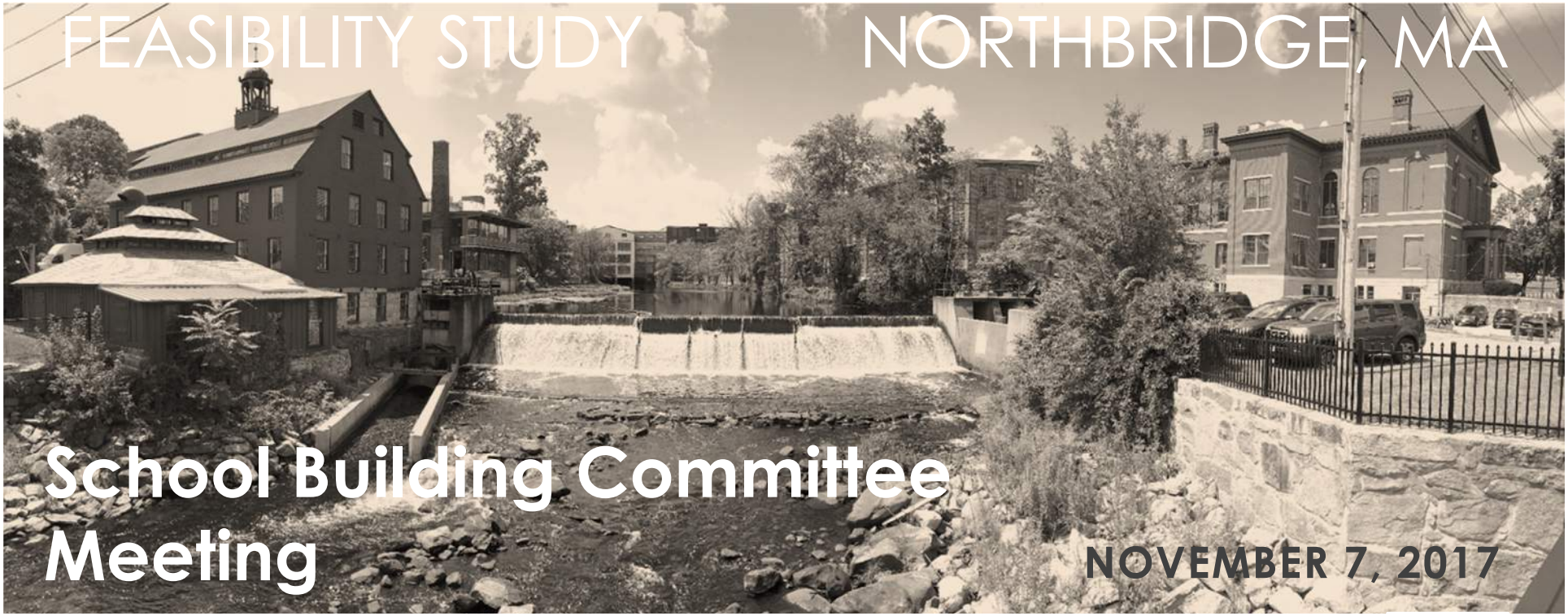
W. EDWARD BALMER SCHOOL

FEASIBILITY STUDY NORTHBRIDGE, MA



School Building Committee Meeting

NOVEMBER 7, 2017

SMMA
Project Management

NORTHBRIDGE PUBLIC SCHOOLS

Massachusetts School Building Authority
Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities

D&W
DORE & WHITTIER ARCHITECTS, INC.

agenda

1. Review of Community-Wide Survey Results presented at Forum #4
2. Selected Design Alternatives Progress Update
3. Engineers' Building System Narratives
4. Middle School Space Analysis Update
5. Review Construction Delivery Method
6. Questions, Comments, Feedback

COMMUNITY-WIDE SURVEY RESULTS PRESENTED AT FORUM #4

COMMUNITY-WIDE SURVEY #1 OVERVIEW

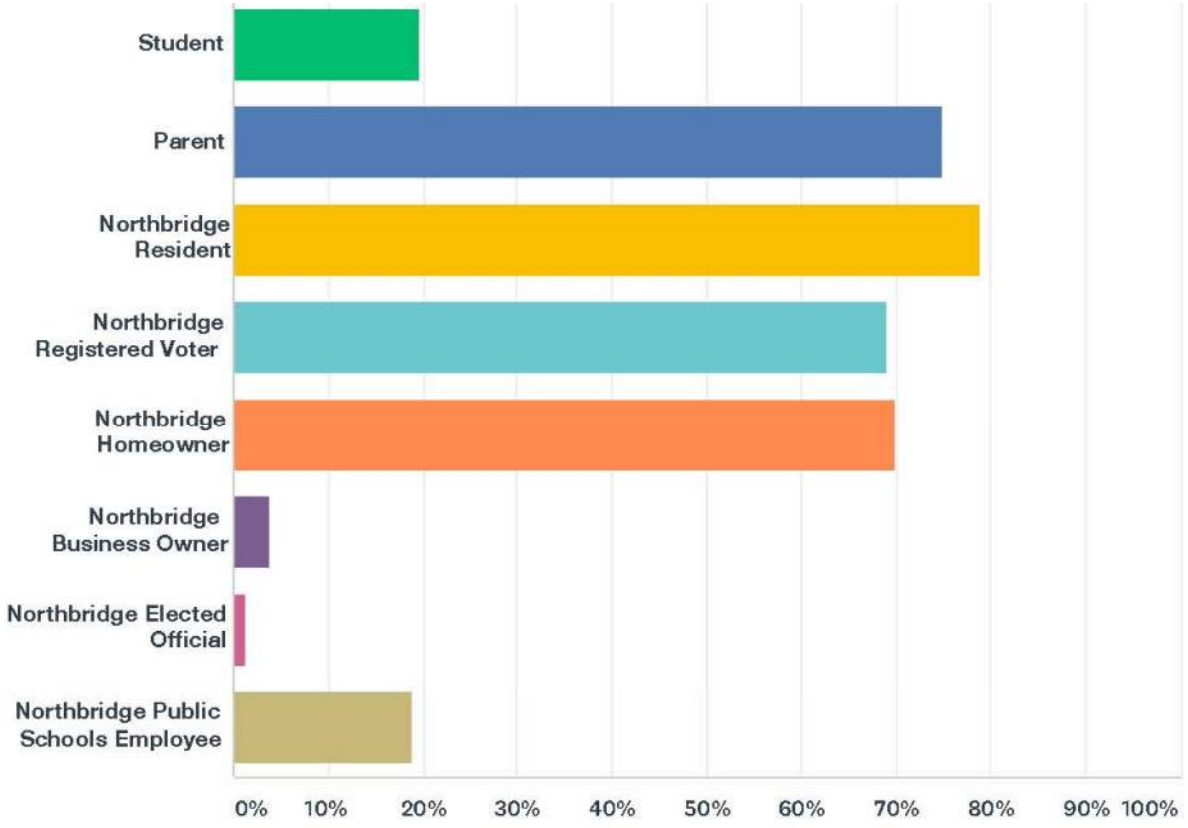
The SBC has conducted a survey designed to gather information on:

- Stakeholder group membership
- Which option is most beneficial
- Most important project considerations
- How stakeholder gets news
- How can communication with SBC be improved

Hard copy survey forms were distributed at the Library, Community Center, Senior Center and Town Hall and the electronic survey was hosted on the Project Website.

SURVEY QUESTION 1

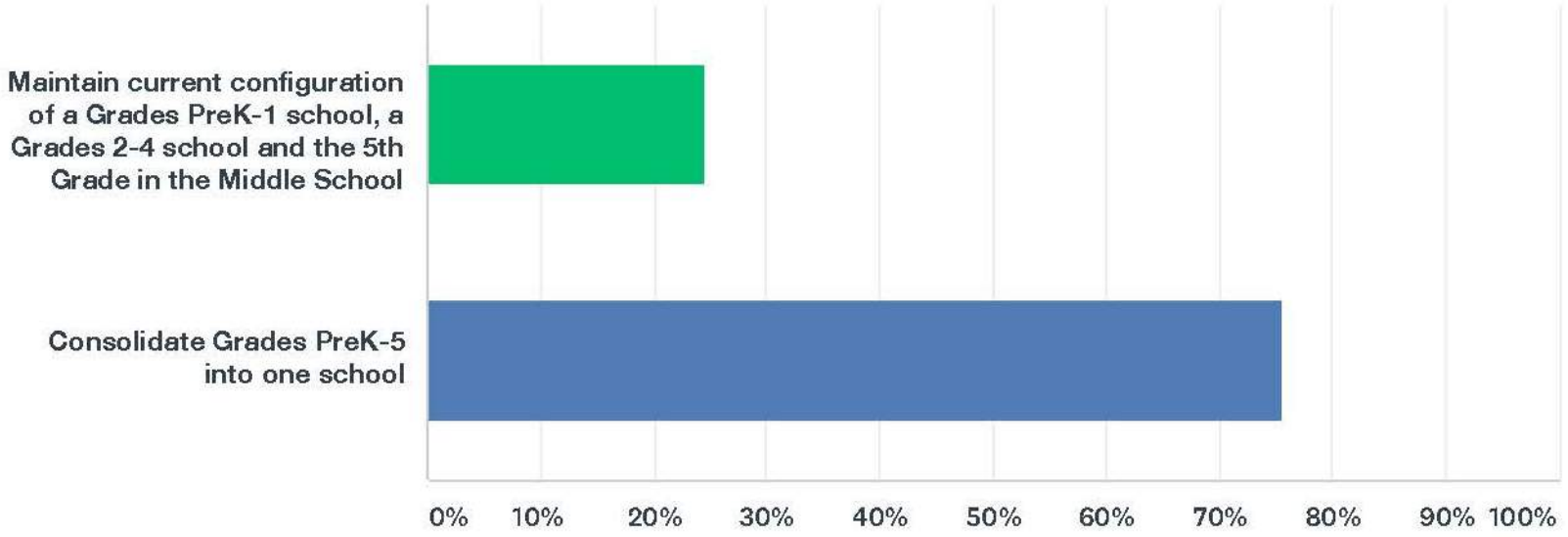
Please select all stakeholder groups that apply to you.



survey

SURVEY QUESTION 2

Which option do you feel is the most appropriate and beneficial for our students and community?

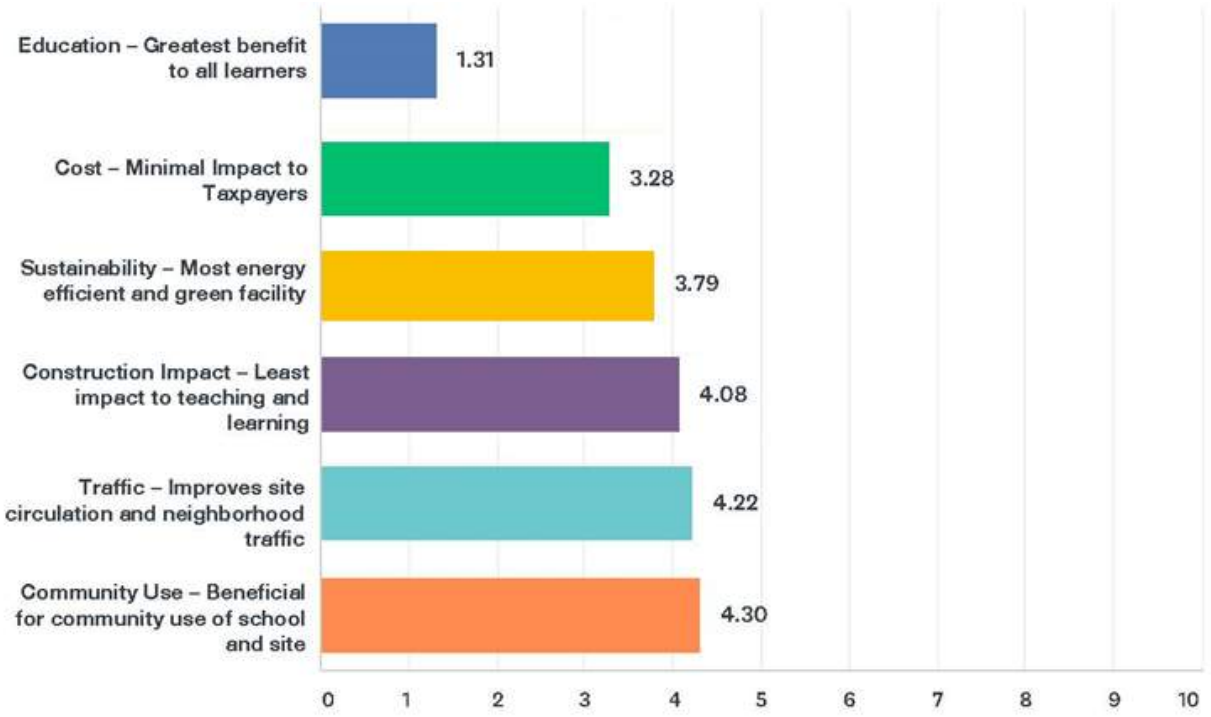


survey

SURVEY QUESTION 3

What is the most important consideration in the decision-making process for recommending a capital school building project to the Northbridge Community for approval?

Please rank the following priorities with 1 being the most important and 6 being the least important.



survey

SURVEY QUESTION 3

What is the most important consideration in the decision-making process for recommending a capital school building project to the Northbridge Community for approval?

Please rank the following priorities with 1 being the most important and 6 being the least important.

	1 (Most Important)		2		3		4		5		6 (Least Important)		Rank
Cost – Minimal impact to taxpayers	16.47%	57	26.01%	90	17.05%	59	11.56%	40	10.98%	38	17.92%	62	3.28
Education – Greatest benefit to all learners	78.90%	273	15.90%	55	2.89%	10	1.16%	4	0.29%	1	0.87%	3	1.31
Sustainability – Most energy efficient and green facility	0.87%	3	19.94%	69	25.72%	89	21.10%	73	17.63%	61	14.74%	51	3.79
Traffic – Improves site circulation and neighborhood traffic	1.73%	6	8.09%	28	18.79%	65	28.32%	98	23.70%	82	19.36%	67	4.22
Community Use – Beneficial for community use of school and site	1.73%	6	12.43%	43	16.47%	57	18.79%	65	24.57%	85	26.01%	90	4.30
Construction Impact – Least impact to teaching and learning	0.58%	2	17.63%	61	19.08%	66	19.08%	66	22.83%	79	20.81%	72	4.08

survey

SURVEY QUESTION 4

Is there another important consideration that is not listed above?

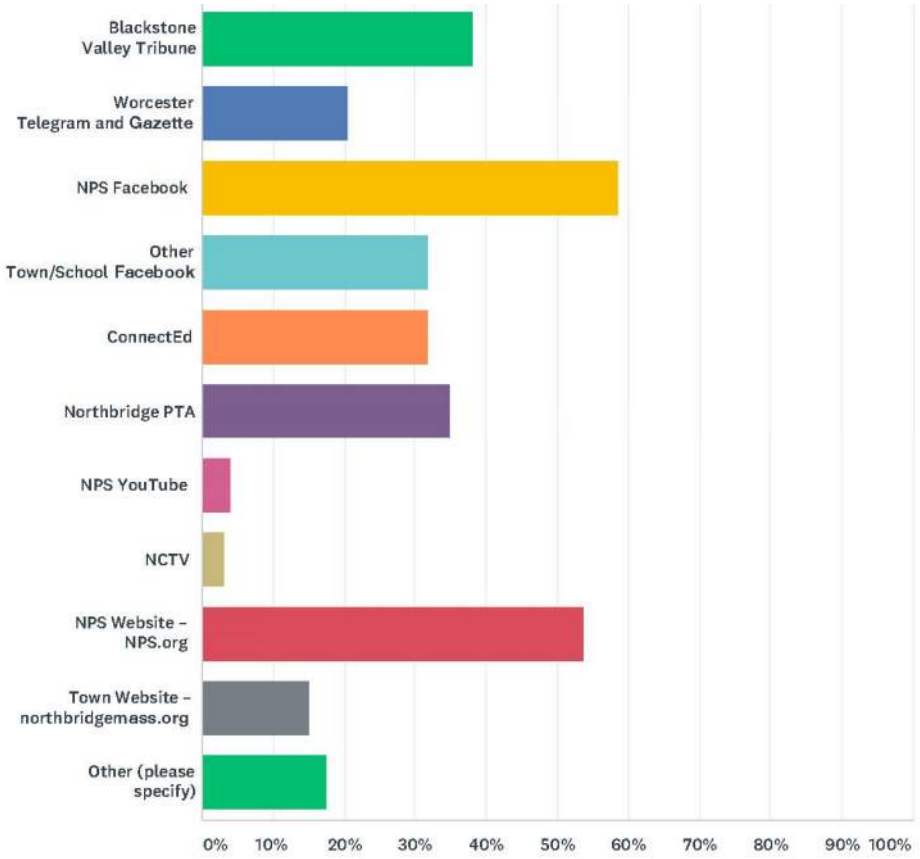
If so, please explain.

- Educational Technology (4 responses)
- Student Health and Safety (12 responses)
- Benefits to All Residents (6 responses)
- Traffic and Bussing (3 responses)
- Accommodating Future Growth (5 responses)
- Impact on Other Town Projects (5 responses)

survey

SURVEY QUESTION 5

How do you receive your information on Town and School News?



survey

SURVEY QUESTION 6

How can the School Building Committee improve communication with the public regarding this project and state grant?

- ❑ Mail (25 responses)
- ❑ ConnectEd (6 responses)
- ❑ Community Meetings at Different Locations (13 responses)
- ❑ Email (32 responses)
- ❑ Backpack Flyers (11 responses)
- ❑ Social Media (20 responses)
- ❑ Newspaper (6 responses)

survey


QUESTIONS?
D&W
DORE & WHITTIER
ARCHITECTS, INC.

SELECTED DESIGN ALTERNATIVES
PROGRESS UPDATE

B1 $29.0M

B2 $34.6M

C1 $61.3M

C3 $58.9M

GROUP A
Balmer + NES CODE/ DM ONLY
$53.0M
total

B3 $33.8M

C2 $55.6M

C4 $66.6M

OPTIONS OVERVIEW WITH COST TO TOWN

Estimated costs are preliminary and subject to change as the project is refined.

C5 $58.3M

options evaluation

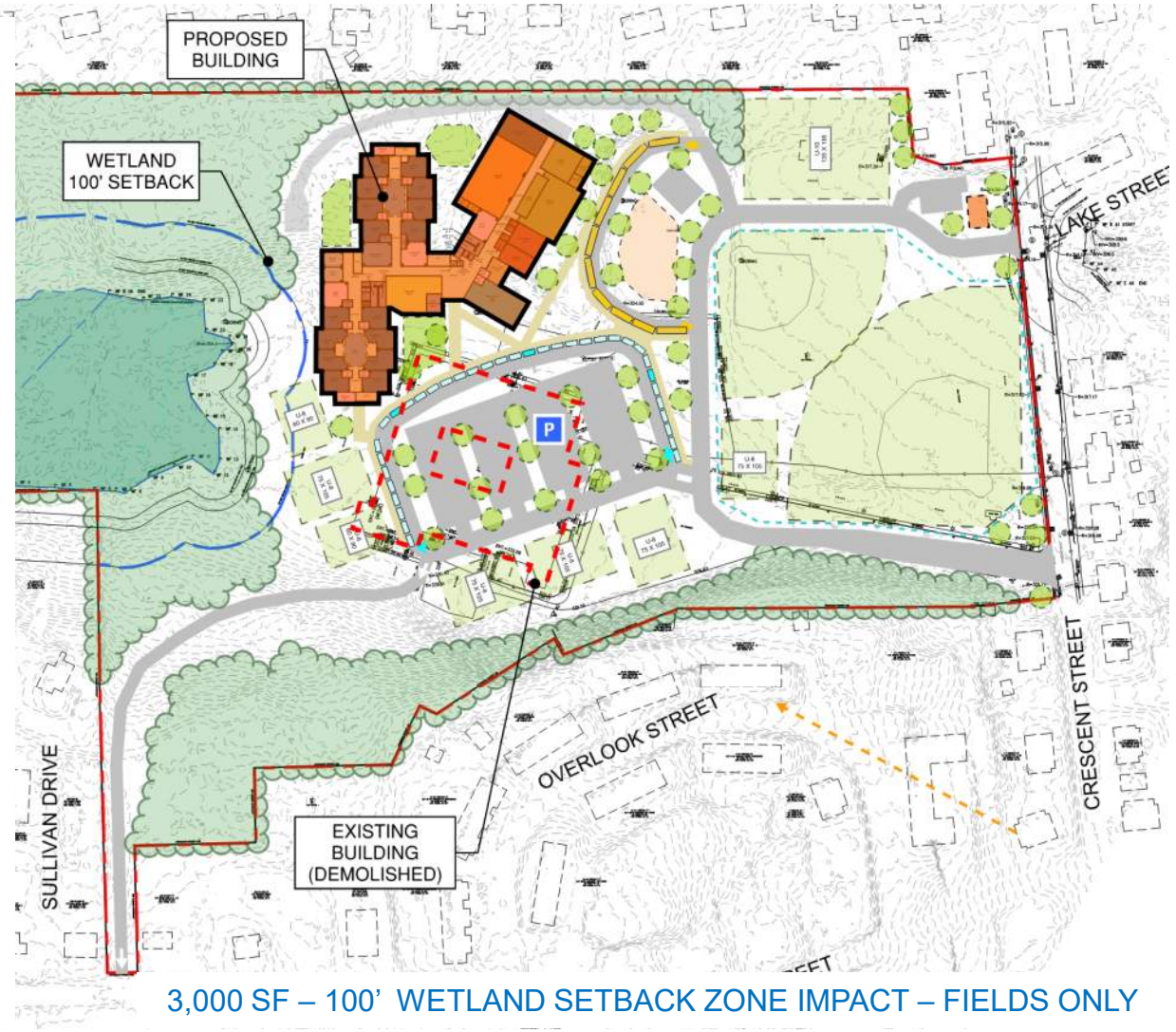

OPTION B2

OPTION B2

- GRADES 2-4 (510)
- NEW BUILD
- 2 STORIES
- REAR/EAST EDGE OF SITE
- 2 YEAR DURATION

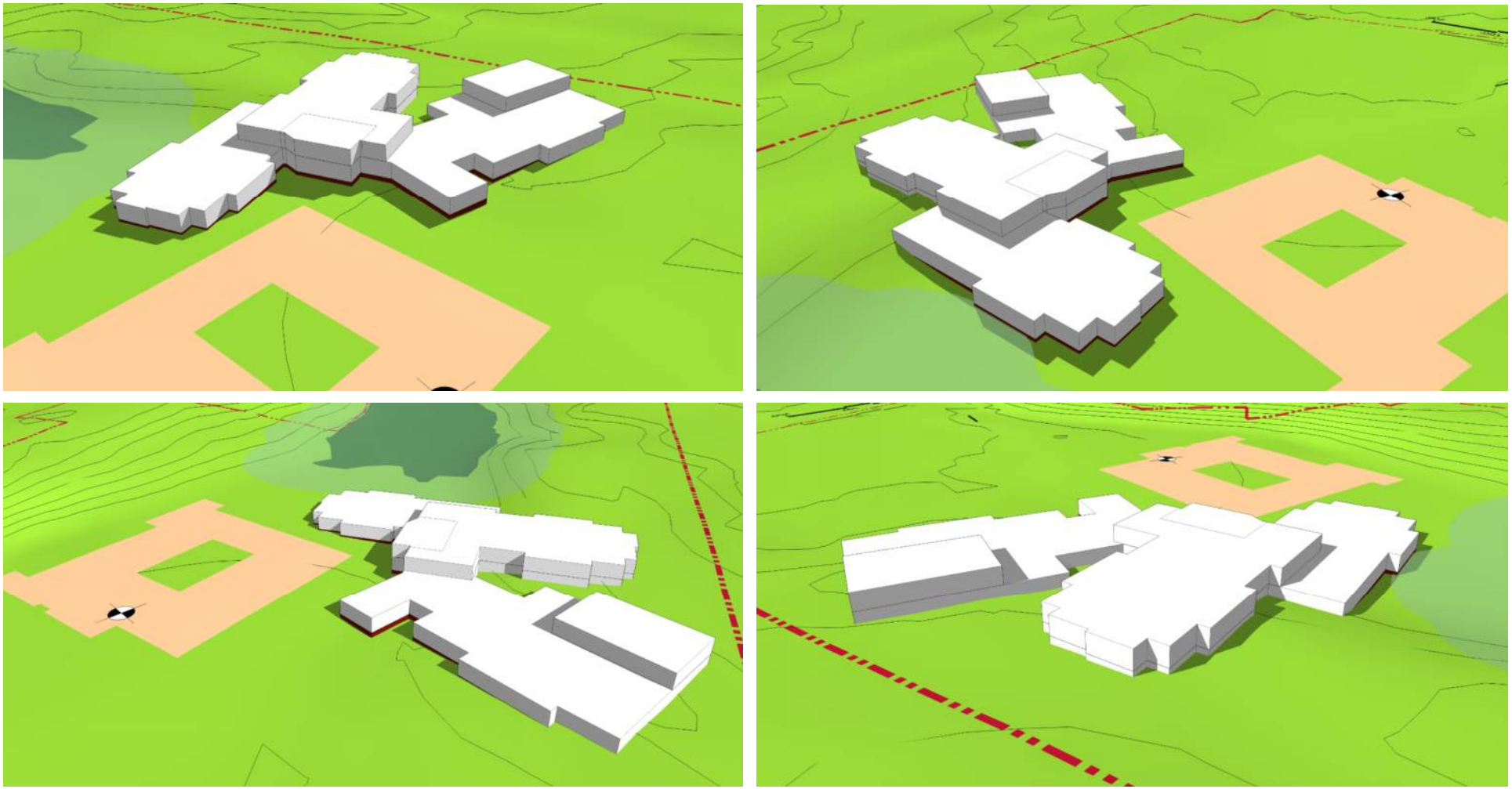
SITE PROGRAM

	PROGRAM	DESIGN
PARKING	100	116
BUSSES, 30'	3	3
BUSSES, 40'	7	7
VANS	4	USE BUS LOOP
PK-K PARK/DROP	0	0
CAR QUEUE	40	36
FIELDS & SITE AMENITIES		
BASEBALL	1	1
SOFTBALL	1	1
U-10 SOCCER	1	1
U-8 SOCCER	3	5
U-6 SOCCER	1	2
PK- 2 PLAYGROUND	0	0
3-5 PLAYGROUND	1	1
PAVED PLAY AREA	1	1
OUTDOOR LEARNING	2	3

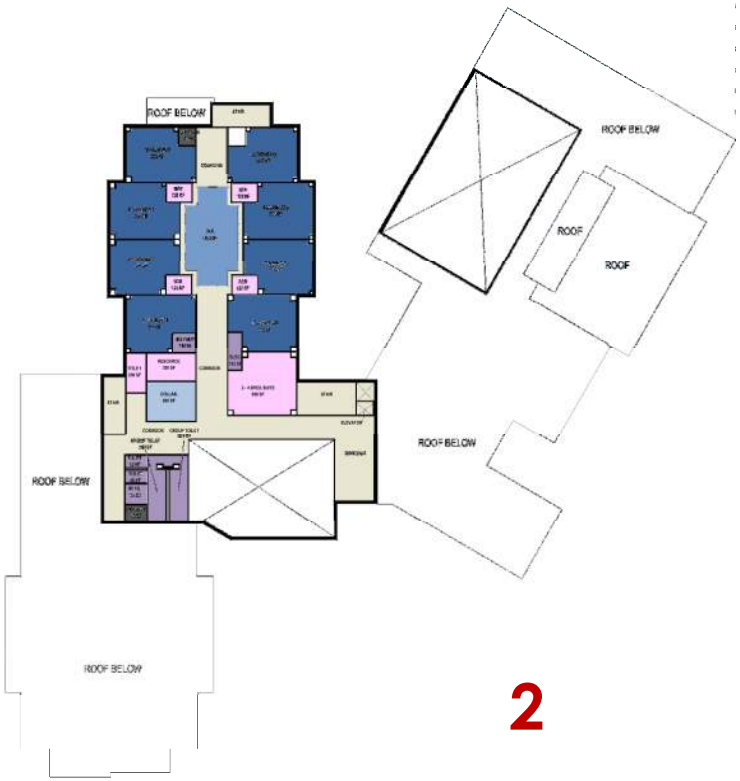


3,000 SF – 100' WETLAND SETBACK ZONE IMPACT – FIELDS ONLY

preliminary design



OPTION B2 – MASSING MODEL ON SITE TOPOGRAPHY



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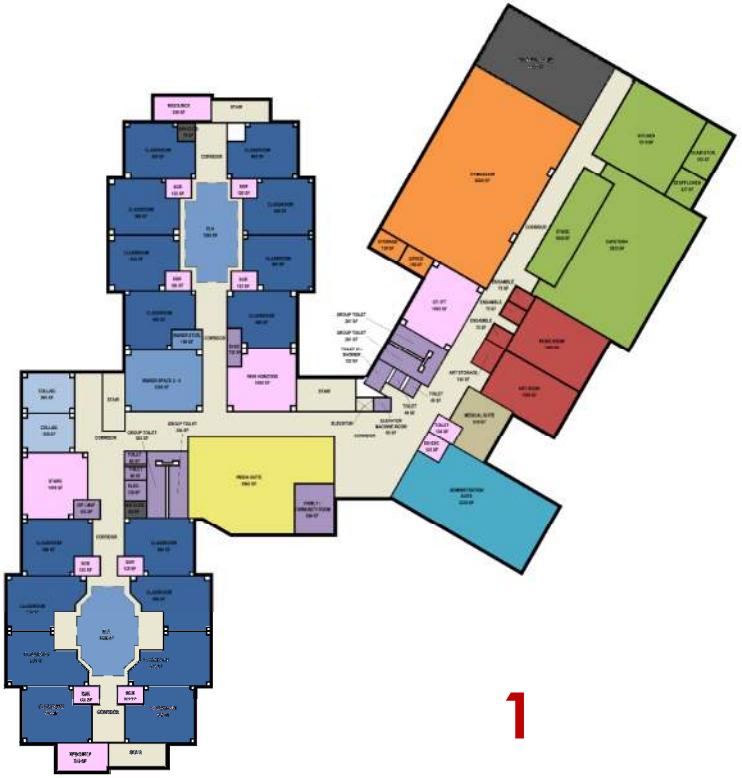


1

OPTION B2

- 2-4 (510)

preliminary design

OPTION B2

PROS

- Clean replacement project allows Balmer to function
- Good drop-off design for busses and cars
- Extra play fields
- Admin has commanding view of site
- Good public/private separation
- Shared spaces and Media central

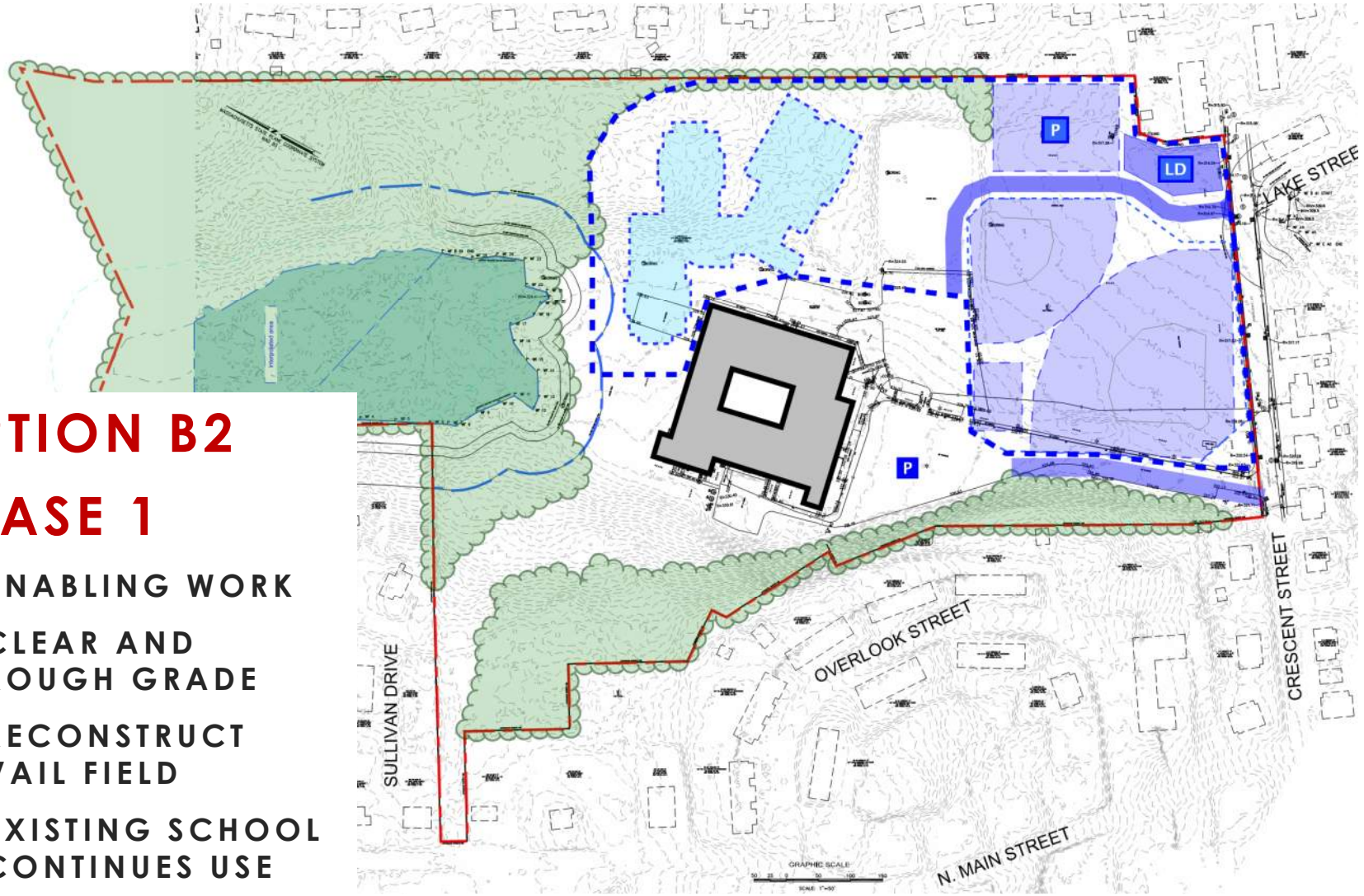
CONS

- Circulation only around ¾ of building
- Grades 2-3 paired but 4 on its own

OPTION B2

PHASE 1

- ENABLING WORK
- CLEAR AND ROUGH GRADE
- RECONSTRUCT VAIL FIELD
- EXISTING SCHOOL CONTINUES USE

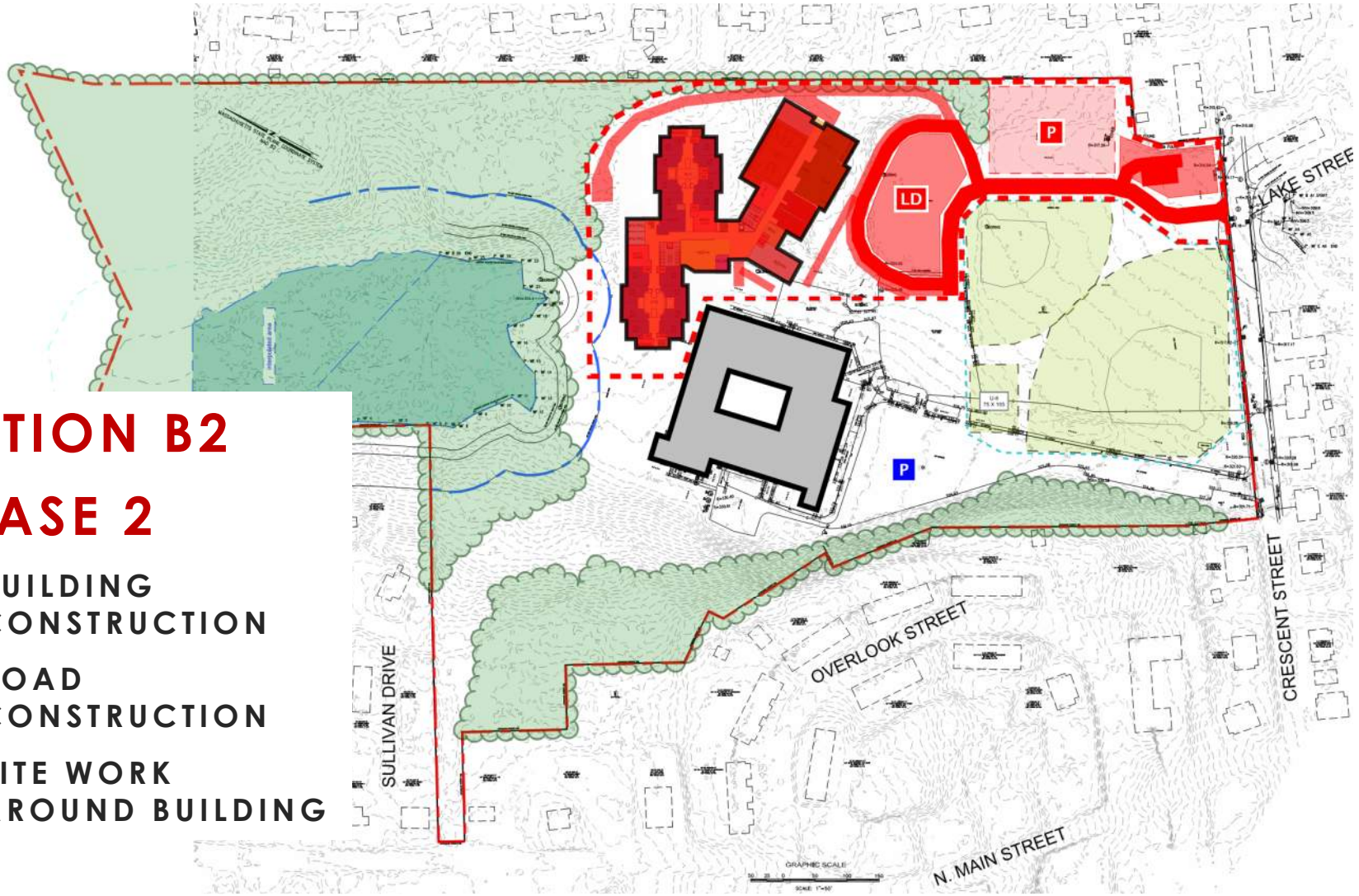


preliminary design

OPTION B2

PHASE 2

- BUILDING CONSTRUCTION
- ROAD CONSTRUCTION
- SITE WORK AROUND BUILDING

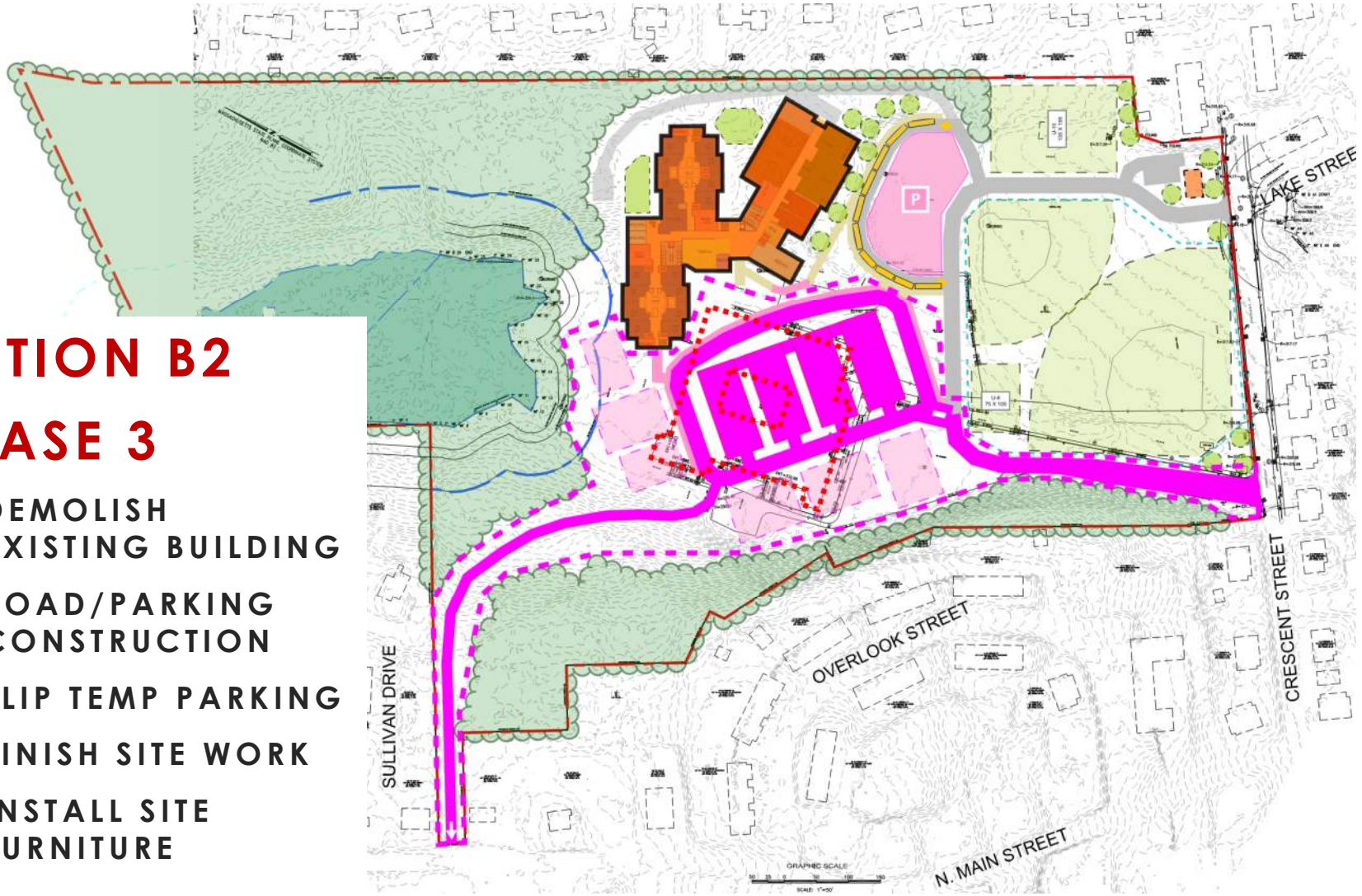


preliminary design

OPTION B2

PHASE 3

- DEMOLISH EXISTING BUILDING
- ROAD/PARKING CONSTRUCTION
- FLIP TEMP PARKING
- FINISH SITE WORK
- INSTALL SITE FURNITURE



preliminary design

ALL C-SERIES OPTIONS HAVE...

- Required site elements replaced/reconstituted
- Separate bus and car loops
- PK-K park and drop lot
- Public/private separation: core versus academic wings
- Grade pairings aligned by floor level: PK-K; 1-2; 3-4-5
- Grade pairings not separated by core
- All space summary program elements present
- Extended learning areas
- Outdoor learning areas
- Shared program centrally located
- Special education integrated

OPTION C2

OPTION C2

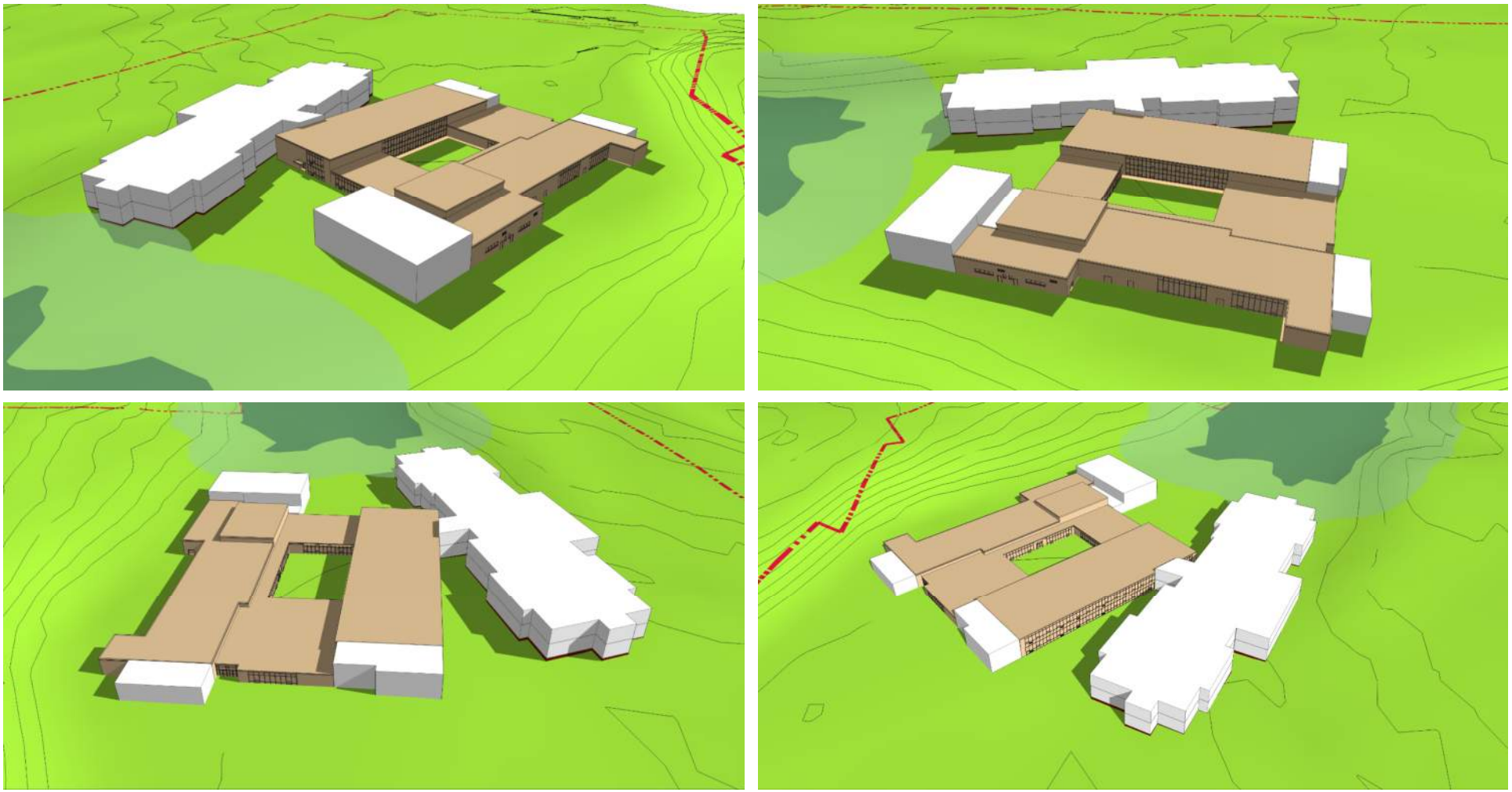
- GRADES PK-5 (1,030)
- ADD/RENO
- 2 STORY ADDITIONS
- EXISTING SITE
- 4 YEAR DURATION

SITE PROGRAM

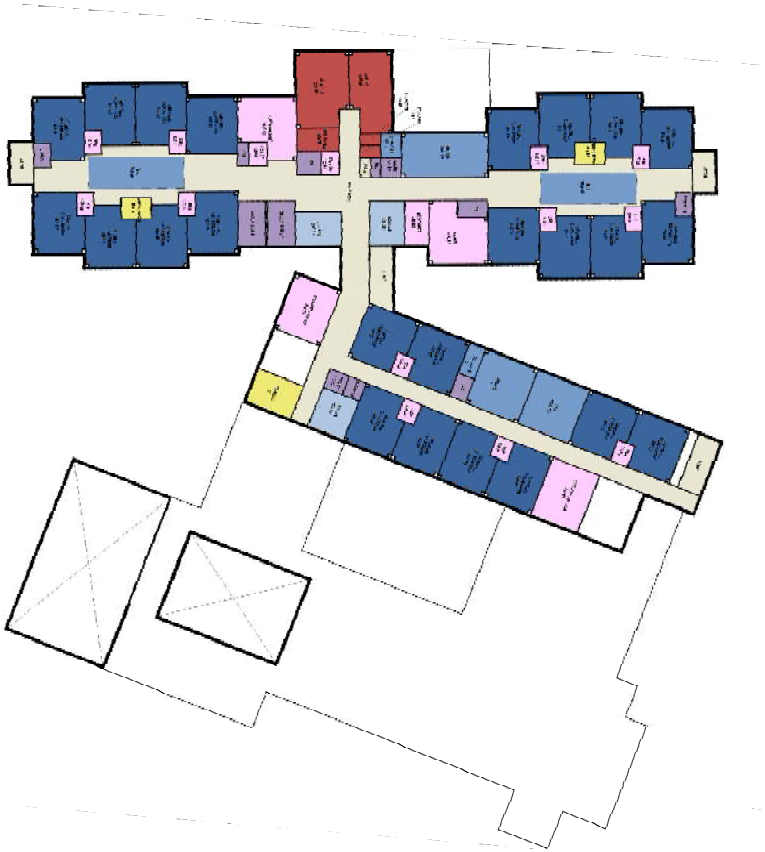
	PROGRAM	DESIGN
PARKING	205	248
BUSSES, 30'	3	3
BUSSES, 40'	7	7
VANS	4	USE BUS LOOP
PK-K PARK/DROP	15	12
CAR QUEUE	50	26
FIELDS & SITE AMENITIES		
BASEBALL	1	1
SOFTBALL	1	1
U-10 SOCCER	1	1
U-8 SOCCER	3	4
U-6 SOCCER	1	1
PK- 2 PLAYGROUND	1	1
3-5 PLAYGROUND	1	1
PAVED PLAY AREA	1	USE PK-K DROP
OUTDOOR LEARNING	2	4

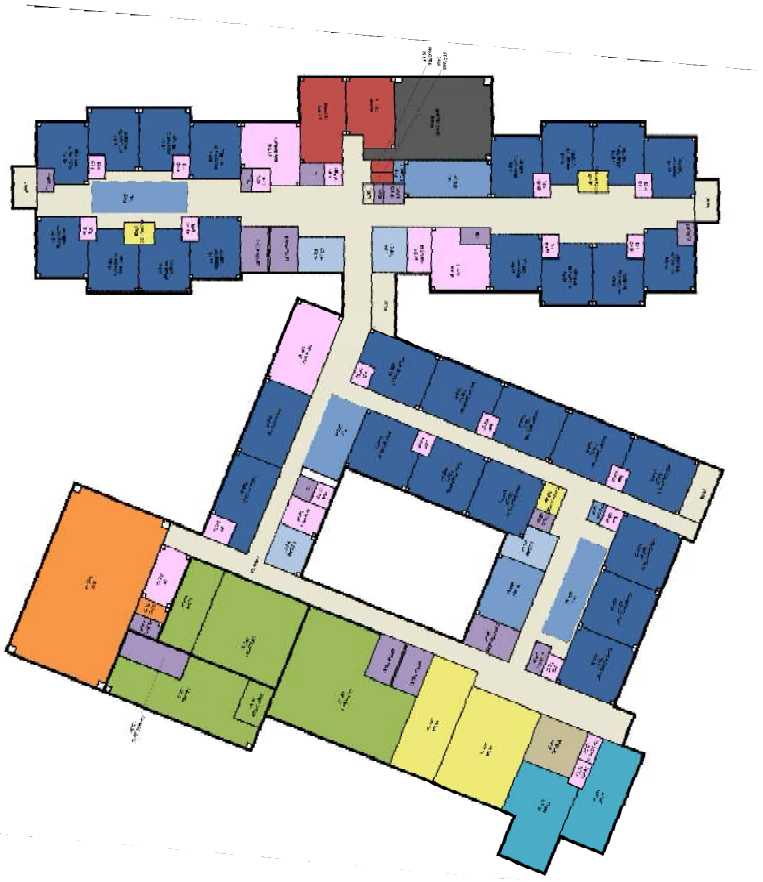
14,000 SF – 100' WETLAND SETBACK ZONE IMPACT – FIELDS/ DRIVE

preliminary design



OPTION C2 – MASSING MODEL ON SITE TOPOGRAPHY





OPTION C2

2

1

- PK-5 (1,030)

preliminary design

OPTION C2

PROS

- Reused existing building
- Additions define interesting exterior landscape spaces
- Additions avoid wetlands and topography

CONS

- Phased add/reno will disrupt education
- 4 year duration
- Circulation only around 2/3 of building
- Compromises in plan layout and adjacencies in reno portion
- Many site plan compromises: circulation, distance to entry, car & bus drop offs tight, parking distant & fragmented, small play-grounds
- Poor solar orientation
- Admin has no view of parking

GREENFIELD HIGH SCHOOL

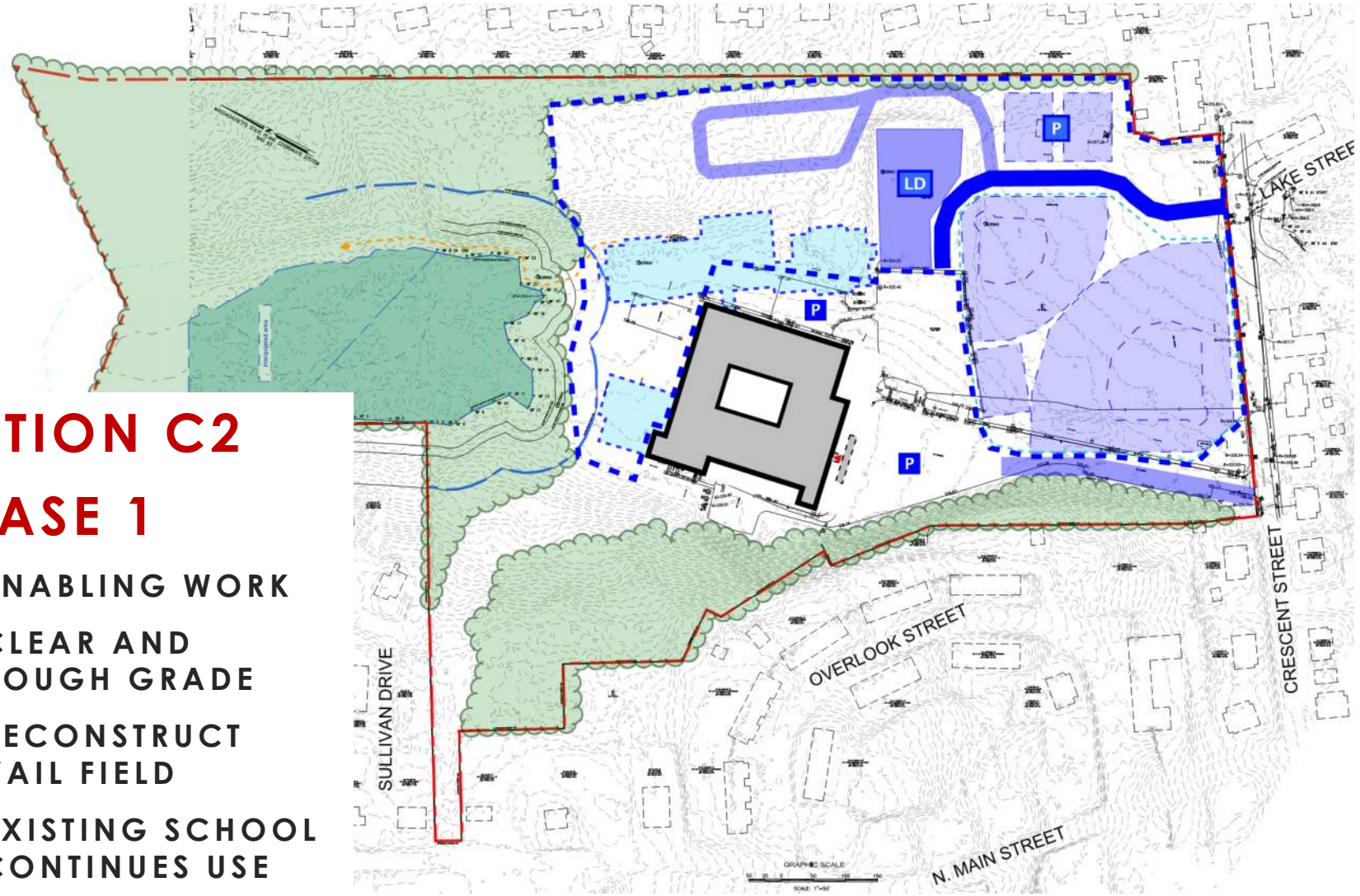
- EXAMPLE OF CLOSE, PHASED CONSTRUCTION

construction phasing

OPTION C2

PHASE 1

- ENABLING WORK
- CLEAR AND ROUGH GRADE
- RECONSTRUCT VAIL FIELD
- EXISTING SCHOOL CONTINUES USE

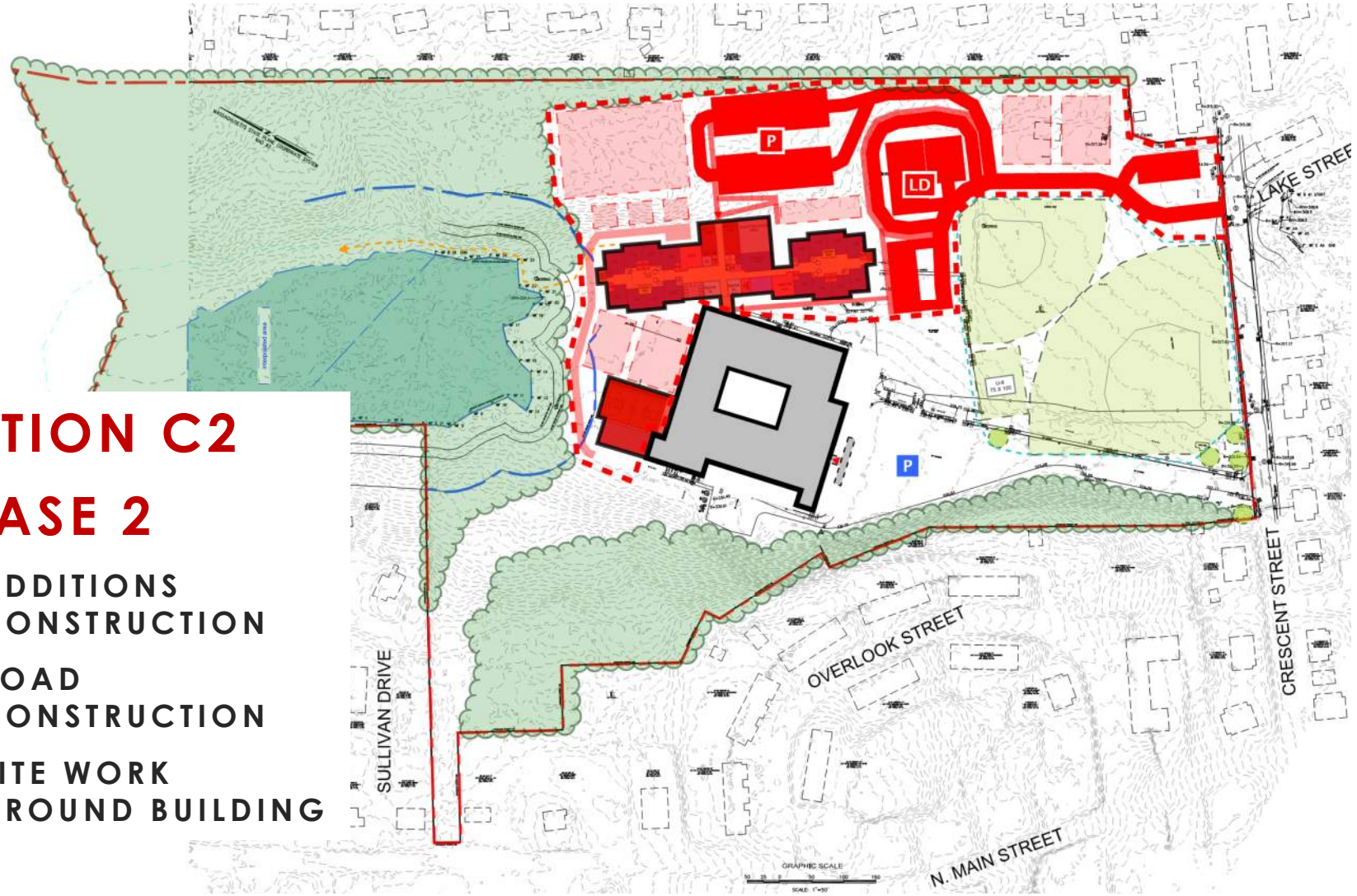


preliminary design

OPTION C2

PHASE 2

- ADDITIONS CONSTRUCTION
- ROAD CONSTRUCTION
- SITE WORK AROUND BUILDING

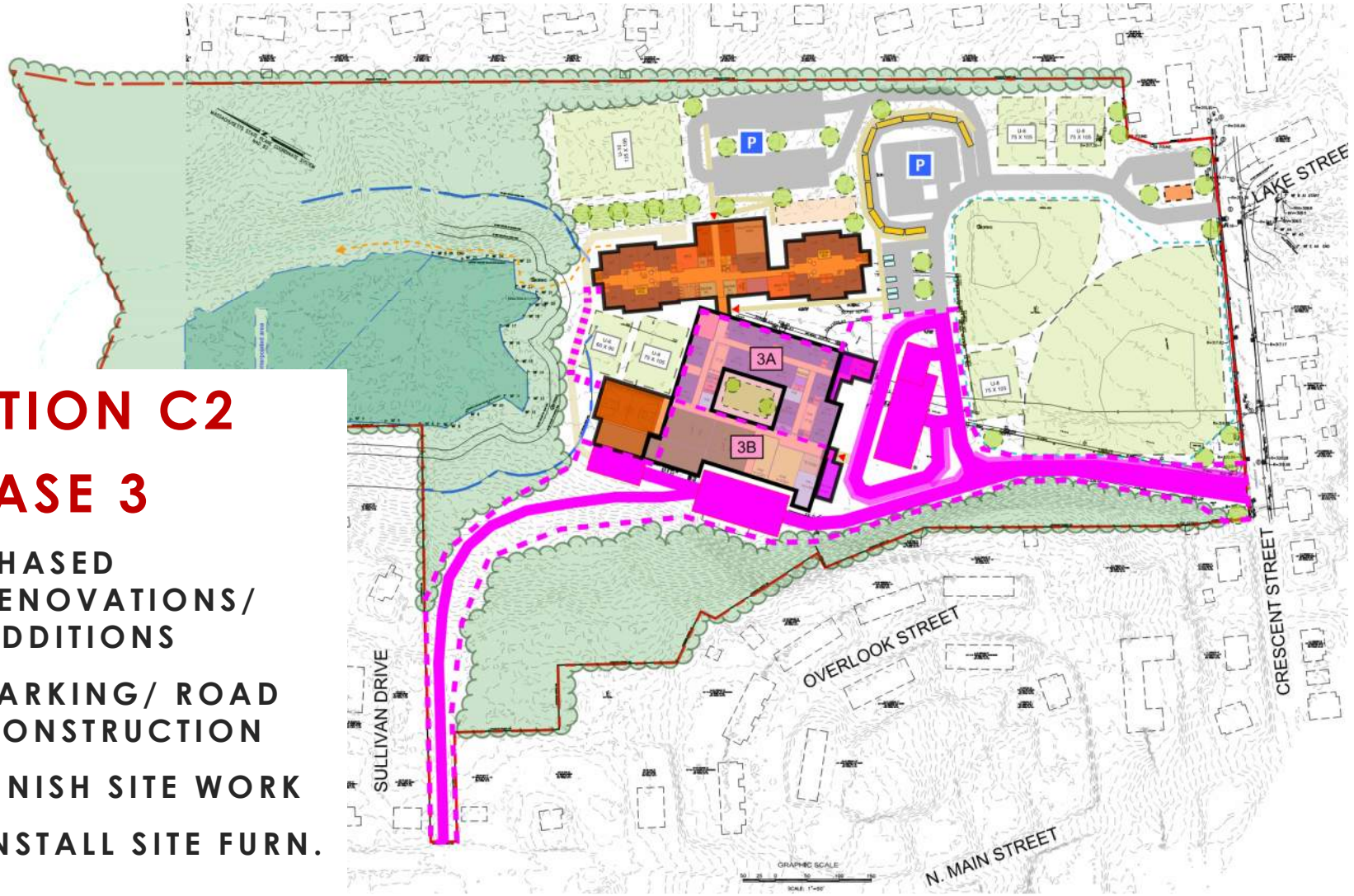


preliminary design

OPTION C2

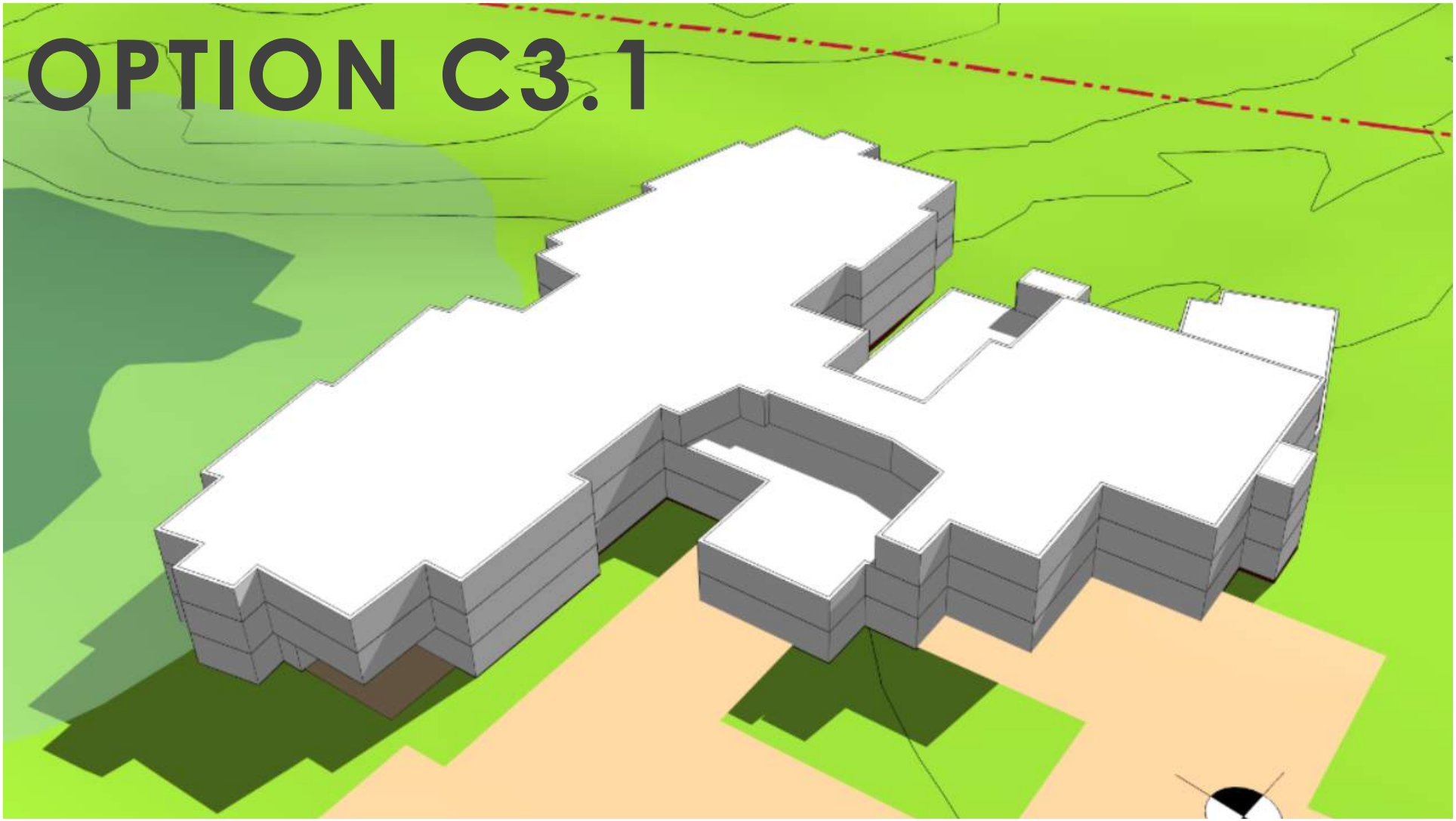
PHASE 3

- PHASED RENOVATIONS/ ADDITIONS
- PARKING/ ROAD CONSTRUCTION
- FINISH SITE WORK
- INSTALL SITE FURN.



preliminary design

OPTION C3.1



OPTION C3.1

- GRADES PK-5 (1,030)
- PHASED NEW BUILD
- 3 STORIES
- REAR OF SITE
- 3.5 YEAR DURATION

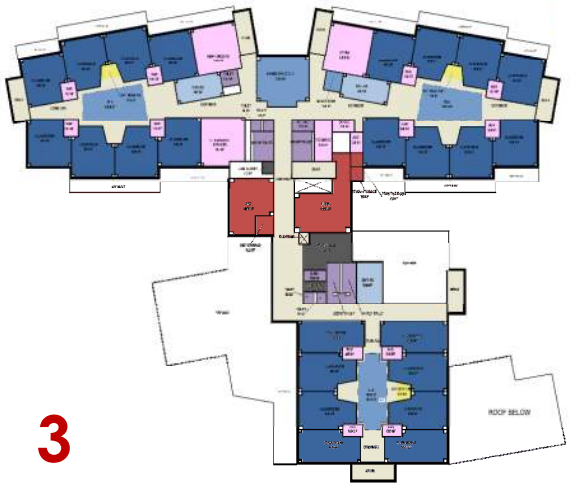
SITE PROGRAM

	PROGRAM	DESIGN
PARKING	205	221
BUSSES, 30'	3	3
BUSSES, 40'	7	7
VANS	4	USE BUS LOOP
PK-K PARK/DROP	15	15
CAR QUEUE	50	40
FIELDS & SITE AMENITIES		
BASEBALL	1	1
SOFTBALL	1	1
U-10 SOCCER	1	1
U-8 SOCCER	3	3
U-6 SOCCER	1	1
PK- 2 PLAYGROUND	1	1
3-5 PLAYGROUND	1	1
PAVED PLAY AREA	1	1 + PK-K DROP
OUTDOOR LEARNING	2	3

13,330 SF – 100' WETLAND SETBACK ZONE IMPACT – BUILDING/ DRIVE

preliminary design

OPTION C3.1 – MASSING MODEL ON SITE TOPOGRAPHY



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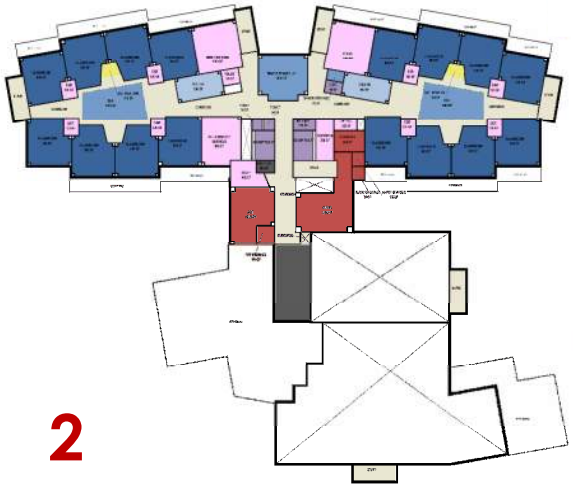


2

1

OPTION C3.1

- PK-5 (1030)

preliminary design

OPTION C3.1

PROS

- Good drop-off design for busses and cars
- Good solar orientation
- Admin has commanding view of site
- Compact, logical plan
- Shared spaces and Maker central
- Dynamic extended learning spaces touch nearly all classrooms

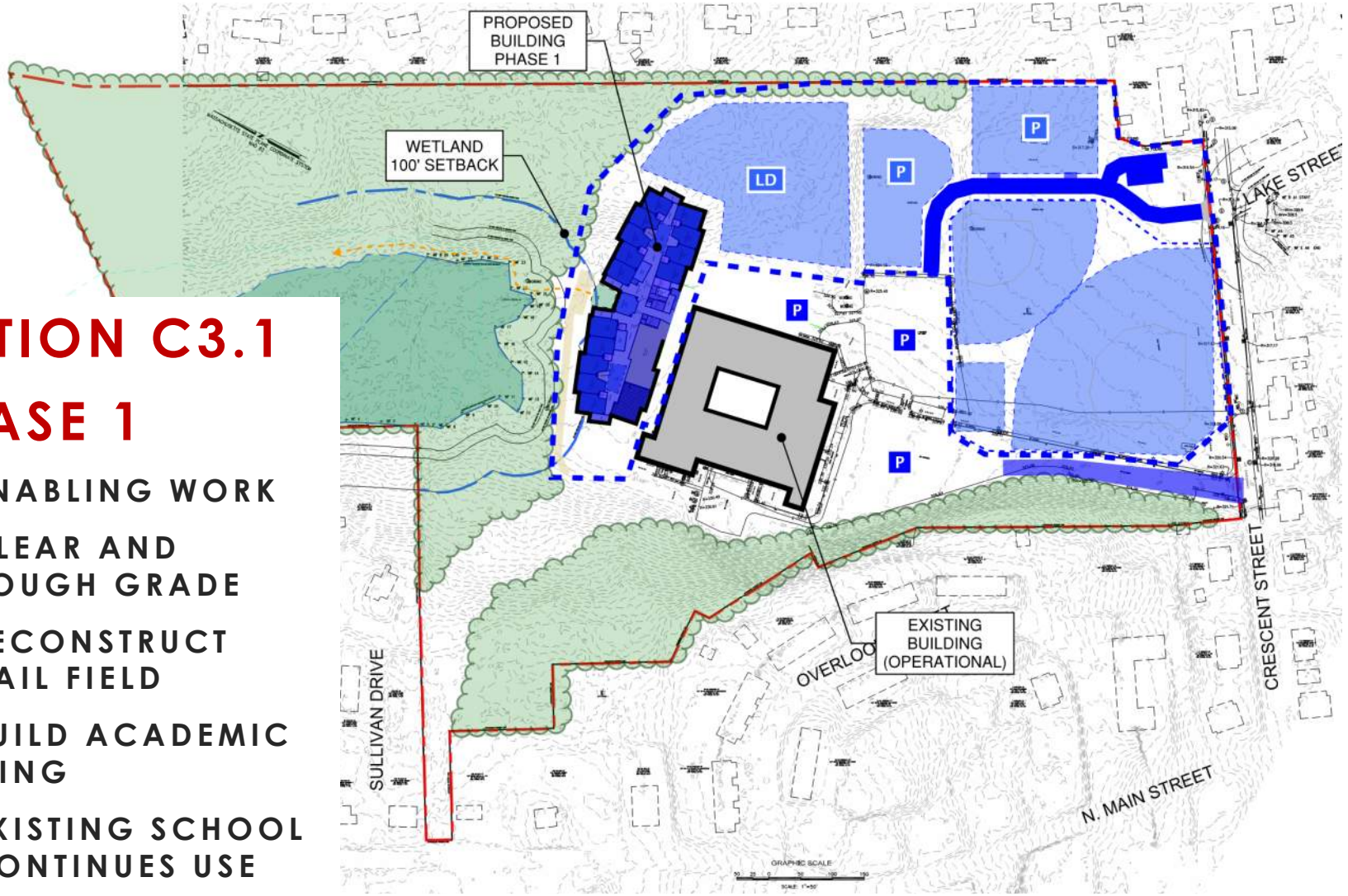
CONS

- Phased takedown project increases duration
- New construction close to existing building
- Circulation only around 4/5 of building
- Upper playground distant from building

OPTION C3.1

PHASE 1

- ENABLING WORK
- CLEAR AND ROUGH GRADE
- RECONSTRUCT VAIL FIELD
- BUILD ACADEMIC WING
- EXISTING SCHOOL CONTINUES USE

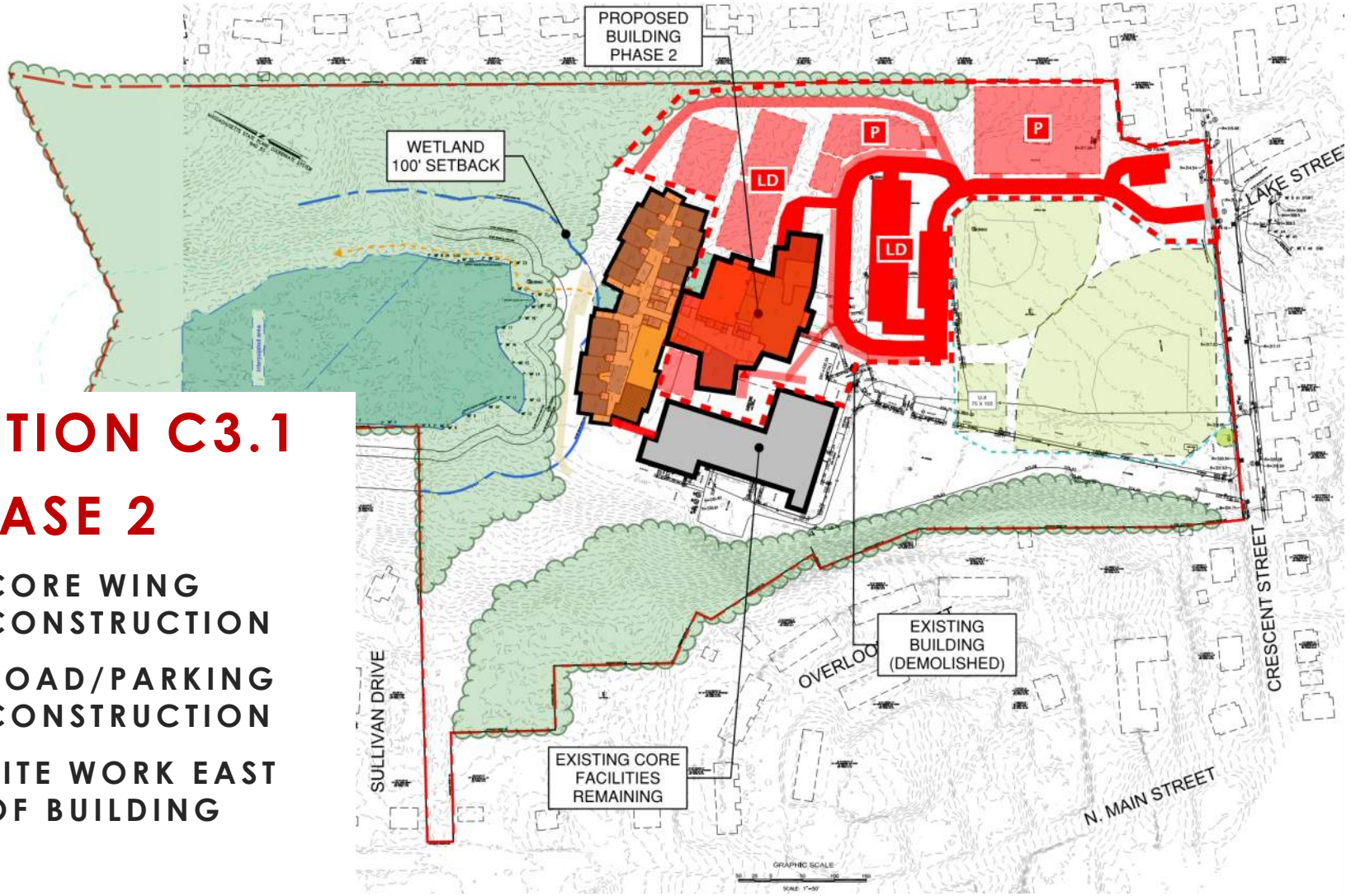


preliminary design

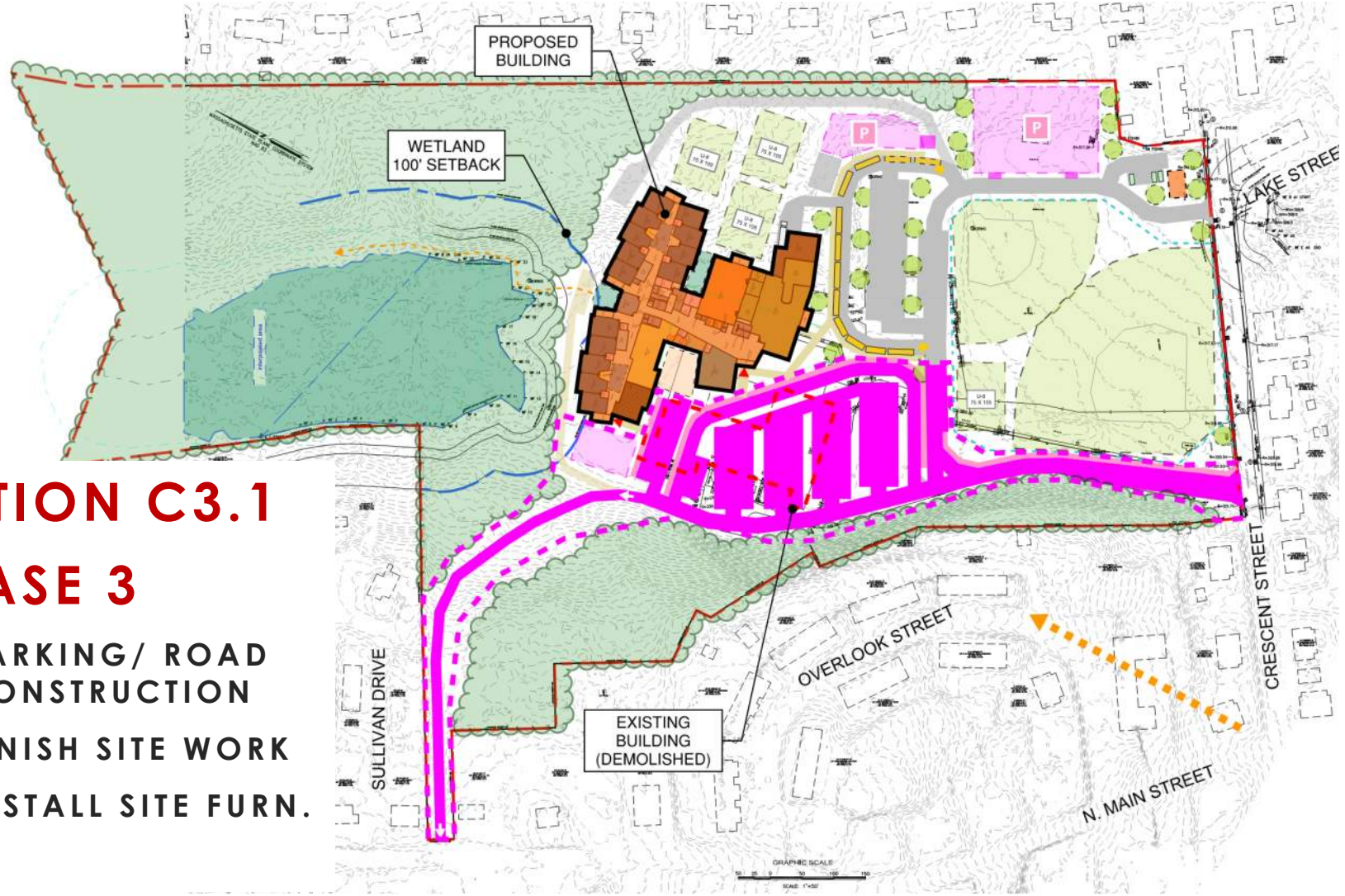
OPTION C3.1

PHASE 2

- CORE WING CONSTRUCTION
- ROAD/PARKING CONSTRUCTION
- SITE WORK EAST OF BUILDING



preliminary design

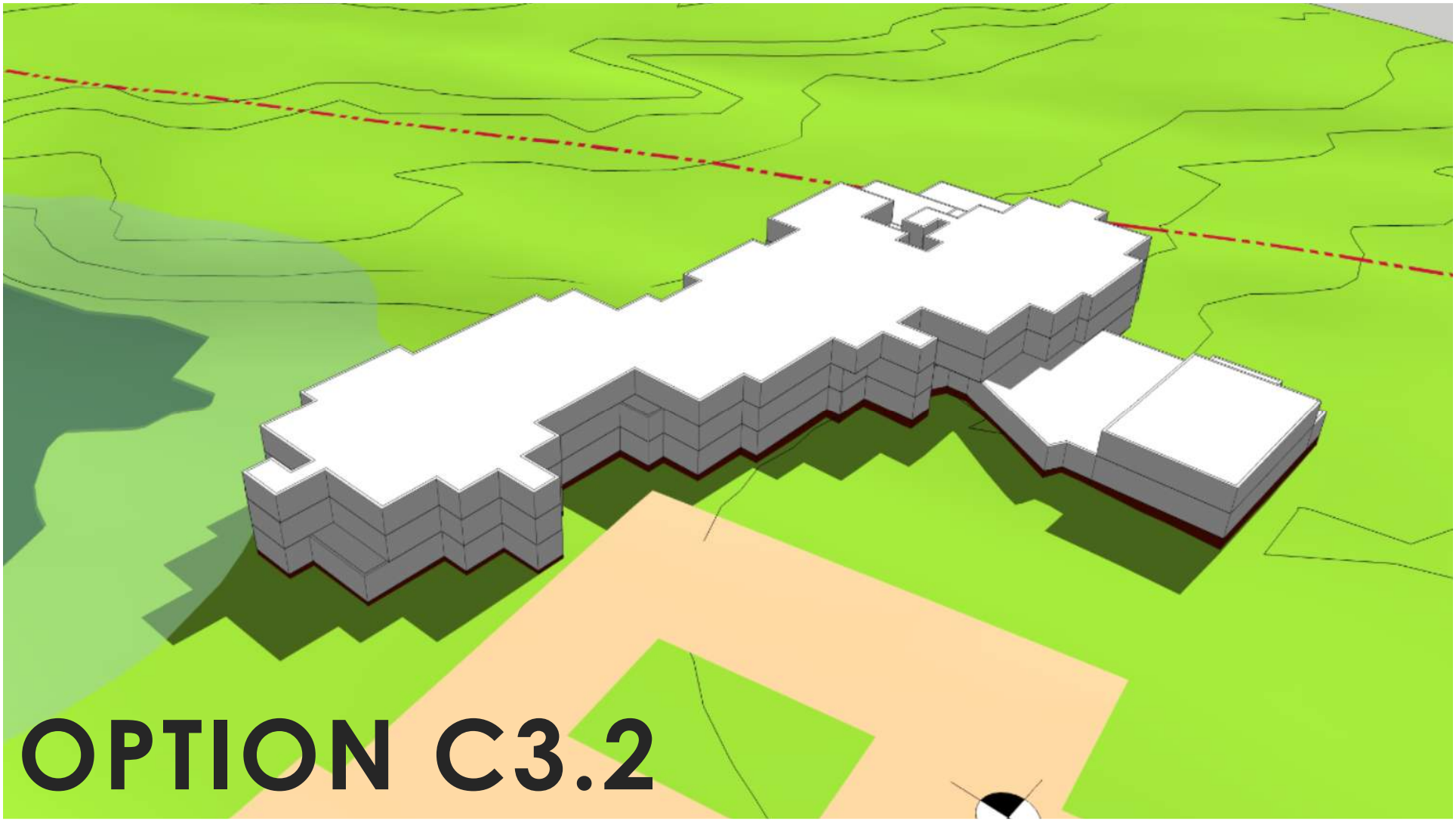


OPTION C3.1

PHASE 3

- PARKING/ ROAD CONSTRUCTION
- FINISH SITE WORK
- INSTALL SITE FURN.

preliminary design

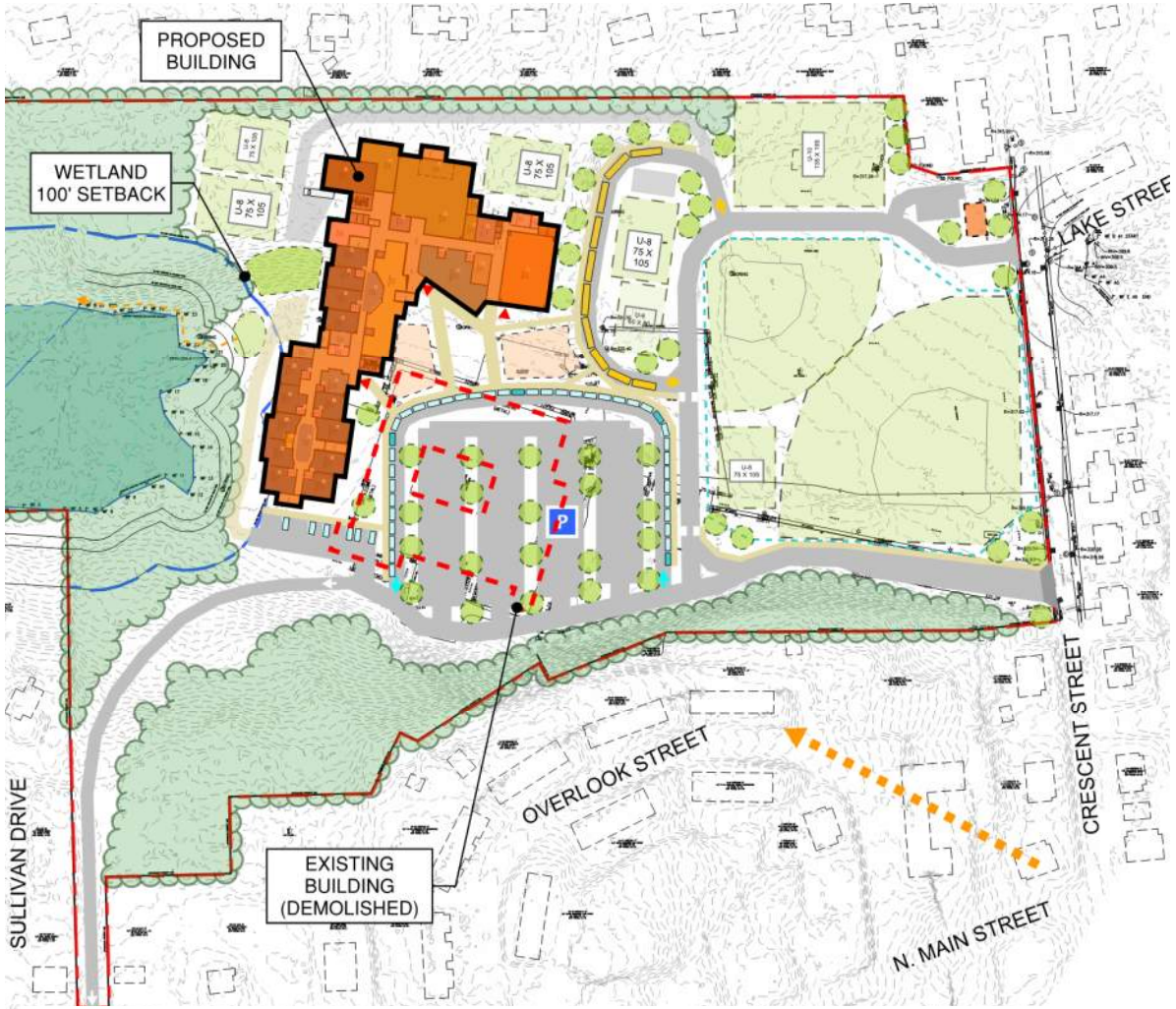

OPTION C3.2

OPTION C3.2

- GRADES PK-5 (1,030)
- NEW BUILD
- 3 STORIES
- REAR OF SITE
- 3 YEAR DURATION

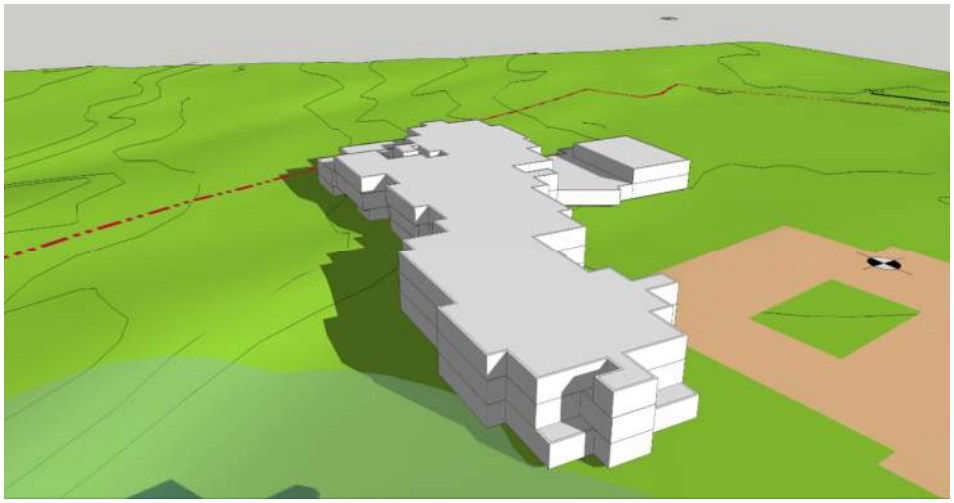
SITE PROGRAM

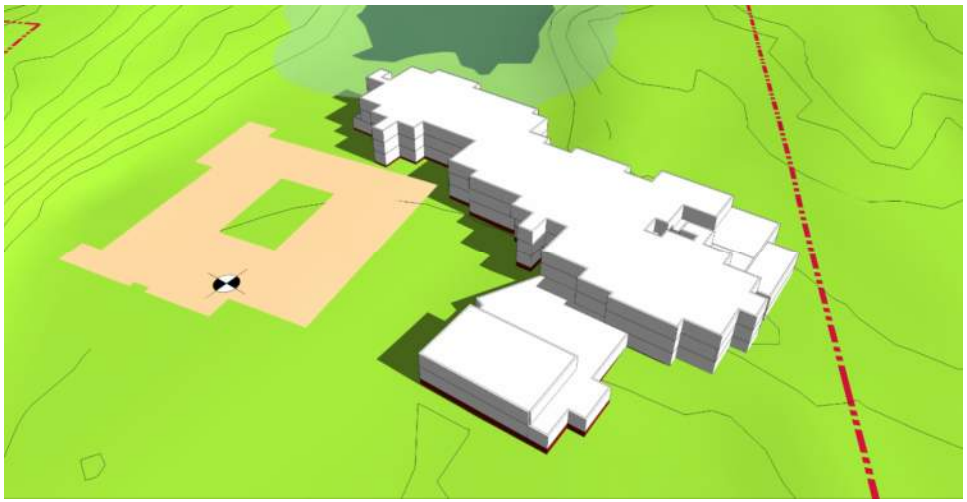
	PROGRAM	DESIGN
PARKING	205	211
BUSSES, 30'	3	3
BUSSES, 40'	7	7
VANS	4	USE BUS LOOP
PK-K PARK/DROP	15	18
CAR QUEUE	50	40
FIELDS & SITE AMENITIES		
BASEBALL	1	1
SOFTBALL	1	1
U-10 SOCCER	1	1
U-8 SOCCER	3	5
U-6 SOCCER	1	1
PK- 2 PLAYGROUND	1	1
3-5 PLAYGROUND	1	1
PAVED PLAY AREA	1	1 + PK-K DROP
OUTDOOR LEARNING	2	3



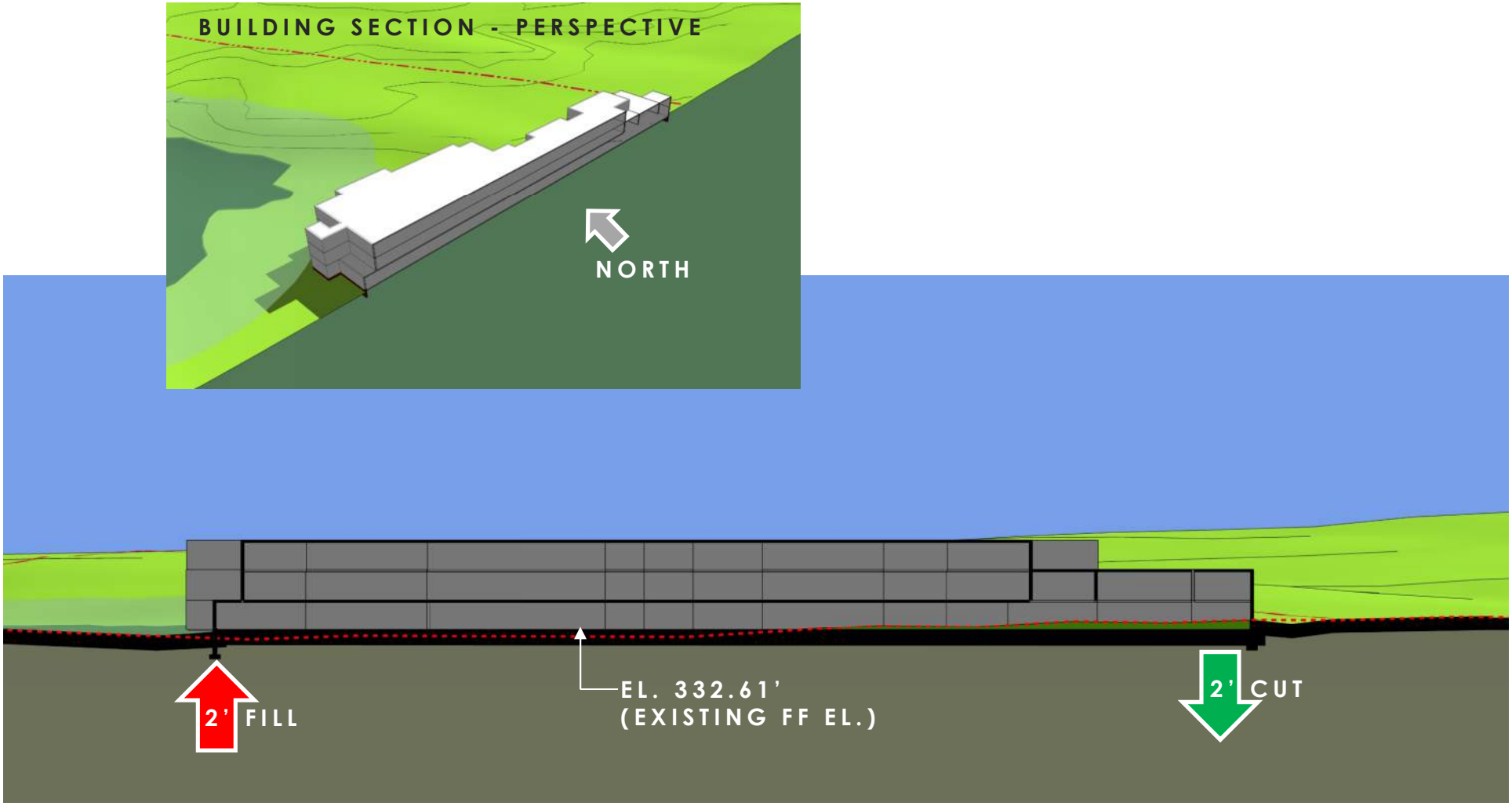
14,200 SF – 100' WETLAND SETBACK ZONE IMPACT – BUILDING/ DRIVE

preliminary design





OPTION C3.2 – MASSING MODEL ON SITE TOPOGRAPHY



OPTION C3.2 – EAST-WEST BUILDING SECTION ON SITE TOPOGRAPHY

3

2

1

OPTION C3.2

- PK-5 (1030)

preliminary design

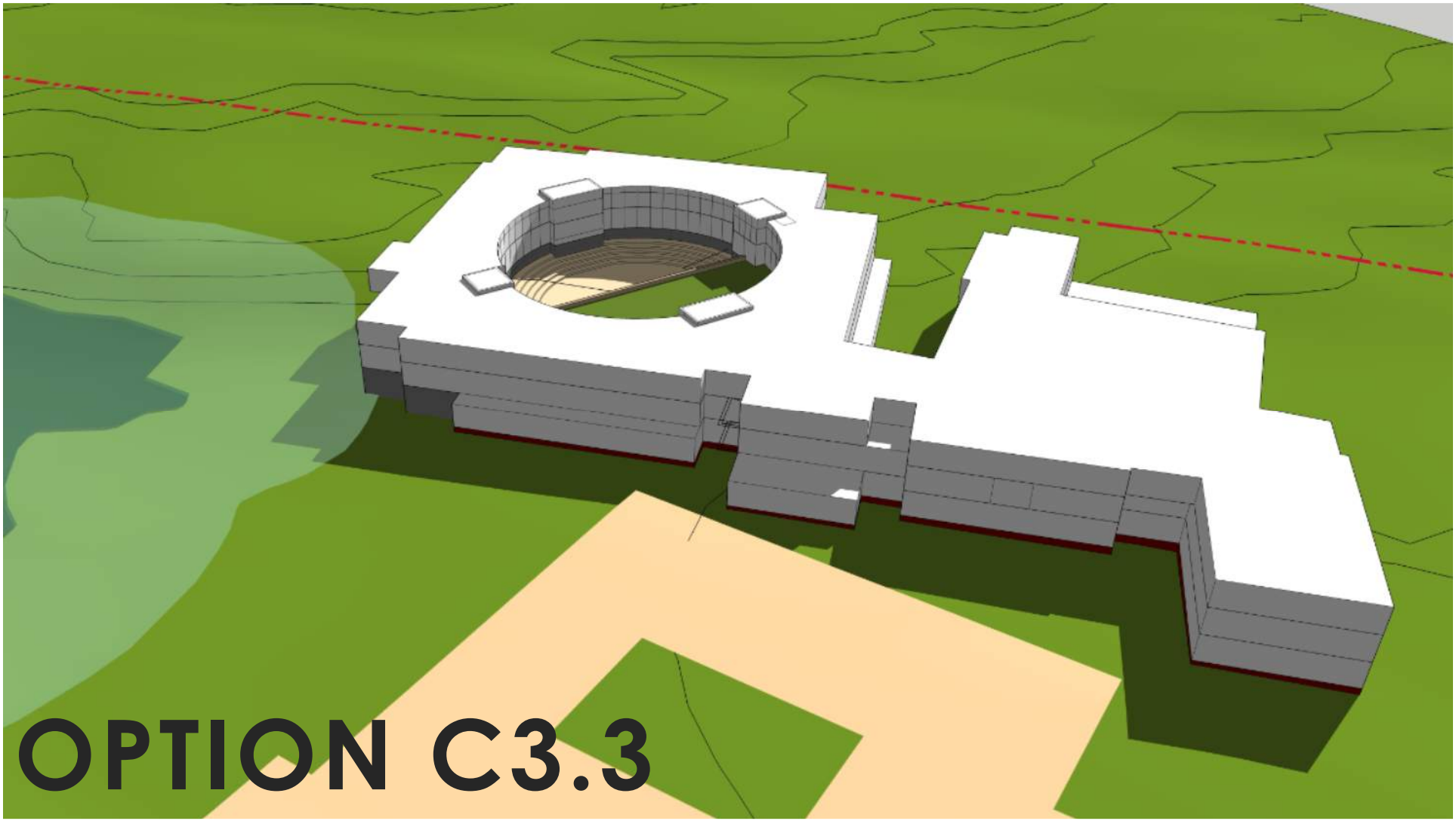
OPTION C3.2

PROS

- Clean replacement project allows Balmer to function
- Good drop-off design for busses and cars
- Optional extra play fields
- Admin has commanding view of site
- Good solar orientation

CONS

- Circulation only around 4/5 of building
- Upper playground distant from building
- Length of building might be imposing


OPTION C3.3

OPTION C3.3

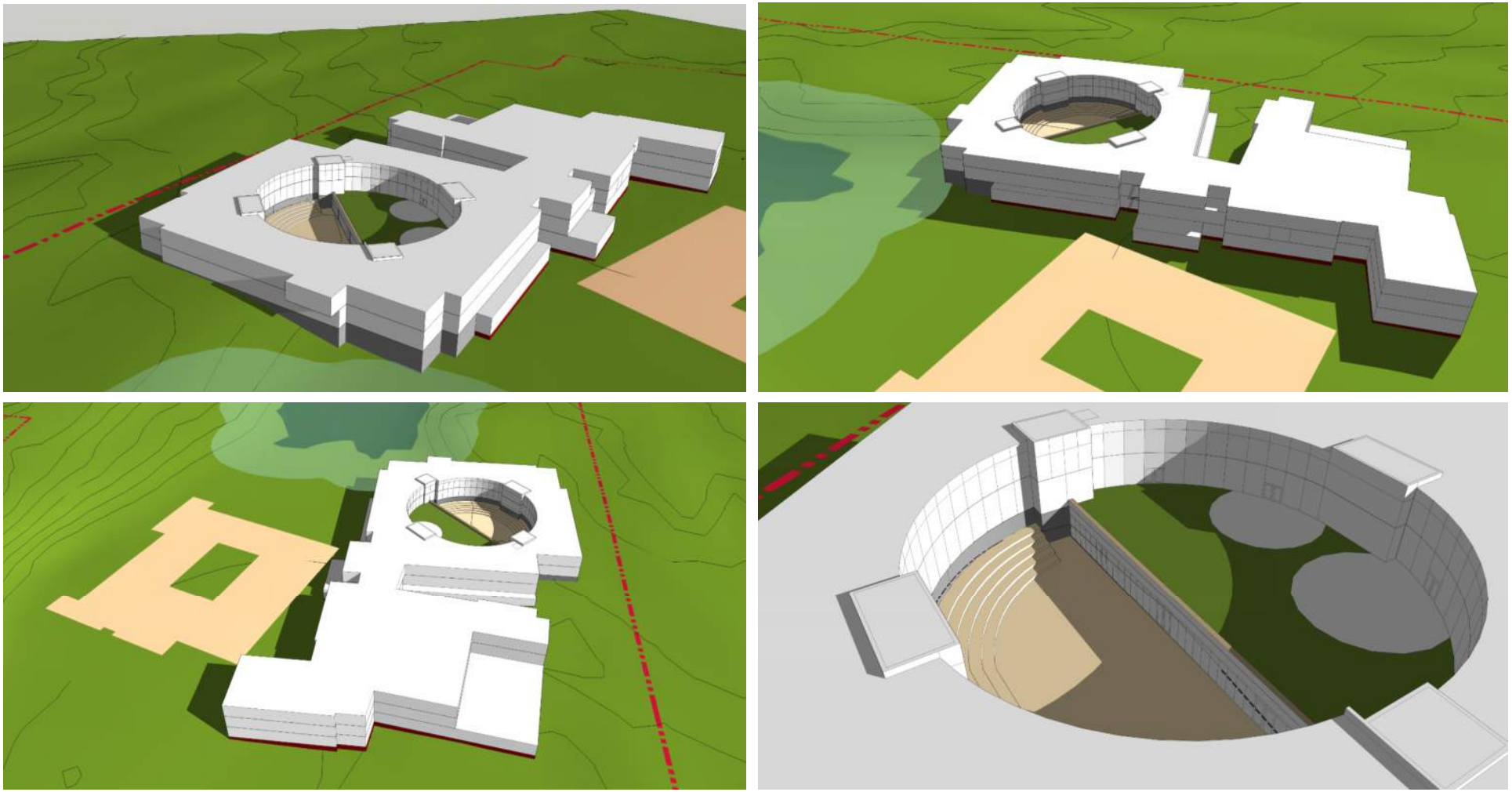
- GRADES PK-5 (1,030)
- NEW BUILD
- 3 STORIES, STEPPED
- REAR/EAST EDGE OF SITE
- 3 YEAR DURATION

SITE PROGRAM

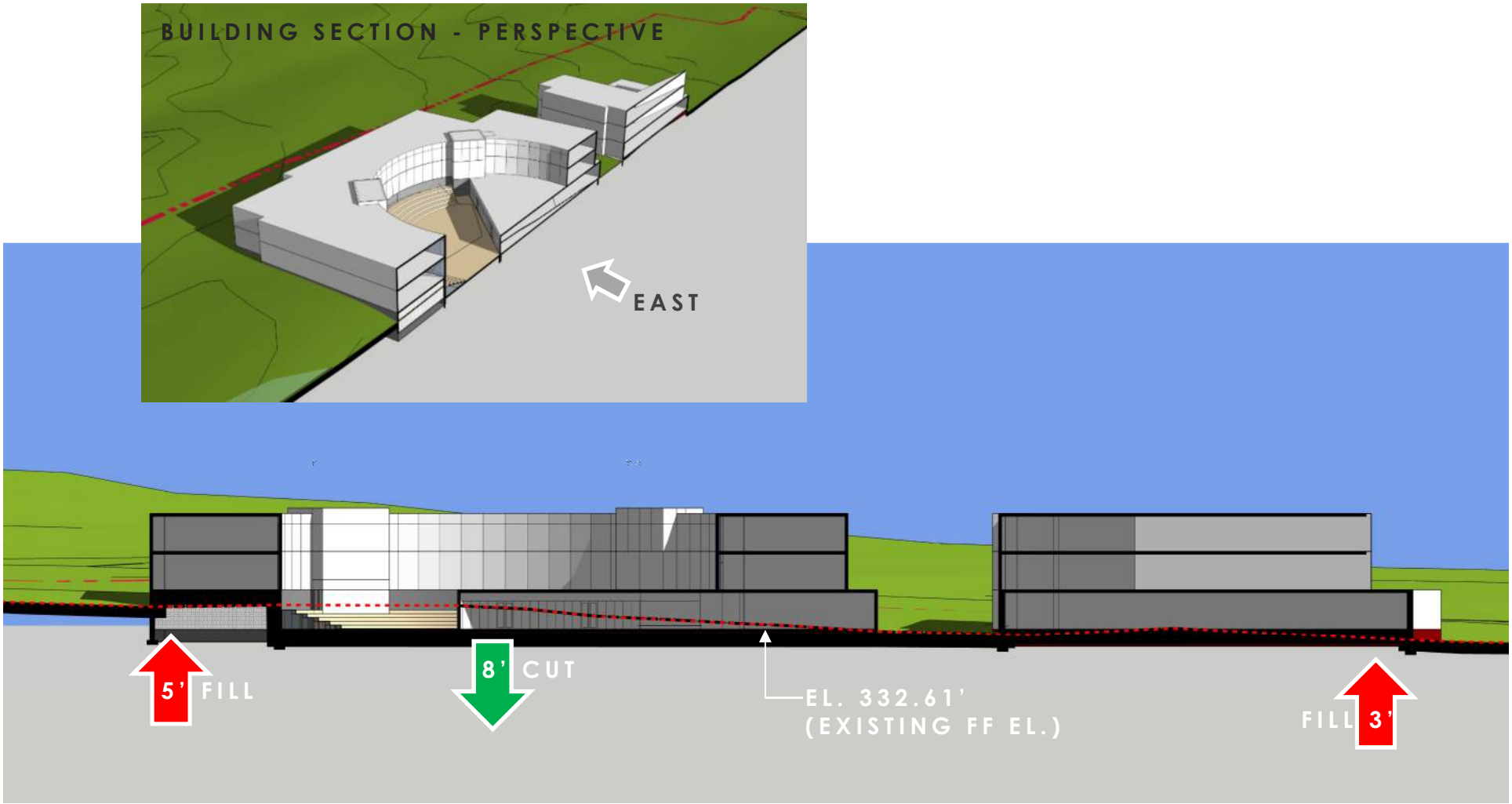
	PROGRAM	DESIGN
PARKING	205	212
BUSSES, 30'	3	3
BUSSES, 40'	7	7
VANS	4	USE BUS LOOP
PK-K PARK/DROP	15	20
CAR QUEUE	50	38
FIELDS & SITE AMENITIES		
BASEBALL	1	1
SOFTBALL	1	1
U-10 SOCCER	1	1
U-8 SOCCER	3	3
U-6 SOCCER	1	1
PK- 2 PLAYGROUND	1	1
3-5 PLAYGROUND	1	1
PAVED PLAY AREA	1	USE PK-K DROP
OUTDOOR LEARNING	2	3

12,500 SF – 100’ WETLAND SETBACK ZONE IMPACT – FIELDS ONLY

preliminary design



OPTION C3.3 – MASSING MODEL ON SITE TOPOGRAPHY



OPTION C3.3 – NORTH-SOUTH BUILDING SECTION ON SITE TOPOGRAPHY

3

2

1

OPTION C3.3

- PK-5 (1,030)

preliminary design

OPTION C3.3

PROS

- Clean replacement project allows Balmer to function
- Built into hillside to save earthwork
- Good drop-off design for busses and cars
- Media center central, 2nd floor
- Dynamic, central outdoor learning space
- Arts plaza
- Extended learning spaces touch nearly all classrooms

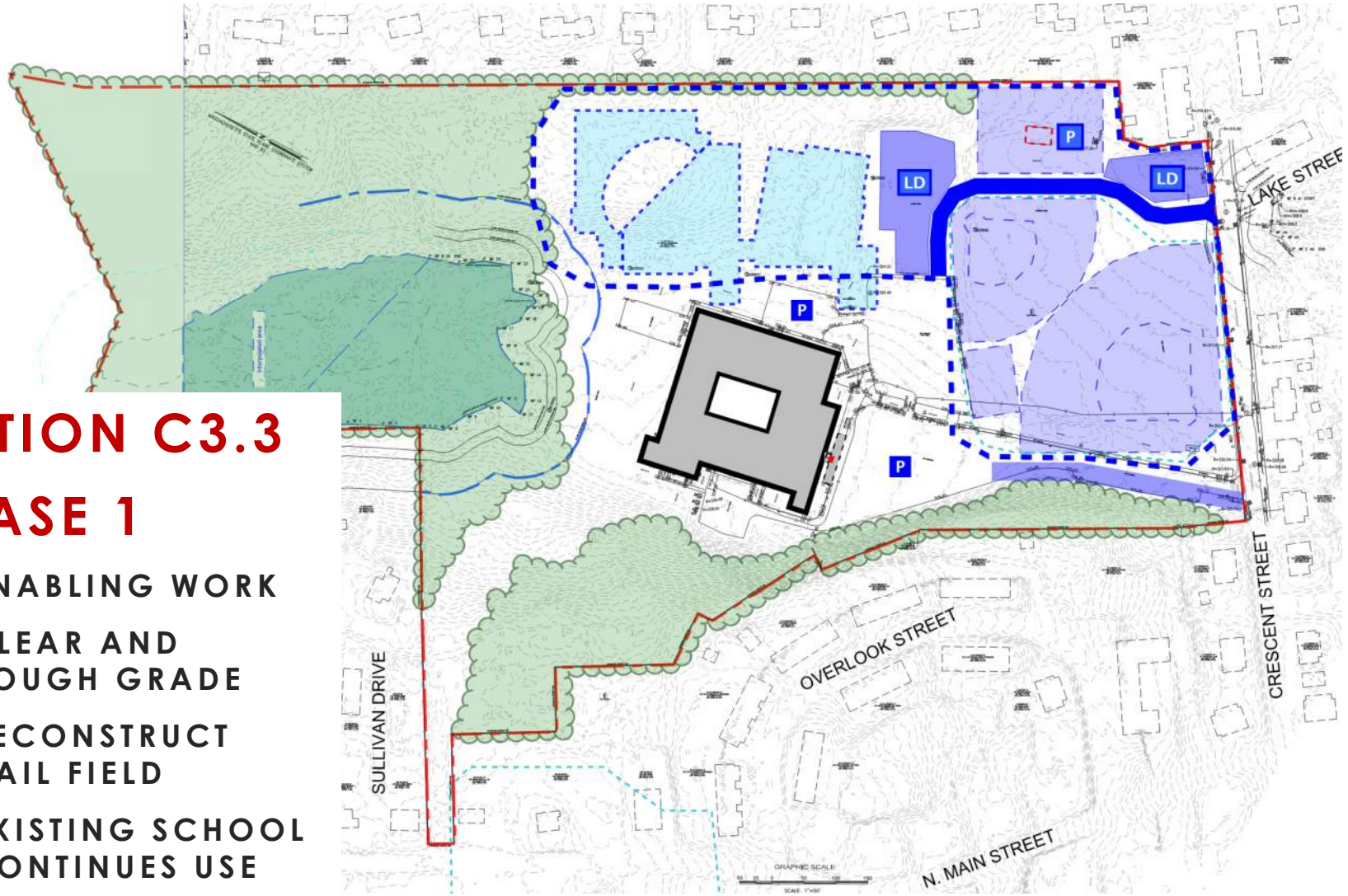
CONS

- Circulation only around 4/5 of building
- Admin has view of parking and car drop, but not rest of site

OPTION C3.3

PHASE 1

- ENABLING WORK
- CLEAR AND ROUGH GRADE
- RECONSTRUCT VAIL FIELD
- EXISTING SCHOOL CONTINUES USE

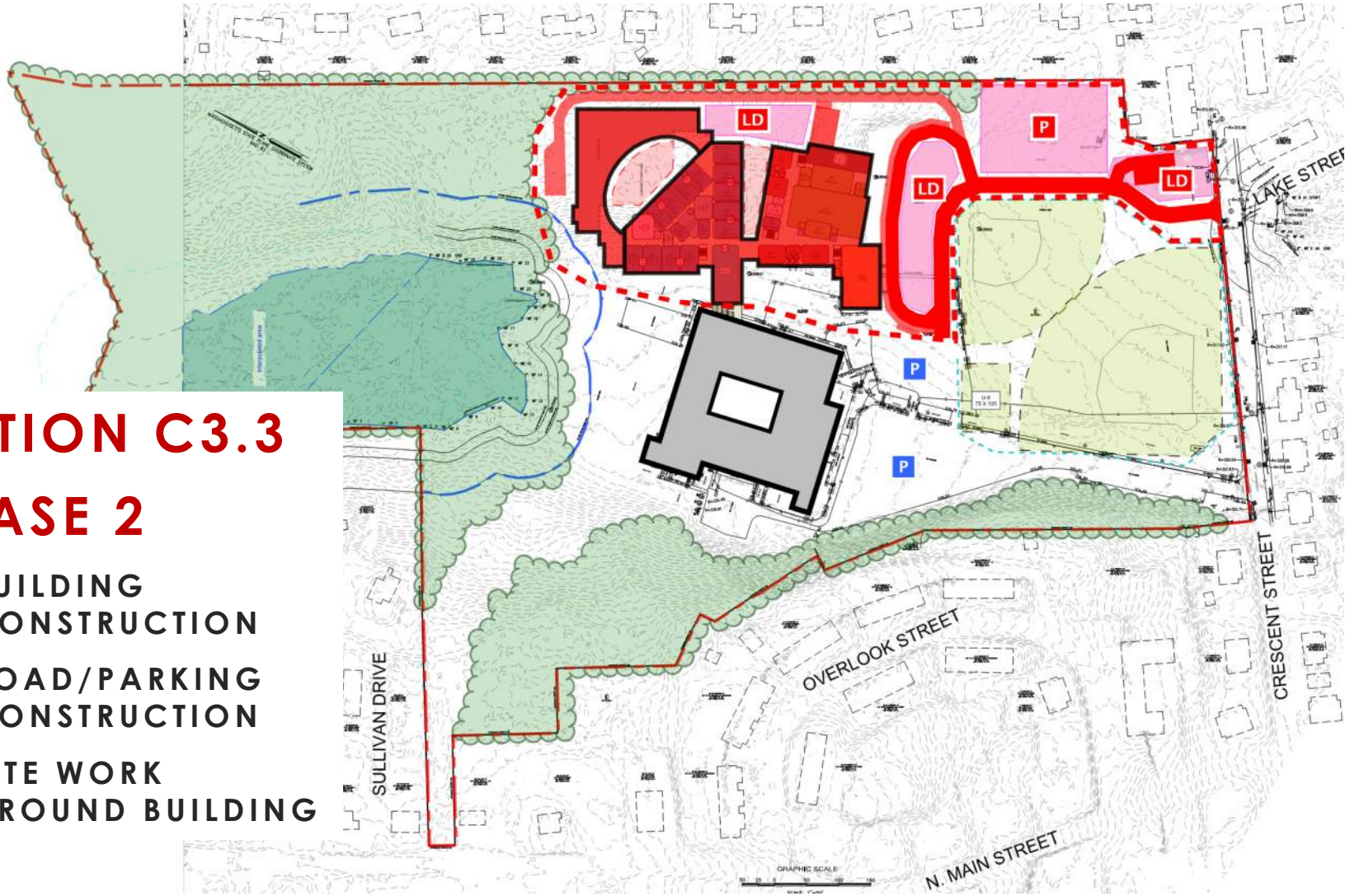


preliminary design

OPTION C3.3

PHASE 2

- BUILDING CONSTRUCTION
- ROAD/PARKING CONSTRUCTION
- SITE WORK AROUND BUILDING

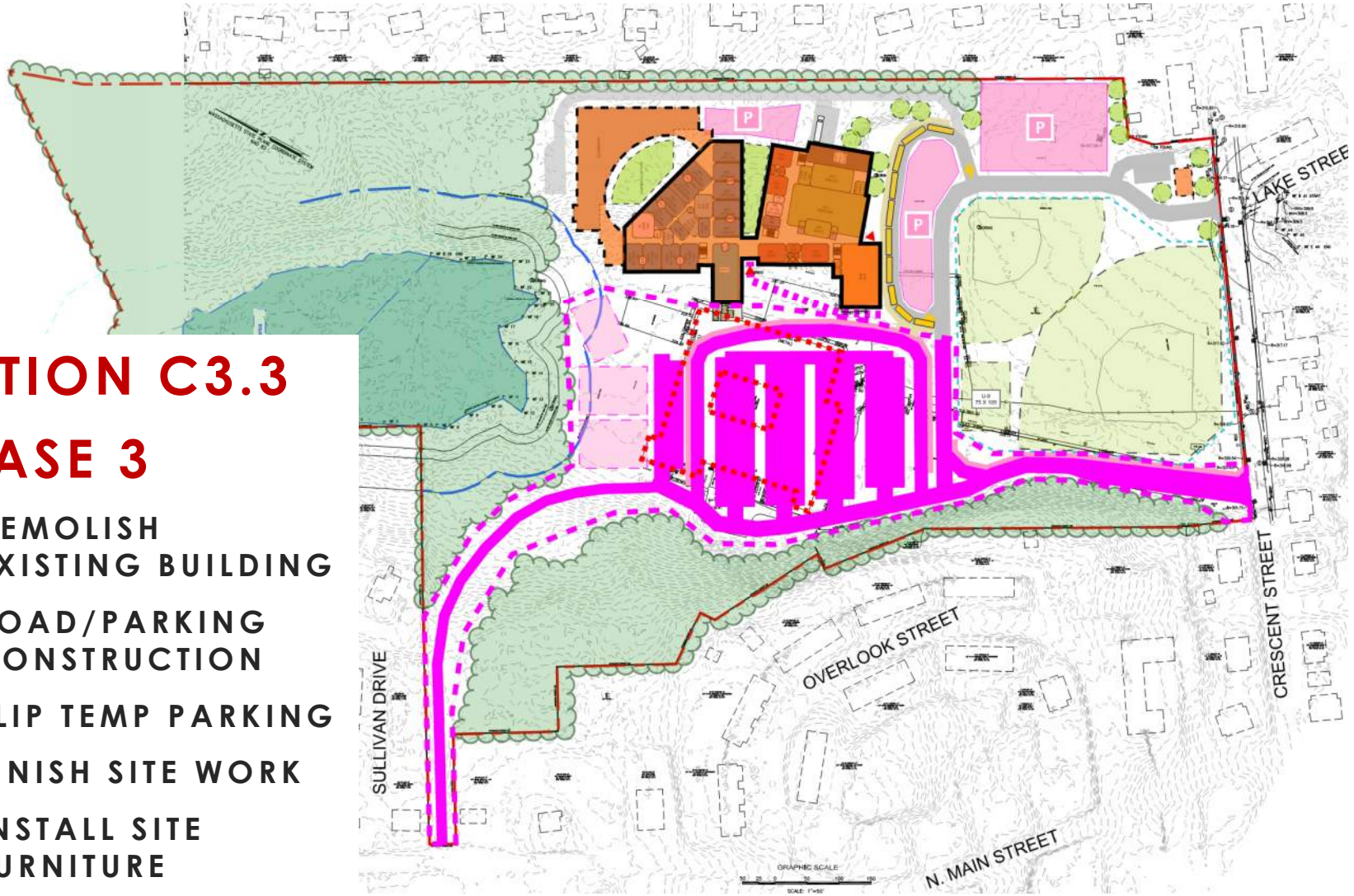


preliminary design

OPTION C3.3

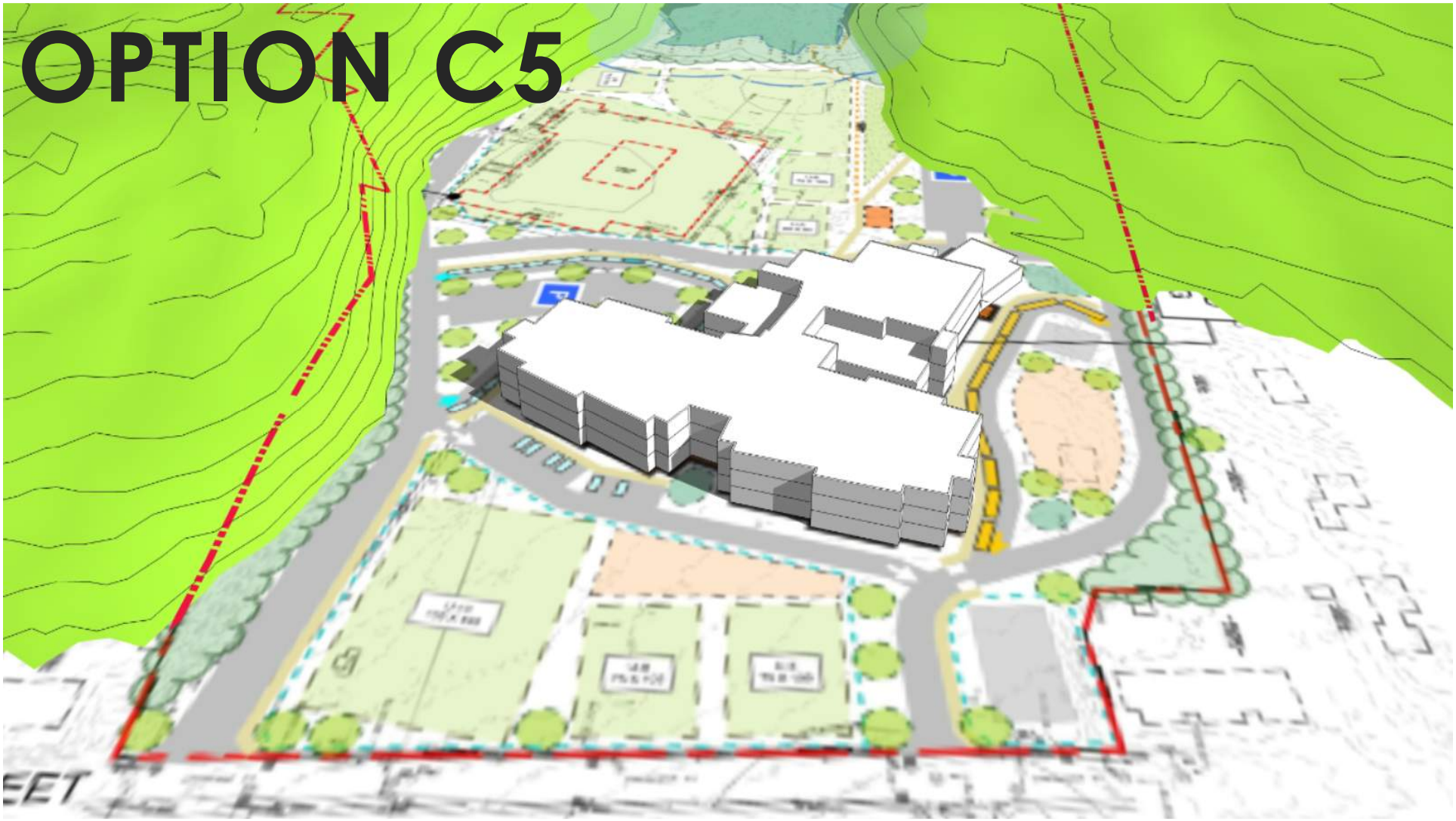
PHASE 3

- DEMOLISH EXISTING BUILDING
- ROAD/PARKING CONSTRUCTION
- FLIP TEMP PARKING
- FINISH SITE WORK
- INSTALL SITE FURNITURE



preliminary design

OPTION C5



OPTION C5

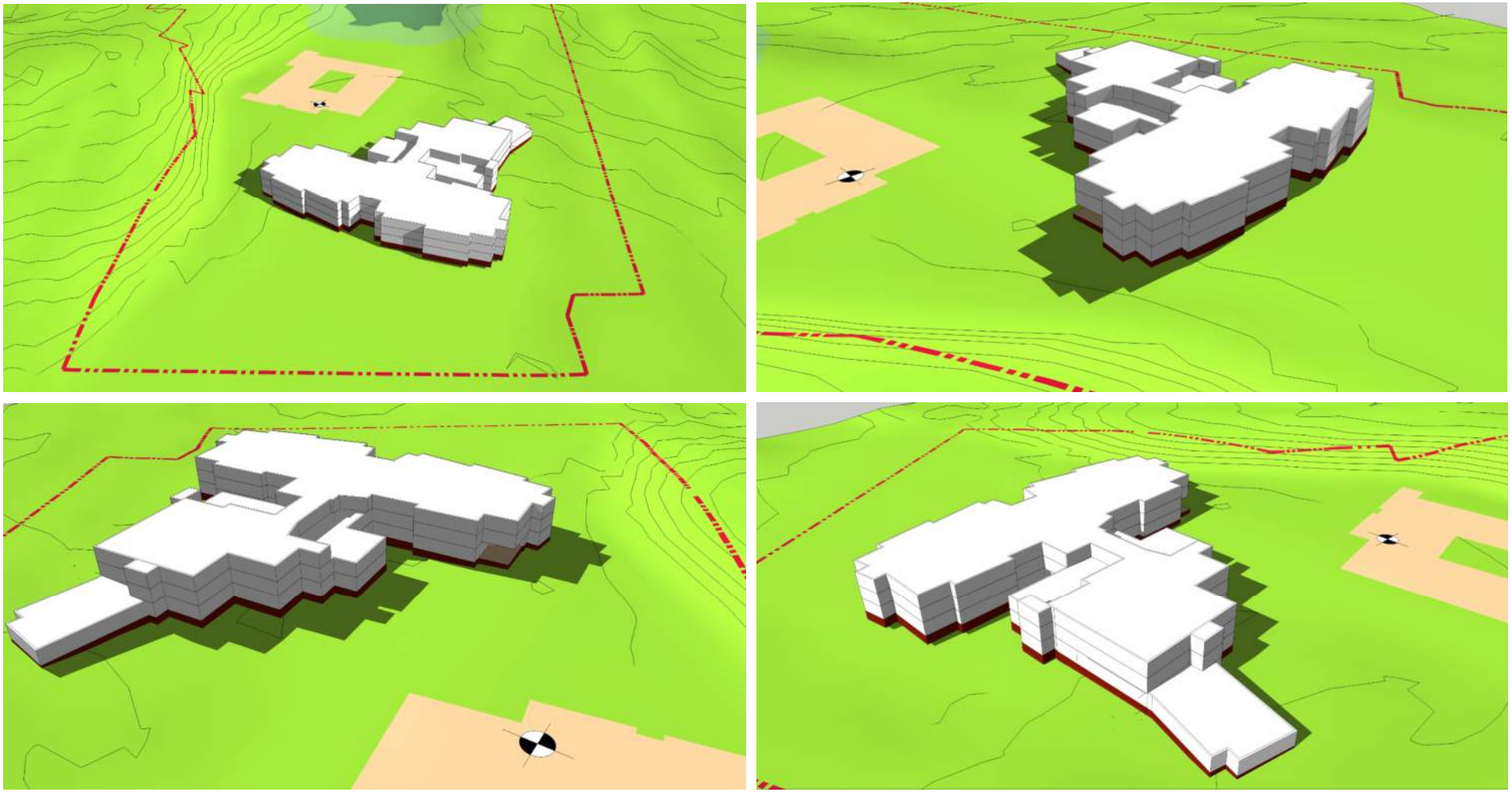
- GRADES PK-5 (1,030)
- NEW BUILD
- 3 STORIES
- FRONT OF SITE
- 3 YEAR DURATION

SITE PROGRAM

	PROGRAM	DESIGN
PARKING	205	209
BUSSES, 30'	3	3
BUSSES, 40'	7	7
VANS	4	USE BUS LOOP
PK-K PARK/DROP	15	18
CAR QUEUE	50	33
FIELDS & SITE AMENITIES		
BASEBALL	1	1
SOFTBALL	1	1
U-10 SOCCER	1	1
U-8 SOCCER	3	4
U-6 SOCCER	1	1
PK- 2 PLAYGROUND	1	1
3-5 PLAYGROUND	1	1
PAVED PLAY AREA	1	2 + PK-K DROP
OUTDOOR LEARNING	2	4

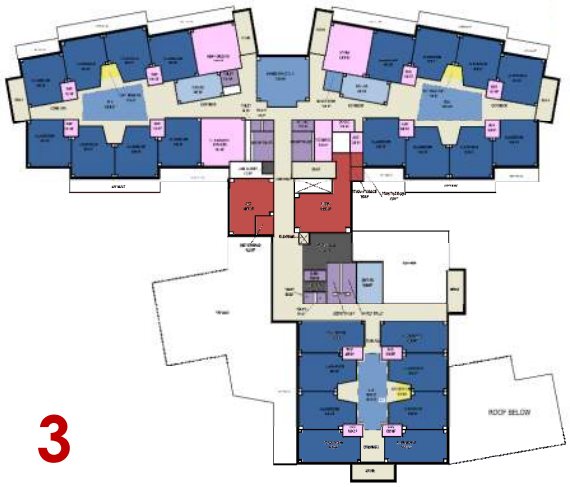
11,100 SF – 100' WETLAND SETBACK ZONE IMPACT – FIELDS ONLY

preliminary design



OPTION C3.3 – MASSING MODEL ON SITE TOPOGRAPHY

PLANS MIRRORED



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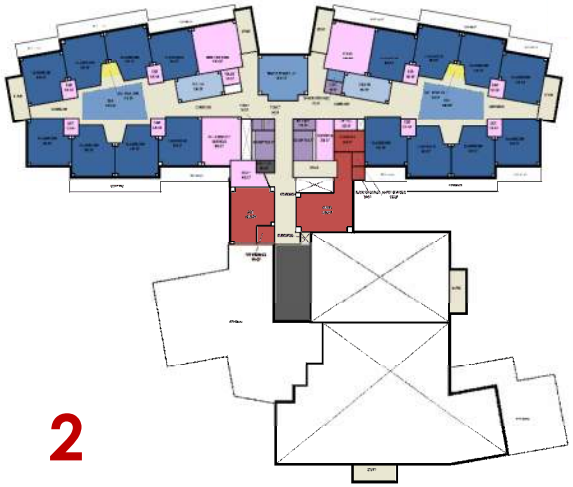


2

1

OPTION C5

- PK-5 (1030)

preliminary design

OPTION C5

PROS

- Clean replacement project allows Balmer to function
- Least amount of earthwork
- Best solar orientation

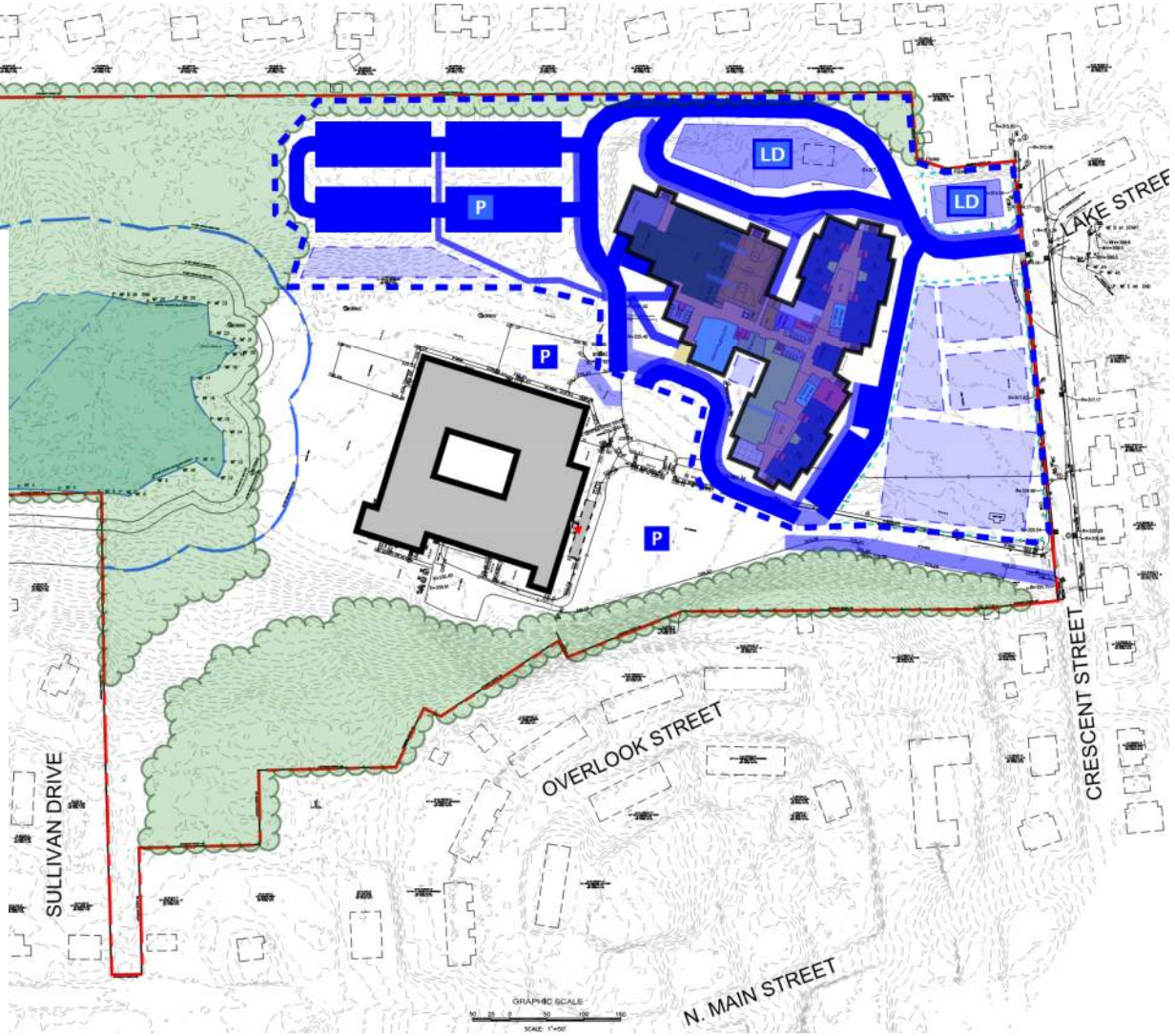
CONS

- Circulation only around 4/5 of building
- Drop-offs tight for busses and cars
- Building entrance “around back”
- Scale of building on Crescent Street

OPTION C5

PHASE 1

- ENABLING WORK
- CLEAR AND ROUGH GRADE
- BUILDING CONSTRUCTION
- ROAD/PARKING CONSTRUCTION
- SITE WORK AND FIELDS
- EXISTING SCHOOL CONTINUES USE



preliminary design

OPTION C5

PHASE 2

- ROAD/PARKING CONSTRUCTION
- NEW VAIL FIELD CONSTRUCTION
- SITE WORK
- INSTALL SITE FURNITURE

preliminary design


QUESTIONS?
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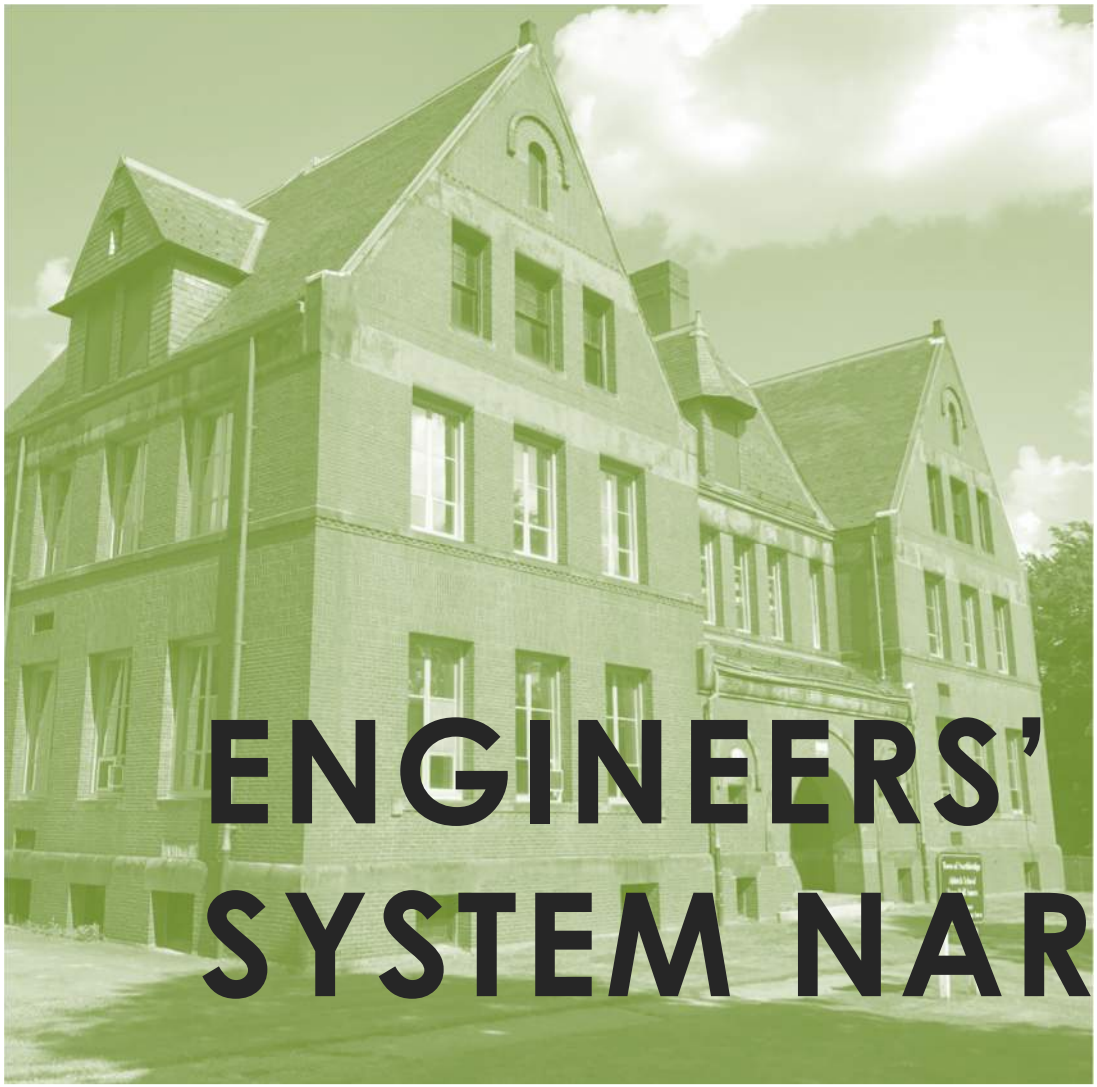

ENGINEERS' BUILDING SYSTEM NARRATIVES

PROPOSED STRUCTURAL SYSTEMS - NEW

- Substructure
  - Reinforced cast-in-place concrete foundation walls and concrete slab-on-grade
- Superstructure
  - Light-weight concrete composite metal deck slab spanning between steel girders and columns
  - Galvanized, corrugated metal deck roof; acoustic deck at Gym, Media Center and Cafeteria
- Vertical Framing
  - Lateral load resisting system - concentric braced frames of structural steel members or reinforced masonry sheer walls (Gym)

PROPOSED STRUCTURAL SYSTEMS –RENO

- Phased gut renovation
  - Additional reinforced masonry shear walls
  - Reinforcement of existing roof framing to support new mechanical systems
  - Existing masonry walls – clipped to existing structure

PROPOSED MECHANICAL SYSTEMS

- Code- and LEED for Schools v4- Compliant
- High-efficiency dual-fuel oil/natural gas fired boiler plant
- Dehumidification Displacement Ventilation in Classrooms, Gym, Lobby, Cafetorium, Corridors
- VAV terminal boxes per each zone
- Hydronic supplemental space heating via ceiling radiant panels
- Full A/C in Admin, Nurse, Media Center, Electric and IT rooms
- Optional A/C in cafetorium?
- Kitchen and Custodial areas served by H&V units

PROPOSED ELECTRICAL SYSTEMS

- National Grid will supply power to transformer
- Typical lighting fixtures – pendant mounted LED indirect luminaries with dimmable or dual-level switching
- Occupancy and daylight dimming sensors
- Gymnasium – direct fixtures
- Cafeteria/Media Center – combo of pendant direct/indirect fixtures and linear recessed fixtures
- Direct Digital Control (DDC) System
- “Solar-Ready” Roof – planned and equipped for PV system

PROPOSED ELECTRICAL SYSTEMS

- Emergency Power System - Generator
- Fire Alarm system – smoke detectors, sprinkler system
- Lightning protection system
- Uninterruptable Power System (UPS)
- Distributed antenna system (DAS)
- In-building 2-way radio system communication

PROPOSED PLUMBING SYSTEMS

- New gas service
- New sanitary and storm system service
- New 4” domestic water service
- New high-efficiency gas-fired domestic hot water plant with recirculation system
- New water closets, lavatories, urinals, water coolers, floor sinks and drains; handicap accessible fixtures
- New roof drains and overflow drains

PROPOSED FIRE PROTECTION SYSTEM

- New 6” sprinkler service
- Wet sprinkler system to serve entire building-zoned by floor
- Standpipes with FD valves at each floor stairwell
- Ansul system at kitchen hoods

PROPOSED COMMUNICATIONS AND SECURITY SYSTEMS

- Voice and data - 100% wireless coverage
- LCD flat panel display or short-throw interactive projector in classrooms, media center, and conference rooms
- Telephone system with Voice over IP (VOIP)
- Public address and clock system
- Video/audio door intercom at main entry doors
- Integrated security system- intrusion detection, video surveillance, access control
- Digital Signage
- Sound system and projector in Gym and Cafeteria
- Speech reinforcement system at instructional spaces


QUESTIONS?
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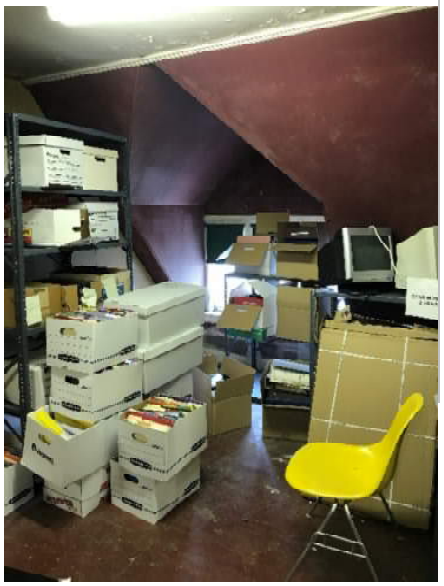
NORTHBRIDGE MIDDLE SCHOOL SPACE ANALYSIS UPDATE

DISTRICT ADMINISTRATION SPACE ANALYSIS

ASSESSMENT AND PROGRAM HIGHLIGHTS

- Stately Residential Building, but ill-equipped for office use
- Serious Issues: Client Privacy, Handicapped Accessibility, meeting space, file space, safe storage space for vital records, indoor environment (hot/cold), no sprinkler, possible structural concerns…



RESULTS:

- Existing space, totals — 4,718 Net SF
- Recommended proposed space, totals — 5,485 Net SF
- Proposed total required space — 8,228 Gross SF

space planning

MIDDLE SCHOOL CAPACITY ANALYSIS

EXISTING SPACE UTILIZATION:

Existing Overall Building area:	**176,340 GSF**
District Maintenance/Storage @1.56 GF	**- 15,366 GSF**
Effective Middle School use:	**160,974 GSF**
Existing MS Educational Program area:	**103,427 NSF**

1.56 Grossing Factor (ratio of gross to net SF) – indicates an older, less-space-efficient building.

MSBA benchmark is (1.5) .

MIDDLE SCHOOL CAPACITY ANALYSIS

RECONFIGURATION - CASE 1:

Keep existing District Maintenance/Storage	
Existing Effective MS Area:	103,427 NSF
← 5th Grade moves to Balmer	- 10,368 NSF
→ District Admin Offices move to MS	+ 5,485 NSF
Delta (Additional Capacity)	*4,883 NSF*

CONCLUSION: THIS SCENARIO WOULD WORK

space planning

MIDDLE SCHOOL CAPACITY ANALYSIS

RECONFIGURATION - CASE 2:

Keep existing District Maintenance/Storage	
Existing Effective MS Area:	103,427 NSF
Move classes out of 1905 Wing, take out of service	- 15,926 NSF
Existing MS Area without 1905 wing:	87,501 NSF
← 5th Grade moves to Balmer	- 10,368 NSF
→ District Admin Offices move to MS	+ 5,485 NSF
Remaining Middle School Area	82,618 NSF
Grade 6-8 Program Area	***93,059 NSF***

CONCLUSION: THIS SCENARIO WOULD NOT WORK

space planning

MIDDLE SCHOOL CAPACITY ANALYSIS

RECONFIGURATION - CASE 3:

Remove existing District Maintenance/Storage	+ 9,850 NSF
Existing Effective MS Area including reclaimed Maint. areas:	113,277 NSF
Move classes out of 1905 Wing, take out of service	- 15,926 NSF
Existing MS Area without 1905 wing:	97,351 NSF
← 5th Grade moves to Balmer	- 10,368 NSF
→ District Admin Offices move to MS	+ 5,485 NSF
Remaining Middle School Area	92,468 NSF
Grade 6-8 Program Area	*93,059 NSF*

CONCLUSION: THIS SCENARIO *COULD* WORK

space planning

MIDDLE SCHOOL CAPACITY ANALYSIS

CONCLUSIONS:

- Moving 5th grade to Balmer will better align this age group with their peers educationally.
- Moving 5th grade out of the MS will create other realigning opportunities to right-size and match classes and spaces.
- This space analysis is high-level, based on gross and net area (SF) and does not address detail-level program and space realities in the building.
- The District should evaluate the pros and cons of Case 3 if closing the 1905 wing is a high priority.

REVIEW OF CONSTRUCTION DELIVERY METHOD

CONTRACTING STRUCTURE

CHAPTER 149 - GENERAL CONTRACTOR, DESIGN-BID-BUILD	CHAPTER 149A - CONSTRUCTION MANAGER AT RISK (CMR)
Single-phase fixed price contract	Two-phase "cost plus" contracting method
Owner procures OPM, Designer	Owner procures OPM, Designer
After design completed, Bids solicited from qualified GCs	Before design prepared, Owner retains CMR through qualifications-based selection process
Bid solicitation requires single Lump Sum Bid Price to complete all the work	CMR provides constructability/budget review during design, then constructs the project
Owner must award contract to the Lowest Responsible Eligible Bidder	CMR contract price = Cost of the Work + General Conditions + Negotiated CM Fee
	CMR and Owner agree on Guaranteed Maximum Price (GMP) when design is at least 60% complete. CMR paid the lesser of the Contract Price or the GMP (i.e. Savings returned to Owner)

ADVANTAGES

CHAPTER 149 - GENERAL CONTRACTOR, DESIGN-BID-BUILD	CHAPTER 149A - CONSTRUCTION MANAGER AT RISK (CMR)
Competitive Bidding should produce the best available price	Qualifications-based procurement allows Owner to select CMR most capable of constructing the project
Risk for constructing the project delineated in the documents is entirely on the GC	CMR works with designer to identify design conflicts and omissions prior to construction. Design conflicts/omissions may lead to schedule and cost increases; CMR's involvement reduces this likelihood. CMR helps design project phasing approach.
The Work and schedule to complete it are narrowly defined; simplified project should yield simplified management	CMR process is flexible and provides Owner the ability to pursue alternate methods such as fast track/ early design packages, before design entirely completed
	+2% MSBA reimbursement incentive available

DISADVANTAGES

CHAPTER 149 - GENERAL CONTRACTOR, DESIGN-BID-BUILD	CHAPTER 149A - CONSTRUCTION MANAGER (CM)-AT-RISK
GC not available to help identify design conflicts and omissions prior to construction. Design conflicts/omissions may lead to schedule and cost increases.	CMR is reimbursed for cost of the work and paid a fee as compensation, placing risk for the cost of completing the work up to the GMP on the Owner
Designer must develop project phasing approach in isolation.	Filed Sub Bid process delay transfers most of the risk for the cost of completing the work to the Owner, and may reduce cost savings available through competition
"Lowest Responsible Eligible Bidder" may not be the best, most qualified choice to construct the project	Before design prepared, Owner retains CMR through qualifications-based selection process
Linear D-B-B process restricts Owner's ability to pursue alternate methods such as fast track/ early design packages	
No MSBA reimbursement incentive available	

CONCLUSIONS

CHAPTER 149 - GENERAL CONTRACTOR, DESIGN-BID-BUILD	CHAPTER 149A - CONSTRUCTION MANAGER (CM)-AT-RISK
Best suited for less complicated or less complex projects with straightforward designs	Best suited for more complicated/ complex projects designs, with factors such as phased construction, complex schedule or management challenges, or strict schedule limitations.


QUESTIONS?
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NEXT STEPS

- Continue to refine building plan diagrams with Working Group, using the Education Plan and Space Summary Program.
- November , 2017 – Survey #2 issued
- December 6, 2017 – Community Forum #5 at NES Cafeteria
- December 19, 2017 – SBC to vote on Preferred Option
- January 3, 2018 – Submit Preferred Schematic Report (PSR) to MSBA
- May 9, 2018 – Submit Schematic Design (SD) documents to MSBA
- June 27, 2018 – MSBA board meeting to approve project to bring to voters
- Fall 2018 – Town Vote

process


THANK YOU
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