

Concord-Carlisle Regional High School

A photograph of a wooden bridge with a curved railing crossing a stream. The bridge is supported by wooden posts. To the right, there is a stone wall. The background shows a grassy field and trees under a clear sky. Two people are visible on the bridge.

Meeting #5

May 4, 2011

omr architects

Agenda

OPM Update

Process Review

Review Preferred Alternatives

Evaluation Matrices

OPM Update

Concord-Carlisle High School Revitalization - Comparative Options Value Analysis

April 2011

April 29, 2012 (revised - after further consideration regarding schedule, option 3 was updated to indicate a estimated schedule of 42 months.)

	No-Build	Renovation/Addition Options						New Construction Options				
	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8	Option 9A	Option 9B	Option 10	
	Code upgrade Multi phase Proj	Full Renovation Multi phase Proj	42 months	Ren/Addition Multi phase Proj	Ren/Addition Multi phase Proj	Ren/Addition Multi phase Proj	Multiple Bldgs Multiple Phases	Multiple Bldgs Multiple Phases	Single Bldg DbI Ph w/ mods	Single Bldg DbI Ph w/o mods	Single Bldg Single Phase	
	Anticipated construction duration	42		46	41	44	48	48	34	48	32	
	Square Footage	233,800		248,000	248,000	248,000	248,000	248,000	248,000	248,000	248,000	
	Cost per SF based on Building Construction (line 2)	\$147		\$203	\$220	\$217	\$220	\$222	\$222	\$218	\$218	
	Cost per SF based on Total Project Cost (line 19)	\$299		\$369	\$396	\$384	\$394	\$399	\$402	\$373	\$367	
1 Hard Costs												
2 Building construction (a)	\$34,297,500	\$50,303,100	\$51,583,550	\$54,485,900	\$53,754,000	\$54,494,000	\$55,111,600	\$54,991,400	\$53,947,440	\$53,947,440	\$54,073,860	
3 CM/GC PR/GC - mgmt during constr (b)	\$7,980,000	\$8,820,000	\$8,820,000	\$9,660,000	\$8,610,000	\$9,240,000	\$10,080,000	\$10,080,000	\$7,140,000	\$10,080,000	\$6,720,000	
4 CM/GC Fee (2%)	\$845,550	\$1,182,462	\$1,208,071	\$1,282,918	\$1,247,280	\$1,274,680	\$1,303,832	\$1,301,428	\$1,221,749	\$1,280,549	\$1,215,877	
4 Asbestos abatement	\$1,300,000 (c)	\$1,300,000 (c)	\$1,300,000 (c)	\$1,200,000 (c)	\$1,200,000 (c)	\$1,200,000 (c)	\$1,200,000 (c)	\$1,200,000 (c)	\$1,000,000	\$1,000,000	\$1,000,000	
5 Building take downs	-	-	\$377,300 \$7/sf	\$1,058,400 \$7/sf	\$1,124,200 \$7/sf	\$1,302,700 \$7/sf	\$1,636,600 \$7/sf	\$1,636,600 \$7/sf	\$1,402,800 \$6/sf	\$1,402,800 \$6/sf	\$1,402,800 \$6/sf	
6 Site improvements (a) (d)	\$2,000,000	\$2,000,000	\$2,000,000	\$2,500,000	\$2,500,000	\$2,500,000	\$4,000,000	\$4,000,000	\$5,000,000	\$5,000,000	\$5,000,000	
7 Escalation	\$1,856,922 4%	\$2,862,250 4.5%	\$2,611,557 4%	\$3,509,361 5%	\$3,079,597 4.5%	\$3,500,569 5%	\$2,933,281 4%	\$3,660,471 5%	\$2,788,480 4%	\$3,635,539 5%	\$2,776,501 4%	
8 Hard contingency (e)	\$4,827,997 10%	\$6,646,781 10%	\$6,790,048 10%	\$5,527,243 7.5%	\$5,363,631 7.5%	\$5,513,396 7.5%	\$3,813,266 5%	\$3,843,495 5%	\$3,625,023 5%	\$3,817,316 5%	\$3,609,452 5%	
9 Soft Costs												
10 Design costs (f)	\$4,186,478	\$5,386,876	\$5,481,432	\$5,753,429	\$5,612,722	\$5,741,521	\$5,804,715	\$5,842,804	\$5,567,530	\$5,809,819	\$5,547,909	
11 A/E CA mgmt (g)	\$2,280,000 60km	\$2,100,000 50km	\$2,520,000 60km	\$2,300,000 50km	\$2,050,000 50km	\$2,200,000 50km	\$2,400,000 50km	\$2,400,000 50km	\$2,040,000 60km	\$2,400,000 50km	\$1,920,000 60km	
12 OPM CA mgmt (h)	\$1,900,000	\$2,100,000	\$2,100,000	\$2,300,000	\$2,050,000	\$2,200,000	\$2,400,000	\$2,400,000	\$1,700,000	\$2,400,000	\$1,600,000	
13 FFE / technology (\$3,200/student)	\$4,120,000 (c)	\$4,120,000 (c)	\$4,120,000 (c)	\$4,120,000 (c)	\$4,120,000 (c)	\$4,120,000 (c)	\$4,120,000 (c)	\$4,120,000 (c)	\$3,920,000	\$3,920,000	\$3,920,000	
14 Temp parking / road access logistics	\$100,000	\$200,000	\$200,000	\$200,000	\$200,000	\$250,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	
15 Temp modulars / storage	\$2,219,500	\$2,319,500	\$2,169,500	\$2,219,500	\$2,119,500	\$2,069,500	\$1,668,700	\$1,668,700	\$930,700	-	-	
16 Relocation / moving expenses	\$500,000	\$500,000	\$400,000	\$350,000	\$350,000	\$350,000	\$300,000	\$300,000	\$250,000	\$250,000	\$250,000	
17 Misc expenses (testing, legal, utility B/C, other)	\$700,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	
18 Soft contingency (5%)	\$800,299 5%	\$881,319 5%	\$894,547 5%	\$907,146 5%	\$870,111 5%	\$891,551 5%	\$899,671 5%	\$901,575 5%	\$785,411 5%	\$803,991 5%	\$726,895 5%	
19 Comparative Values	\$69,914,246	\$91,622,288	\$93.5 million	\$98,273,898	\$95,151,041	\$97,747,917	\$98,971,664	\$99,646,473	\$92,619,133	\$97,047,454	\$91,063,296	
20 % above(below) new construction - option 10	-23%	1%		8%	4%	7%	9%	9%	2%	7%	8%	
21 % of total project value compared to total hard costs value	76%	80%		81%	81%	81%	81%	81%	82%	83%	83%	
22 % of total project value compared to total soft costs value	24%	20%		19%	19%	19%	19%	19%	18%	17%	17%	

Notes:

- (a) Disposal of contaminated soil is EXCLUDED. Unknown at this time.
- (b) Value of \$210,000 carried per month. Length of schedule is the cost driver.
- (c) Premium for multiple mobilizations.
- (d) In depth cost analysis has not been performed.
- (e) 10% carried for renovation, 5% for new, 7.5% for hybrids.
- (f) 8% is carried based on total hard construction costs + 1,000,000 for feasibility and schematic. Excludes CA costs, carried in line 11.
- (g) Based on \$60,000 or \$50,000 per month. Length of schedule is the cost driver.
- (h) Based on \$50,000 per month. Length of schedule is the cost driver.

Disclaimer

These values are not to be considered as a project budget. This analysis was utilized to compare various options to one another to determine which options would further be developed and studied. These values are subject to change as the option are further developed.



CCHS Feasibility Study Work Plan

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|-------------------|--|--|
| Groundwork | <ul style="list-style-type: none"> ○ Prepare contract ○ Obtain and review all available/ pertinent documents ○ Prepare schedule and work plan | <ul style="list-style-type: none"> ○ Review existing conditions information ○ Attend Site Based Committee Meeting ○ Conduct User Group meetings and Prepare Space Summary |
|-------------------|--|--|

Meeting # 1	Goals, Values and Space Summary
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|----------------|--|--|
| 3/09/11 | Objectives <ul style="list-style-type: none"> ○ Review schedule and process ○ Review goals, values ○ Review proposed space summary | Follow-up <ul style="list-style-type: none"> ○ 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
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|----------------|---|---|
| 3/23/11 | Objectives <ul style="list-style-type: none"> ○ Review Educational Vision, goals and values ○ Review Preliminary Alternative Concepts ○ Approve Initial Space Summary and PDP | Follow-up <ul style="list-style-type: none"> ○ Complete Preliminary Design Program Submittal for MSBA ○ Meet with MSBA ○ Develop Preliminary Alternatives |
|----------------|---|---|

Meeting # 3	Sustainability Goals
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|----------------|---|--|
| 4/06/11 | Objectives <ul style="list-style-type: none"> ○ Discuss sustainability goals and net zero options with team | Follow-up <ul style="list-style-type: none"> ○ Develop Preliminary Evaluation of Proposed Alternatives |
|----------------|---|--|

Meeting # 4	Preliminary Evaluation of Proposed Alternatives
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|----------------|--|--|
| 4/13/11 | Objectives <ul style="list-style-type: none"> ○ Review Preliminary Evaluation of Proposed Alternatives | Follow-up <ul style="list-style-type: none"> ○ Submit Preliminary Alternatives to MSBA for initial review ○ Meet with MSBA ○ Develop Final Evaluation of Selected Alternatives |
|----------------|--|--|

Meeting # 5	Finalize Preliminary Alternatives
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|----------------|---|---|
| 5/04/11 | Objectives <ul style="list-style-type: none"> ○ Review and Approve Preliminary Alternative(s) | Follow-up <ul style="list-style-type: none"> ○ Prepare Final Evaluation of Alternatives |
|----------------|---|---|

Meeting # 6	Final Evaluation of Alternatives
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|----------------|---|---|
| 5/18/11 | Objectives <ul style="list-style-type: none"> ○ Review Final Evaluation of Alternatives ○ Confirm Preferred Solution | Follow-up <ul style="list-style-type: none"> ○ Prepare Preferred Schematic Report |
|----------------|---|---|

Meeting # 7	Preferred Schematic Report
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|----------------|---|--|
| 5/25/11 | Objectives <ul style="list-style-type: none"> ○ Review and Approve Preferred Schematic Report | Follow-up <ul style="list-style-type: none"> ○ 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

4 May 2011

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

4 May 2011

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

4 May 2011

Program Summary

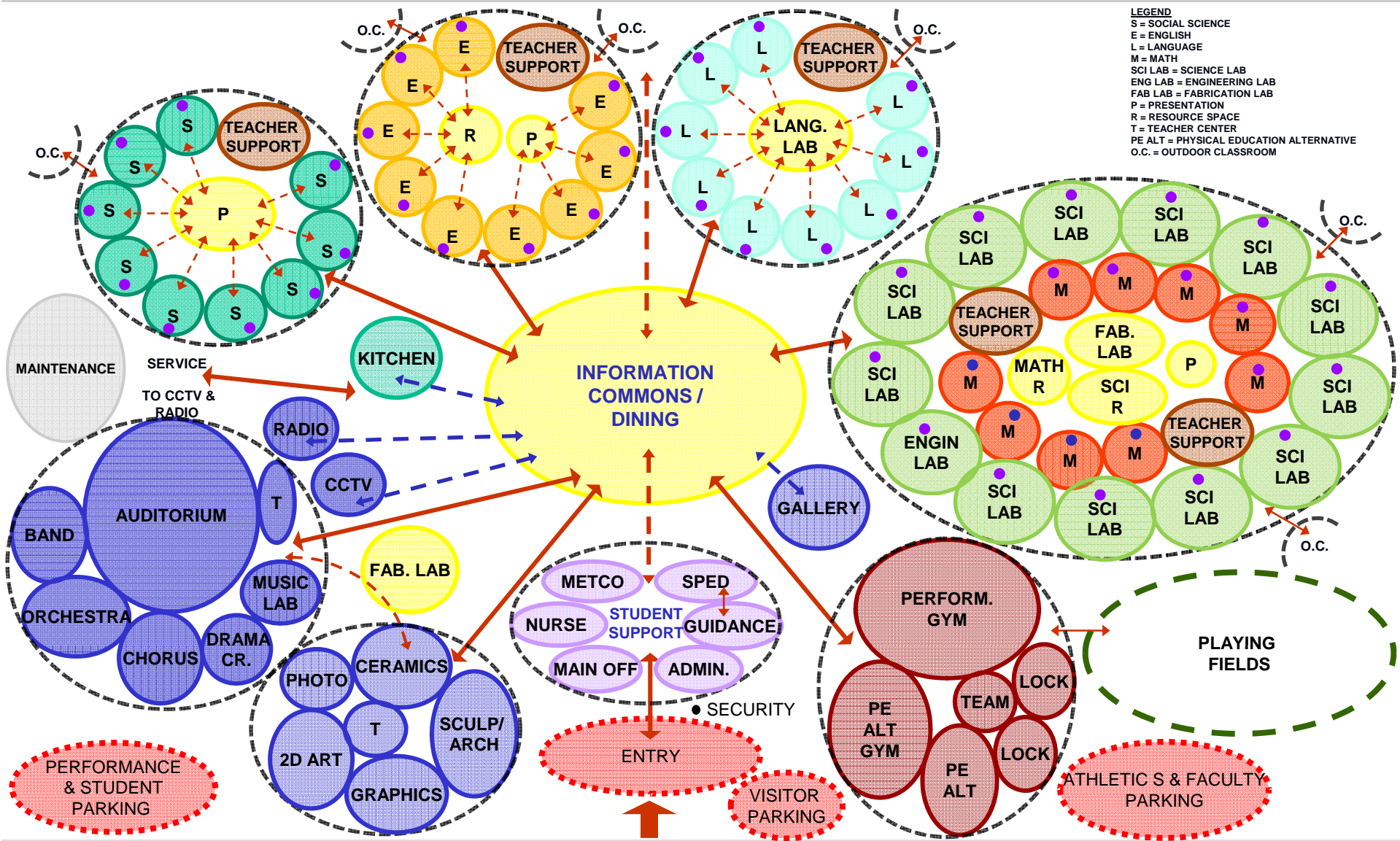
OMR Architects, Inc.

Concord-Carlisle High School Space Summary Comparison

Date: 3/21/2011

Description	Existing Program	Proposed Program - 2011 1225 Enrollment	MSBA Guidelines - 2010 1225 Enrollment	Delta: Prop - MSBA
CORE ACADEMIC SPACES	56,126	62,595	58,690	3,905
SPED	7,145	5,970	13,090	(7,120)
ART & MUSIC (Visual and Perf. Arts)	11,779	13,625	8,200	5,425
VOCATIONS & TECHNOLOGY	8,035	8,350	12,800	(4,450)
HEALTH AND PHYSICAL EDUCATION	35,025	36,610	23,060	13,550
MEDIA-LIBRARY (Learning Commons)	13,480	8,600	7,556	1,044
AUDITORIUM / DRAMA	9,667	10,400	10,400	0
DINING & FOOD SERVICE	13,068	10,262	10,262	(0)
MEDICAL / NURSE	690	1,110	1,110	0
ADM. & GUIDANCE (Student Support)	8,462	6,755	4,979	1,776
CUSTODIAL & MAINTENANCE	2,779	2,544	2,544	0
SUB-TOTAL				
Net Area	166,256	166,821	152,692	14,129
OTHER	4,134	3,690	0	3,690
GRAND TOTAL				
Net Area	170,390	170,511	152,692	17,819
Net:Gross Ratio (Net Area / Gross Area)	1.37	1.45	1.45	1.45
Gross Area	233,800	247,241	221,725	25,516

Space Adjacency Diagram



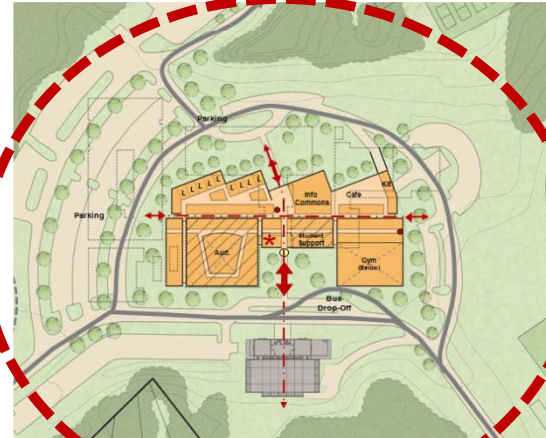
Meeting #3 Summary



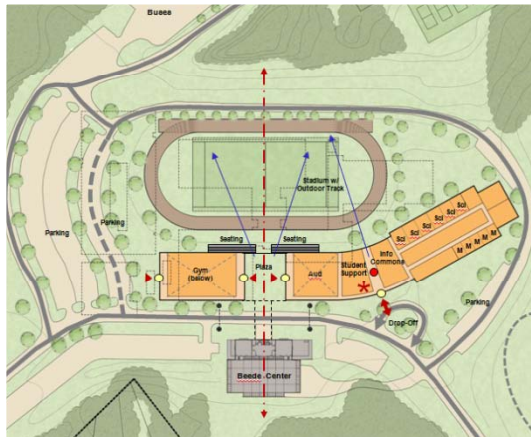
Meeting #4 Summary



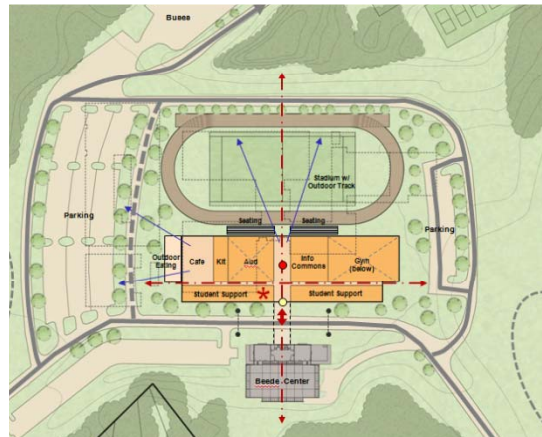
Option 4R
Major Addition / Major Renovation



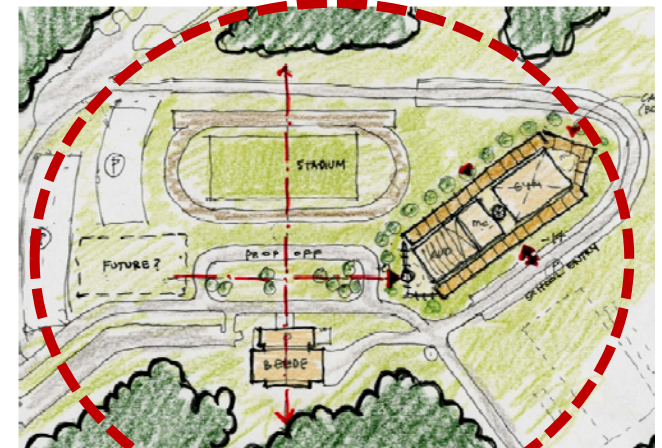
Option 6R
Major Addition / Minor Renovation



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)

Revised Space Summary: To be Approved by SBC

247,241 G.S.F. further reduced to 242,275 G.S.F.

Art Gallery moved to Other.

300 NSF of **Art Storage moved** to Gross.

Health Classroom added in Core Academics.

Gymnasiums reduced by 1,000 NSF.

PE Alternative- Multipurpose space reduced to 2175 NSF.

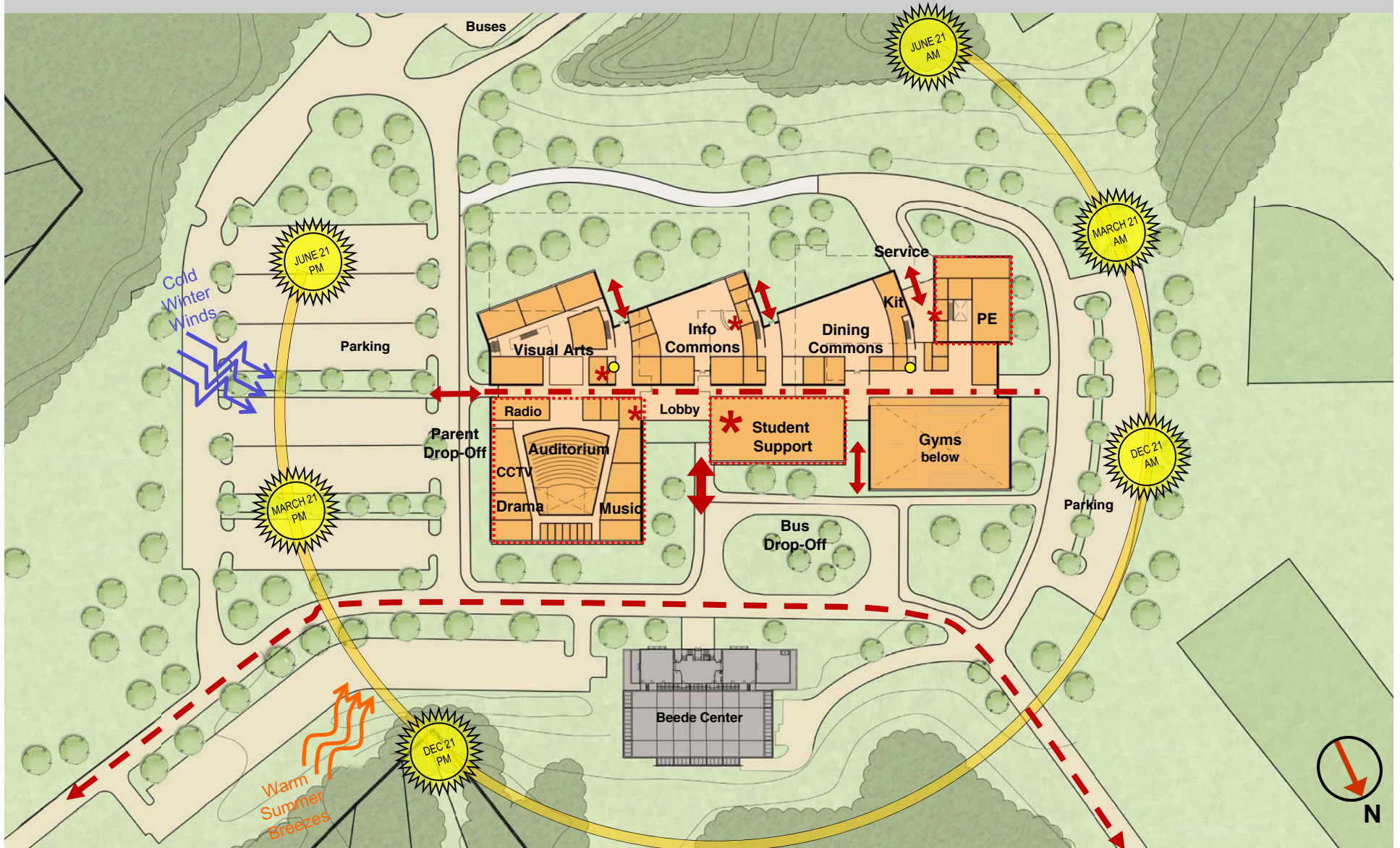
Officials/ coaches locker rooms deleted.

Trainer's room reduced to 500 NSF.

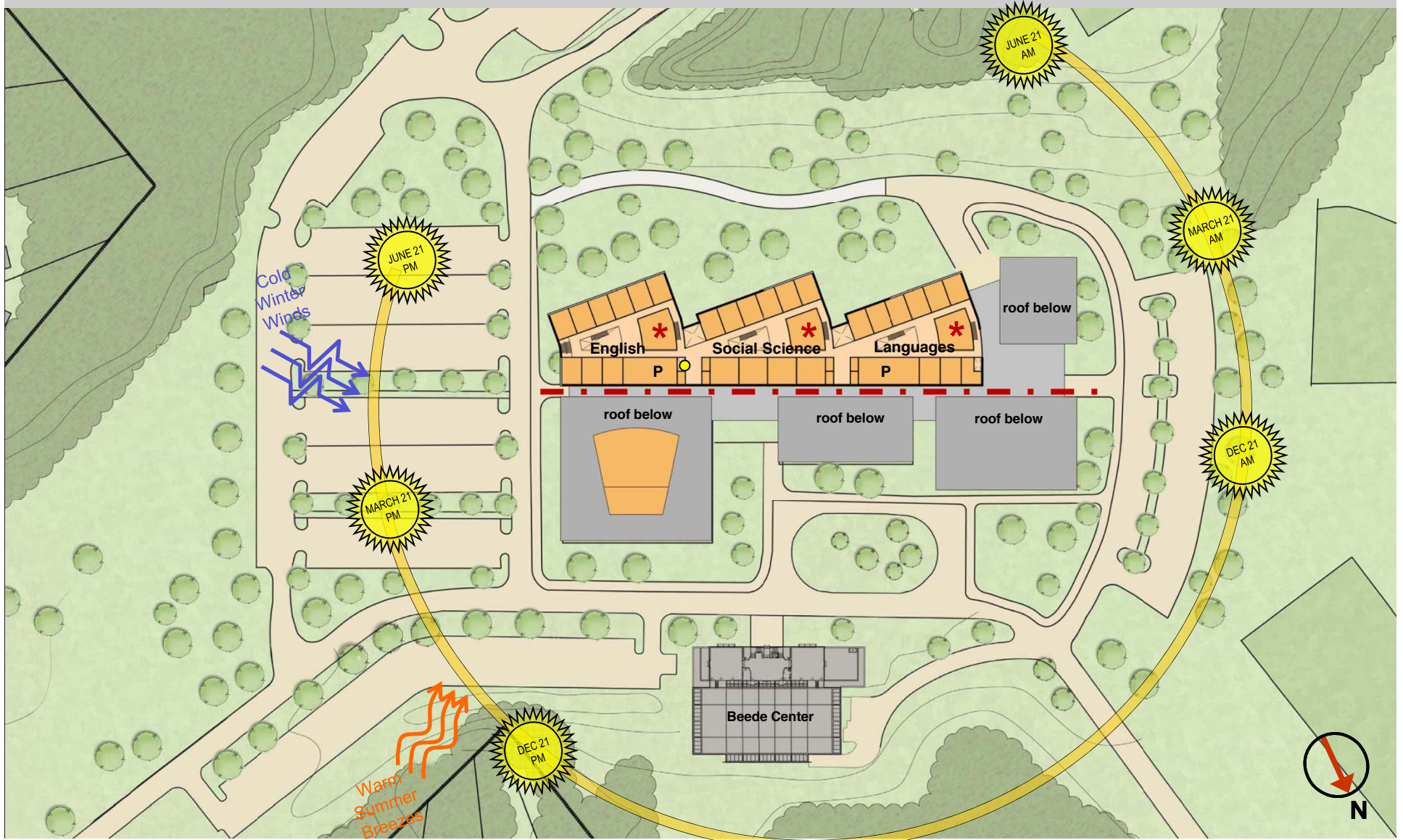
Visiting Team Room deleted.

CCHS Team Rooms reduced to 3 rooms, 2 at 500 NSF and 1 at 675 NSF.

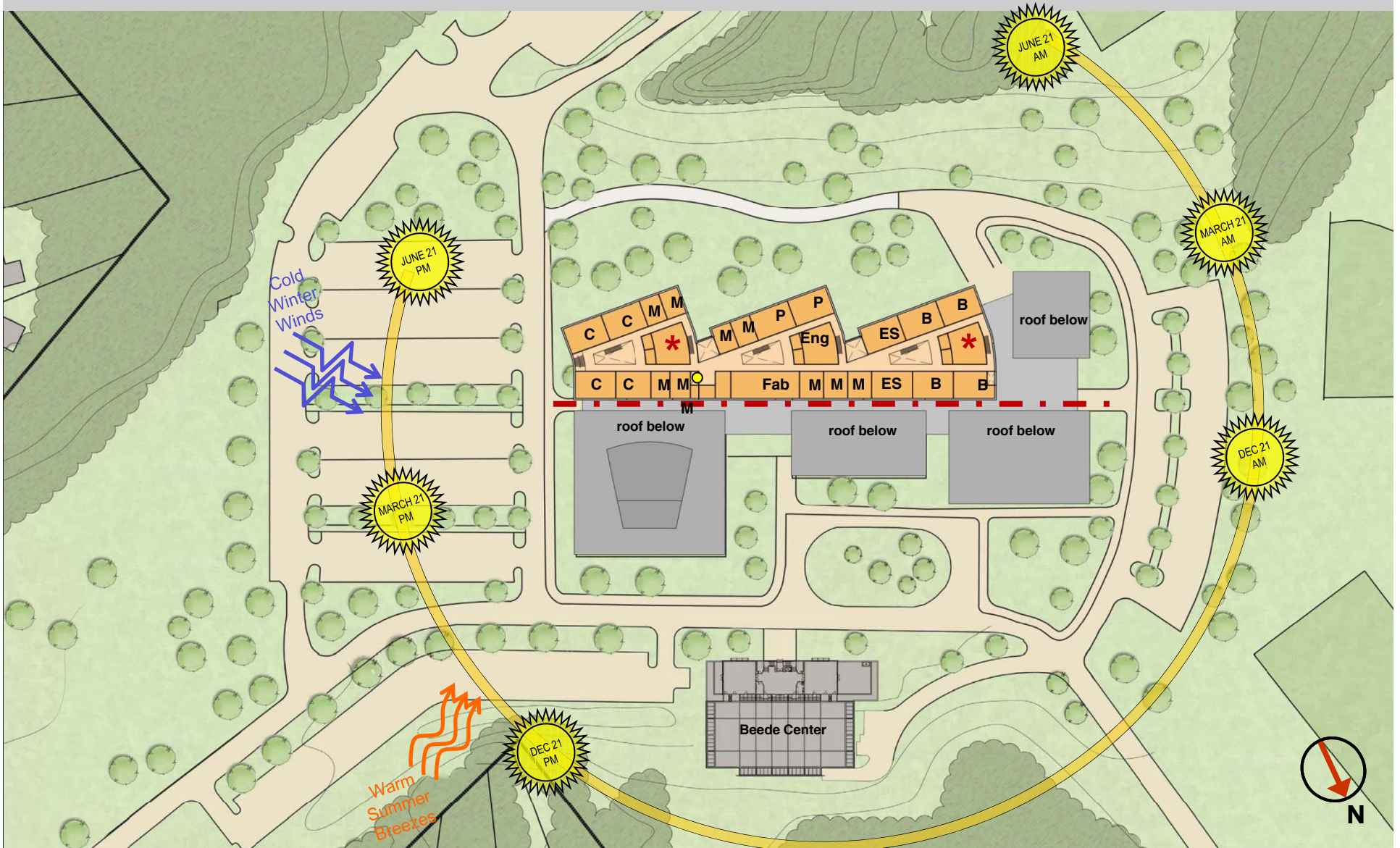
Option 6R1: Ground Floor Plan



Option 6R1: 2nd Floor Plan



Option 6R1: 3rd Floor Plan

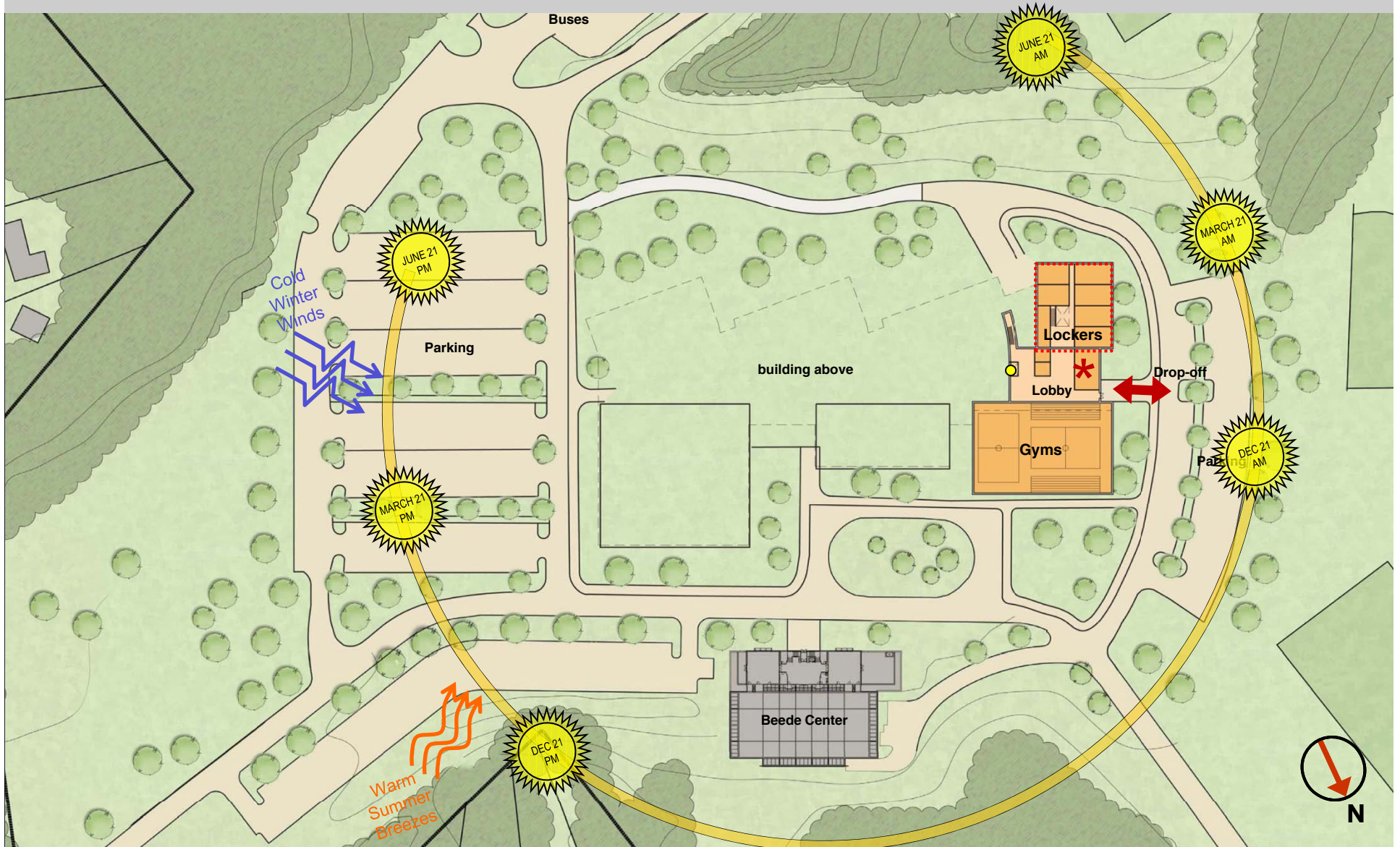


4 May 2011

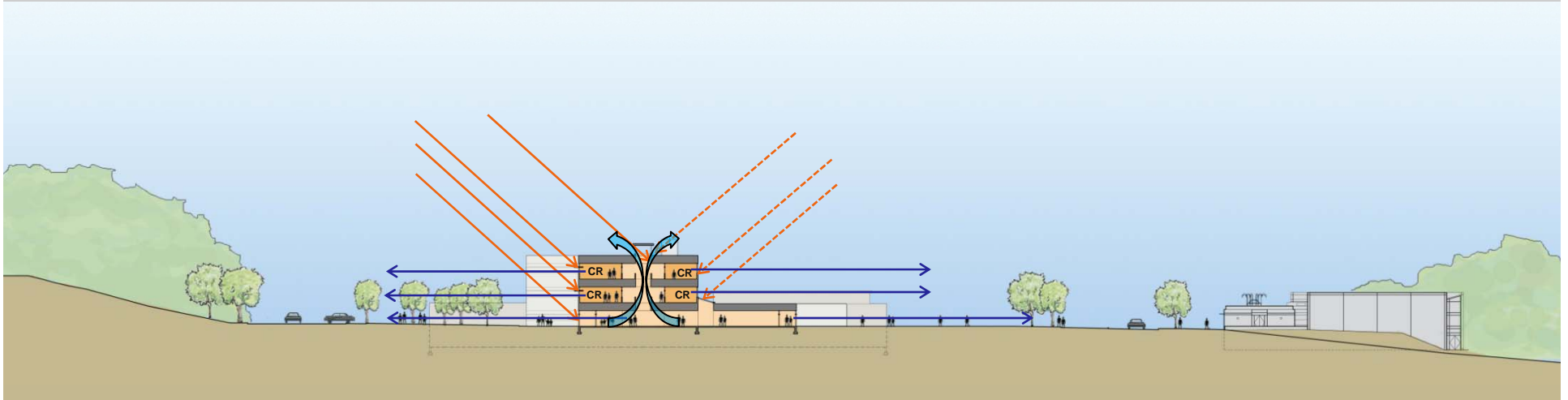
Option 6R1: Ground Floor Plan



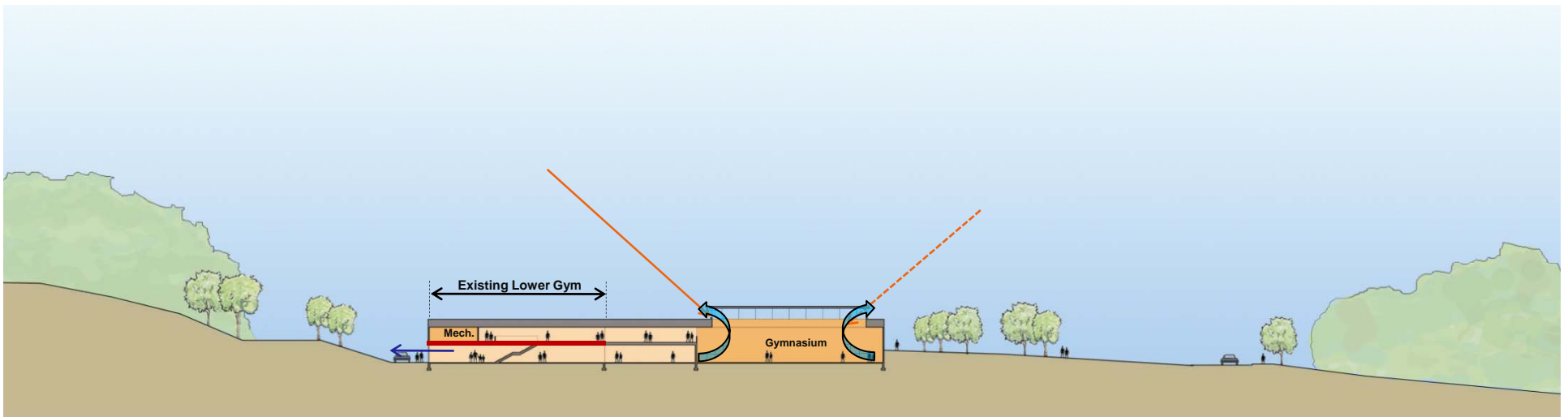
Option 6R1: Lower Floor Plan



Option 6R1: Conceptual Sections

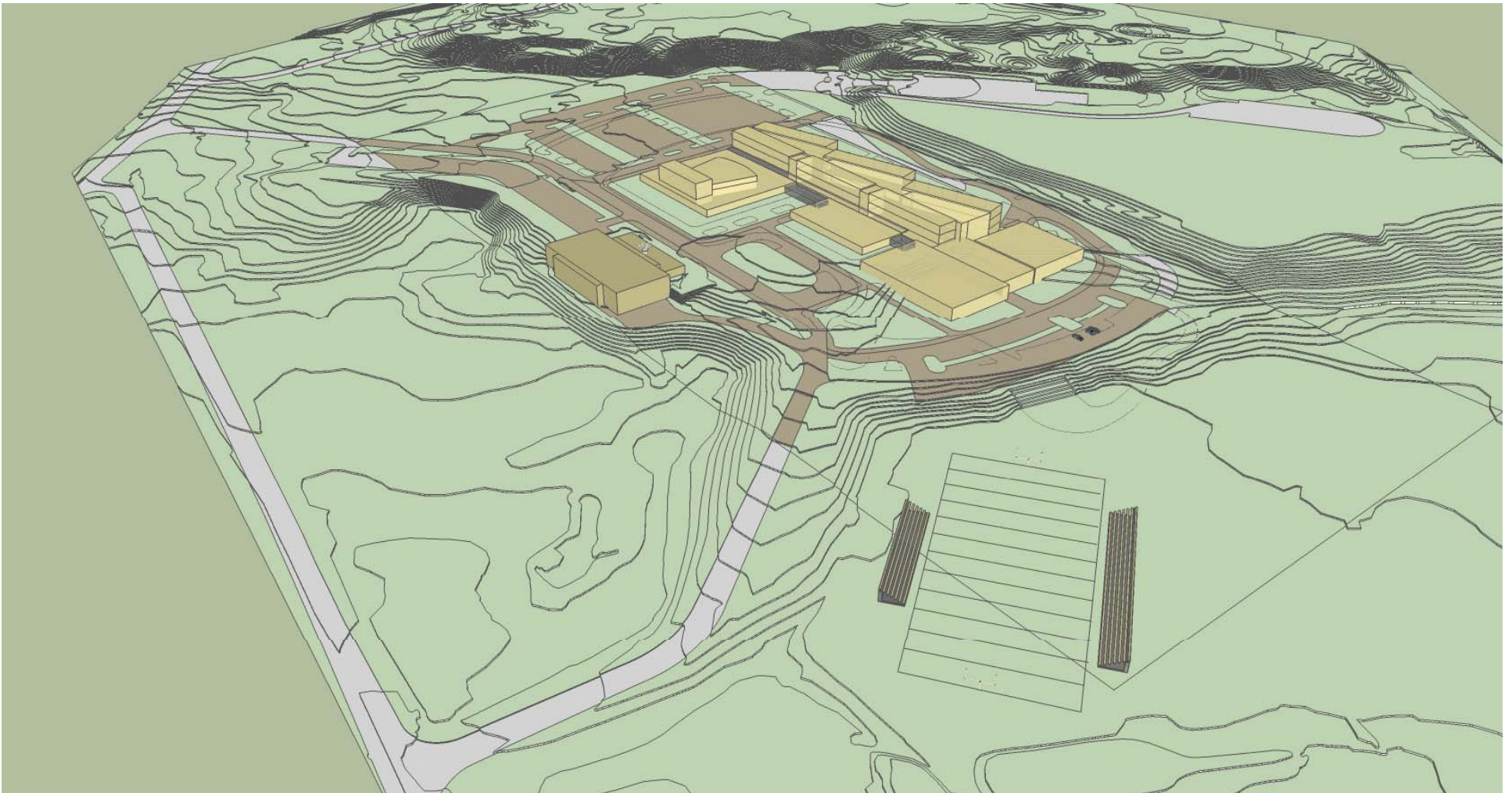


Section at Entry



Section at Gymnasium

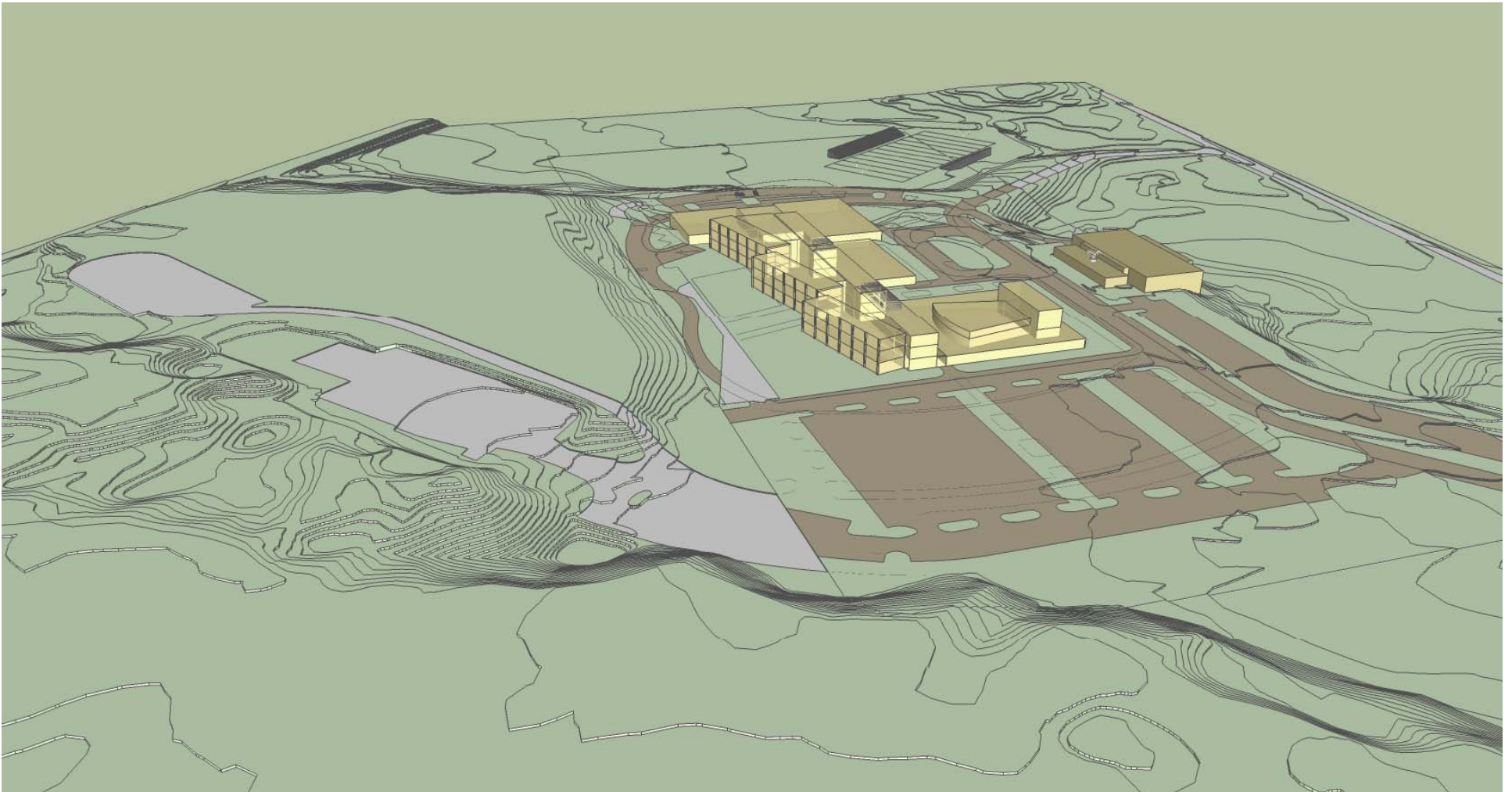
Option 6R1: View from North



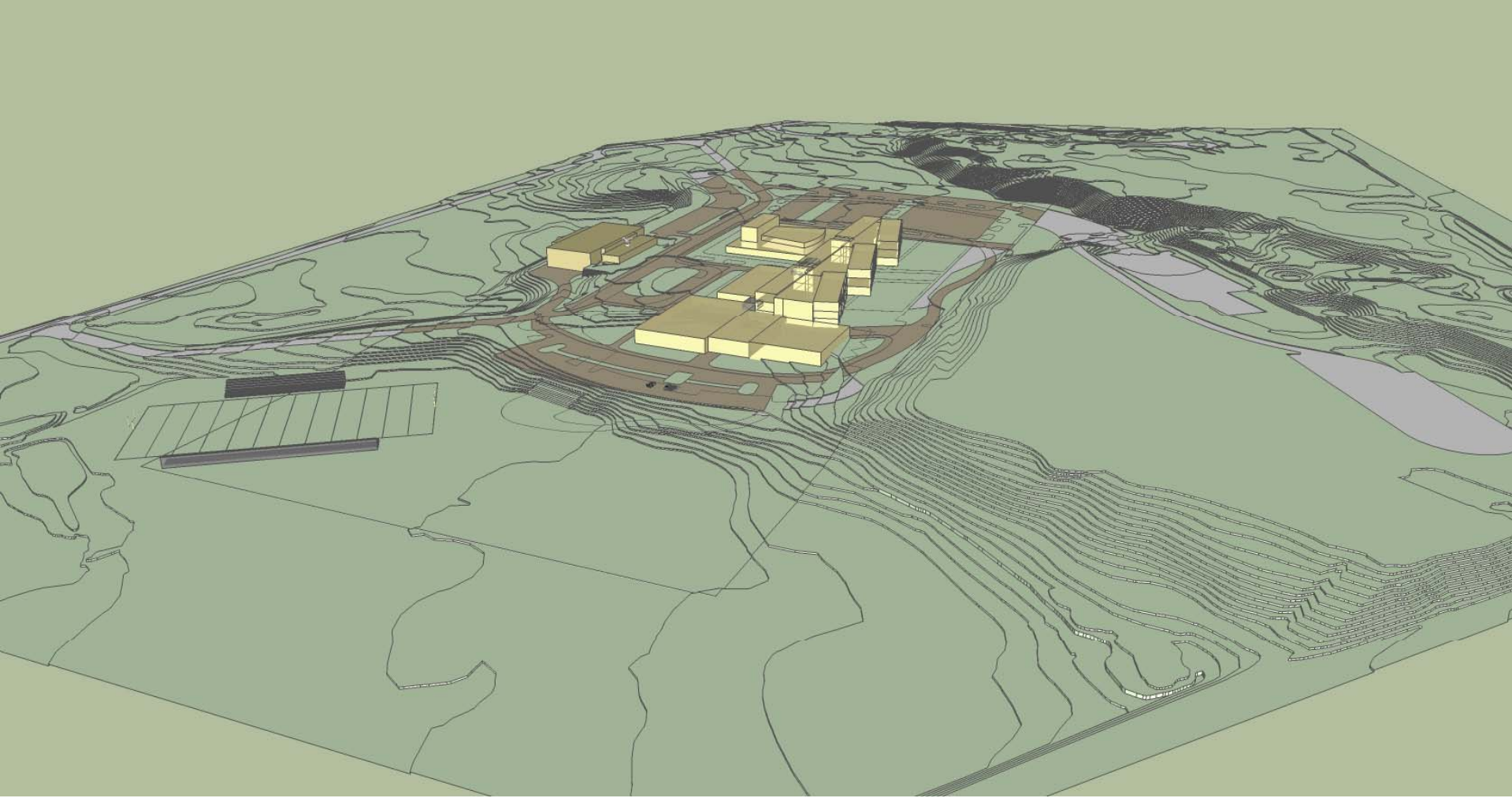
Option 6R1: View from East



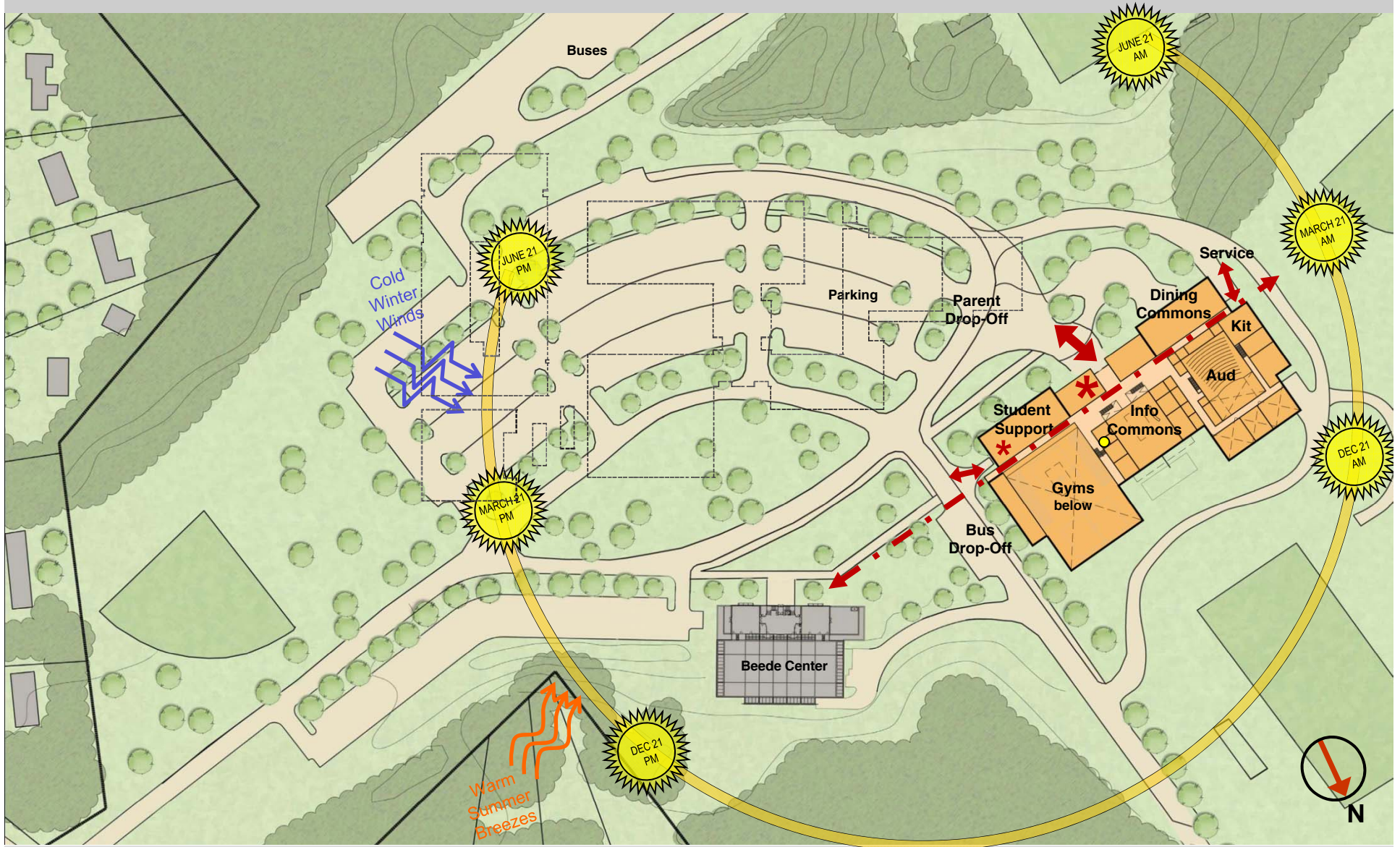
Option 6R1: View from South



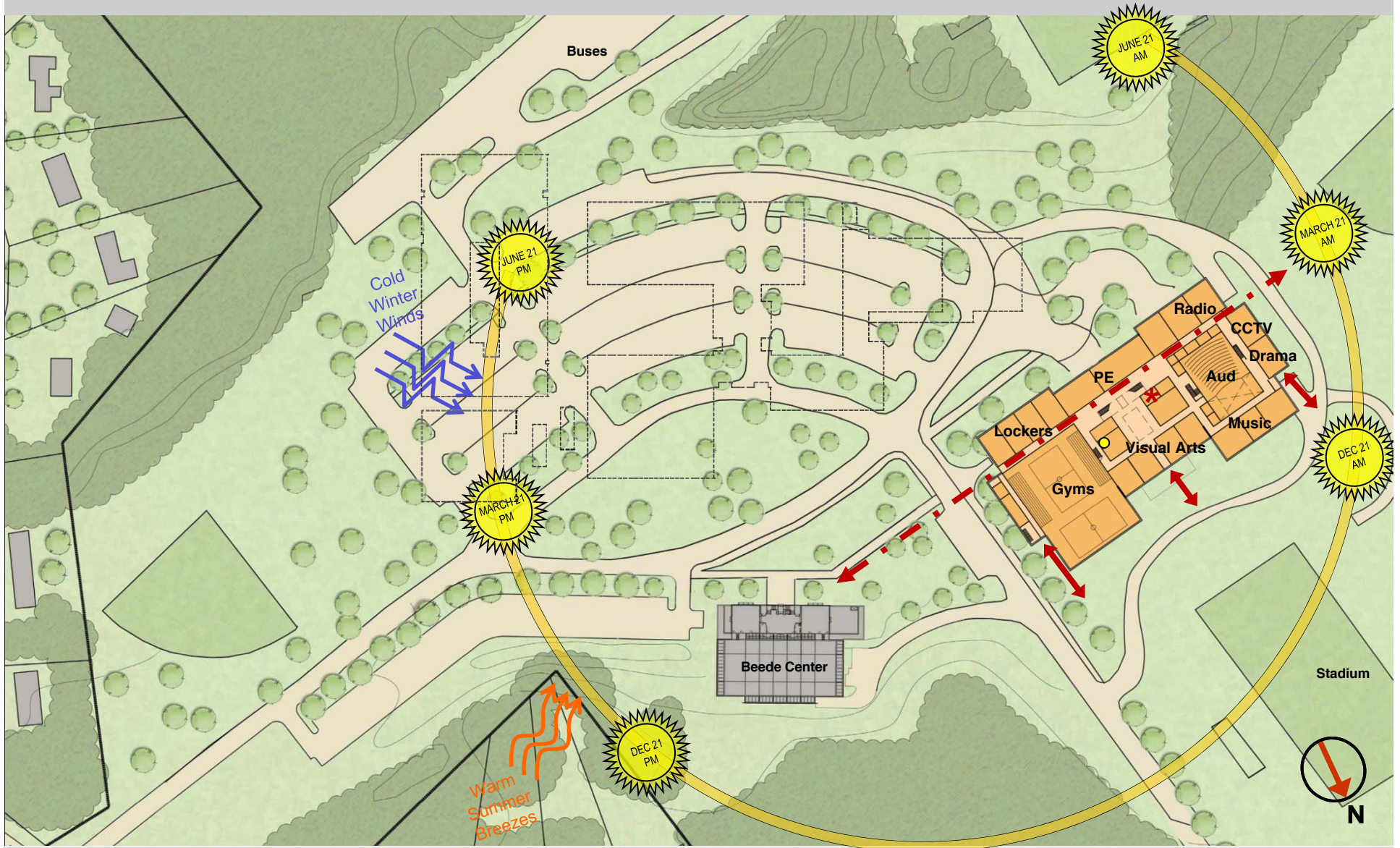
Option 6R1: View from West



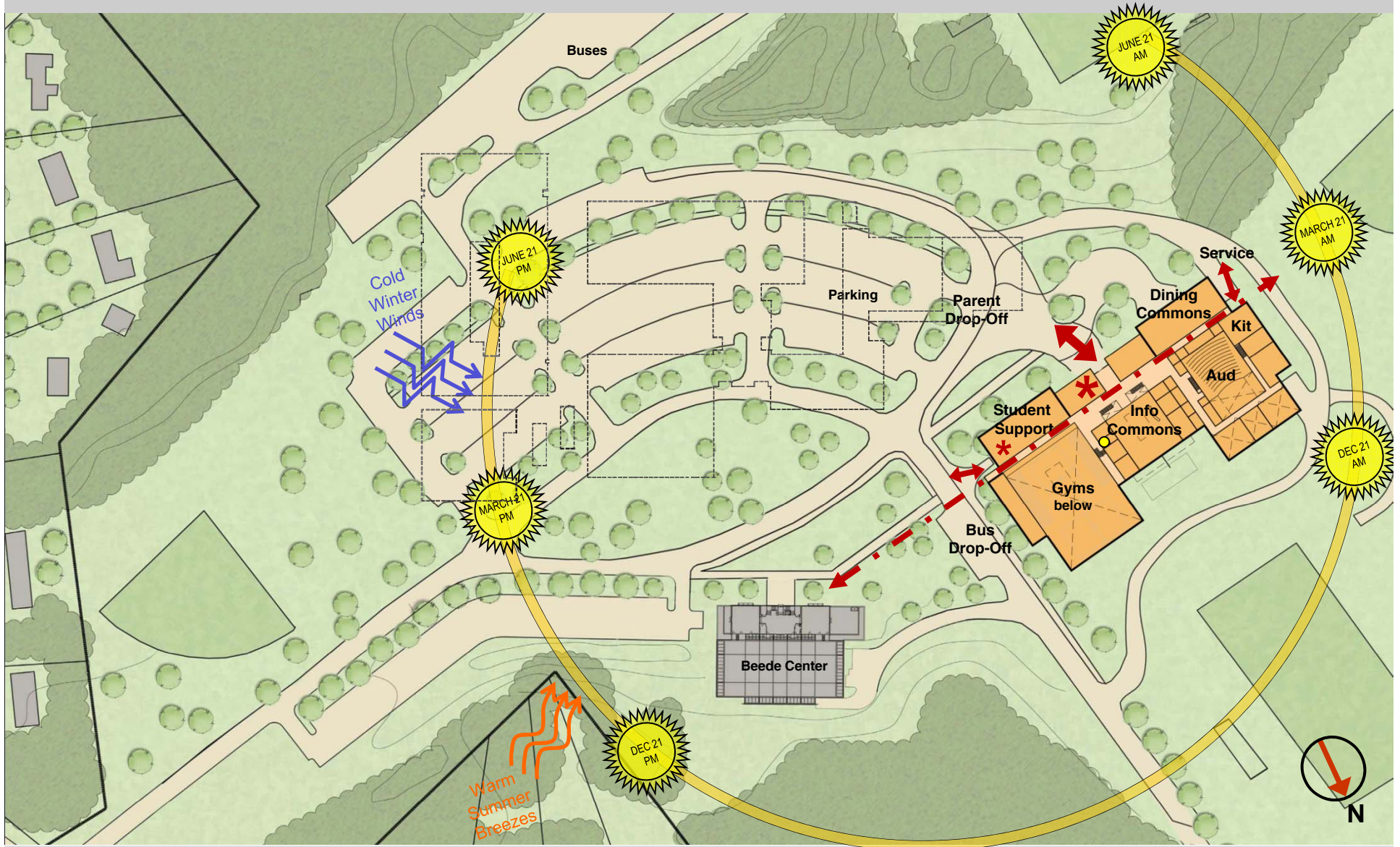
Option 12R: Ground Floor Plan



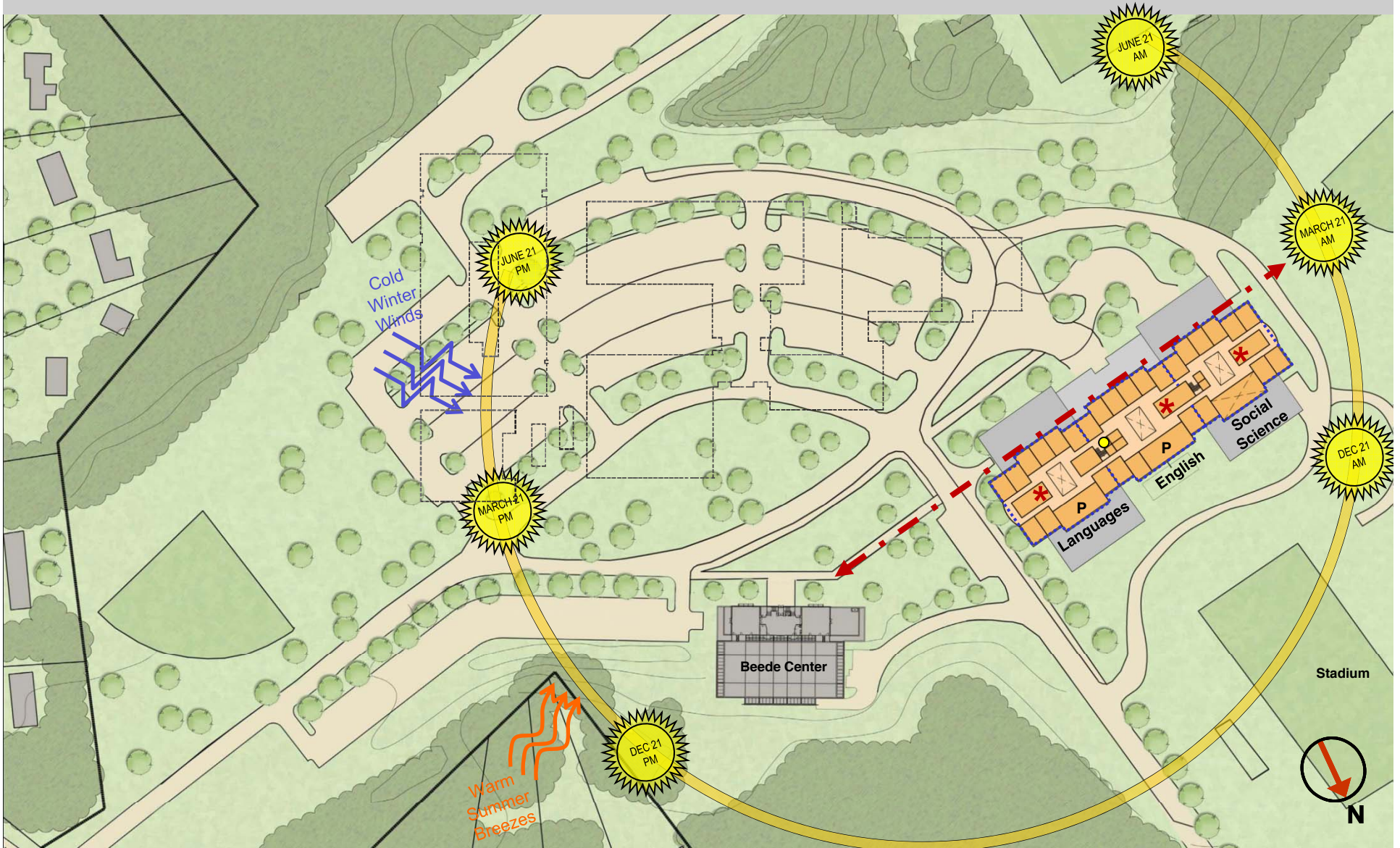
Option 12R: Lower Floor Plan



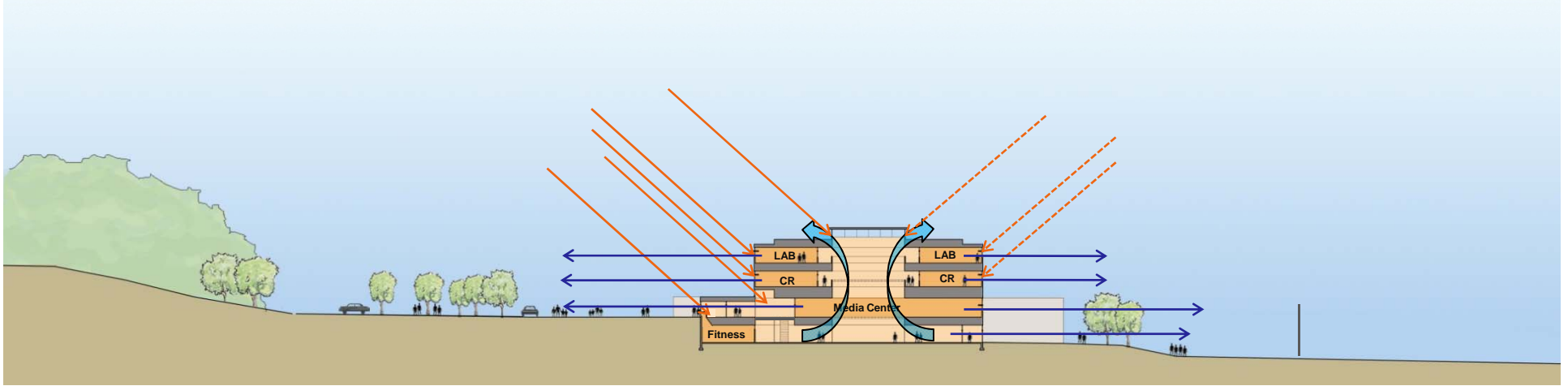
Option 12R: Ground Floor Plan



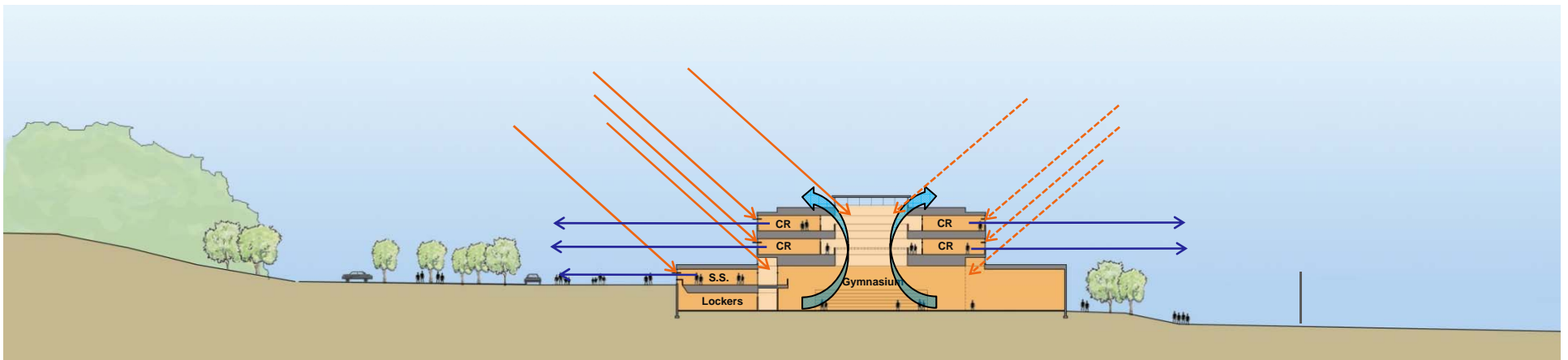
Option 12R: 2nd Floor Plan



Option 12R: Conceptual Sections

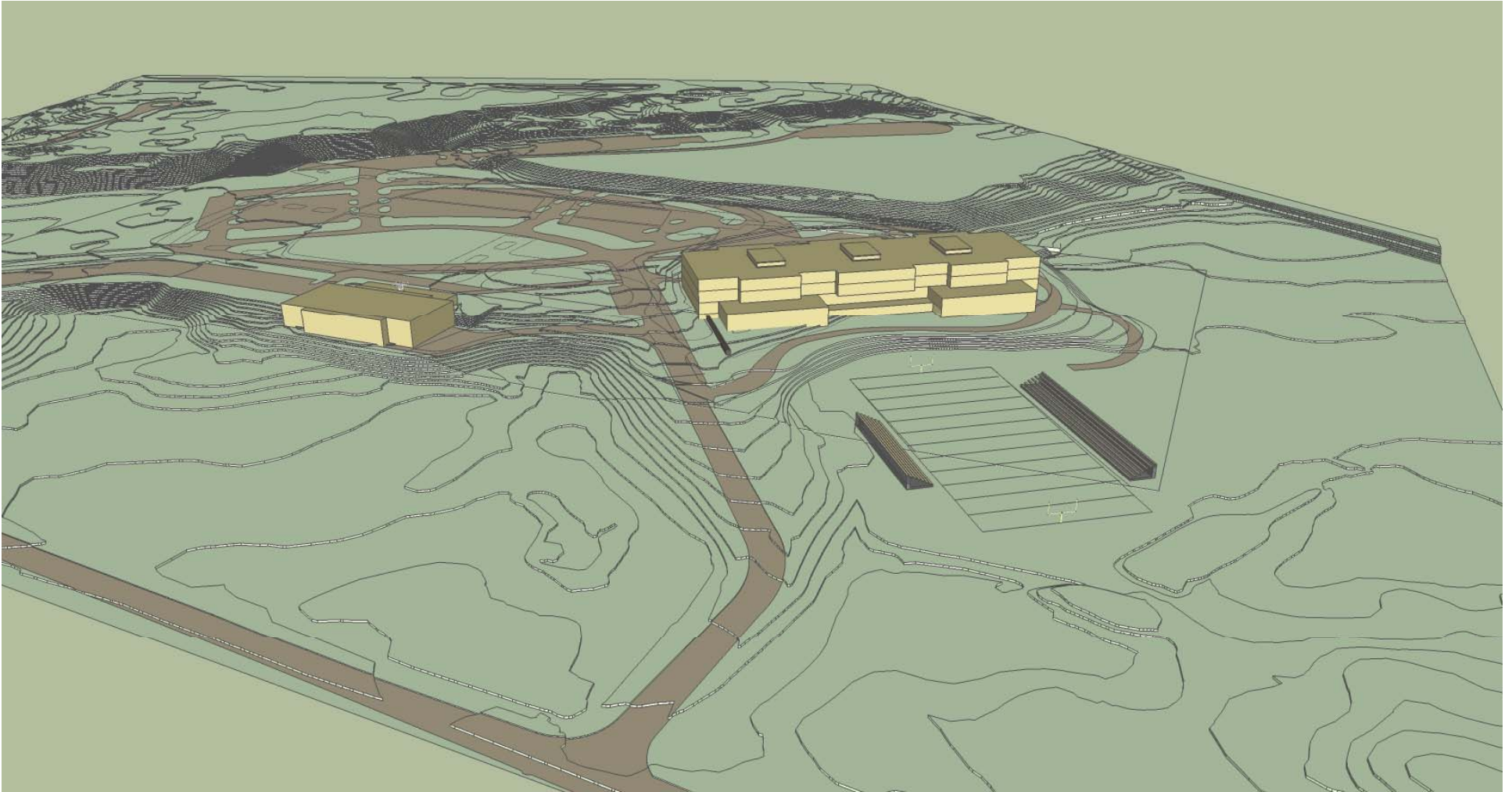


Section at Ground & Lower Entries

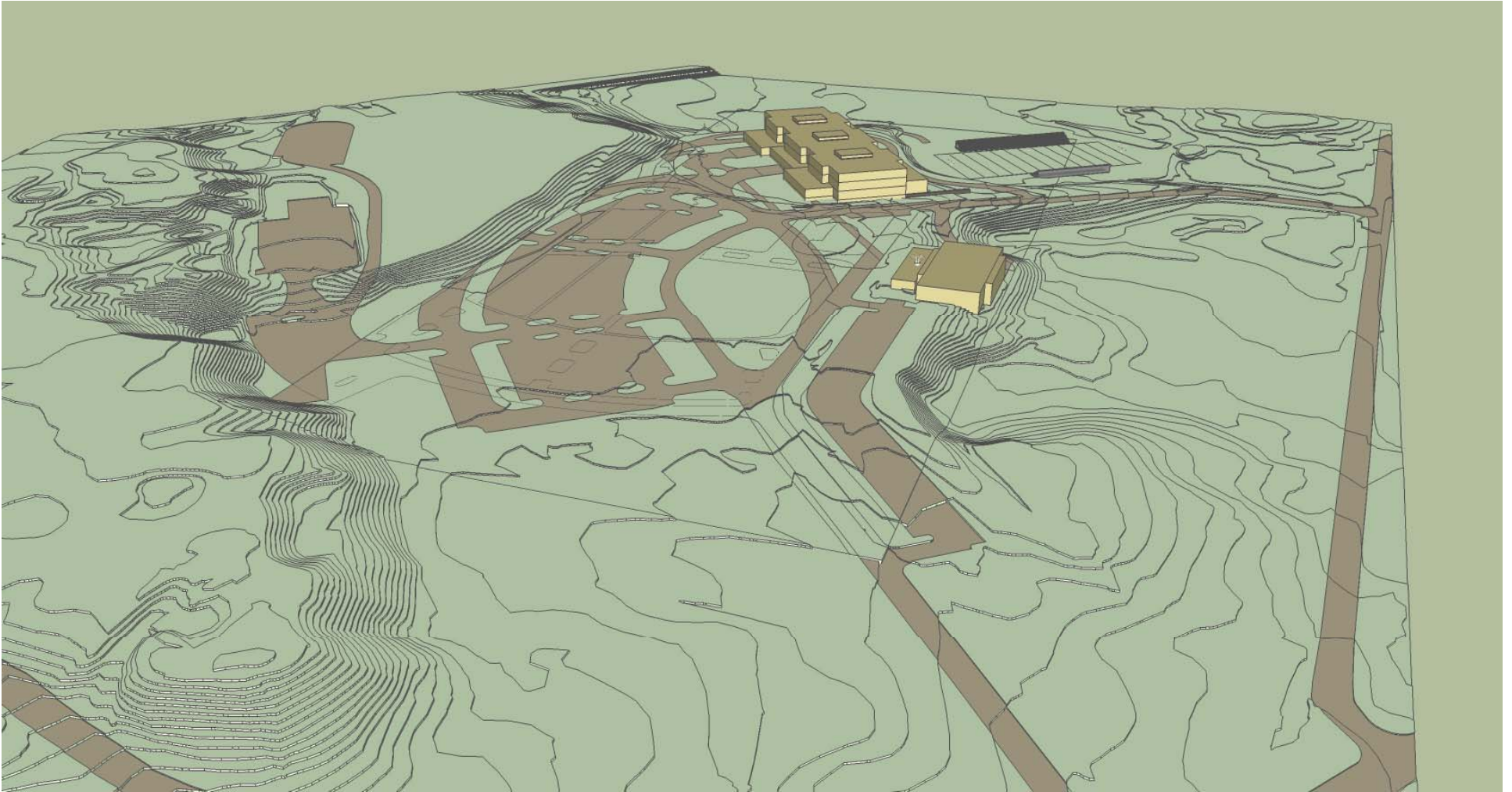


Section at Gymnasium

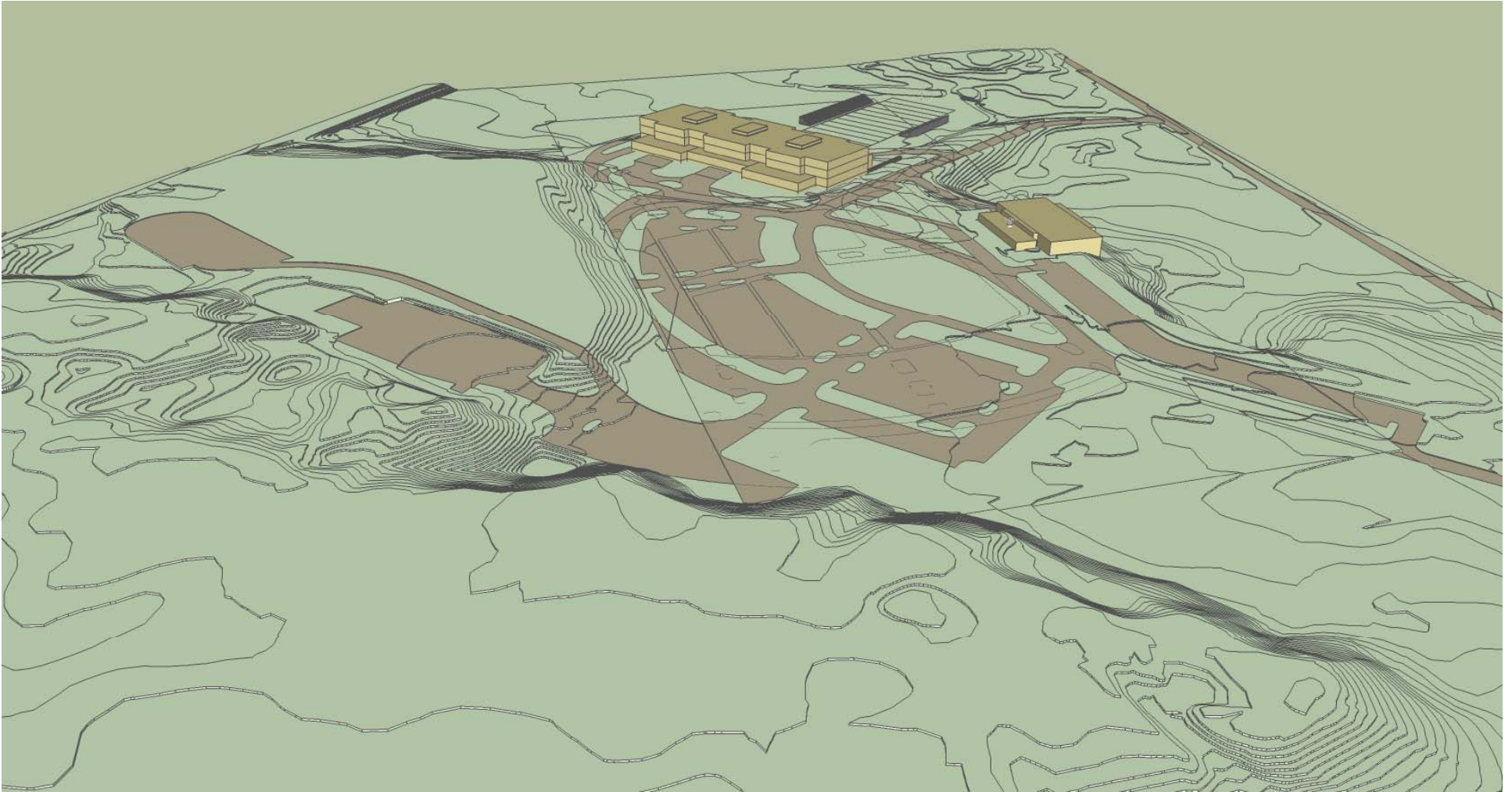
Option 12R: View from North



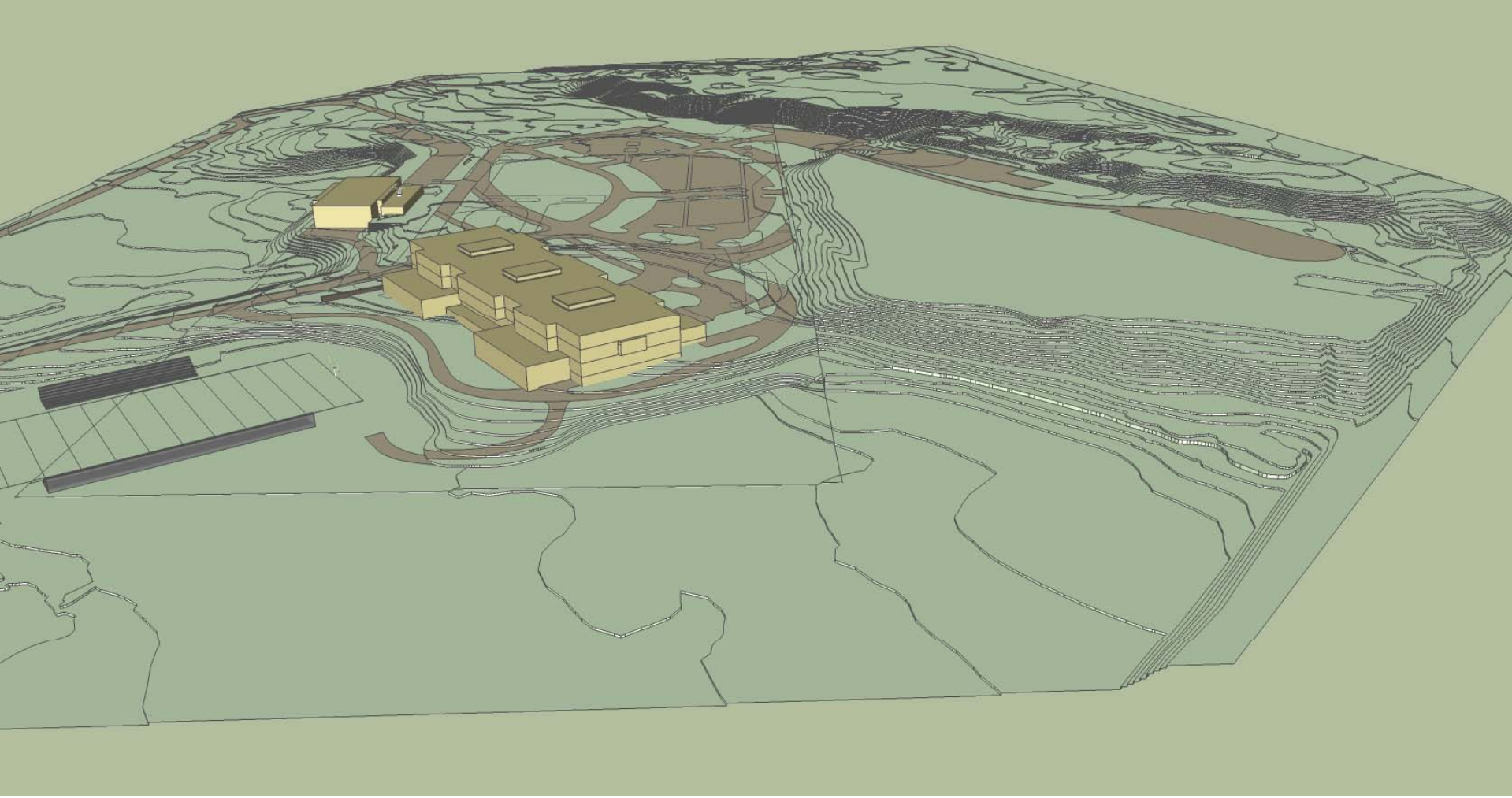
Option 12R: View from East



Option 12R: View from South



Option 12R: View from West



Summary



Option 6R1
Major Renovation
Major Addition









Option 12R
New Building
(1 Step)

Evaluation Matrices

Ranking:
 4- Highly Advantageous
 3- Advantageous
 2- Satisfactory
 1- Poor

Instructions
 Insert ranking value in the shaded cells only for the 3 options as presented in the PDP dated April 1, 2011. Values can be entered in quarter intervals/fractions. Example: 1.75, 3.5, 4

Name (optional) _____
 Date 4-May-11

Options	Completed Project = 80%					Construction Phase = 20%		TOTAL 100%	Convert to Letter Grade
	Cost efficiency (hard/soft and total cost)	Fulfills Program Needs	Operations & Maintenance Costs	Quality of Design at completion	Implementation of sustainability	Minimum impact to Ed program during const	Risk to const. schedule / Risk to Ed Prog		
	30%	10%	10%	20%	10%	10%	10%		
Option 9  Option 10  Option 12R1 	Option 12R1 (PDP option 9-10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Committee member X	0	0	0	0	0	0	0	0.00	0
XX	0	0	0	0	0	0	0	0.00	
XXX	0	0	0	0	0	0	0	0.00	
XXXX	0	0	0	0	0	0	0	0.00	
Option 6  Option 6R1 	Option 6R1 (PDP option 6)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Committee member X	0	0	0	0	0	0	0	0.00	0
XX	0	0	0	0	0	0	0	0.00	
XXX	0	0	0	0	0	0	0	0.00	
XXXX	0	0	0	0	0	0	0	0.00	
Option 4 	Option 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Committee member X	0	0	0	0	0	0	0	0.00	0
XX	0	0	0	0	0	0	0	0.00	
XXX	0	0	0	0	0	0	0	0.00	
XXXX	0	0	0	0	0	0	0	0.00	

Evaluation Matrices

Concord Carlisle High School, Concord, MA			
Evaluation Criteria Matrix			
Legend	Addition & Renovation Options		All New Construction Options
	4	6R1	12R
0 Moderate / Neutral	Major Renovation Major Additions (Keep 'A', 'H', and Cafe.)	Minor Renovation Major Additions (Keep 'A' and Cafe.)	New Building (1 Step)
1 Poor			
2 Satisfactory			
3 Advantageous			
4 Highly Advantageous			
DURATION	46 months	44 Months	32 Months
COST	\$6.3 Million	\$7.7 Million	\$5.1 Million
Cost Effective/ Value			
Educational Program Needs			
Building Transformation			
Expandability			
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.			
- RESPONSIBLE DESIGN: Develop a project which is fiscally, academically, environmentally and socially responsible			
- FLEXIBLE/ADAPTABLE: Design a facility which is flexible, adaptable, affordable and achievable			
- MAINTAINABILITY: Create a facility that is fully accessible, highly functional, cost effective, high performing, durable, and easy to maintain			
- COMMUNITY USE: Plan for a fully integrated campus that promotes 21st century learning, educational excellence, high performance and shared intergenerational community and recreational use			
- COMMUNITY SUPPORT: Actively engage our communities in this ongoing and exciting opportunity for teaching and learning			
- CAMPUS INTEGRATION: Holistically integrate all campus elements into a practical and inspiring new and transformed CCHS			
- SECURE CAMPUS: Create a campus which is safe and secure			
- 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			
- 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			
- EFFICIENT/LOGICAL ORGANIZATION: Develop intuitively clear, logical and efficient organizational and circulation patterns			
- 24/7 Community Use: Build an inspiring and engaging center for "24/7" community use			
- MINIMAL PHASING DISRUPTION: Minimize the impact of the design and construction on the students, teachers, parents, neighbors and the greater community			
- PROACTIVE PROCESS: Partnering with MS&A to proactively manage the process with foresight and insight in an integrated manner	○	○	○
- COMMUNICATION: Communicate clearly, convincingly, strategically and sensitively regarding the issues and challenges intrinsic to building momentum for this project at this time	○	○	○
- FUND RAISING: Explore financial options with public/private partnerships and develop innovative ways to generate project funding and sustainable income	○	○	○
- TECHNOLOGY: Integrate and maximize the current and future use of effective, cutting-edge technologies	○	○	○

Next Steps

May 11th MSBA Meeting

SBC Meeting #6, May 18, 2011

- Review Final Evaluation of Alternatives
- Confirm Preferred Solution