○ Review goals, values ○ Review proposed space summary	**Follow-up** ○ Site walk thru with Engineers and Facilities Manager ○ Submit draft space summary to MSBA for initial review ○ Meet with MSBA for kickoff meeting ○ Prepare Preliminary Alternative concepts
Meeting # 2	**Vision, Space Summary and Preliminary Alternatives Concepts**	
3/23/11	**Objectives** ○ Review Educational Vision, goals and values ○ Review Preliminary Alternative Concepts ○ Approve Initial Space Summary and PDP	**Follow-up** ○ Complete Preliminary Design Program Submittal for MSBA ○ Meet with MSBA ○ Develop Preliminary Alternatives
Meeting # 3	**Sustainability Goals**	
4/06/11	**Objectives** ○ Discuss sustainability goals and net zero options with team	**Follow-up** ○ Develop Preliminary Evaluation of Proposed Alternatives
Meeting # 4	**Preliminary Evaluation of Proposed Alternatives**	
4/13/11	**Objectives** ○ Review Preliminary Evaluation of Proposed Alternatives	**Follow-up** ○ Submit Preliminary Alternatives to MSBA for initial review ○ Meet with MSBA ○ Develop Final Evaluation of Selected Alternatives
Meeting # 5	**Finalize Preliminary Alternatives**	
5/04/11	**Objectives** ○ Review and Approve Preliminary Alternative(s)	**Follow-up** ○ Prepare Final Evaluation of Alternatives
Meeting # 6	**Final Evaluation of Alternatives**	
5/25/11	**Objectives** ○ Review Final Evaluation of Alternatives ○ Confirm Preferred Solution	**Follow-up** ○ Prepare Preferred Schematic Report
Meeting # 7	**Preferred Schematic Update**	
6/08/11	**Objectives** ○ Review Preferred Schematic Update	**Follow-up** ○ Prepare Preferred Schematic Report for MSBA
Meeting # 8	**Preferred Schematic Report**	
6/15/11	**Objectives** ○ Review and Approve Preferred Schematic Report ○ School Committee Approval	**Follow-up** ○ Submit Preferred Schematic Report to MSBA ○ MSBA Facilities Assessment Subcommittee and BOD Vote

GOALS: Process

- Partnering with the MSBA, **proactively manage the process** with foresight and insight in an integrated manner.
- **Communicate clearly, convincingly, strategically and sensitively** regarding the issues and challenges intrinsic to building momentum for this project at this time
- **Model and reflect our Communities' values** with a design that fosters civic pride and environmental stewardship, and garners social, financial and political support
- **Explore financial options** with public/private partnerships and develop innovative ways to generate project funding and sustainable income

As approved by CCHS SBC on 3/09/11

GOALS: Project

- Develop a project which is **fiscally, academically, environmentally and socially responsible**
- Design a facility which is **flexible, adaptable, affordable and achievable**
- Create a facility that is **fully accessible, highly functional, cost effective, high performing, durable, and easy to maintain**
- Plan for a fully integrated campus that **promotes 21st century learning, educational excellence, high performance and shared intergenerational community and recreational use**
- **Actively engage our communities** in this ongoing and exciting opportunity for teaching and learning
- **Holistically integrate all campus elements** into a practical and inspiring new and transformed CCHS

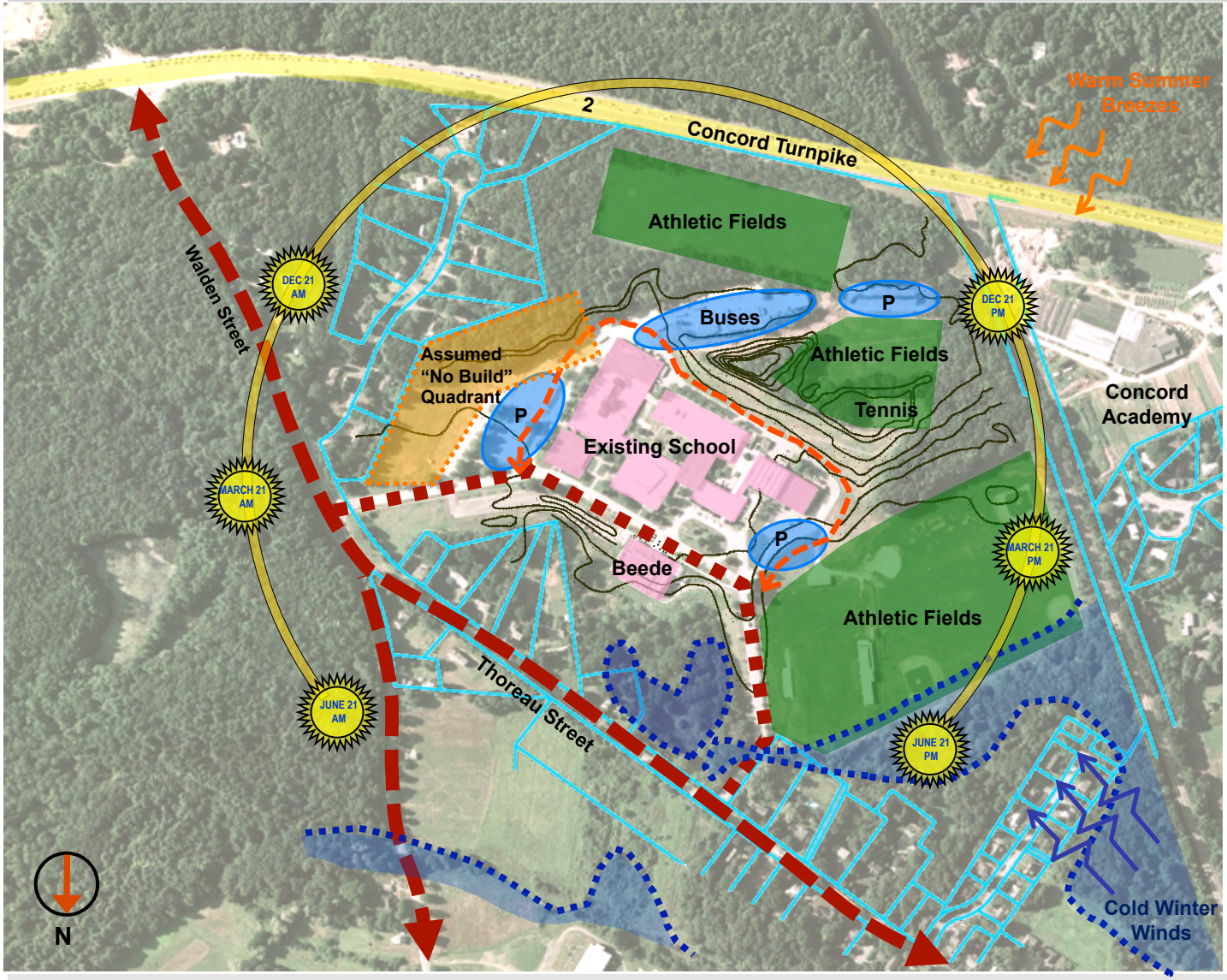
As approved by CCHS SBC on 3/09/11

GOALS: Product

- Create a campus which is **safe and secure**
- Provide **state-of-the-art facilities** with the full and appropriate array of **formal and informal learning, gathering, and performance spaces**
- Provide **state-of-the-art building systems** in an environment with an abundance of **natural light, clean healthy air, and practical, sustainable and high performance** design strategies
- Integrate and maximize the current and future use of **effective, cutting-edge technologies**
- Develop intuitively clear, **logical and efficient organizational and circulation patterns**
- Build an inspiring and engaging center for **"24/7" community use**
- **Minimize the impact of the design and construction** on the students, teachers, parents, neighbors and the greater community

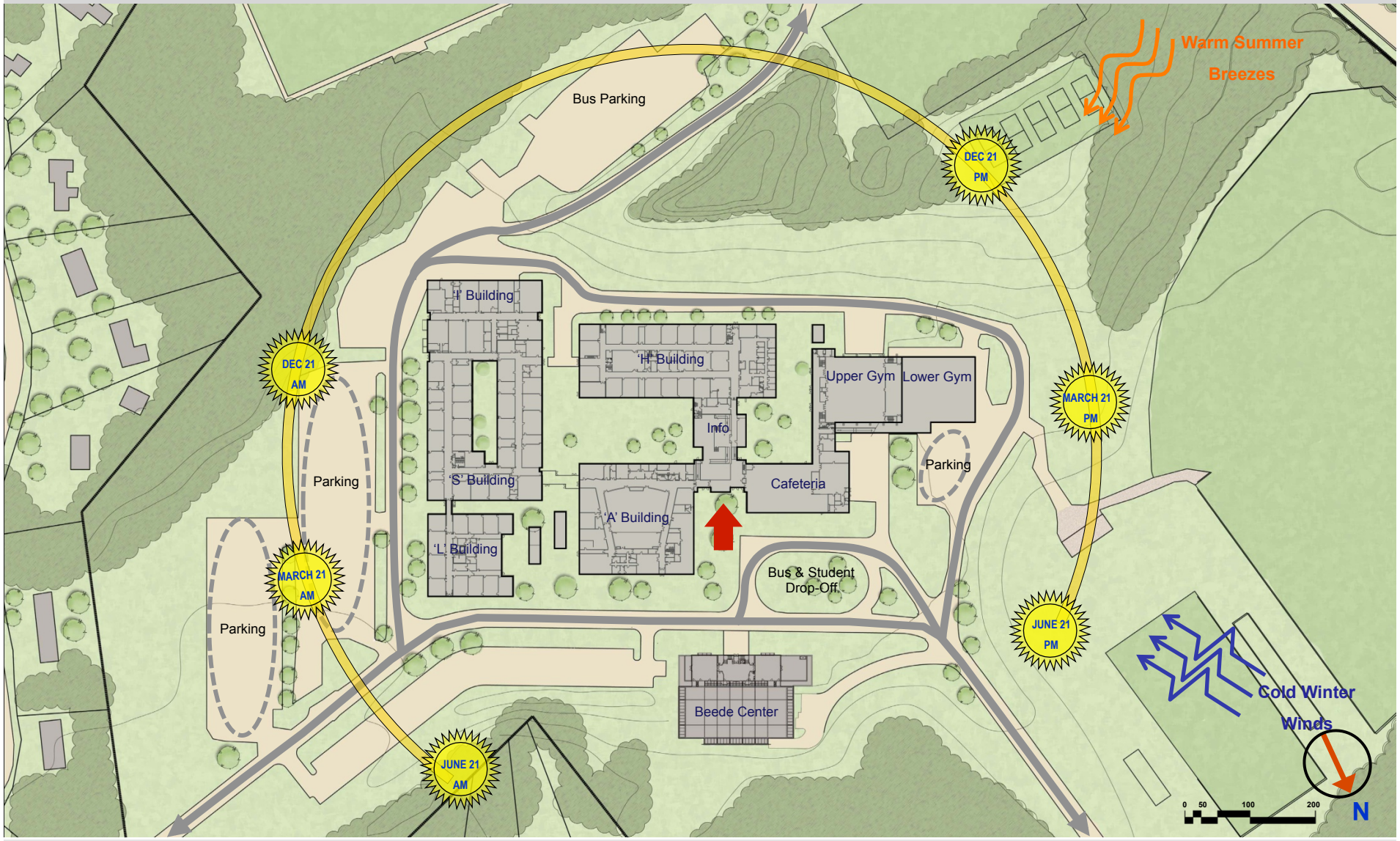
As approved by CCHS SBC on 3/09/11

Site Conditions Overview



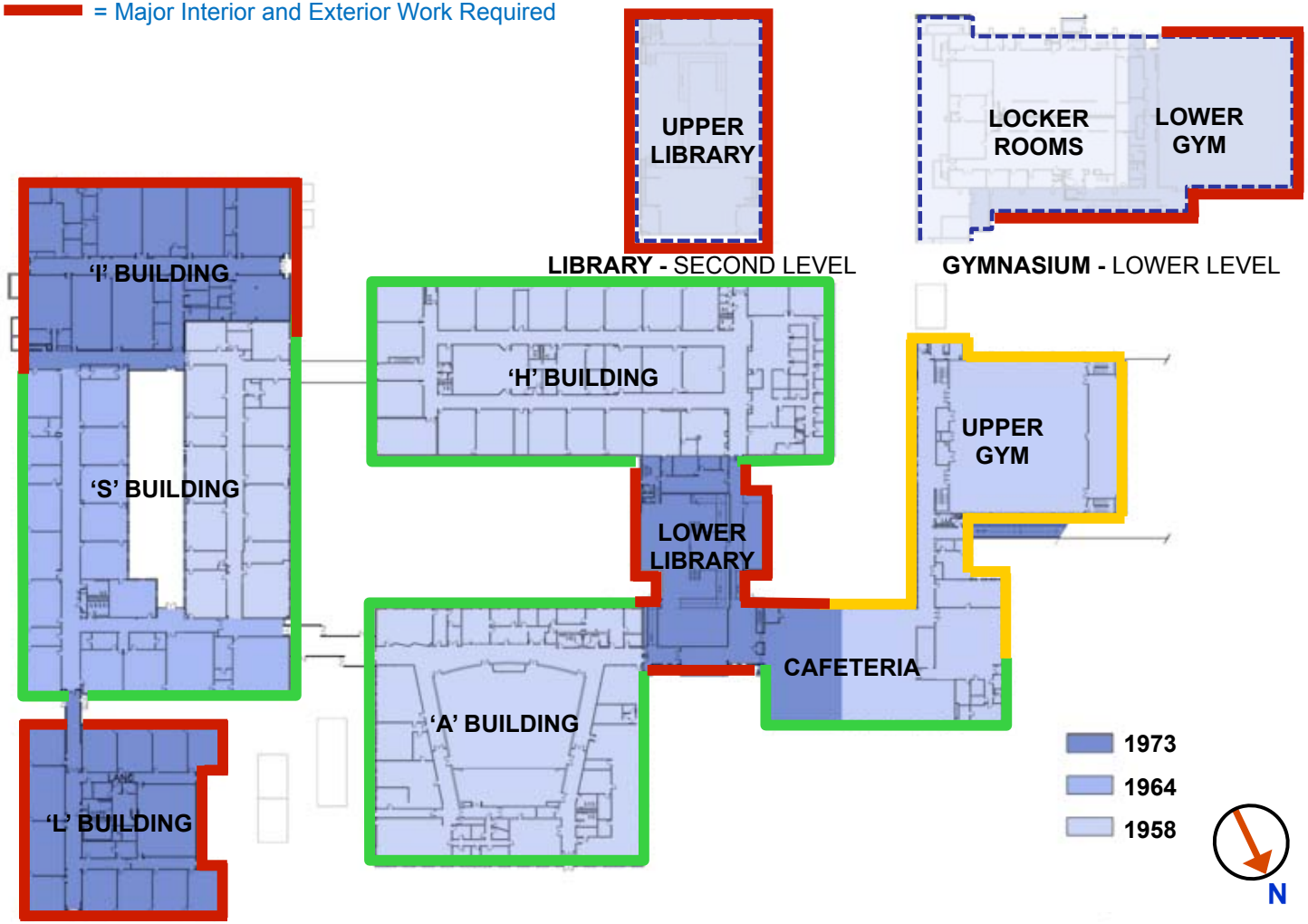
- Solar Orientation and Winds for Sustainable Design
- Topography & Geology of hills surrounding building
- Site Access
- Security and Egress around the Building
- Parking Insufficient and poorly placed
- Proximity to Residential/ assumed "no build"
- Wetlands
- Need to retain Athletic Fields

Existing CCHS Building



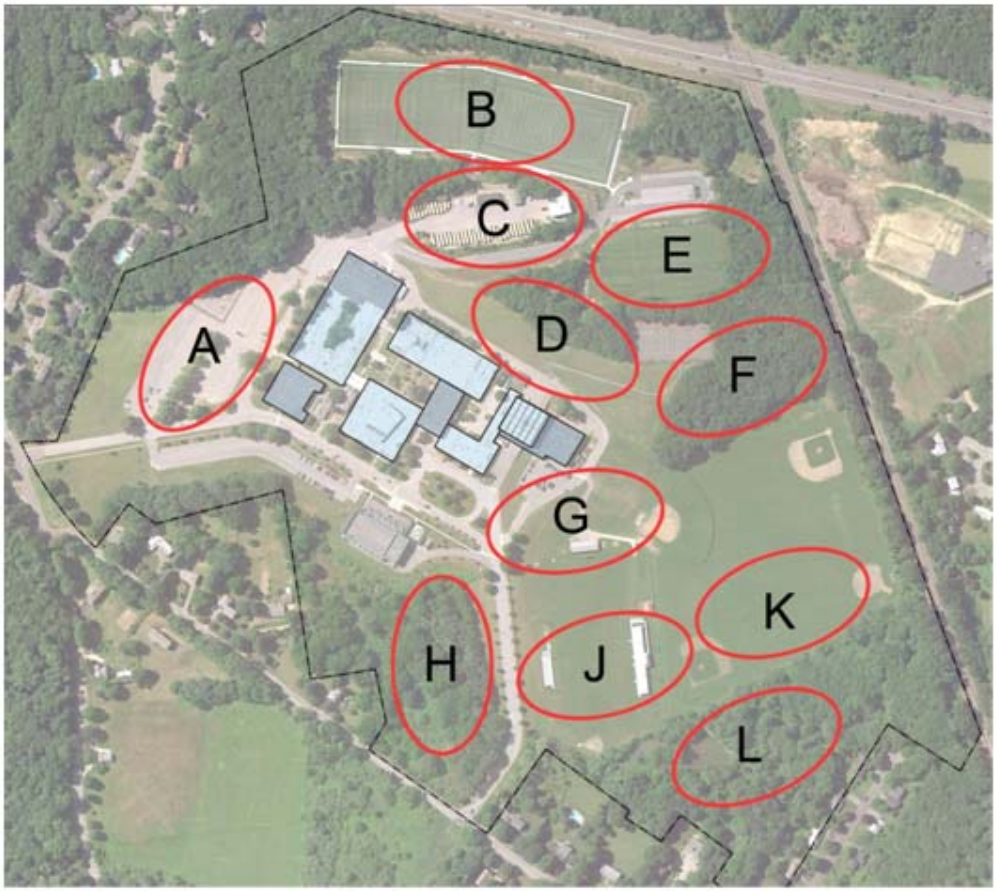
Existing Building Conditions Summary

= 1990 Envelope in the Best Current Physical Condition
= Exterior Building Envelope System Replacement Req'd
= Major Interior and Exterior Work Required



- Does not meet Energy, Building, Plumbing or MAAB codes
- Extensive Seismic and Roof structure upgrade required
- Requires all new MEP, FP, Tech, & Security systems
- Unsuitable Mechanical Tunnels throughout. Insufficient ceiling ht. for new systems
- Requires all new Envelope for Energy Efficiency (roof, windows, insulation, etc.)
- Hazardous Materials
- Lack of natural light in core
- Not organized for 21st c Team Teaching or Collaboration
- Requires substantial interior reconfiguration for educational needs

Site Locations Considered



Location A:
+ Site is flat
- Close proximity to neighbors
- Requires relocation of existing parking
- Poor solar orientation
- Remote from existing fields

Location B:
- Located on newly constructed turf fields
- Close proximity to neighbors
- Close proximity to Route 2
- On top of hill; remote from rest of campus

Location C:
- Sloping topography
- Located on existing district bus parking
- Site is tight between turf fields and existing roadway
- Poor solar exposure, south faces into the hill

Location D:
+ Adjacent to existing school, infrastructure and access
+/- Sloping topography
+/- Solar orientation is not due south
+ May balance cut and fill
+ Connects upper fields with campus

Location E:
+ Distant from neighbors
+ Good solar exposure
- On top of hill; remote from rest of campus
- Close proximity to MBTA
- Close proximity to Route 2

Location F:
+ Distant from neighbors
- Sloping topography
- Poor solar exposure, south faces into the hill
- Close proximity to MBTA

Location G:
+ Good solar exposure
+ Manageable topography, terraced slopes
+ Close to existing infrastructure and access
+ Connects lower fields area with main campus
- Site requires fill

Location H:
- Close proximity to neighbors
- Encroaches on wetlands
- Sloping topography
- Poor solar exposure

Location J:
+ Good solar exposure
+ Flat site
- Close proximity to neighbors
- Close proximity to wetlands
- Remote from rest of campus

Location K:
+ Good solar exposure
+ Flat site
- Close proximity to neighbors
- Close proximity to MBTA
- Close proximity to wetlands
- Remote from rest of campus

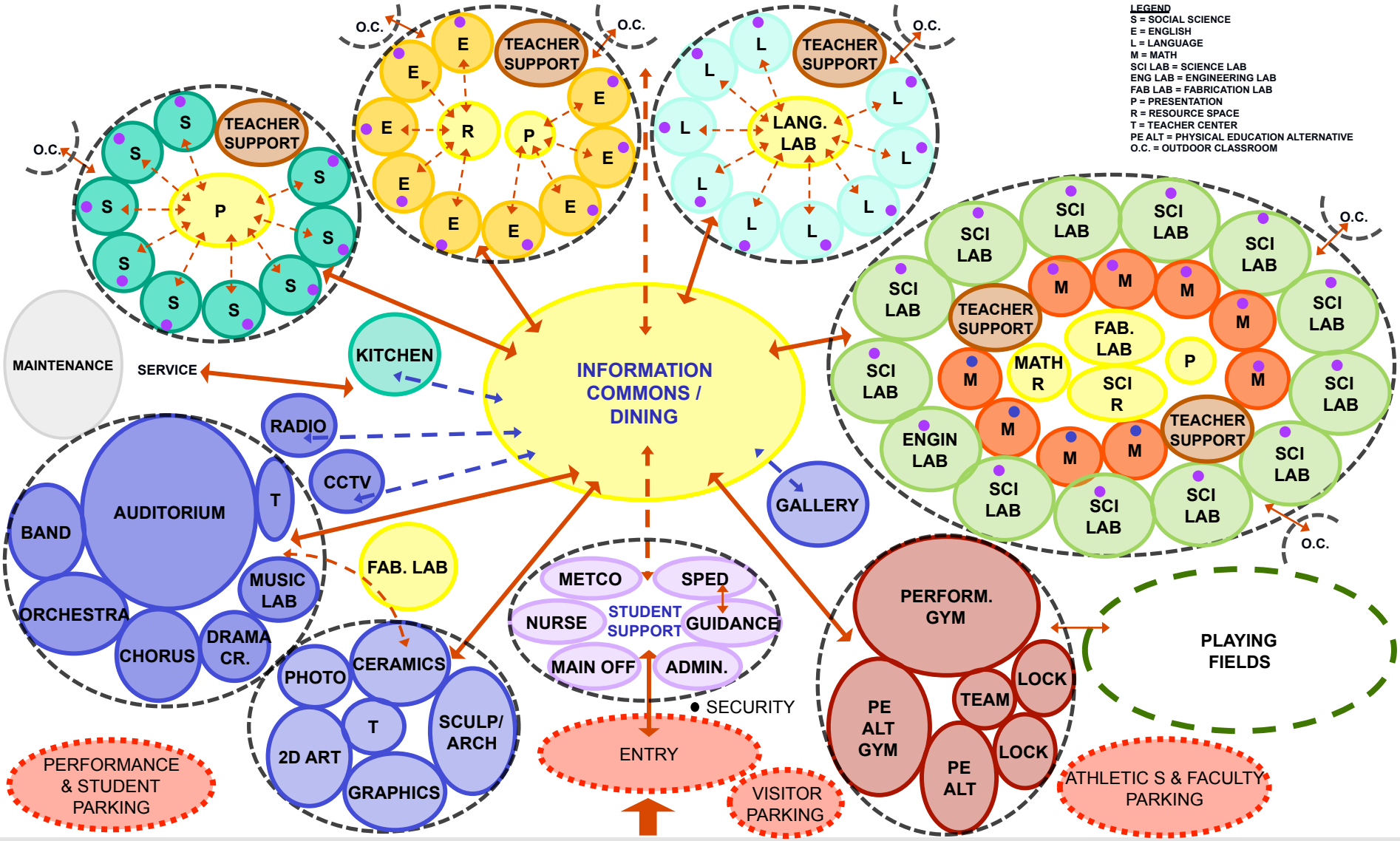
Location L:
- Located in existing woods
- Close proximity to neighbors
- Encroaches on wetlands
- Remote from rest of campus

Space Program Summary

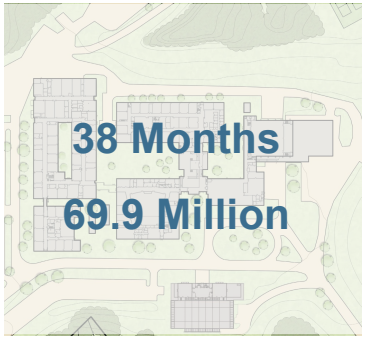
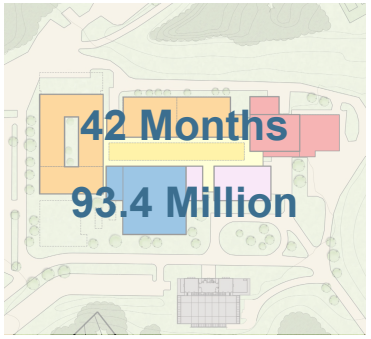
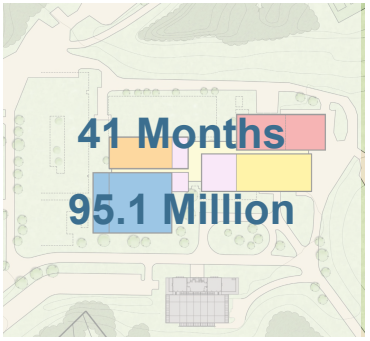
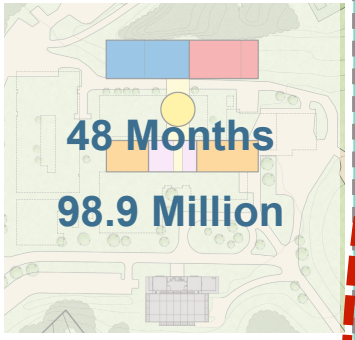
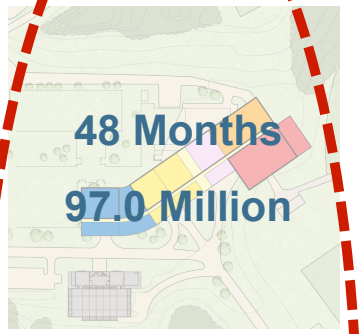
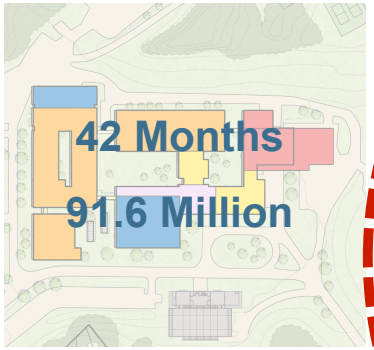
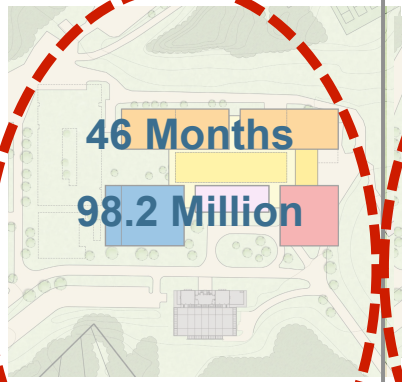
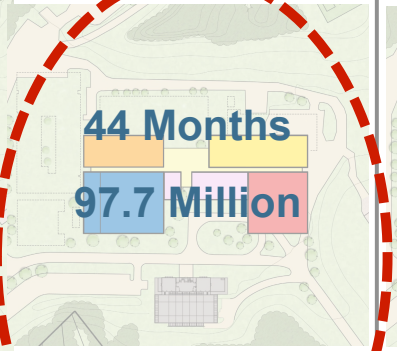
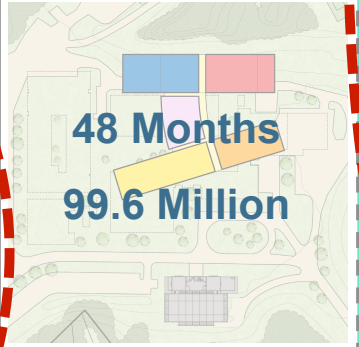
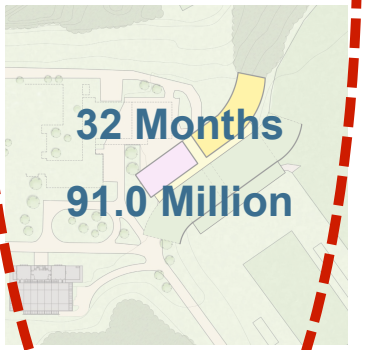
Existing	Proposed	MSBA
170,390 NSF	165,592 NSF	152,692 NSF
1.37 net/gross	1.45 net/gross	1.45 net/gross
233,800 GSF	240,601 GSF	221,725 GSF (△ 18,876 GSF)

Description	Existing Conditions	Proposed Space Summary* 2011/ 1225 Enrollment	MSBA 2010 Guidelines 1225 Enrollment
CORE ACADEMIC SPACES	57,476	63,420	58,690
SPED	7,145	5,970	13,090
ART & MUSIC (Visual and Performing Arts)	11,779	12,650	8,200
VOCATIONS & TECHNOLOGY	8,035	8,350	12,800
HEALTH AND PHYSICAL EDUCATION	31,075	23,060	23,060
MEDIA-LIBRARY (Learning Commons)	13,480	8,600	7,556
AUDITORIUM / DRAMA	9,667	10,400	10,400
DINING & FOOD SERVICE	13,068	10,262	10,262
MEDICAL / NURSE	690	1,110	1,110
ADM. & GUIDANCE (Student Support)	8,462	5,686	4,979
CUSTODIAL & MAINTENANCE	2,779	2,544	2,544
SUB-TOTAL Net Area	163,656	152,052	152,692
OTHER	6,734	13,540	0
GRAND TOTAL			
Net Area	170,390	165,592	152,692
Net:Gross Ratio (Net Area / Gross Area)	1.37	1.45**	1.45
Gross Area	233,800	240,601	221,725

Space Adjacency Diagram

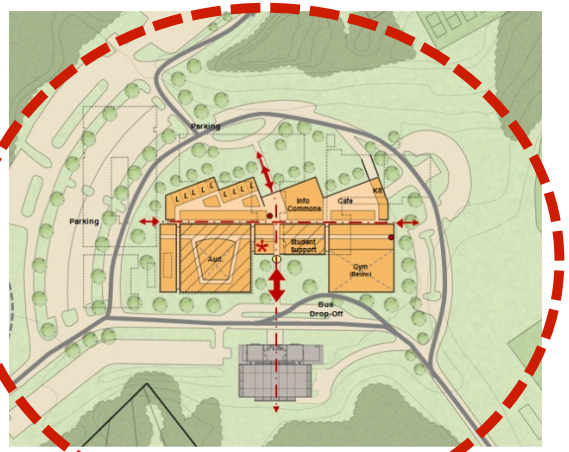


Meeting #3 Summary

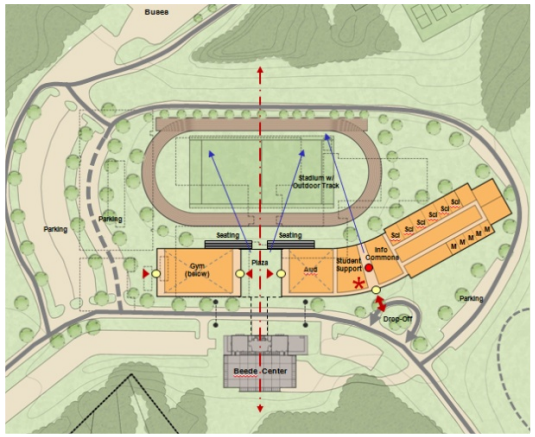
Existing Building	Renovation/Minor Additions	Minor Renovation/ Major Additions	New Building 3 Phases	New Building 1 or 2 Phases
				
Option 1 – No Build (repairs)	Option 3 – Full Renovation w/ Additions (Infill Courtyards, Remove 'L' & 'I')	Option 5 – Minor Renovation /Major Additions (Keeps 'A' and Gyms)	Option 7 – Phased New Building 3 Steps	Option 9 – Phased New Building 2 Steps
				
Option 2 – Full Renovation w/ Minor Additions (Keep All Buildings)	Option 4 – Major Renovation/Major Additions (Keep 'A', 'H', & Cafe)	Option 6 – Minor Renovation /Major Additions (Keeps 'A' and Cafe)	Option 8 – Phased New Building 3 Steps	Option 10 – New Building 1 Step

Meeting #4 Summary

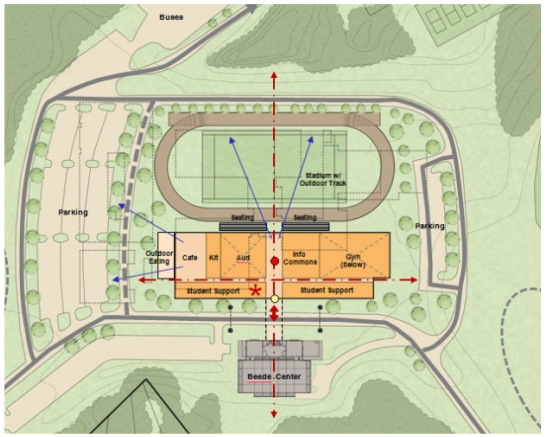
Option 4R
Major Addition / Major Renovation



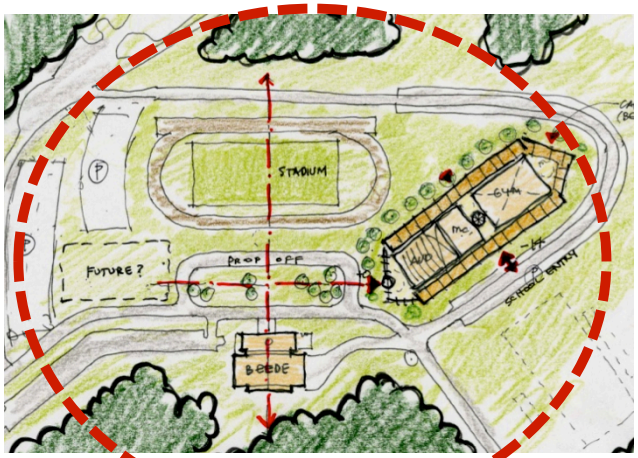
Option 6R
Major Addition / Minor Renovation



Option 9/10
New Building



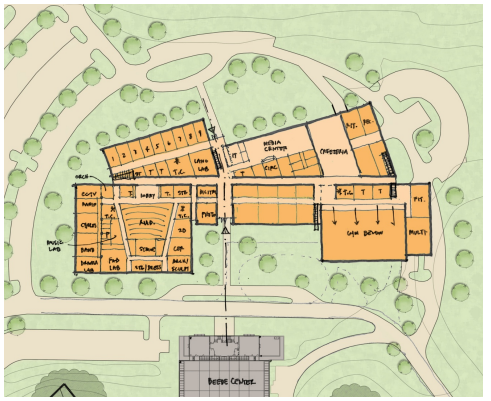
Option 11
New Building



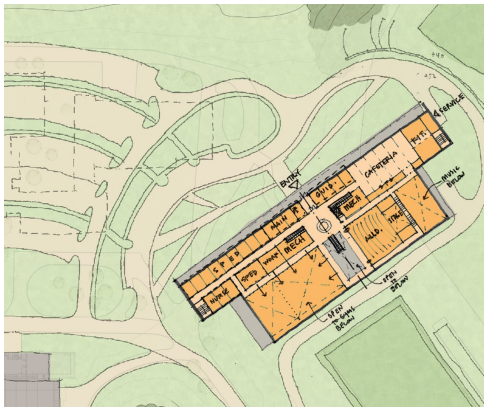
Option 12
New Building

Integrated Design Team Highlights

- Study active vs. passive strategies
- Optimize daylighting and views throughout
- Include north facing classrooms
- Integrate clustering with vertical ventilation / light shafts
- Integrate tight building envelope
- Consider integrated hybrid approach for building systems
- Balance sustainability ideas with maintenance and operations
- Use quantifiable data to determine feasibility / value
- Consider solar wall system
- Consider PV array at grade
- Use LED lighting at exterior and as an alternate on the interior
- Sustainable subcommittee to oversee 3rd party PV financing / CMLP



Option 6R1
Major Renovation
Major Addition



Option 12R
New Building
(1 Step)

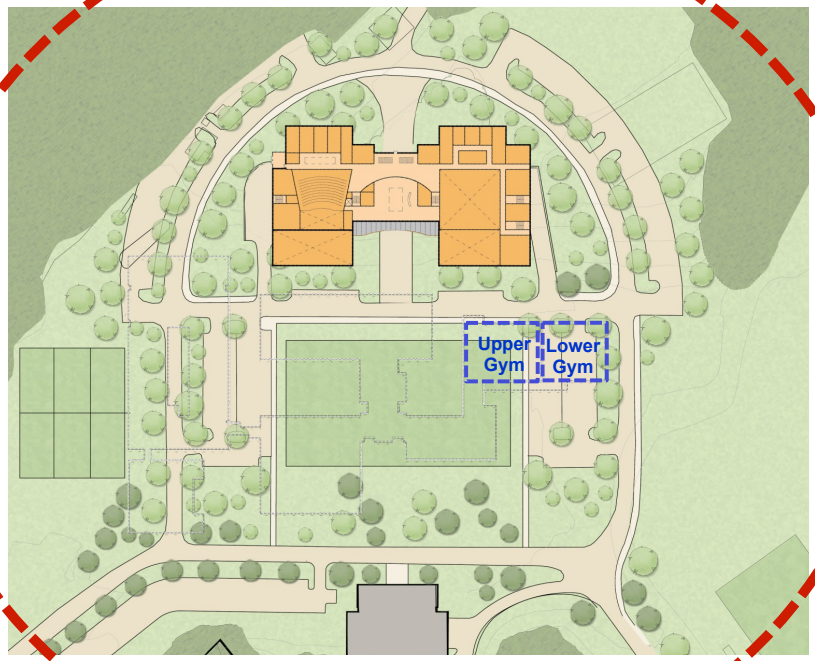
Evaluation Matrix

Legend ○ Moderate / Neutral 1 Poor 2 Satisfactory 3 Advantageous 4 Highly Advantageous	Addition & Renovation Options		All New Construction Options
	4 Major Renovation Major Additions (Keep 'A', 'H', and Cafe.)	6R1 Minor Renovation Major Additions (Keep 'A' and Cafe.)	12R New Building (1 Step)
DURATION	**46 months**	**44 Months**	**32 Months**
COST	**98.3 Million**	**97.7 Million**	**91.1 Million**
Cost Effective/ Value	1.27	1.88	4
Educational Program Needs	1.77	2.66	3.55
Building Transformation	1.54	3.11	3.66
Expandability	1.71	2.66	3.16
Project and Product Goals :			
- **COMMUNITY VALUES: Model and reflect our Communities' values** with a design that fosters civic pride and environmental stewardship, and garners social, financial and political support	1.49	2.5	3.66
- **RESPONSIBLE DESIGN:** Develop a project which is **fiscally, academically, environmentally and socially responsible**	1.49	2.7	3.77
- **FLEXIBLE/ ADAPTABLE:** Design a facility which is **flexible, adaptable, affordable and achievable**	1.38	2.6	3.55
- **MAINTAINABILITY:** Create a facility that is **fully accessible, highly functional, cost effective, high performing, durable, and easy to maintain**	1.71	2.9	3.83
- **COMMUNITY USE:** Plan for a fully integrated campus that **promotes 21st century learning, educational excellence, high performance and shared intergenerational community and recreational use**	1.77	3.16	3.83
- **COMMUNITY SUPPORT: Actively engage our communities** in this ongoing and exciting opportunity for teaching and learning	1.88	2.72	3.72
- **CAMPUS INTEGRATION: Holistically integrate all campus elements** into a practical and inspiring new and transformed CCHS	1.43	3.11	3.72
- **SECURE CAMPUS:** Create a campus which is **safe and secure**	2.16	2.9	3.61
- **21ST CENTURY PROGRAMMATIC SPACE:** Provide **state-of-the-art facilities** with the full and appropriate array of **formal and informal learning, gathering, and performance spaces**	1.93	3.38	3.84
- **SUSTAINABILITY:** Provide **state-of-the-art building systems** in an environment with an abundance of **natural light, clean healthy air, and practical, sustainable and high performance** design strategies	1.71	3.16	3.88
- **EFFICIENT/LOGICAL ORGANIZATION:** Develop intuitively clear, **logical and efficient organizational and circulation patterns**	1.83	3.11	3.77
- **24/7 Community Use:** Build an inspiring and engaging center for "24/7" community use	1.83	3.11	3.66
- **MINIMAL PHASING DISRUPTION:** Minimize the impact of the design and construction on the students, teachers, parents, neighbors and the greater community	1.27	1.61	4

	4	6R1	12R
Subtotal	28.17	47.27	63.21
Total Average	1.56	2.62	3.51

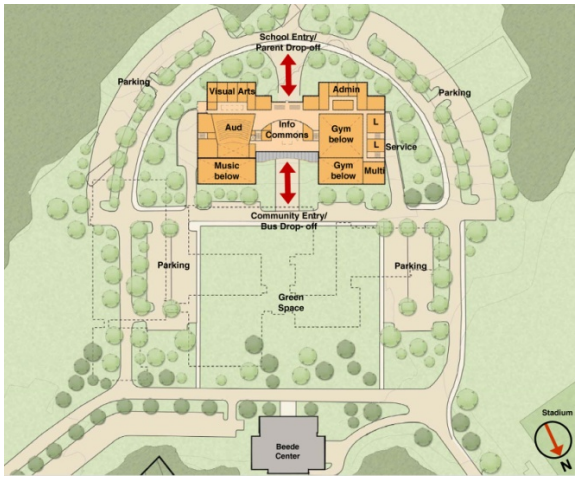
Meeting #6 Summary

Option 12R1



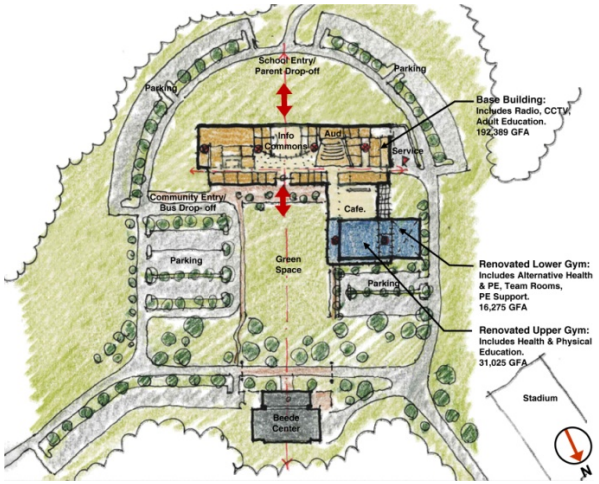
Option 13

Meeting #7 Summary



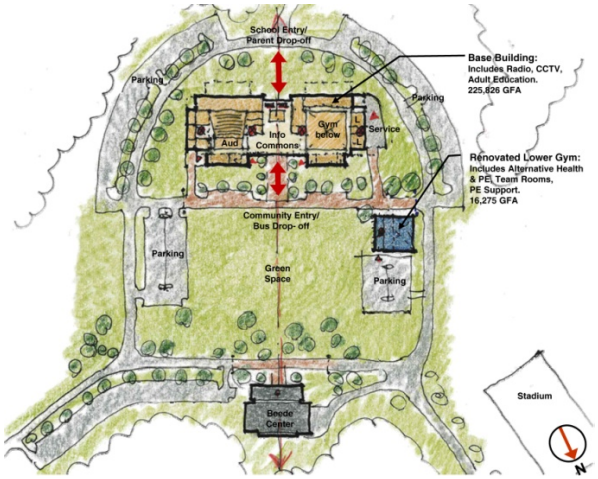
Option 13

All New Building, one phase, located South of the Existing School.



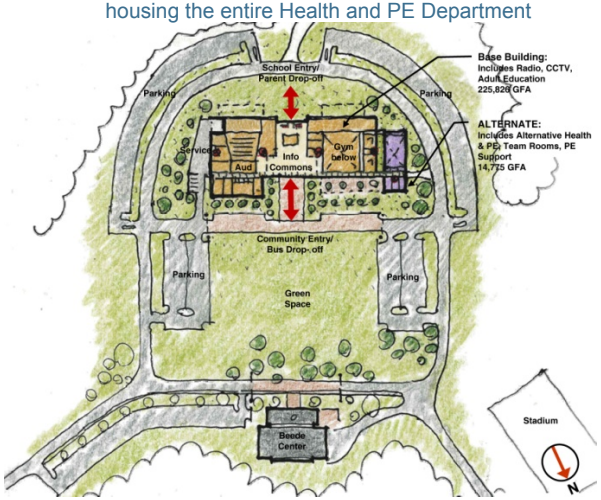
Option 14A

New “Base” Building internally connected to renovated Upper and Lower Gym Buildings housing the entire Health and PE Department



Option 14B

New “Base” Building with stand alone, renovated Lower Gym building housing the Alternative Health & PE, Team Rooms & PE Support spaces

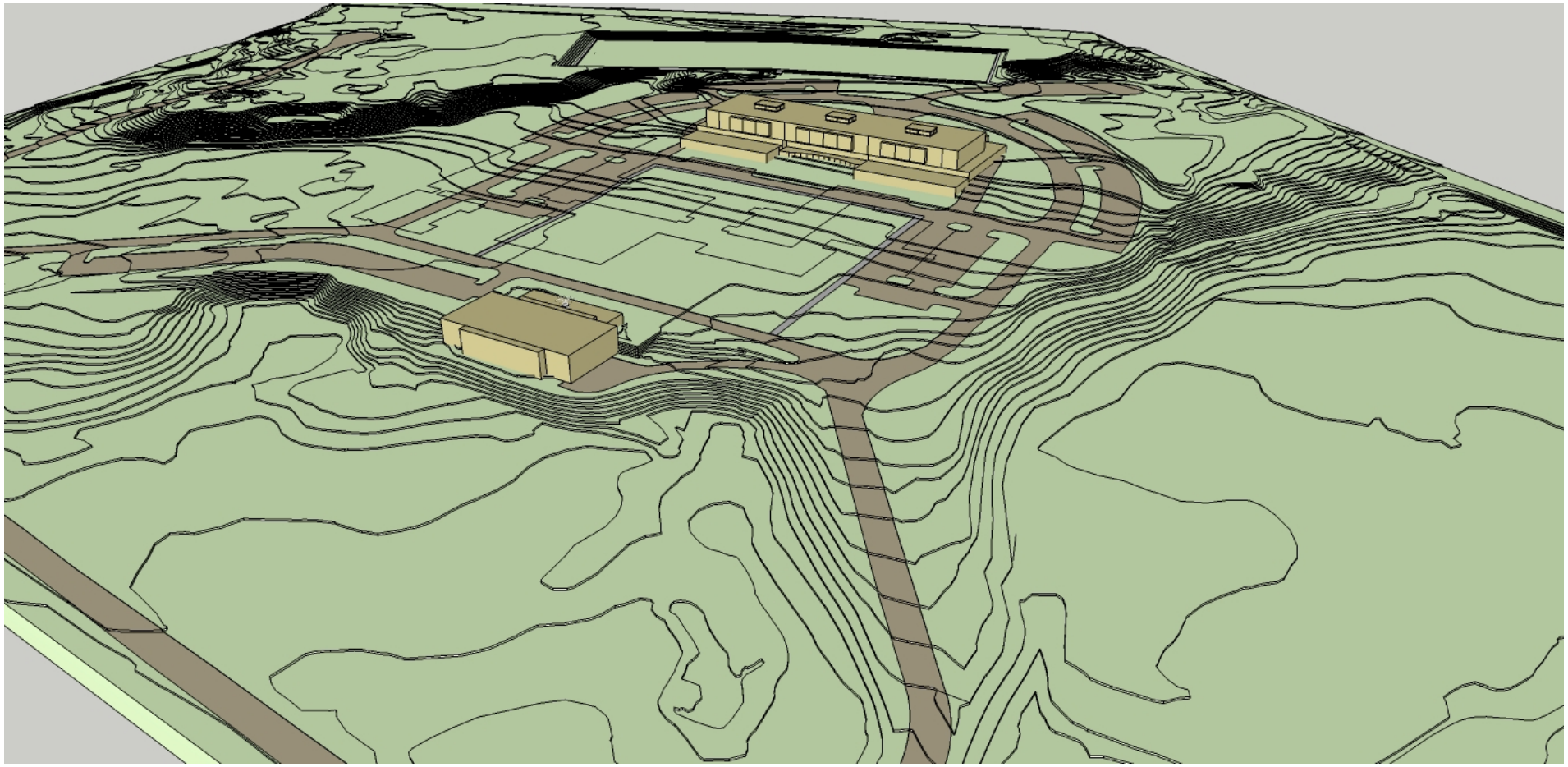


Option 14C

New “Base” Building with separate, new, disconnected building housing the Alternative Health & PE, Team Rooms & PE Support spaces.

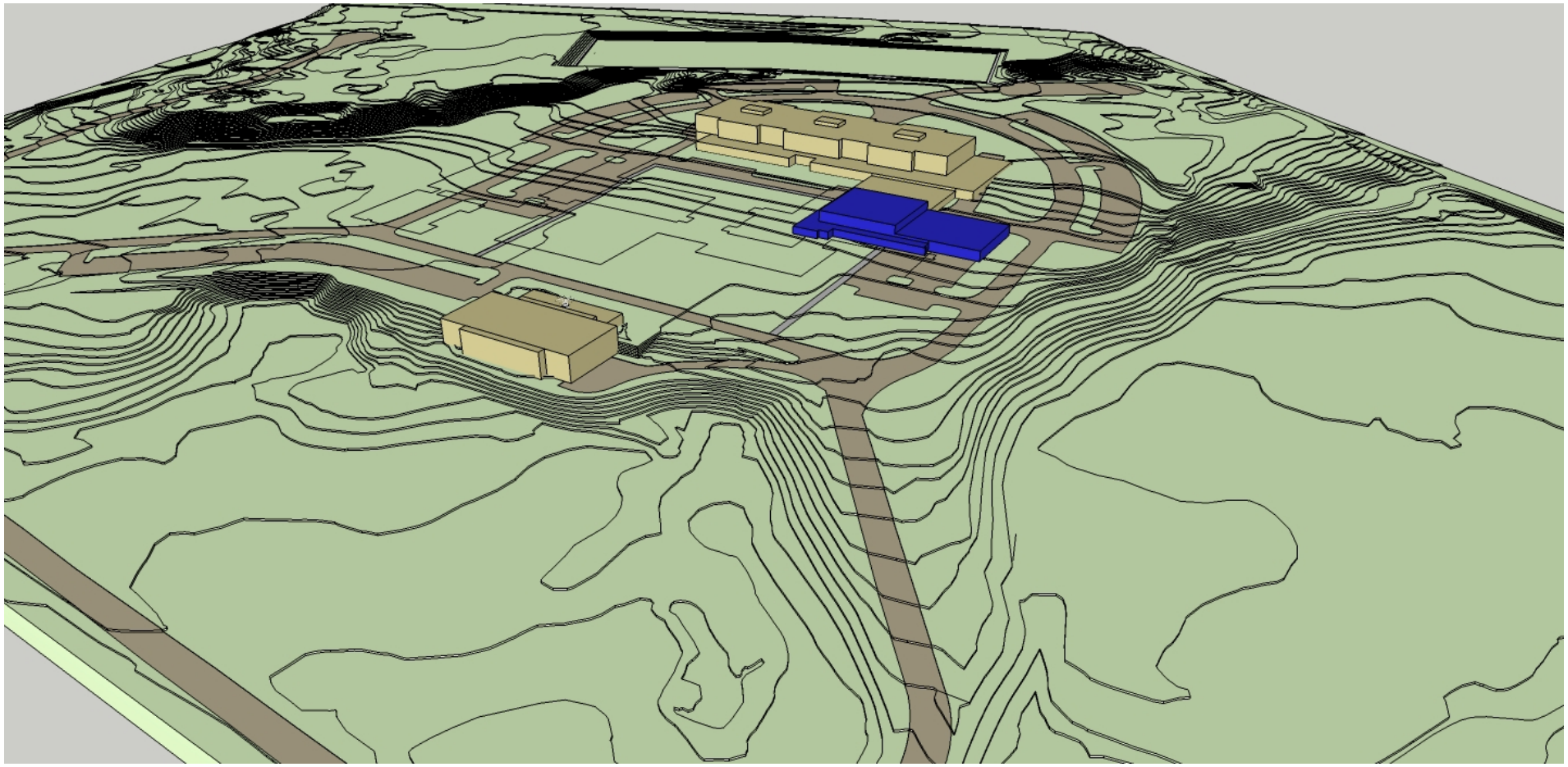
Option 13

All New Building, one phase, located South of the Existing School. 240,108 GFA



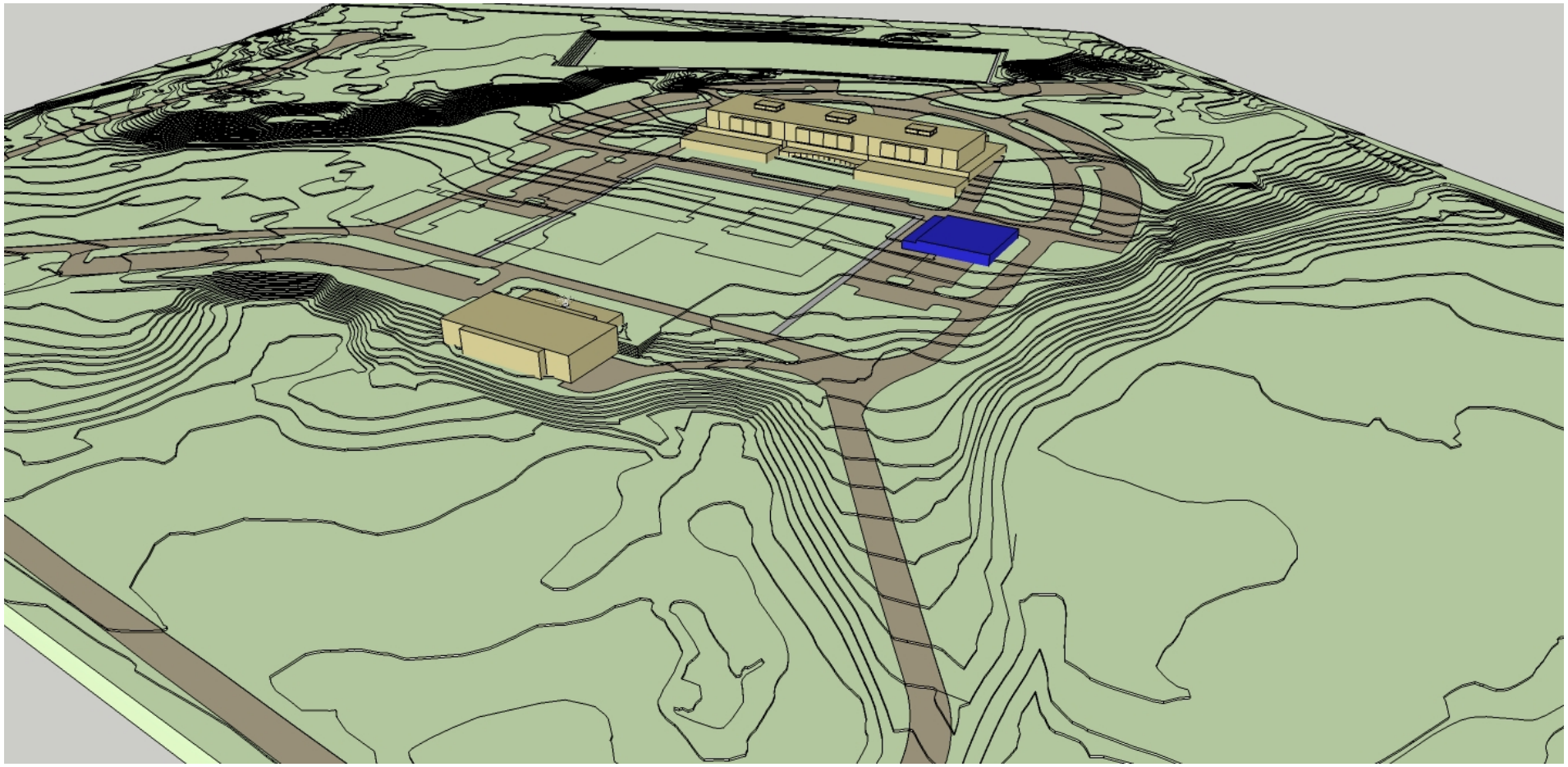
Option 14A

New “Base” Building internally connected to renovated Upper and Lower Gym Buildings housing the entire Health and PE Department for the School. 239,689 GFA



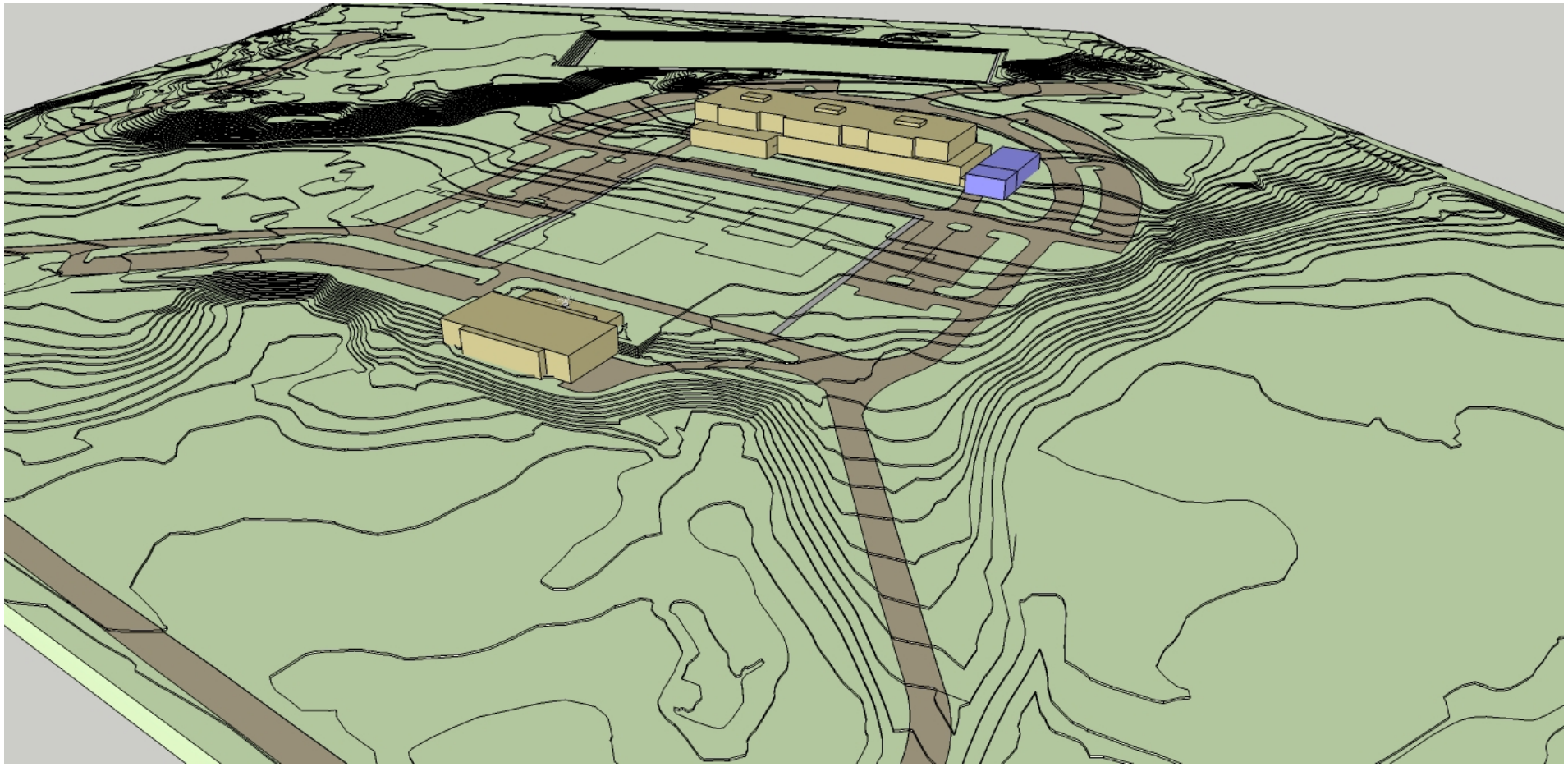
Option 14B

New “Base” Building with stand alone, renovated Lower Gym building housing the Alternative Health & PE, Team Rooms & PE Support spaces. 242,101 GFA



Option 14C

New “Base” Building with separate, new, disconnected building housing the Alternative Health & PE, Team Rooms & PE Support spaces. (separate systems in 2 buildings) 240,601 GFA



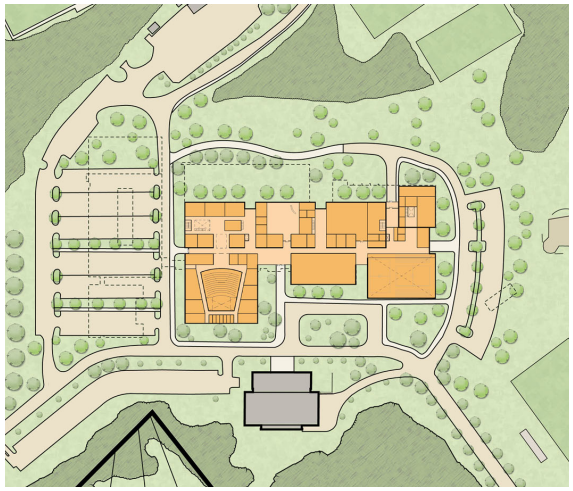
Comparative Options Value Analysis

Concord-Carlisle High School Revitalization - Abbreviated Comparative Options Value Analysis

June 1, 2011 (revised for series 13 and 14 options). Options 1 through 10 have been removed from this analysis

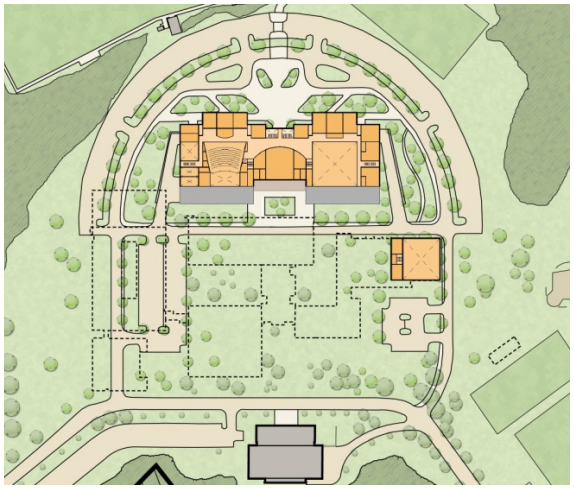
	New	New/Reno existing gyms		New + Alternate
	Option 13	Option 14A	Option 14B	Option 14C
	One bldg	One bldg + Reno Upper & Lower Gym	One bldg + Reno Lower Gym	One bldg + Alternate Addition
Anticipated construction duration	30	36	32	30
New work square footage	240,108	192,389	225,826	225,826
Renovation work square footage	0	47,300	16,275	0
Premium work SF				14,775
Total square footage	240,108	239,689	242,101	240,601
Hard Costs				
New building construction	$52,343,544 218/sf	$41,940,802 218/sf	$49,230,068 218/sf	$49,230,068 218/sf
Renovation or alternate addition building construction	$0	$10,642,500 225/sf	$3,173,625 195/sf	$3,324,375 225/sf
CM/GC PR/GC + Fee	$7,472,871	$8,762,866	$7,902,474	$7,477,089
Abatement, demolition and sitework	$7,902,800	$7,819,000	$7,855,150	$7,902,800
Escalation and contingencies	$6,230,168	$6,895,320	$6,429,522	$6,249,959
Subtotal Hard Costs	$73,949,383	$76,060,488	$74,590,839	$74,184,290
Soft Costs				
A/E and OPM management	$8,971,963	$9,758,629	$9,230,450	$8,986,057
FFE / technology	$3,920,000	$3,920,000	$3,920,000	$3,920,000
Logistics and misc.	$1,550,000	$1,850,000	$1,650,000	$1,550,000
Soft contingency	$722,098	$776,431	$740,023	$722,803
Subtotal Soft Costs	$15,164,061	$16,305,061	$15,540,473	$15,178,860
Comparative Values	**89.1 M**	**92.4 M**	**90.1 M**	**89.4 M**

Final Evaluation of Alternatives→ Preferred Solution



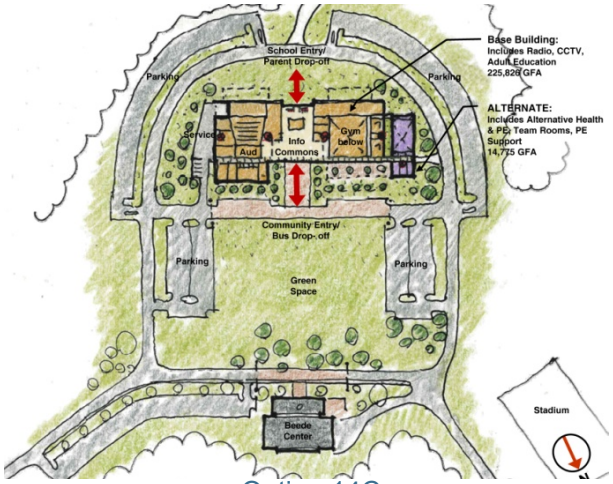
Option 6R2

Renovation and Addition, multi-phase, good solar orientation



Option 14B

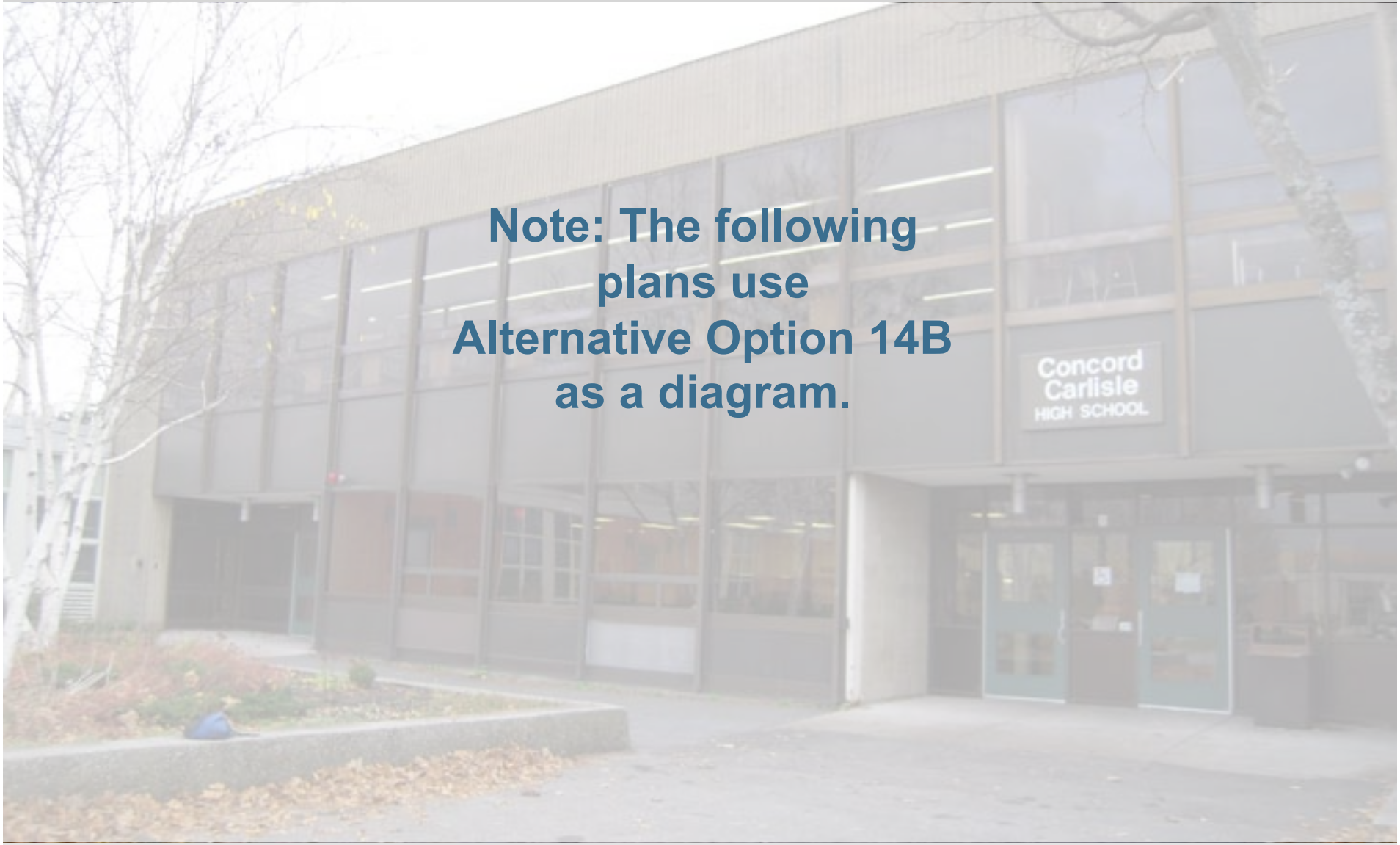
New “Base” Building with stand alone, renovated Lower Gym building for the Alternative Health & PE, Team Rooms & PE Support spaces



Option 14C

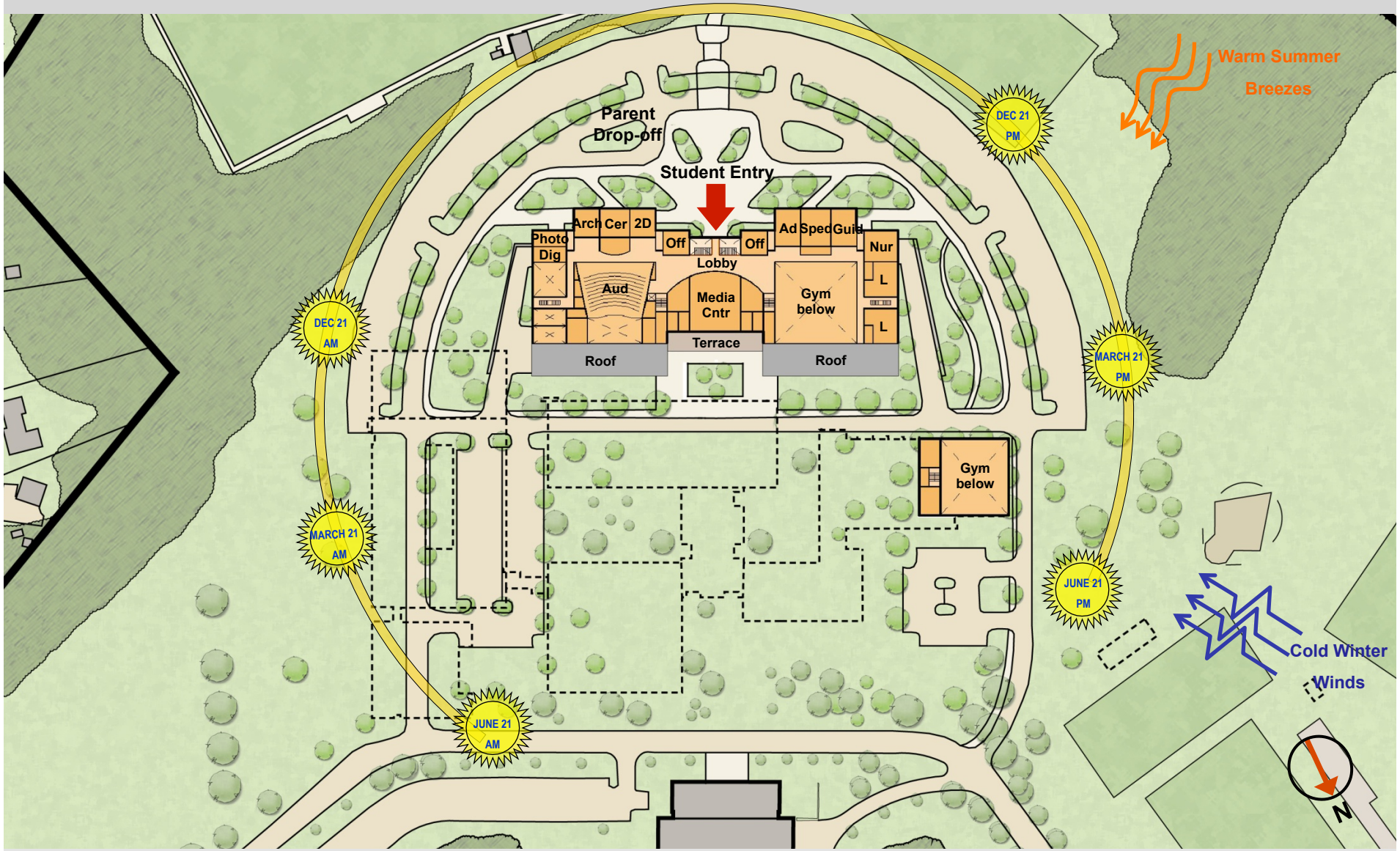
New “Base” Building with separate, new, disconnected building for the Alternative Health & PE, Team Rooms & PE Support spaces

Conceptual Plans

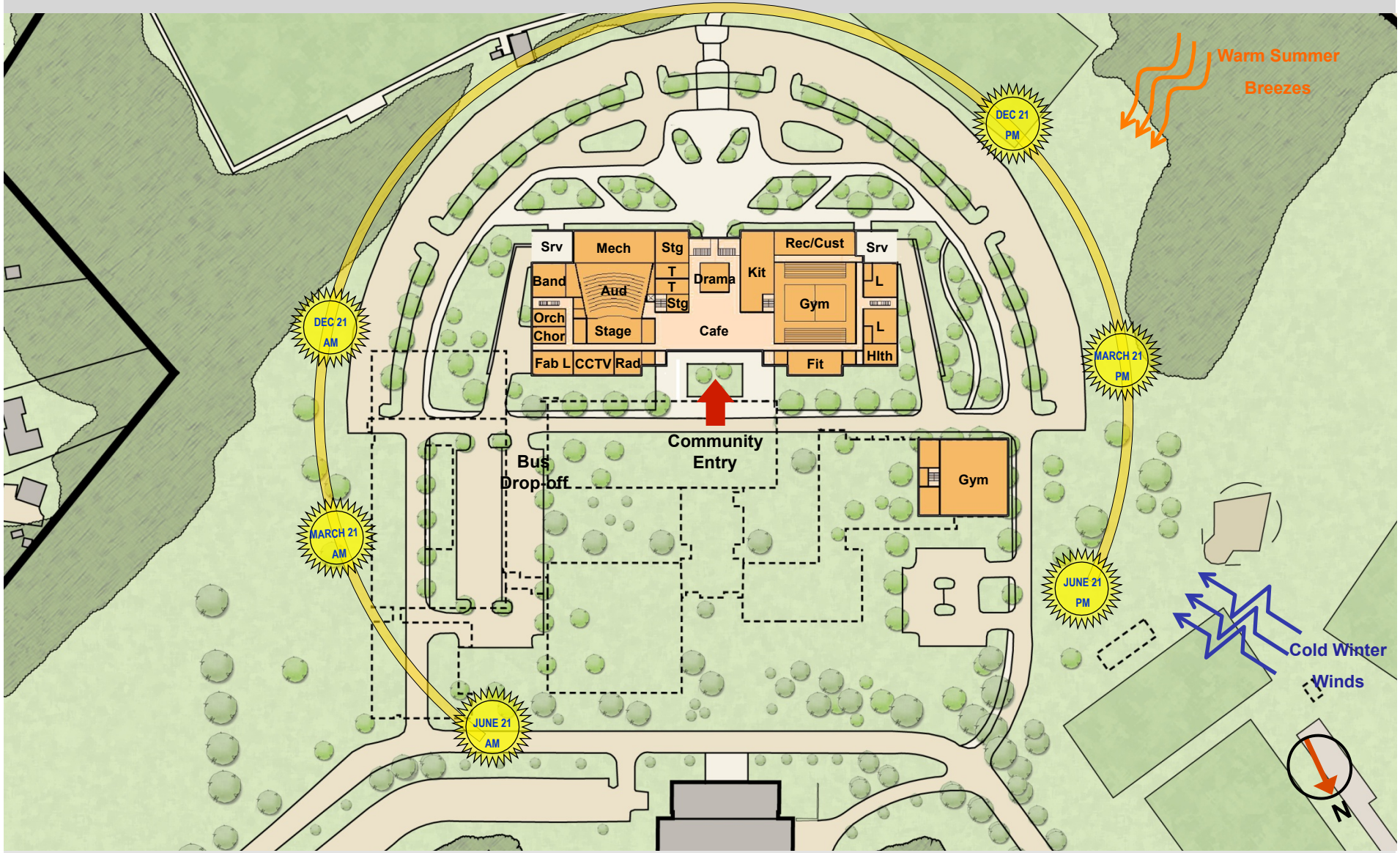


Note: The following plans use Alternative Option 14B as a diagram.

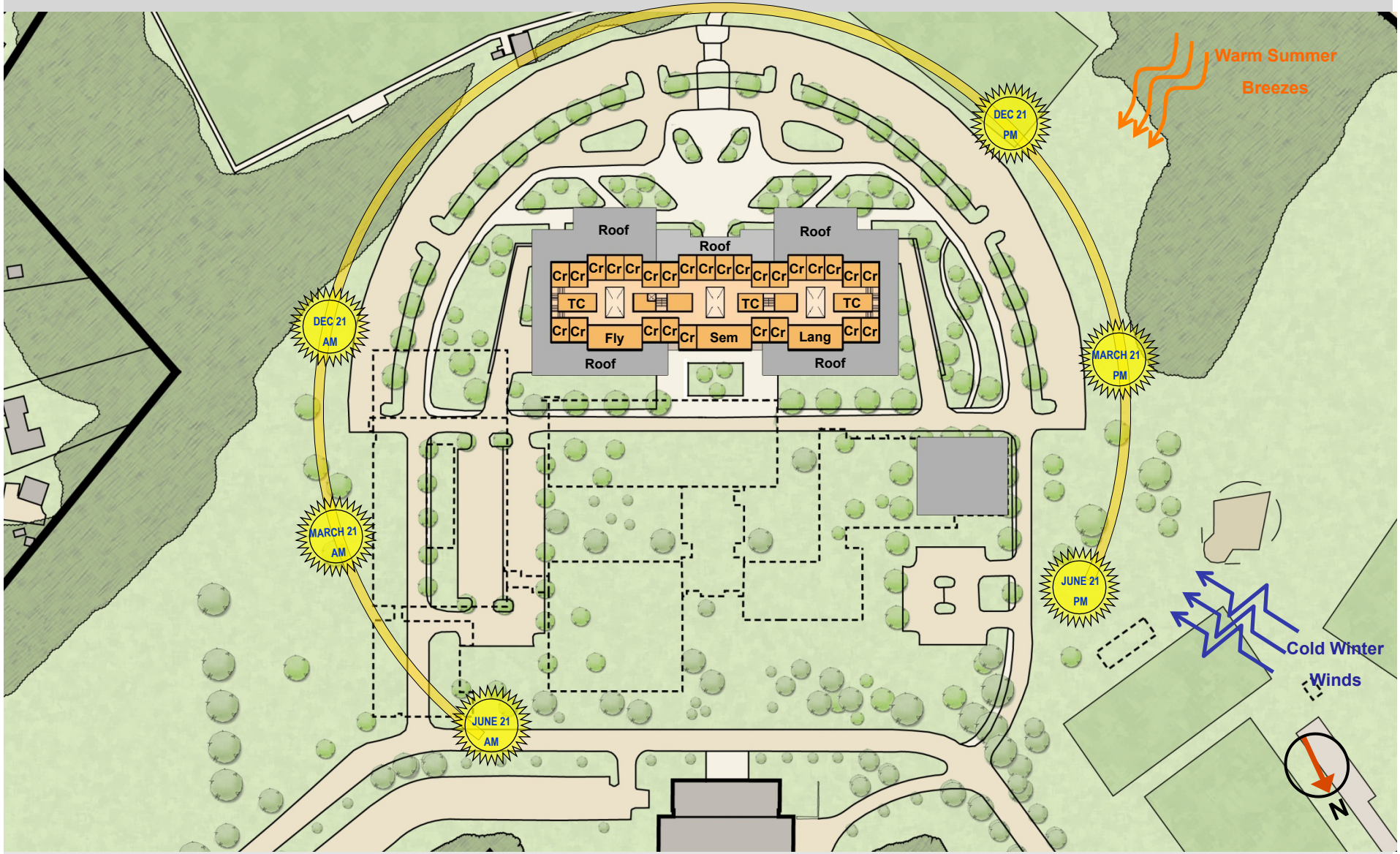
Option 14B: Main Level



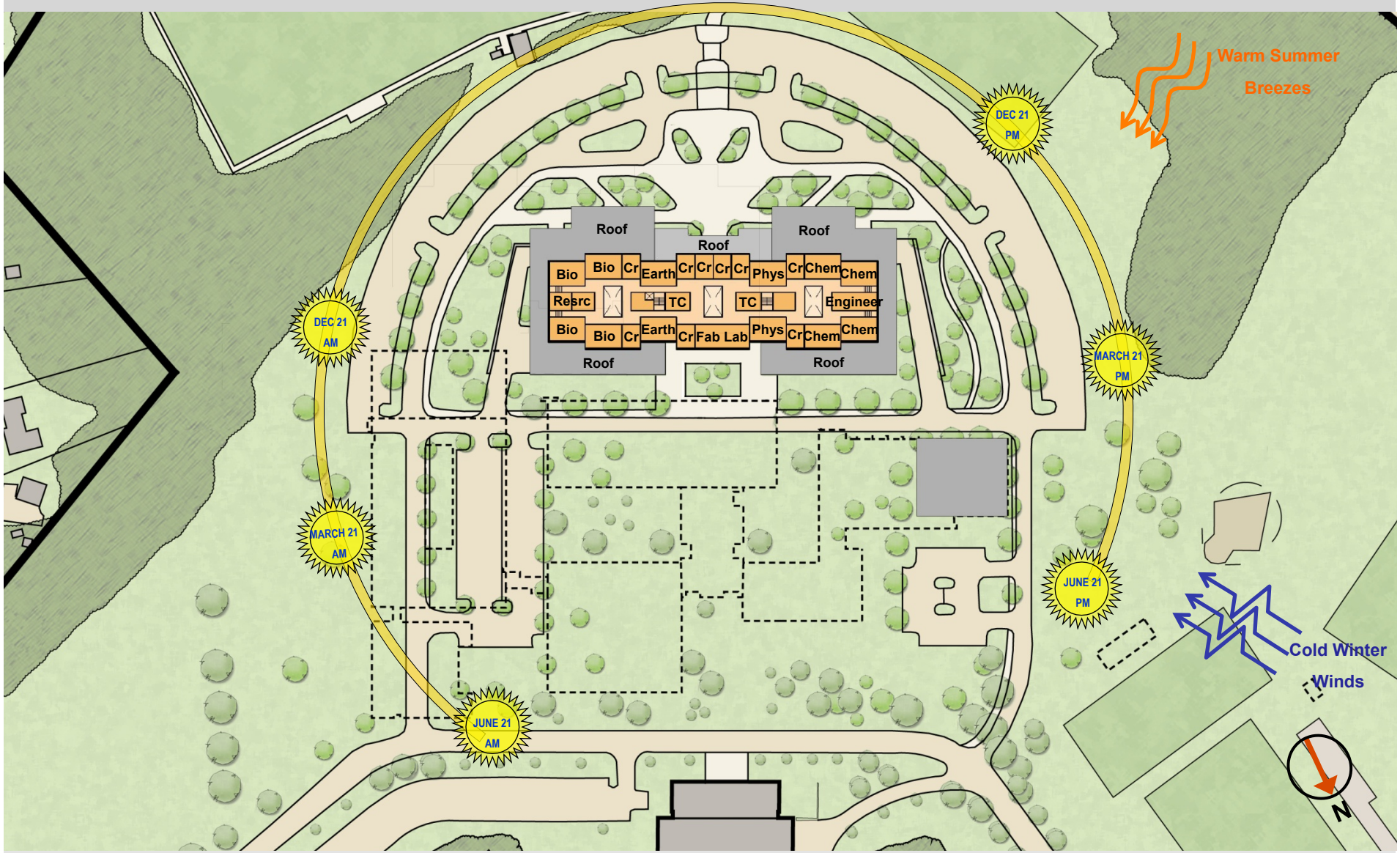
Option 14B: Lower Level



Option 14B: Second Level



Option 14B: Third Level



Summary

Thank You

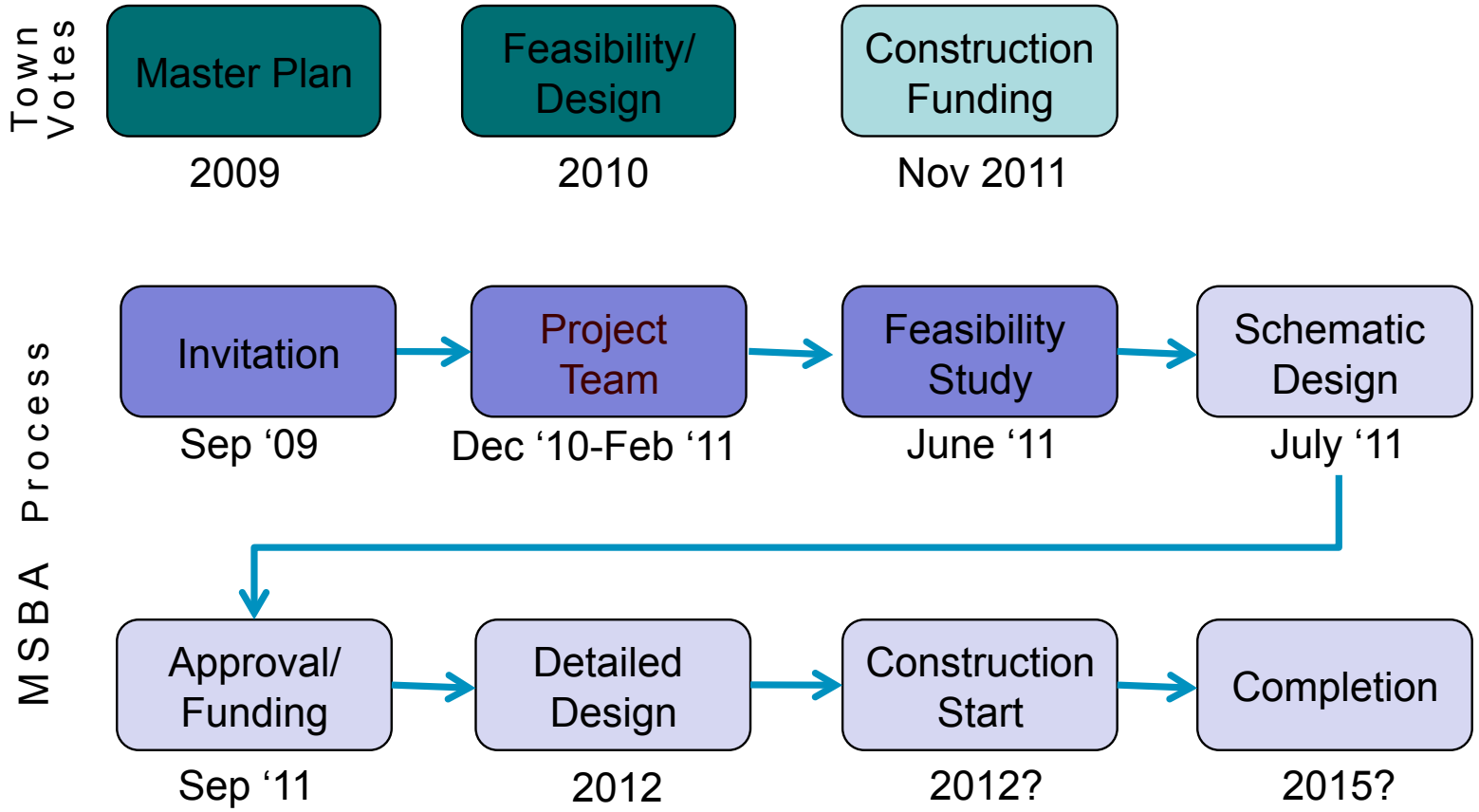
Questions?

omr architects

Key Points - OMR Presentation

- Facility is way past its useful life and is in difficult shape
- Cost of bringing the facility up to code is $70 million
- A number of renovation options were studied at length least expensive option: building new
- We are building slightly less space than we currently have on a net square footage basis
- No new programs are being added, existing programs are preserved

Process and Timeline: Next Steps



Projected Cost Impact

CCHS Building Project		**($ millions)**
Estimated Project Cost Currently		$ 92
MSBA reimbursable component		$ 85
Existing space not reimbursed by MSBA		$ 7
Reimbursement ratio	31%	
State reimbursement		$ 26
Cost to communities		
Project cost less reimbursement		$ 66
Cost to Concord		$ 48
Cost to Carlisle	Assessment ratio 27%	$ 18

Summary

Facility needs at CCHS are real and urgent

Act now

- Spend $66 Million
- New Building
- First rate educational facility
- Built to last 75 years
- Operational savings Special Ed, energy costs

Fail to act now or delay

- Spend $70 Million
- Same building with many of the same challenges
- Will likely be addressing educational needs in the foreseeable future

Moving Forward

Moving project forward means affirmative votes at Town Meeting and at the polls in both Concord and Carlisle