#### REQUEST FOR BOARD ACTION

#### HENDERSON COUNTY BOARD OF COMMISSIONERS

**MEETING DATE:** October 21, 2015

**SUBJECT:** Henderson County Public Schools Long Term Capital Request

**PRESENTER:** Chad Roberson, Architect

**ATTACHMENTS:** Yes

#### **SUMMARY OF REQUEST:**

At the Board's October 5, 2015 meeting, Henderson County Board of Education Chairman Ervin Bazzle presented the Board's Long Term Capital Request to the Board of Commissioners. Following that presentation, the Board scheduled Architect Chad Roberson for today's meeting, to present a detailed analysis and justification for the request to the Board.

#### **BOARD ACTION REQUESTED:**

The Board is requested to hear the presentation, and direct staff accordingly.

**Suggested Motion(s):** 

No motion suggested.

## Henderson County Public Schools where tomorrow begins



# HENDERSON COUNTY - North Carolina -



## EARLY COLLEGE HIGH SCHOOL & CAREER ACADEMY

#### **CAREER ACADEMY VISION**

- Hands-on Career and Technical Training
- Study with highly qualified Community College Instructors
- Study in professional Community College labs
- Seamless transition: High school to Post Secondary Training

#### **BUILDING VISION**

- 250 Early College High School Students
- 250 Career Academy Students
- Separate schools sharing common spaces, including Kitchen/Dining, Multipurpose, and Media.
- Early College High School continues successful partnership with BRCC.
- Career Academy Students gain access to the instructors and facilities of the College.







PROPOSED BUILDING LOCATION

Clear and Prepare the Site	1.0	acres	@	\$ 200,000.00		\$	200,000.0
Construct New Buildings	50,000	sf	@	\$ 198.00		\$	9,900,000.
Sitework	1	acres	@	\$ 200,000.00		\$	200,000.
Escalation-Assumed construction complete by 6/2018	25.0	month	@	.37% per month	9.250%	\$	934,250
Sub total						Ś	11,234,250
Overhead and Profit					6.0%	<del> </del>	674,055
Sub total					0.070	\$	11,908,305
Bonds and insurance				1.5%	\$	178,624	
Grand Total Construction costs						\$	12,086,929
			,	*	1	,	
Owner Contingency					8.0%	\$	966,954
Soft Costs(AE fees, CM pre-con fee, survey, permitting, geotech,							
special inspector, material testing agent, Air Monitoring etc.)					12.0%	\$	1,450,431
Commissioning agent					1.0%	\$	120,869
Furniture, fixture, equipment	50,000	sf	@	\$ 10.00		\$	500,000
Technology/ Equipment						\$	600,000
Total Project costs				·			15,725,184

## EDNEYVILLE ELEMENTARY

21<sup>ST</sup> CENTURY

#### **OVERALL GOALS:**

- Minimize length of construction
- Thoughtfully stage the work
- Maintain continuity of programs
- Minimize number of moves
- Work with existing topography
- Integrate vehicular access and parking
- Optimize program adjacencies
- Meet 21st century demands

FACILITIES
PROGRAMMING
OPTIONS
BUDGET SUMMARY

## **FACILITIES**

#### **II. FEASIBILITY ANALYSIS**

#### II-A. FEASIBILITY ANALYSIS - BUILDING

A.	<b>Educational Program Adequacy -</b> Typical size of classrooms and other functional spaces compared to the N.C. Public School Facility Guidelines.					
	0	85% to 100% of current guidelines = 6				
	0	75% to 85% of current guidelines = 3				
	0	Less than 75% of guidelines or classrooms less than 600 sq.ft. = 0	0			
В.	Histori	cal or Architectural Significance				
-	0	Listed on the National Historic Register or of significant regional architectural interest = 2				
	U	Elsted of the National Historic Negister of of significant regional architectural interest – 2				
	0	Strong local historic interest or sentiment or an example of good school design = 1				
	0	No particular historical value or architectural interest = 0	0			
C.	Safety	and Code Compliance				
	0	Generally meets building code requirements (1978 or 1991 code) = <b>4</b>				
	0	Needs some modifications in order to meet current bldg. code requirements = 2	2			
		Treeste <u>Johns</u> Missimoutiene in order to misset sament slag. Journal requirements	_			
	0	Needs <u>substantial</u> modifications to meet current building code requirements = 0				
D.	Relationship to Other Buildings on Site (including proposed additions)					
	0	Single building or buildings connected with enclosed corridors = 2				
	0	Well organized campus plan, buildings connected with covered walks, interior corridors = 1				
	0	Multiple buildings, not connected, some exterior corridors = 0	0			

E.	Handicapped Accessibility						
	0	Generally meets state or ADA handicapped code requirements and is suitable for use by physically					
	_	handicapped persons = 2	$\vdash$				
	0	Needs <u>some</u> modifications to meet handicapped code requirements and to be used satisfactorily by					
	0	physically handicapped persons = 1  Needs <u>substantial</u> modifications to be used satisfactorily by physically handicapped persons (e.g.	0				
	U	elevators, lifts, new toilet rooms, etc.) = 0	0				
		cievators, into, new tollet rooms, etc./ – o					
F.	Physic flooring	cal Condition of Building - (structural, roof, exterior walls, windows, doors, interior partitions, ceilings,					
	0	Very good condition, only minor repairs required = 4					
	0	Moderate repairs required, some replacements (e.g., new windows or roof) =2					
		Thousand repairs required, come replacements (e.g.: new windows of rect)					
	0	Structural problems or extensive repairs required, replacement of several systems required (new ceilings,	0				
		roof, windows, exterior wall repair, moving interior partitions, etc) = 0					
_							
G.		nical and Electrical Systems - (plumbing, heating, air conditioning, electrical service, lighting,					
	telecor	nmunications, fire alarm, computer)					
	0	Good plumbing, central heating and air conditioning; safe, efficient electrical service and lighting; operable					
		fire alarm and telecommunications = 4					
	0	Moderate repairs and some replacements required (example: may need new air conditioning or lighting,	$\vdash$				
	•	but plumbing, heating and main electrical service in good condition) = 2					
		but plainting, fleating and fluin electrode in good condition/					
	0	Extensive repairs and/or replacement of several systems required = 0	0				
H.	Hazard	dous Materials - (asbestos, lead, radon, indoor air quality)					
	0	Asbestos and other hazardous materials either not present or stabilized = 2					
	0	Minor problems with hazardous materials, management program in progress = 1					
	0	Asbestos or other hazardous materials present in building requiring removal = 0	0				
Tota	I score (	A through H) for building	2				

A TOTAL SCORE OF 18 OR MORE INDICATES GOOD FEASIBILITY FOR RENOVATION. A TOTAL SCORE OF 12 OR LESS INDICATES POOR FEASIBILITY FOR RENOVATION. PROCEED WITH SITE ANALYSIS.

#### II. FEASIBILITY ANALYSIS

#### II-B. FEASIBILITY ANALYSIS - SITE

A.	Site A	dequacy - Size of site compared to the N.C. Public School Facility Guidelines.	
	o o o	80% to 100% of current guidelines (or additional land available) = 2 65% to 80% of current guidelines = 1 Less than 65% of current guidelines = 0	2
В.	Locati	on	
	0	Near the center of the student population served = 2	2
	0	Important focus of an older neighborhood, 50% or more students live in the neighborhood = 1	
	0	Not centrally located, most students would be bussed from other areas = 0	
C.	Sewer	and Water Systems	
	0	Municipal or county sewer and water system = 2	2
	0	On-site sewer, adequate for number of students, county water or good well with pressure tank = 1	
	0	Inadequate on-site sewer system or well = 0	
D.	Parkin	g and Traffic Control	
	0	Paved drives with auto and bus traffic separated, adequate parking = 2	
	0	Some paved drives or minor traffic conflicts, not enough parking = 1  Bus and autos use same drive or children must cross drives to reach	1
	0	playfields or some buildings or bus and/or auto drop-off on street, limited parking = $0$	
E.	Playgr	ounds and Playfields	
	0	Ample, well developed playfields, gently sloping, handicapped accessible = 2	2
	0	Limited playfields, well developed, can be made handicapped accessible = 1	
	0	Very small playfields or located across a street from the school or near a busy street or on a steeply sloping site = $\bf 0$	

F.	. Drainage		
	0	Good site drainage, no problems = 2	
	0	Some minor drainage problems, can be corrected economically = 1	1
	0	Drainage problems, standing water on site, would be costly to correct, or in flood plain = $0$	
G.	G. Environmental Problems		
	0	No environmental problems = 2	
	0	Minor problems or possibility of minor leaks = 1	1
	0	Leaking fuel tank or contaminated well or problems with sewer system discharge or standing water under building or other major problem = $0$	
Tota	l score (	A through G) for site	11

A TOTAL SCORE OF 10 OR MORE INDICATES GOOD SITE FEASIBILITY. A TOTAL SCORE OF 7 OR LESS INDICATES POOR SITE FEASIBILITY.

IF BUILDING FEASIBILITY SCORE IS 18 OR MORE <u>AND</u> SITE FEASIBILITY SCORE IS 10 OR MORE, NO FURTHER ANALYSIS IS REQUIRED (UNLESS YOU CHOOSE TO DO SO). REPLACEMENT OF THESE BUILDINGS SHOULD <u>NOT NORMALLY BE CONSIDERED.</u>

IF BUILDING FEASIBILITY SCORE IS 12 OR LESS <u>AND/OR</u> SITE FEASIBILITY SCORE IS 7 OR LESS, NO FURTHER **ANALYSIS IS REQUIRED** (UNLESS YOU CHOOSE TO DO SO). **REPLACEMENT OF THESE BUILDINGS <u>SHOULD</u> BE CONSIDERED**.

PROCEED WITH COST ANALYSIS FOR BUILDINGS WHERE RENOVATION OR REPLACEMENT IS NOT CLEARLY INDICATED BY THE FEASIBILITY STUDY.













## **PROGRAMMING**

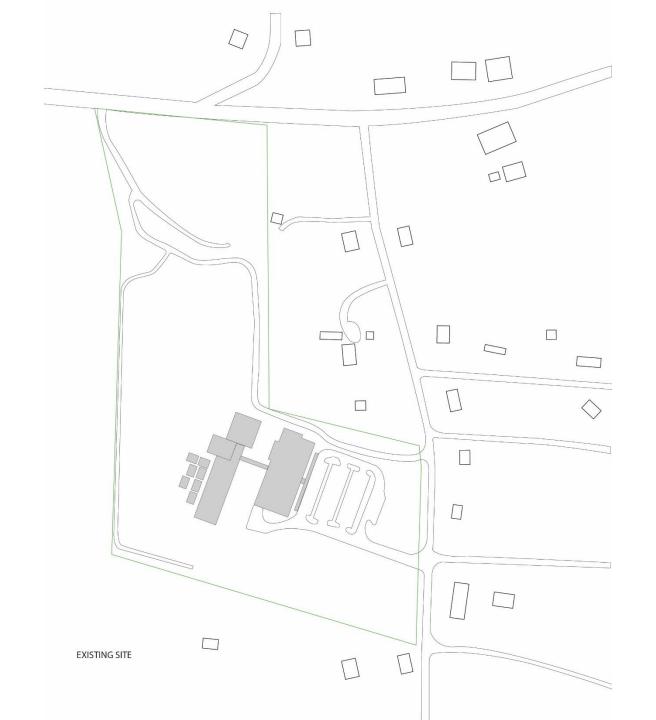
#### Highlights

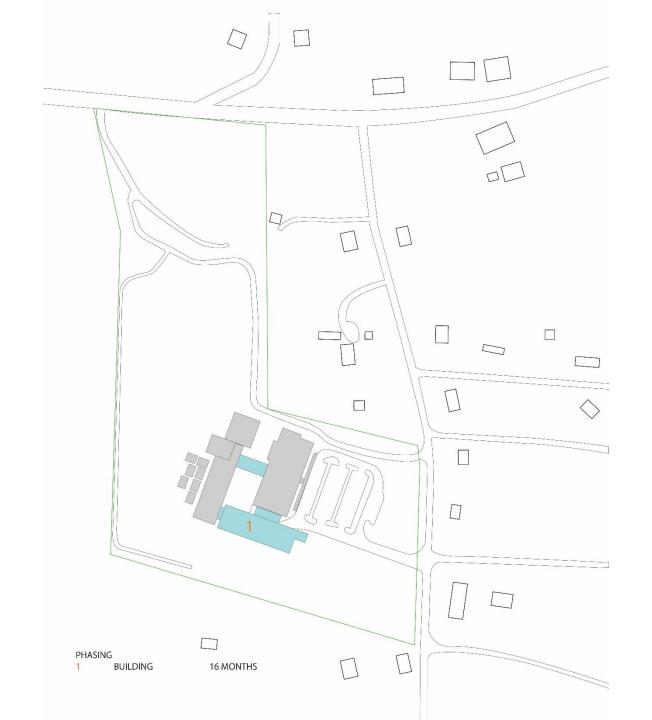
- 1. Existing Media Center: 3,500sf. DPI Recommends: 5,000sf.
- 2. DPI recommends a 2x larger Administration Area.
- 3. DPI recommends a 2x larger Guidance / Student Support Department.
- 4. DPI recommends 4x the Staff Support Spaces.

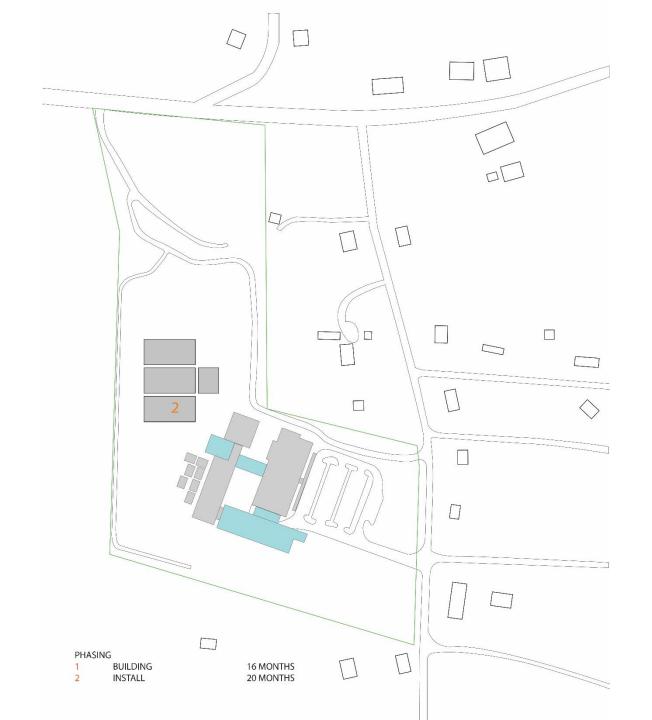
## **OPTIONS**

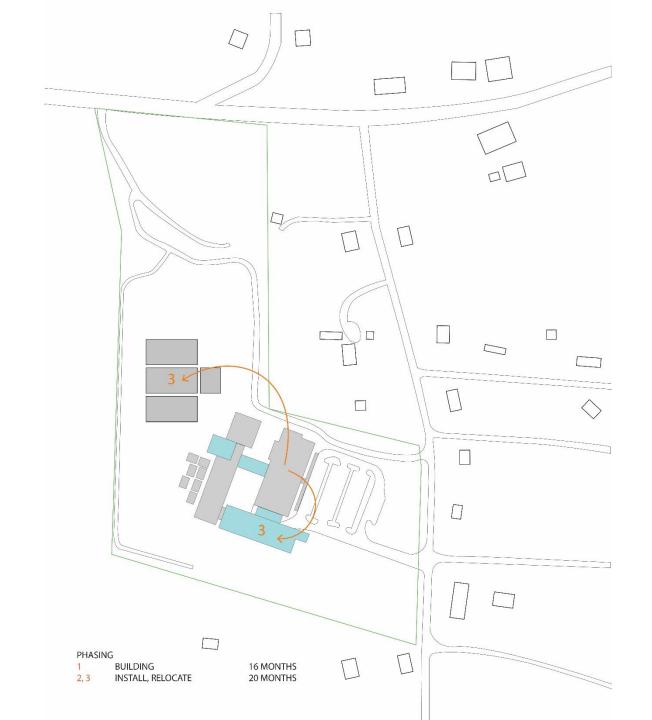
### **OPTION 1 – RENOVATION**

- Develop a combination of Renovated and New buildings.
- Address all site, program, physical, and code deficiencies.
- Renovate site, exterior, interior, M, E, and P systems.

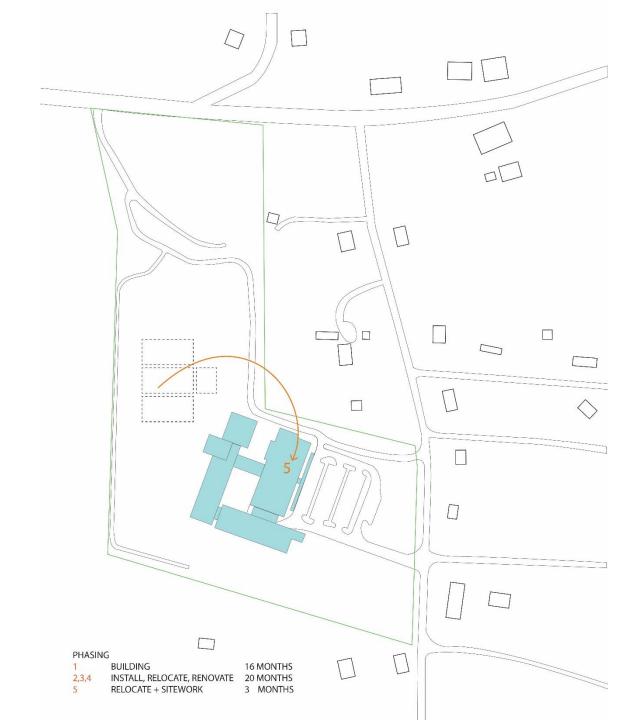










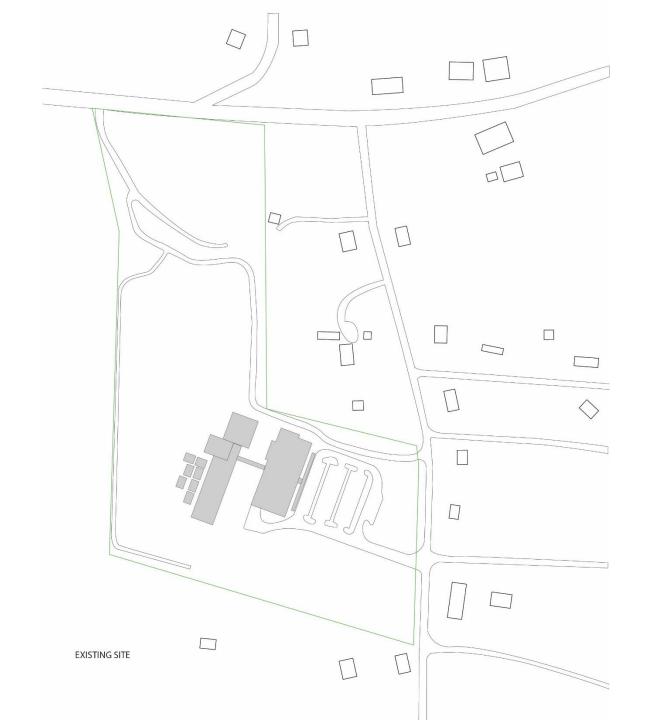


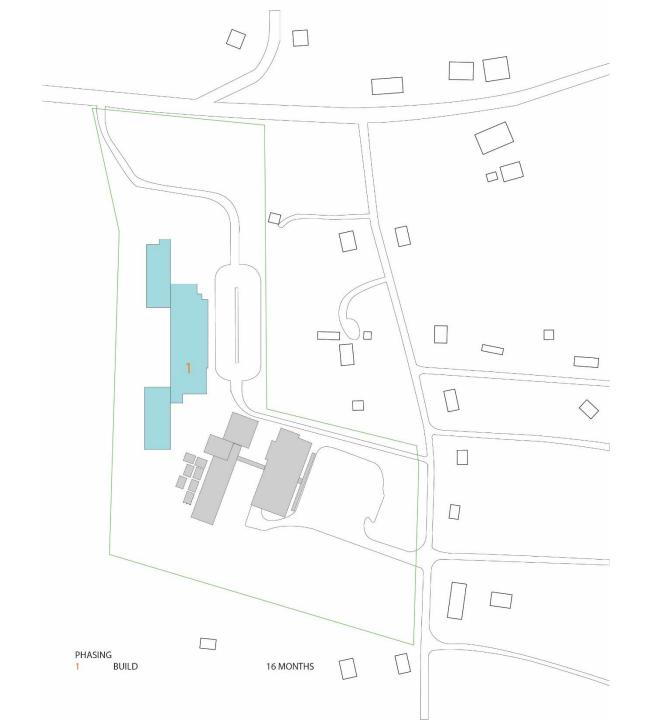


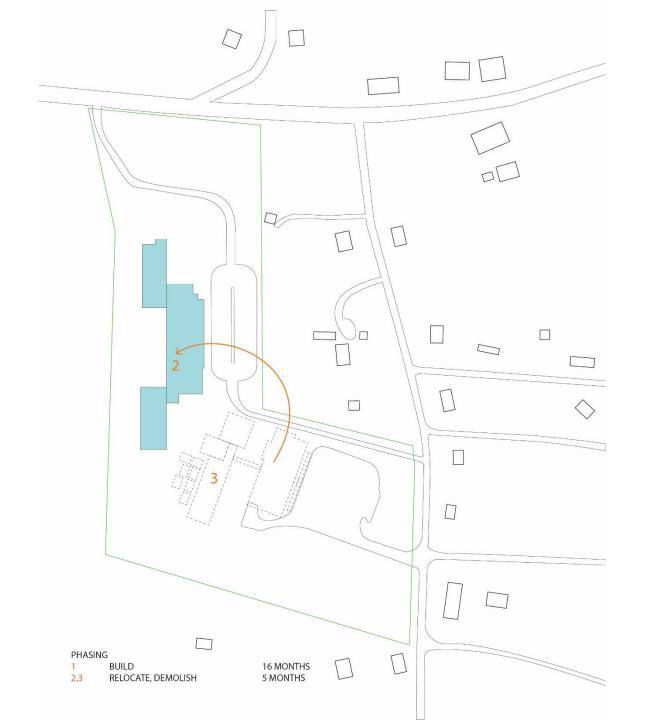
OPTION 1

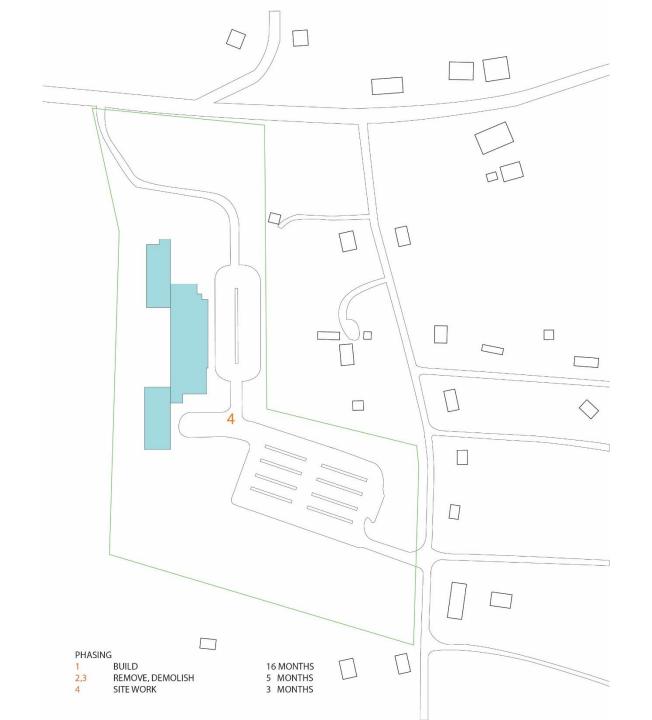
## OPTION 2 - NEW

- Develop a brand new school.
- Fit the school within the existing site, allowing for the entire school to be built at once.









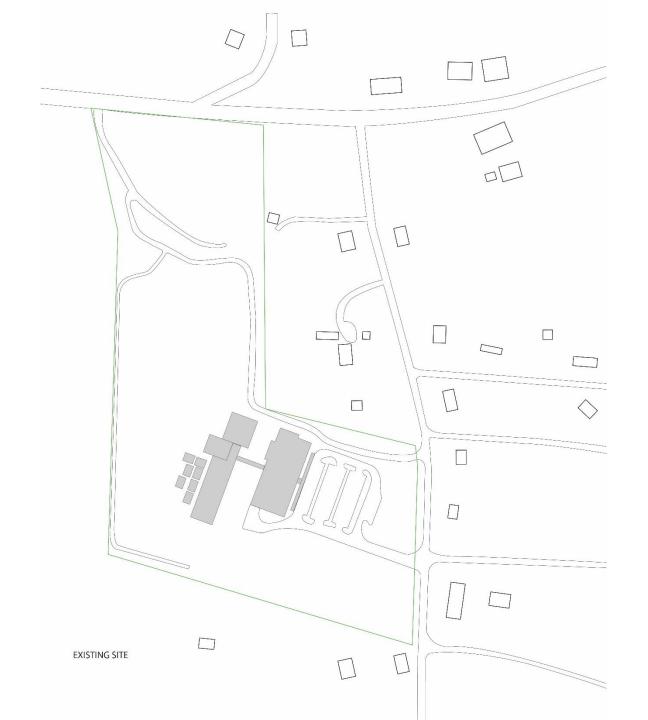


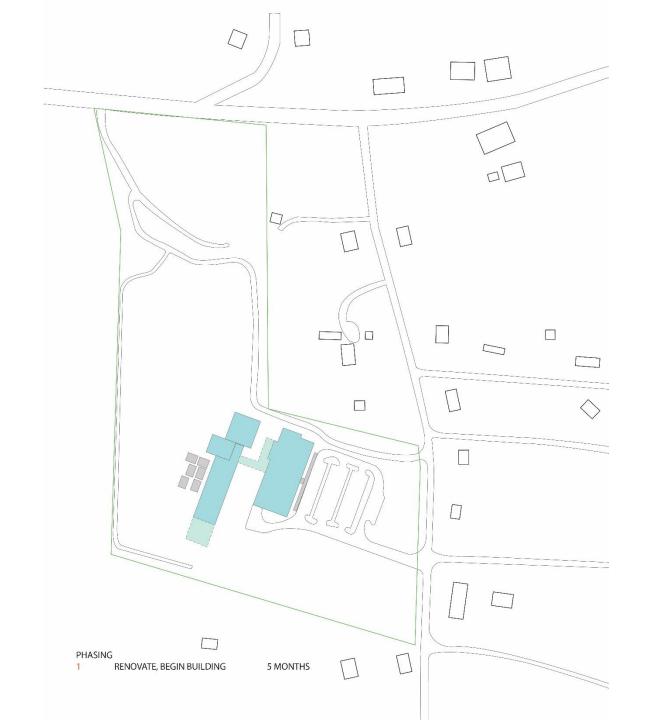
## **OPTION 3 – RENOVATION**

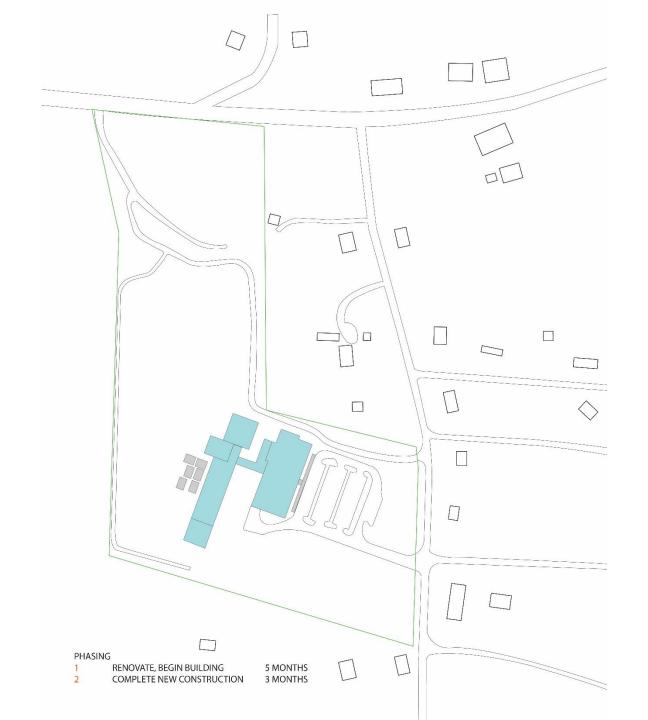
 Renovate existing building to extend life of building an additional 15-20 years.

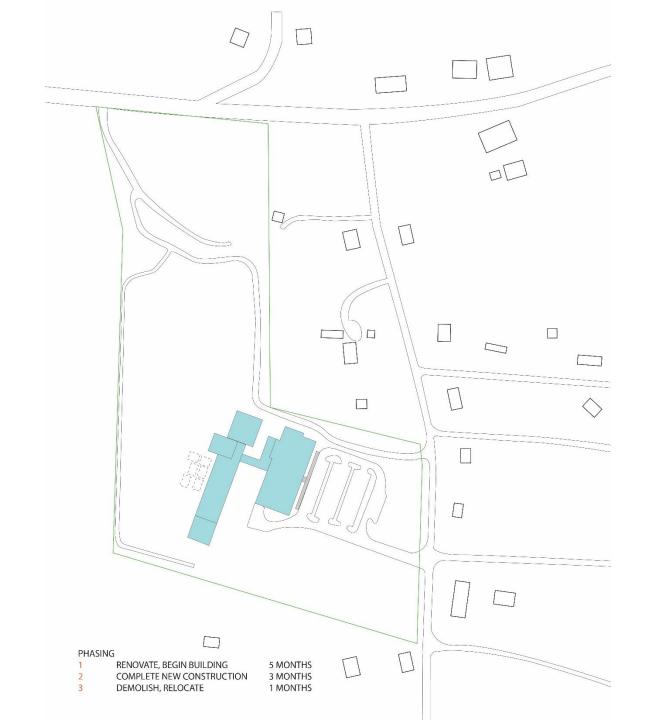
### Scope of Work

- New roofing system.
- All new mechanical systems.
- Partially update electrical systems.
- Addition to media center to increase size to meet DPI standards.
- Build 4600sf of permanent classrooms to replace 'Learning Classrooms'.
- Replace exterior windows and repair sills.
- Address site drainage.
- Construct new connector between buildings to provide accessibility.
- Update egress door hardware
- Update toilet rooms to meet ADA.









## **BUDGET SUMMARY**

Avg. Cost of All School Construction in 2009 ---\$127.92\*

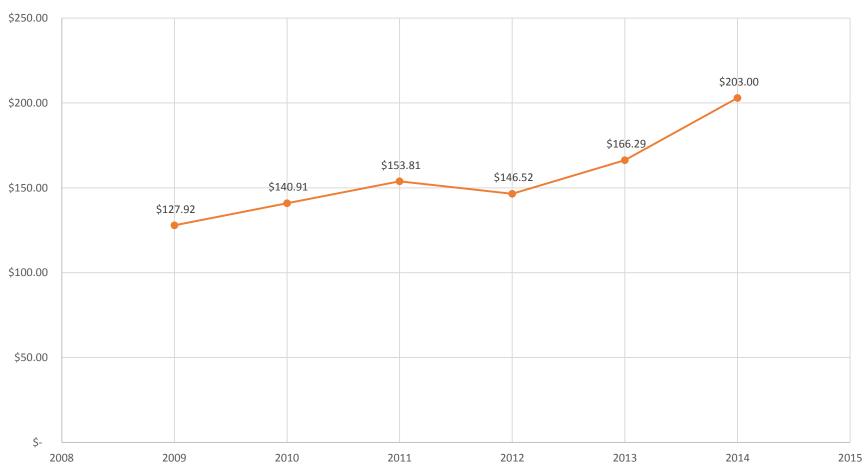
Avg. Cost of All School Construction in 2014 --- \$203.00\*

Avg. Cost of All School Construction in 2018--- \$????

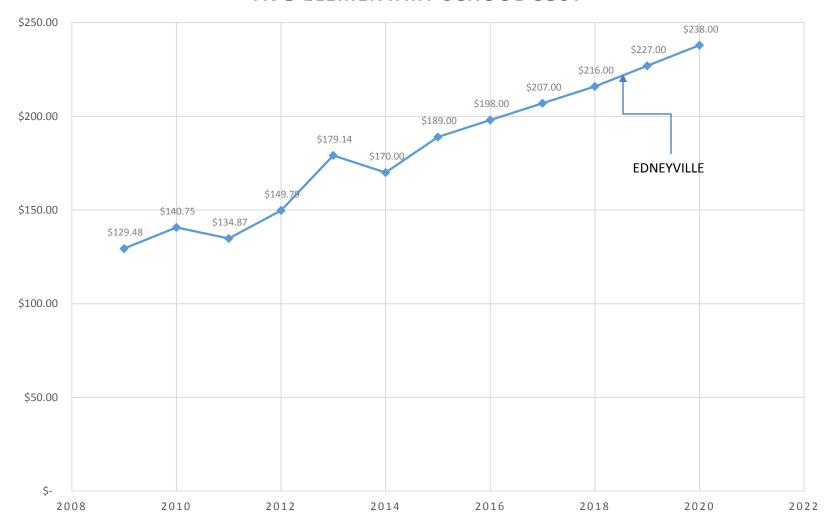
Represents an increase of 60% increase in 5 years, 12% per year, or \$75.00/sf cost increase on average

\*Information obtained from NCDPI

Avg. Cost of School Construction

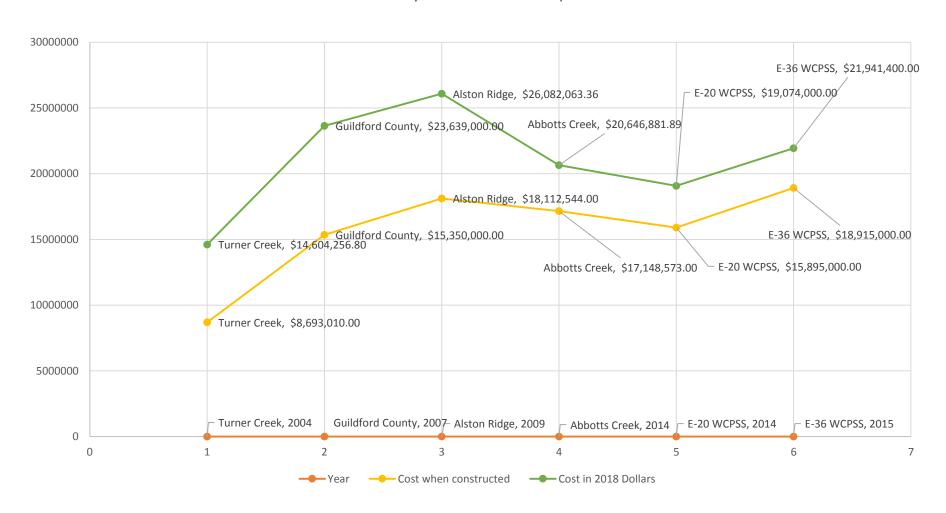


#### **AVG ELEMENTARY SCHOOL COST**



Avg cost of an elementary school will jump over 80% from 2009-2020

#### **Elementary School Costs Comparison**



					Cost/sf
Option 1					
Grand Total Construction Costs	\$ 17,184,783.89	85,000	sf	\$	202.17
Overall Project Costs	\$ 22,243,588.51				
Length of Project	39 months				
	 *			8 8	
Option 2					
Grand Total Construction Costs	\$ 18,791,387.08	85,000	sf	\$	221.08
Overall Project Costs	\$ 24,187,578.37				
Length of Project	24 months				
Option 3					
Grand Total Construction Costs	\$ 7,189,513.98	76,427	sf	\$	94.07
Overall Project Costs	\$ 9,303,577.90				
Length of Project	9 months				***************************************

# OPTION 1 – CONCEPTUAL BUDGETING DETAIL

Phase 1 - Construct New Buildings	23,173	sf	@	\$ 168.00		\$	3,893,064.0
Escalation-Assumed construction complete by 8/2017	18	month	@	.33% per month	5.940%	\$	231,248.0
Phase 2 - Install Modular School	1	Village	@	\$ 682,146.67		\$	682,146.
Phase 3 - Relocate	3	months					
Phase 4 - Renovate Existing Buildings	61,827	sf	@	\$ 160.00		\$	9,892,320.
Escalation-Assumed construction complete by 4/2019	36.5	month	@	.33% per month	12.045%	\$	1,273,694.
Phase 5 - Relocate	3	months					
Sub total						\$	15,972,473
Overhead and Profit					6.0%	\$	958,348
Sub total						\$	16,930,821
Bonds and insurance					1.5%	\$	253,962
Grand Total Construction costs						\$	17,184,783
Owner Contingency					8.0%	\$	1,374,782
Soft Costs(AE fees, CM pre-con fee, survey, permitting, geotech,							
special inspector, material testing agent, Air Monitoring etc.)					12.0%	\$	2,062,174
Commissioning agent					1.0%	\$	171,847
		<b>C</b>		\$ 10.00		\$	850,000
Furniture, fixture, equipment	85,000	ST	@	\$ 10.00		۲	650,000
Furniture, fixture, equipment Technology/ Equipment	85,000	ST	<u>@</u>	\$ 10.00		\$	600,000

# OPTION 2 – CONCEPTUAL BUDGETING DETAIL

Phase 1 - Clear and Prepare the Site	6.0	acres	@	\$ 100,000.00		\$	600,000.0
Phase 1 - Construct New Buildings	85,000	sf	@	\$ 168.00		\$	14,280,000.0
Phase 2 - Relocate	3	months					
Phase 3 - Demolish Existing Buildings	64,000	sf	@	\$ 7.00		\$	448,000.0
Phase 4 - Sitework	6.0	acres	@	\$ 150,000.00		\$	900,000.0
Escalation-Assumed construction complete by 8/2018	24	month	@	.33% per month	7.920%	\$	1,237,737.
Sub total						\$	17,465,737.0
Overhead and Profit	6.0%	\$	1,047,944.				
Sub total						\$	18,513,681.
Bonds and insurance					1.5%	\$	277,705.
Grand Total Construction costs						\$	18,791,387.
Owner Contingency				000	8.0%	\$	1,503,310.9
Soft Costs(AE fees, CM pre-con fee, survey, permitting, geotech,							
special inspector, material testing agent, Air Monitoring etc.)					12.0%	\$	2,254,966.
Commissioning agent	***************************************				1.0%	\$	187,913.
Furniture, fixture, equipment	85,000	sf	@	\$ 10.00		\$	850,000.
Technology/ Equipment						\$	600,000.
Total Project costs		-				Ś	24,187,578.

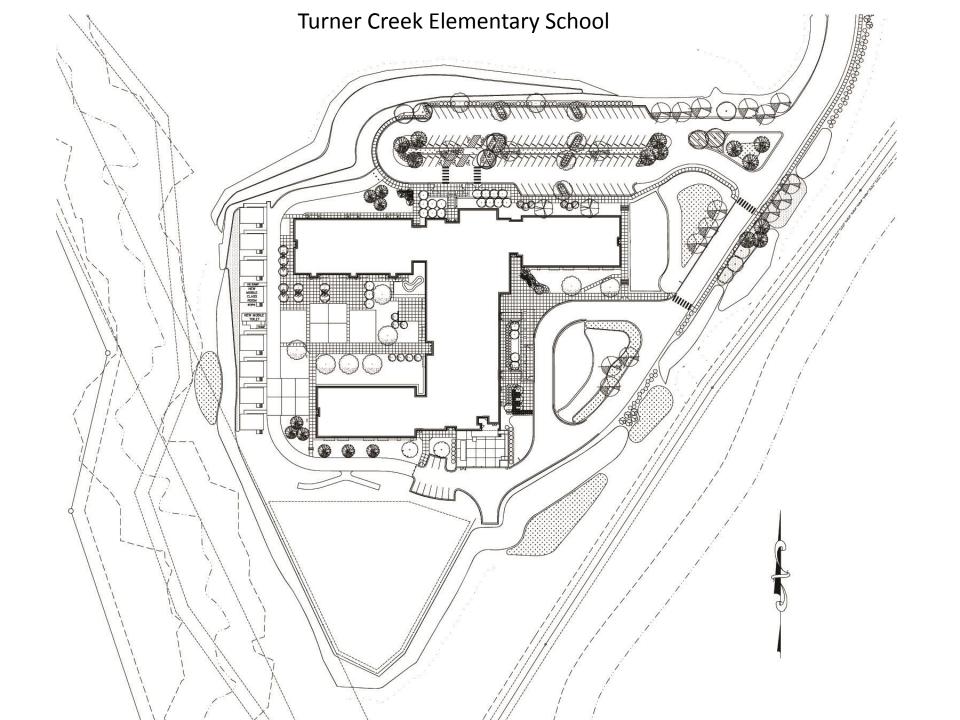
# OPTION 3 – CONCEPTUAL BUDGETING DETAIL

1 - Construct New Connector, Addition to Media Center, and Classrooms	8,100	sf	@	\$ 16	8.00	\$	1,360,800.0
2 - Renovate Existing Building and Site (68,327sf)	1	ls	@	\$ 5,184,65	0.70	\$	5,184,650.
3 - Escalation-Assumed construction complete by 2/2017	8	month	@	.33% per mo	onth 2	2.640% \$	136,874.
Sub total						\$	6,682,325.
Overhead and Profit						6.0% \$	400,939.
Sub total						\$	7,083,265.
Bonds and insurance							106,248.
Grand Total Construction costs						\$	7,189,513.
Owner Contingency						15.0% \$	1,078,427.
oft Costs(AE fees, CM pre-con fee, survey, permitting, geotech,		<u> </u>					
pecial inspector, material testing agent, Air Monitoring etc.)						12.0% \$	862,741.
Commissioning agent						1.0% \$	71,895.
urniture, fixture, equipment	8,100	sf	@	\$ 1	0.00	\$	81,000
Technology/ Equipment						\$	20,000
Total Project costs					•	\$	9,303,577.

### **Turner Creek Elementary School**

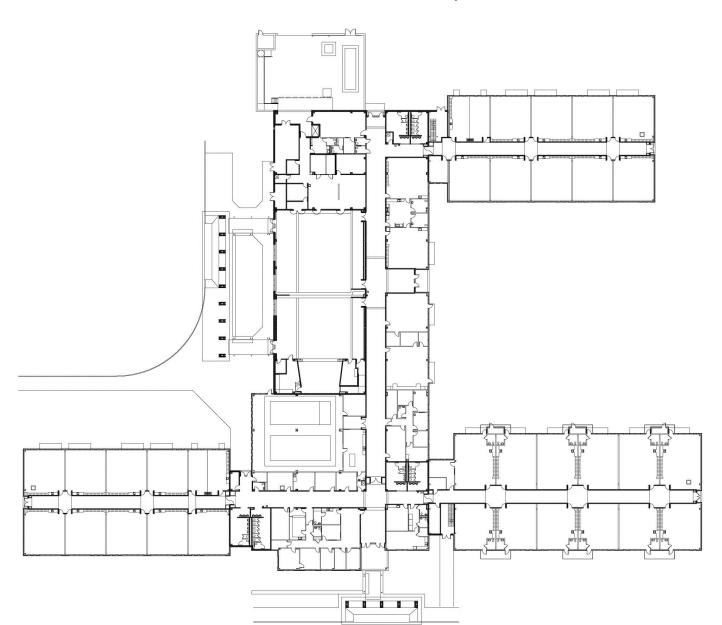
April 2004	
Capacity	750/950
Cost 2004	\$8,693,010
Cost 2018	\$14,604,256**
sf	80,978

<sup>\*\*</sup> This school today would have to be upgraded to meet the Energy Code





### Turner Creek Elementary School

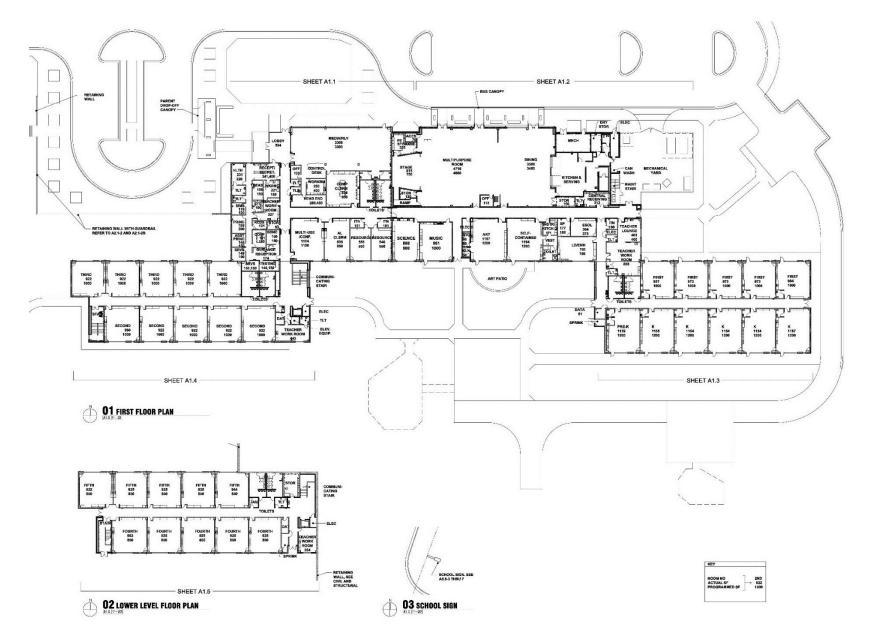


## **Guilford County Elementary School**



July 2007	
Capacity	750/950
Cost 2007	\$15,350,000
Cost 2018	\$23,639,000
sf	87,000

#### **Guilford County Elementary School**

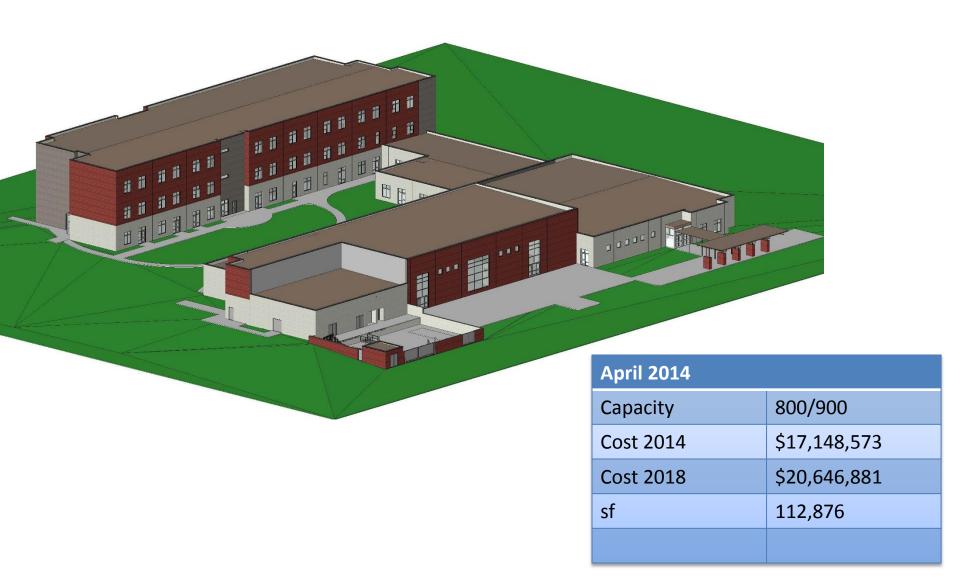




### Alston Ridge Elementary School



#### Abbotts Creek Elementary School





#### Abbotts Creek Elementary School



# HENDERSONVILLE HIGH SCHOOL

FACILITIES
PROGRAMMING
OPTIONS
BUDGET SUMMARY

# **FACILITIES**

#### II. FEASIBILITY ANALYSIS

II-A	ı. FEA	SIBILITY ANALYSIS - BUILDING	Band Building	Cafeteria Building	Classroom Building	Vocational Building	New Gym	Old Gym	Boyd Service	Boyd Showroom
A.		ational Program Adequacy - Typical size of classrooms and other functional s compared to the N.C. Public School Facility Guidelines.								
	0	85% to 100% of current guidelines = 6					6	6		
	0	75% to 85% of current guidelines = 3	3	3	3	3				
	0	Less than 75% of guidelines or classrooms less than 600 sq.ft. = 0							0	0
_										
В.	Histo	rical or Architectural Significance								$\perp$
	0	Listed on the National Historic Register or of significant regional architectural interest = 2			2					
	0	Strong local historic interest or sentiment or an example of good school design = 1					1	1		
	0	No particular historical value or architectural interest = 0	0	0		0			0	0
C.	Safet	y and Code Compliance								
	0	Generally meets building code requirements (1978 or 1991 code) = 4								
	0	Needs <u>some</u> modifications in order to meet current bldg. code requirements = 2	2	2		2				
	0	Needs <u>substantial</u> modifications to meet current building code requirements = 0			0		0	0	0	0
_	Dolot	ionahin ta Othar Buildings on Sita /including avanced additions				_		1		
D.		ionship to Other Buildings on Site (including proposed additions)  Single building or buildings connected with enclosed corridors = 2								+-
	0		1	1		1				$\vdash$
	0	Well organized campus plan, buildings connected with covered walks, interior corridors = 1	1	1		1				
	0	Multiple buildings, not connected, some exterior corridors = 0			0		0	0	0	0

E.	Handid	capped Accessibility								
	0	Generally meets state or ADA handicapped code requirements and is								
		suitable for use by physically handicapped persons = 2								
	0	Needs <u>some</u> modifications to meet handicapped code requirements and to								
		be used satisfactorily by physically handicapped persons = 1								$\perp$
	0	Needs <u>substantial</u> modifications to be used satisfactorily by physically	0	0	0	0	0	0	0	0
		handicapped persons (e.g. elevators, lifts, new toilet rooms, etc.) = 0								
F.	•	cal Condition of Building - (structural, roof, exterior walls, windows, doors, partitions, ceilings, flooring)								
	0	Very good condition, only minor repairs required = 4								
	0	Moderate repairs required, some replacements (e.g., new windows or roof) =2								
	0	Structural problems or extensive repairs required, replacement of several	0	0	0	0	0	0	0	0
		systems required (new ceilings, roof, windows, exterior wall repair, moving								
		interior partitions. etc) = 0								
G.	Mecha	nical and Electrical Systems - (plumbing, heating, air conditioning,				1	Т			
•		al service, lighting, telecommunications, fire alarm, computer)								
	0	Good plumbing, central heating and air conditioning; safe, efficient electrical								
	•	service and lighting; operable fire alarm and telecommunications = 4								
	0	Moderate repairs and some replacements required (example: may need	2	2						
		new air conditioning or lighting, but plumbing, heating and main electrical								
		service in good condition) = 2								
	0	Extensive repairs and/or replacement of several systems required = 0			0	0	0	0	0	0
н.	Hazaro	dous Materials - (asbestos, lead, radon, indoor air quality)		Т		Т	Т	Τ	T	
•••	0	Asbestos and other hazardous materials either not present or stabilized = 2				+		+		+
	U	Assestos and other nazardous materials either not present or stabilized – 2								
	0	Minor problems with hazardous materials, management program in								
		progress = 1								
	0	Asbestos or other hazardous materials present in building requiring removal								
		= 0								
Tota	l score /	A through H) for building	8	8	5	6	7	7	0	0
lota	. 50018	/ timeagn in recomming	J	O	,	10	,	/	10	U

A TOTAL SCORE OF 18 OR MORE INDICATES GOOD FEASIBILITY FOR RENOVATION. A TOTAL SCORE OF 12 OR LESS INDICATES POOR FEASIBILITY FOR RENOVATION. PROCEED WITH SITE ANALYSIS.

#### **II. FEASIBILITY ANALYSIS**

#### II-B. FEASIBILITY ANALYSIS - SITE

A.	Site A Guidel	dequacy - Size of site compared to the N.C. Public School Facility ines.	
	0	80% to 100% of current guidelines (or additional land available) = 2 65% to 80% of current guidelines = 1	2
	0	Less than 65% of current guidelines = 0	
В.	Locati	on	
	0	Near the center of the student population served =2	2
	0	Important focus of an older neighborhood, 50% or more students live in the neighborhood = 1	
	0	Not centrally located, most students would be bussed from other areas =0	
C.	Sewer	and Water Systems	
	0	Municipal or county sewer and water system =2	2
	0	On-site sewer, adequate for number of students, county water or good well with pressure tank = 1	
	0	Inadequate on-site sewer system or well =0	
D.	Parkin	ng and Traffic Control	
	0	Paved drives with auto and bus traffic separated, adequate parking =2	
	0	Some paved drives or minor traffic conflicts, not enough parking =1	1
	Bus and autos use same drive or children must cross drives to reach o playfields or some buildings or bus and/or auto drop-off on street, limited parking = 0		

E.	Playgi	rounds and Playfields	
	0	Ample, well developed playfields, gently sloping, handicapped accessible = <b>2</b>	
	0	Limited playfields, well developed, can be made handicapped accessible = 1	1
	0	Very small playfields or located across a street from the school or near a busy street or on a steeply sloping site =0 $$	
F.	Draina	age	
	0	Good site drainage, no problems = 2	
	0	Some minor drainage problems, can be corrected economically =1	1
	0	Drainage problems, standing water on site, would be costly to correct, or in flood plain = $0$	
G.	Enviro	onmental Problems	
	0	No environmental problems = 2	
	0	Minor problems or possibility of minor leaks = 1	1
	0	Leaking fuel tank or contaminated well or problems with sewer system discharge or standing water under building or other major problem =0	
Tota	score	(A through G) for site	10

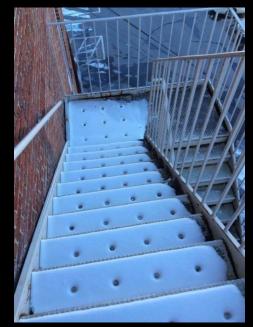
A TOTAL SCORE OF 10 OR MORE INDICATES GOOD SITE FEASIBILITY. A TOTAL SCORE OF 7 OR LESS INDICATES POOR SITE FEASIBILITY.

IF BUILDING FEASIBILITY SCORE IS 18 OR MORE <u>AND</u> SITE FEASIBILITY SCORE IS 10 OR MORE, NO FURTHER ANALYSIS IS REQUIRED (UNLESS YOU CHOOSE TO DO SO). REPLACEMENT OF THESE BUILDINGS SHOULD <u>NOT NORMALLY BE CONSIDERED.</u>

IF BUILDING FEASIBILITY SCORE IS 12 OR LESS <u>AND/OR</u> SITE FEASIBILITY SCORE IS 7 OR LESS, NO FURTHER **ANALYSIS IS REQUIRED** (UNLESS YOU CHOOSE TO DO SO). **REPLACEMENT OF THESE BUILDINGS <u>SHOULD</u> BE CONSIDERED**.

PROCEED WITH COST ANALYSIS FOR BUILDINGS WHERE RENOVATION OR REPLACEMENT IS NOT CLEARLY INDICATED BY THE FEASIBILITY STUDY.



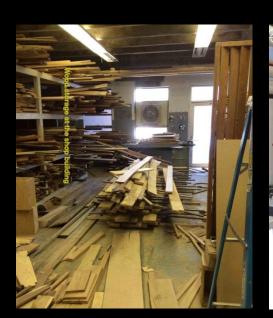














# **PROGRAMMING**

### **Highlights**

- 1. Existing Gross SF: 132,000sf. DPI Recommends: 150,000sf.
- 2. Correct # of classrooms, but they should be 25% larger.
- 3. Theater Arts program is 30% larger than required.
- 4. Existing Media Center: 2150sf. DPI Recommends: 10,000sf.
- 5. Physical Education Program is 50% larger than the DPI standard.
- 6. DPI recommends 2x the Administration Area.
- 7. DPI recommends a 4x larger Guidance / Student Support Department.

# **OPTIONS**

#### **OVERALL GOALS:**

- Minimize length of construction
- Thoughtfully stage the work
- Maintain continuity of programs
- Minimize number of moves
- Work with existing topography
- Maintain existing track and it's perimeter
- Integrate vehicular access and parking
- Optimize program adjacencies
- Create a beautiful campus
- Honor the existing classroom building
- Meet 21st century demands

#### **OVERALL GOALS:**

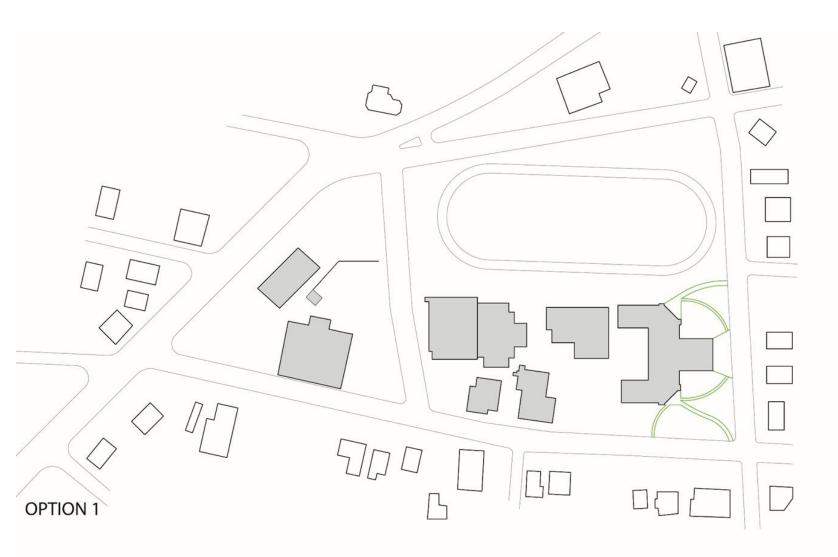
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#### **OVERALL GOALS:**

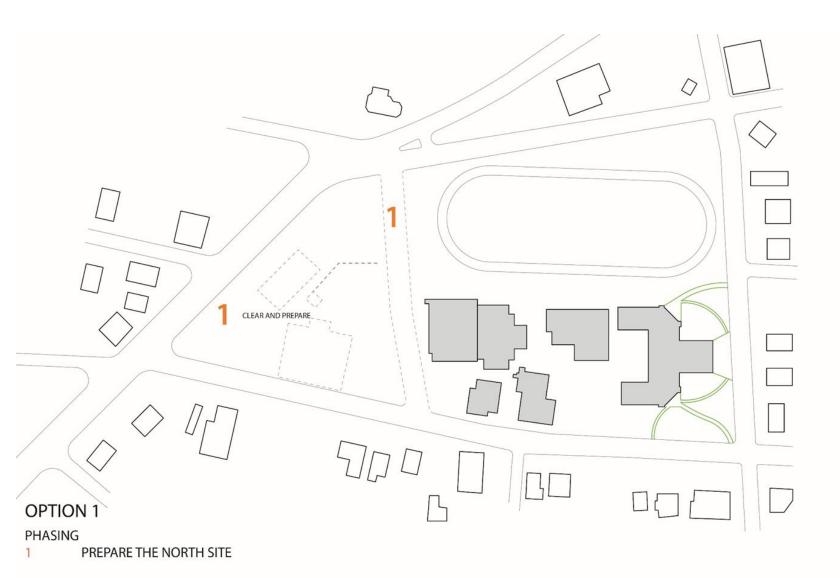
- Minimize length of construction
- Thoughtfully stage the work
- Maintain continuity of programs
- Minimize number of moves
- Work with existing topography
- Maintain existing track and it's perimeter
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- Create a beautiful campus
- Honor the existing classroom building
- Meet 21st century demands

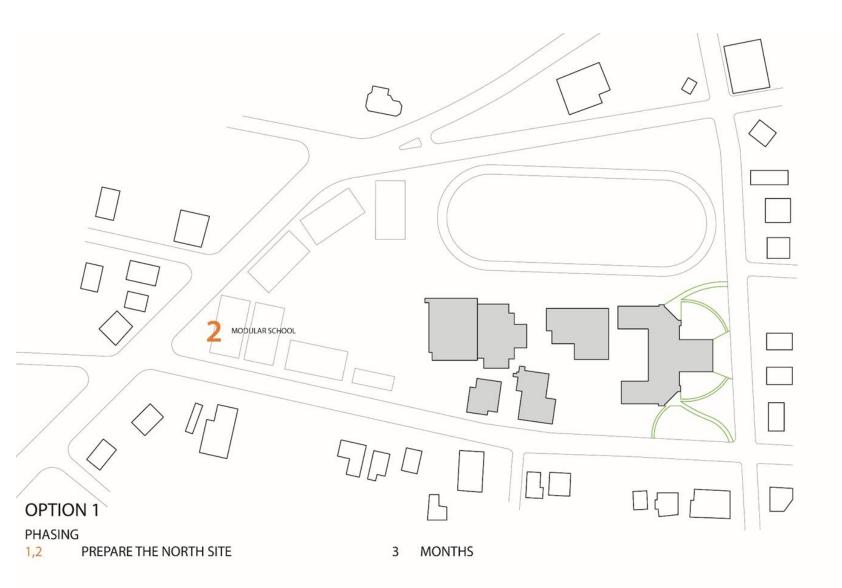
## **OPTION 1- MAX/MIN**

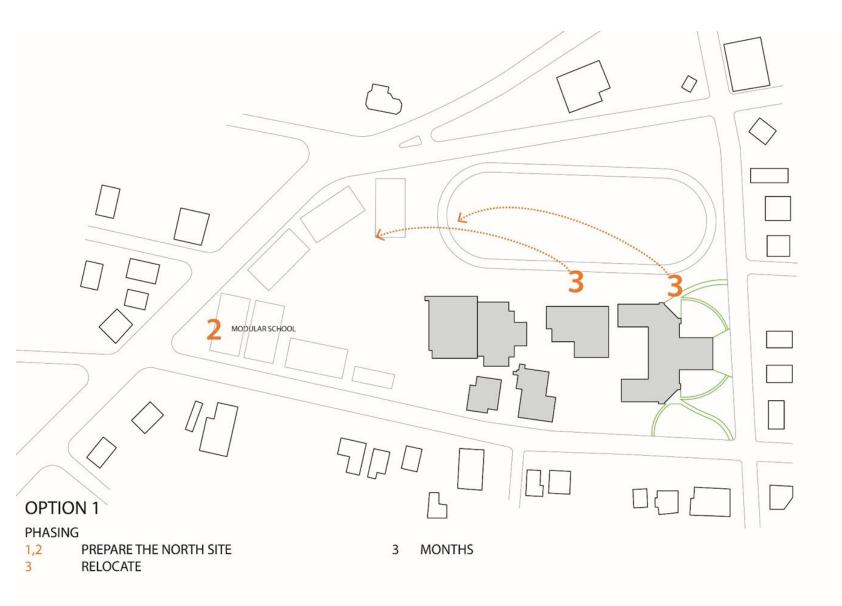
- Renovation with Maximum amount of gain with Minimal New Work
- Address Program Deficiencies
- Meet Minimum DPI Standards
- Address Physical Deficiencies of the Existing construction
- New M,E,P Systems.
- Address Building Code Compliance

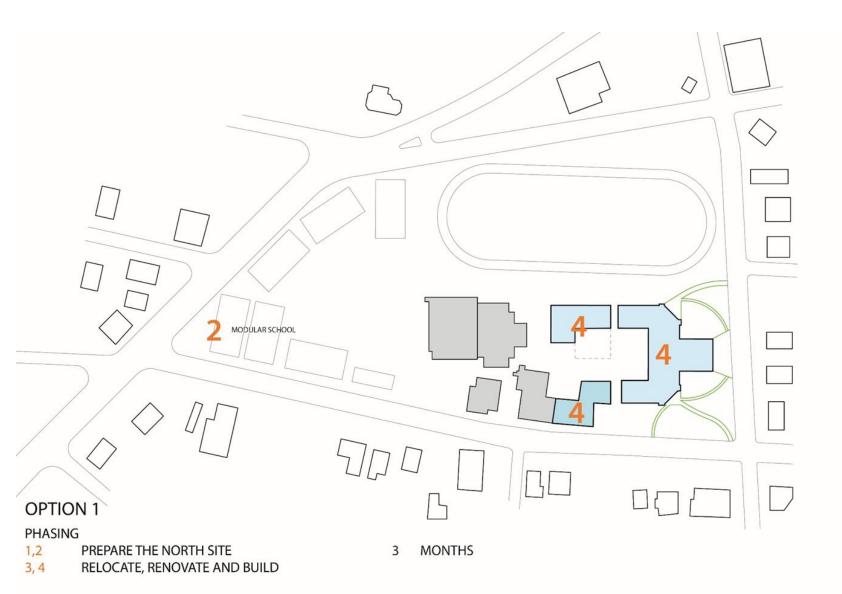


INCORPORATE EXISTING	GYMNASIUM ON CAMPUS	# NEW BLDG. PHASES	LENGTH CONSTRUCTION	MODULAR VILLAGE
Yes	Not for 1.5 Years	2	39 Months (5/2020)	Yes, for 32 months







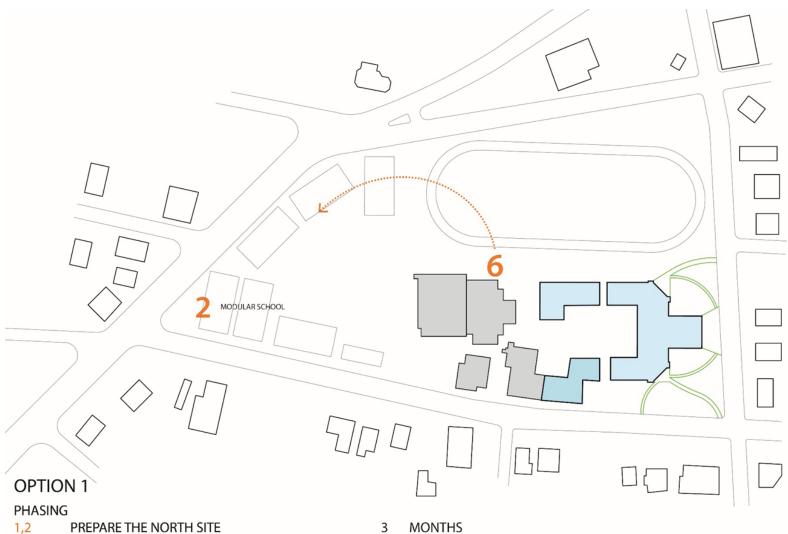




RELOCATE, RENOVATE AND BUILD, RELOCATE 3, 4, 5

**MONTHS** 

18 MONTHS



3, 4 RELOCATE, RENOVATE AND BUILD, RELOCATE

**RELOCATE** 

**MONTHS** 

18 MONTHS



- 1,2 PREPARE THE NORTH SITE
- 3, 4 RELOCATE, RENOVATE AND BUILD, RELOCATE
- 6,7 RELOCATE, DEMOLISH

- 3 MONTHS
- 18 MONTHS



1,2 PREPARE THE NORTH SITE

3, 4 RELOCATE, RENOVATE AND BUILD, RELOCATE

6, 7, 8 RELOCATE, DEMOLISH, BUILD

3 MONTHS

18 MONTHS



- 1,2 PREPARE THE NORTH SITE
- 3, 4 RELOCATE, RENOVATE AND BUILD, RELOCATE
- 6, 7, 8, 9 RELOCATE, DEMOLISH, BUILD, AND RELOCATE
- 3 MONTHS
- 18 MONTHS
- 14 MONTHS

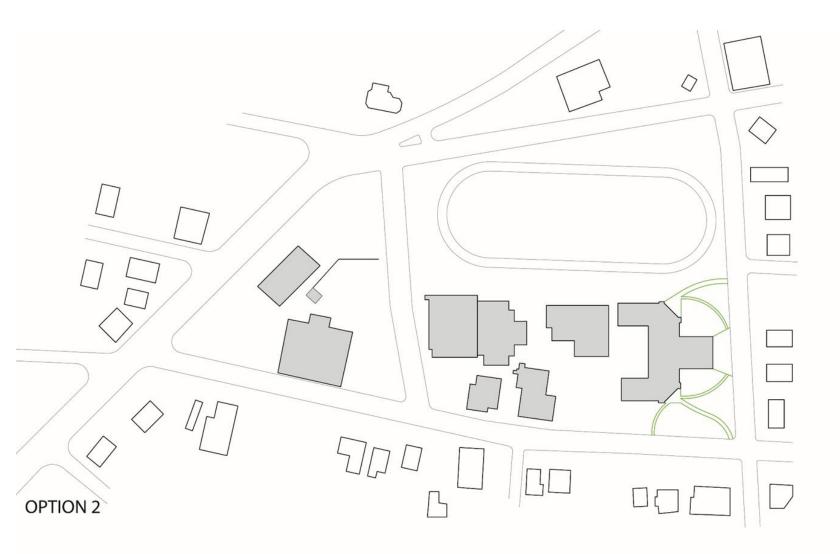




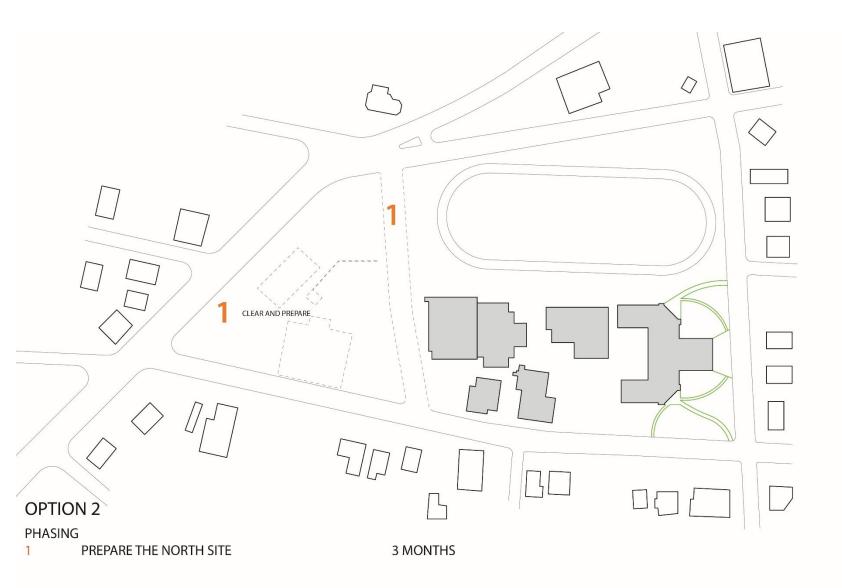
INCORPORATE EXISTING	GYMNASIUM ON CAMPUS	# NEW BLDG. PHASES	LENGTH CONSTRUCTION	MODULAR VILLAGE
Yes	Not for 1.5 Years	2	39 Months (5/2020)	Yes, for 32 months

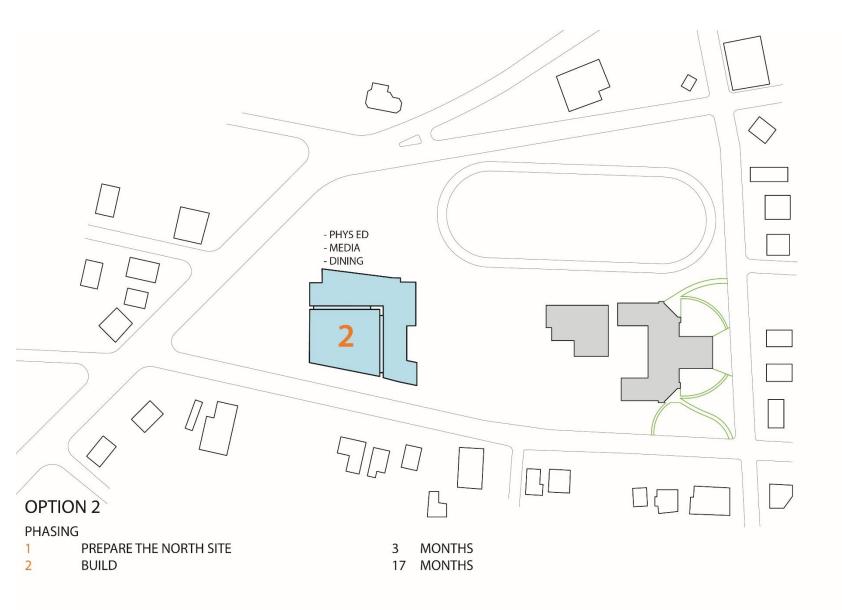
## OPTION 2 – ORIGINAL AND NEW

- Keep the character of the original building, and build all else new.
- Address all program, physical, and code deficiencies.

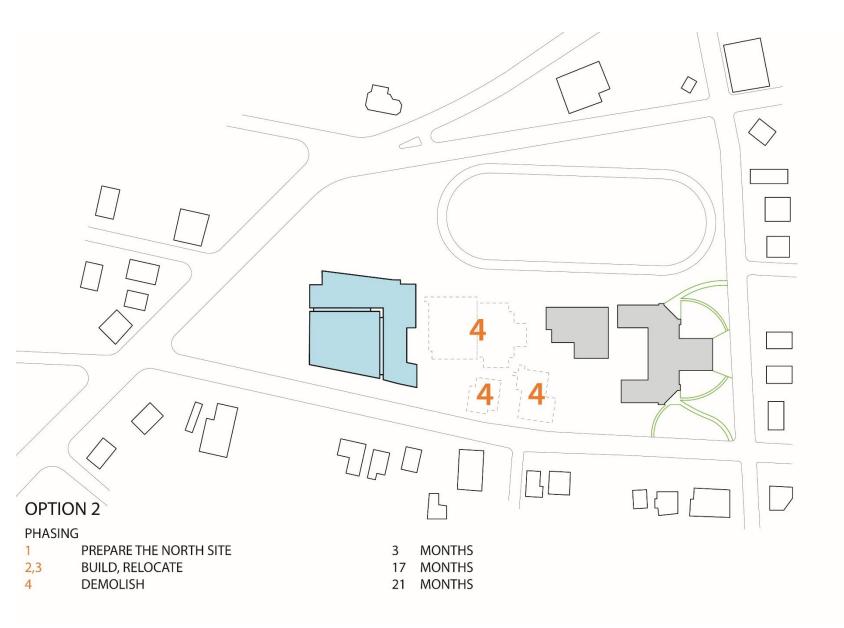


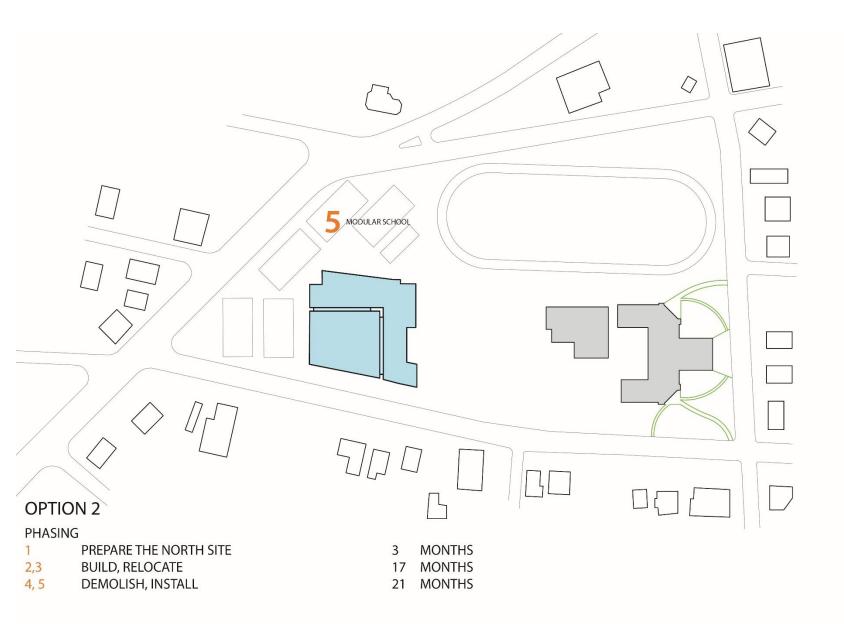
INCORPORATE EXISTING	GYMNASIUM ON CAMPUS	# NEW BLDG. PHASES	LENGTH CONSTRUCTION	MODULAR VILLAGE
Yes	Throughout	2	47 Months (1/2021)	Yes, for 21 months

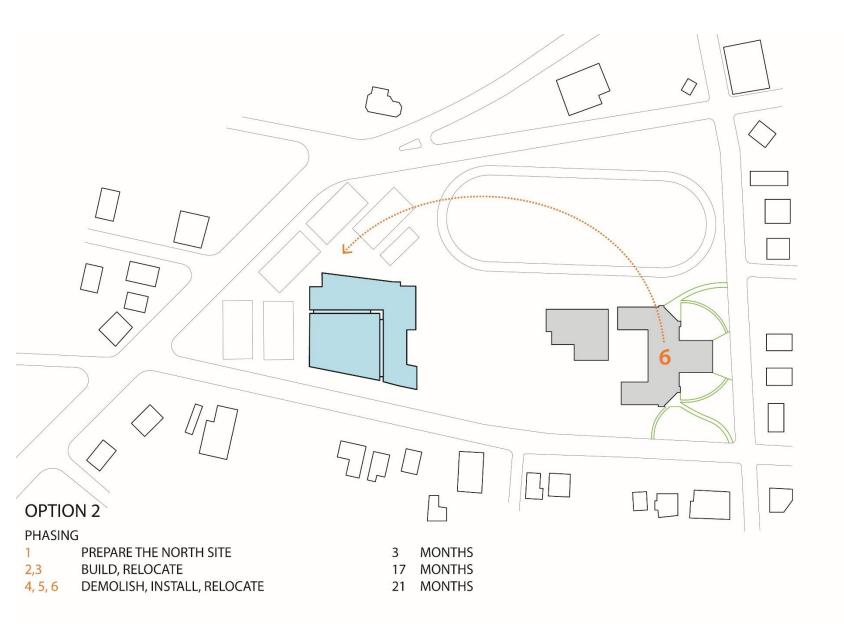


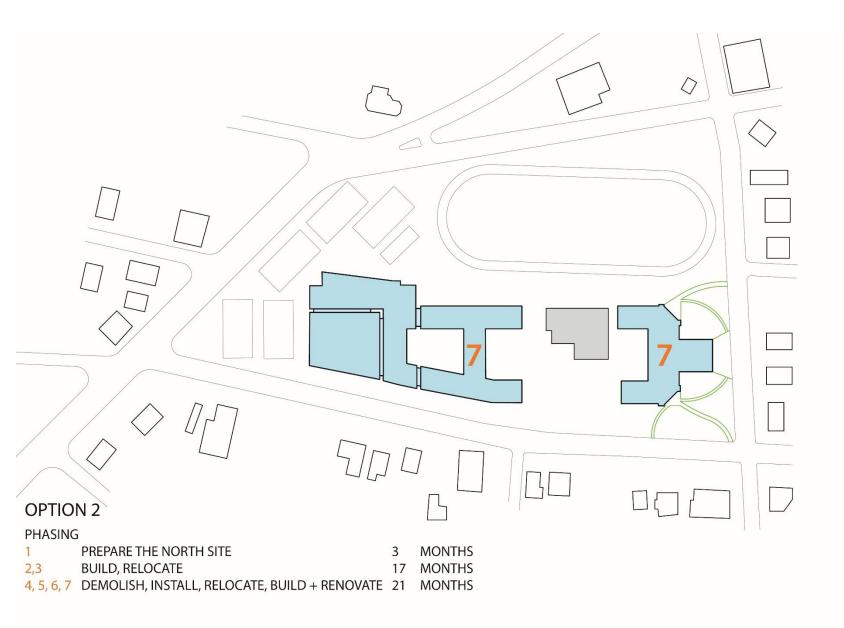


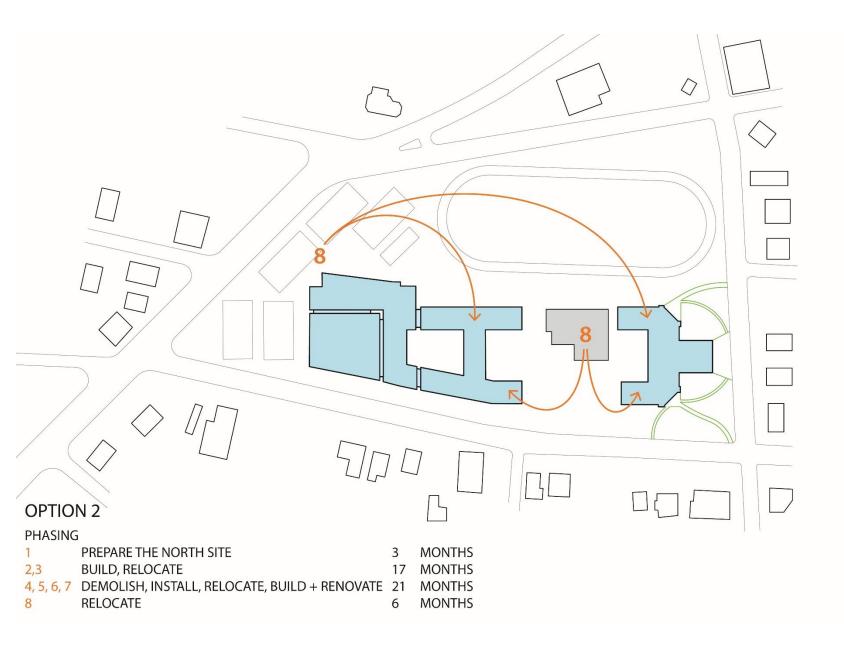


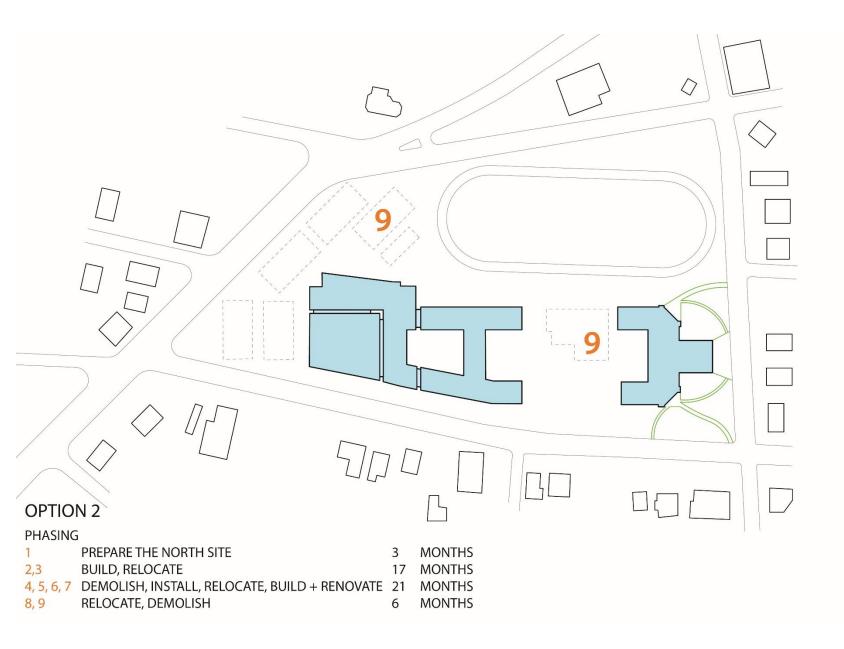


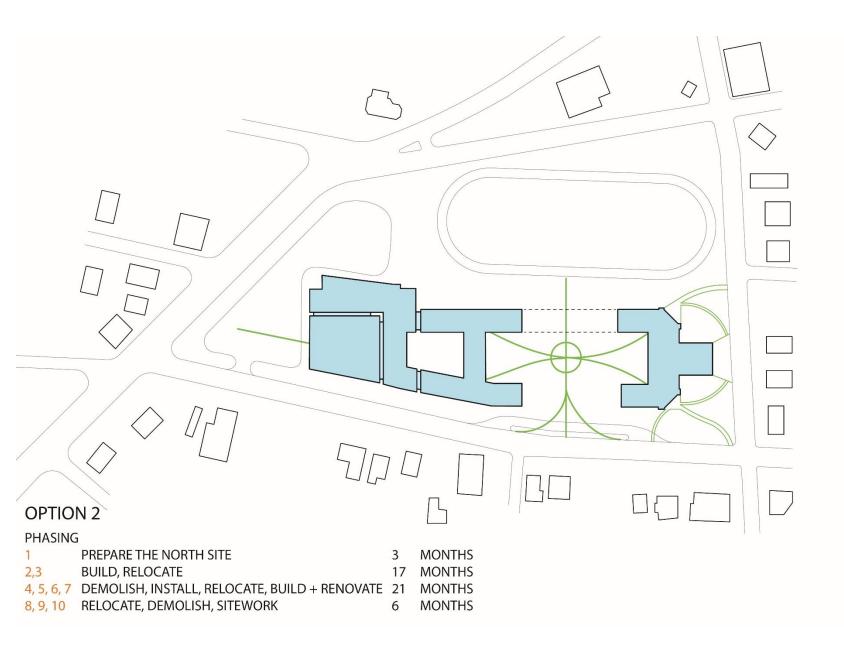


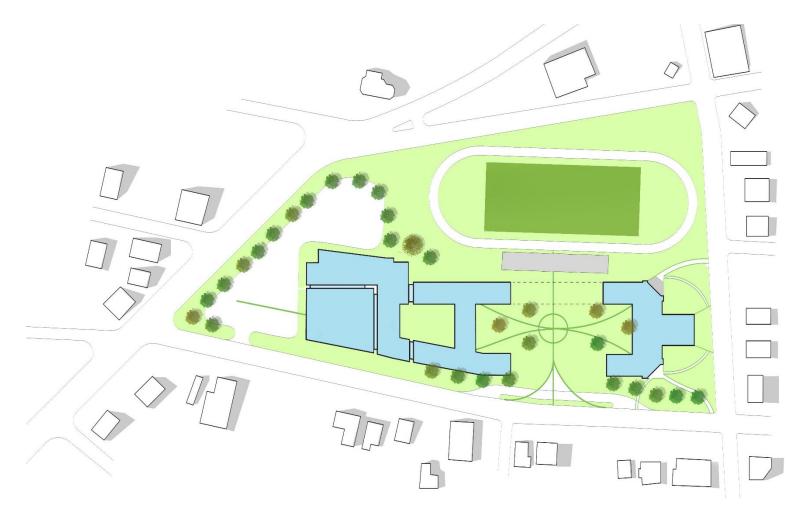












## OPTION 2

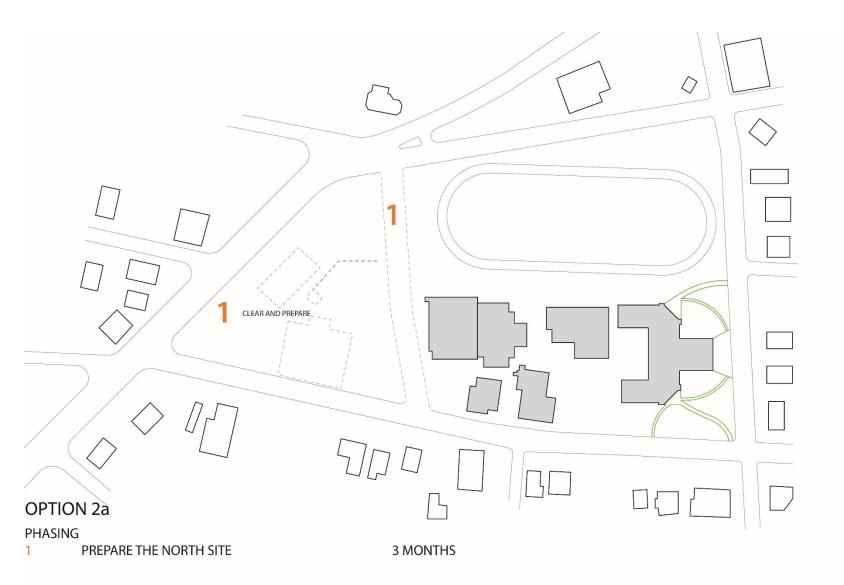
INCORPORATE EXISTING	GYMNASIUM ON CAMPUS	# NEW BLDG. PHASES	LENGTH CONSTRUCTION	MODULAR VILLAGE
Yes	Throughout	2	47 Months (1/2021)	Yes, for 21 months

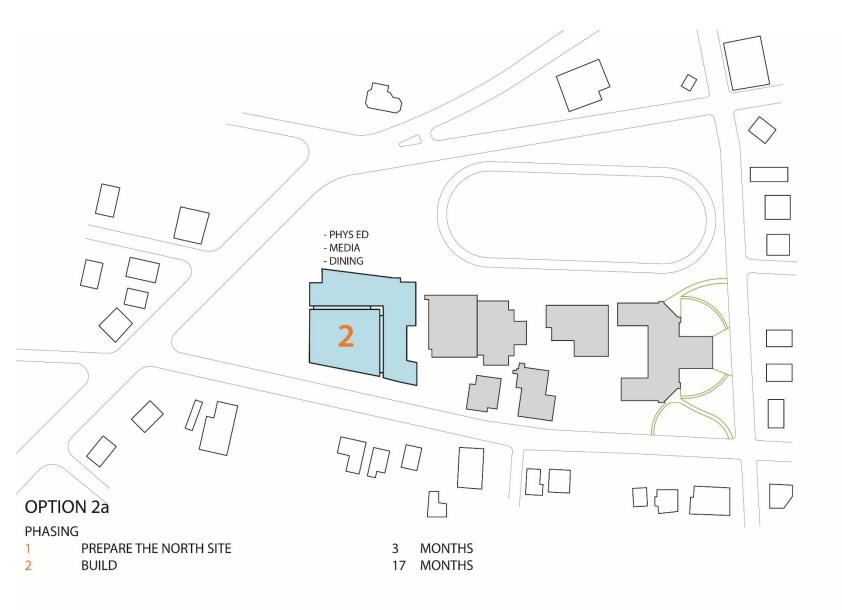
## OPTION 2a – ORIGINAL AND NEW

- Keep the character of the original building, and build all else new.
- Address all program, physical, and code deficiencies.

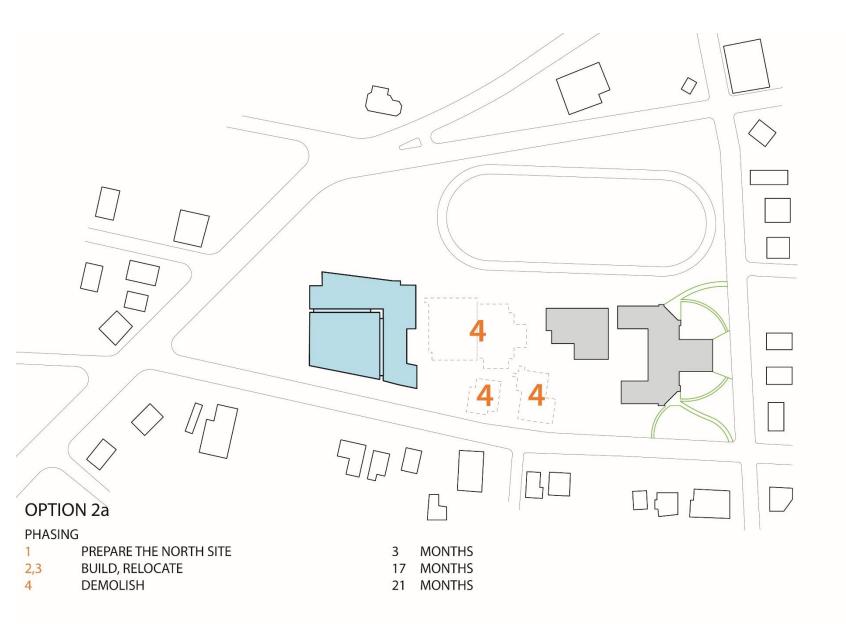


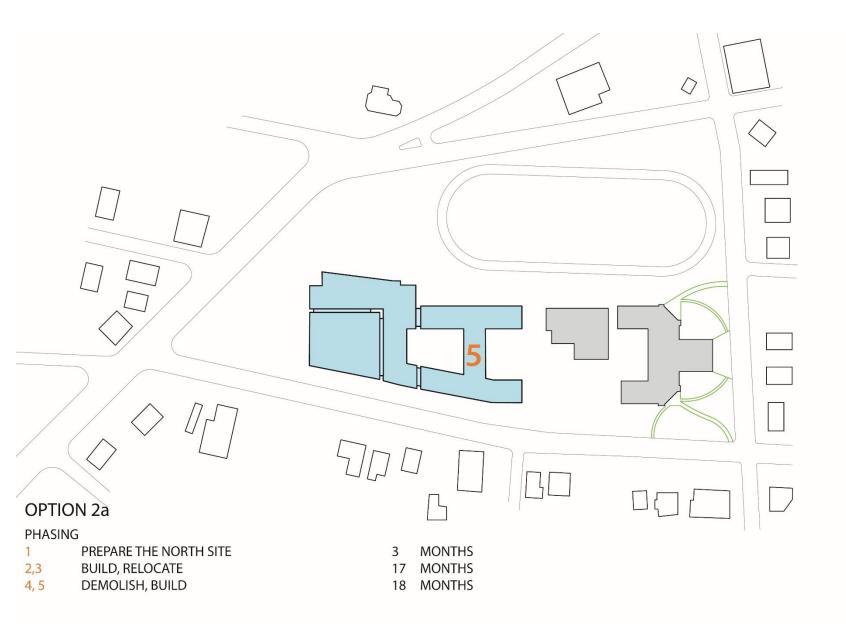
INCORPORATE EXISTING	GYMNASIUM ON CAMPUS	# NEW BLDG. PHASES	LENGTH CONSTRUCTION	MODULAR VILLAGE
Yes	Always	3	60 Months (3/2022)	No

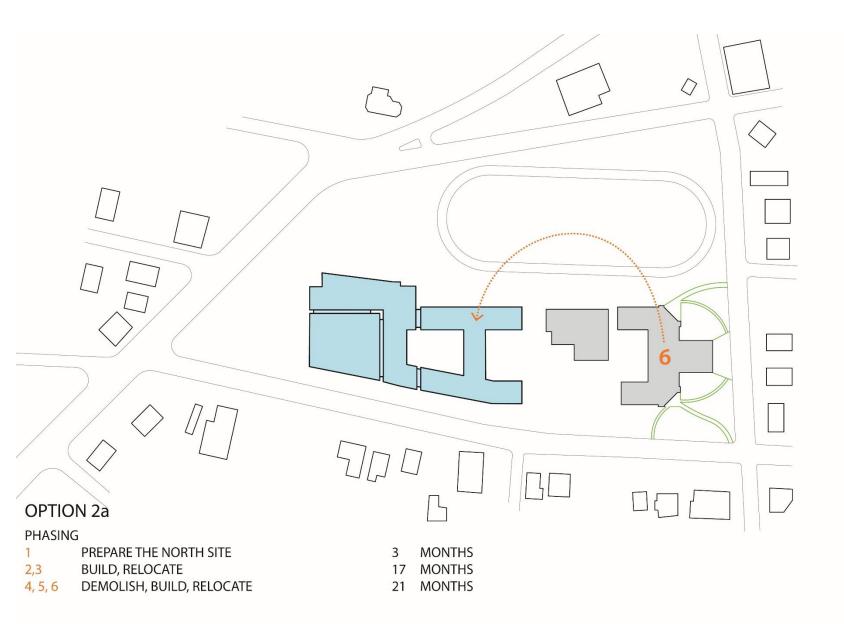


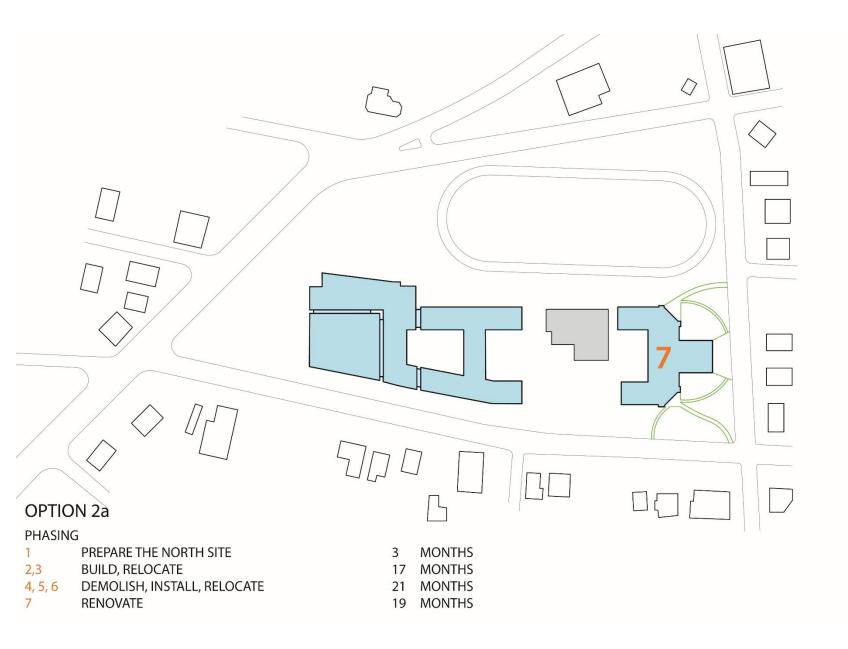


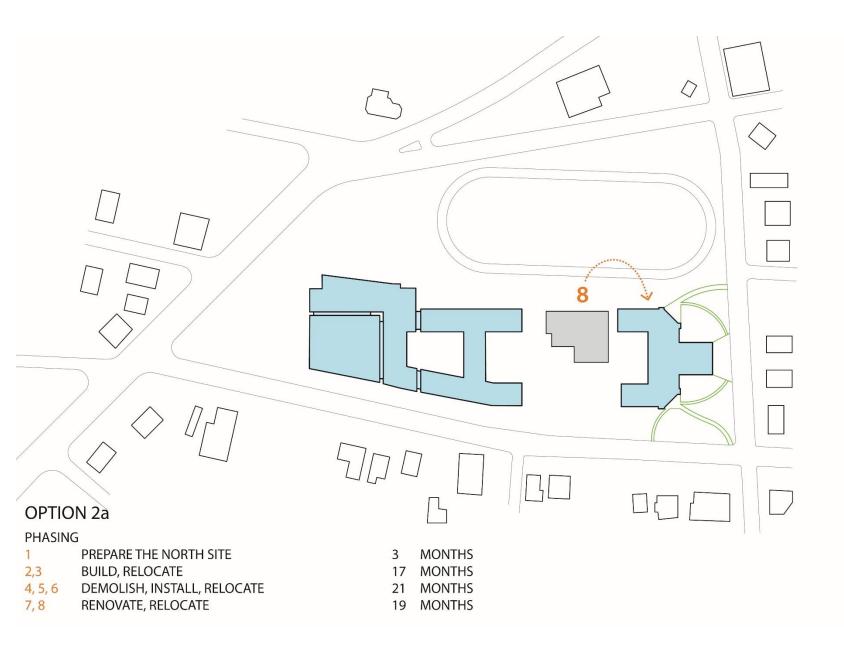


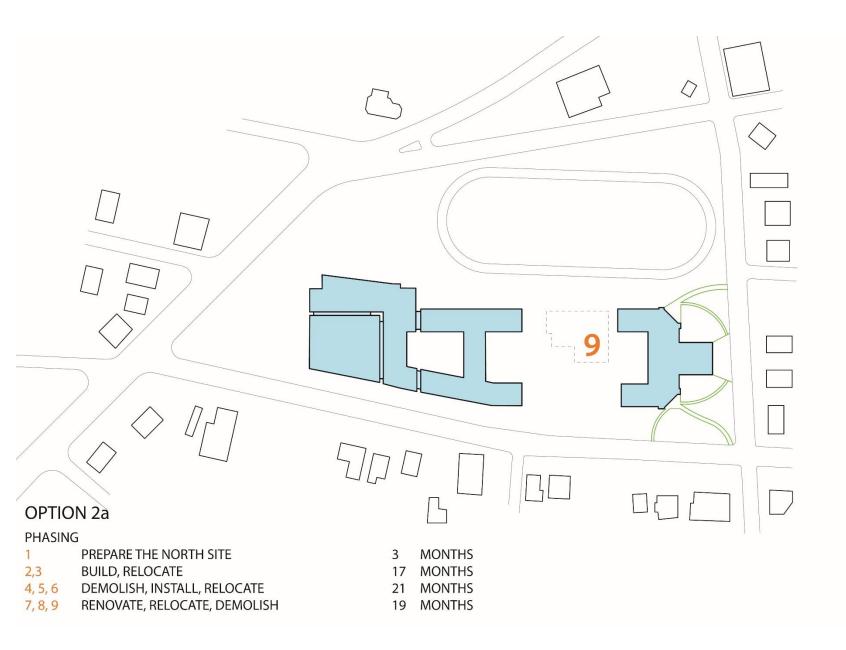


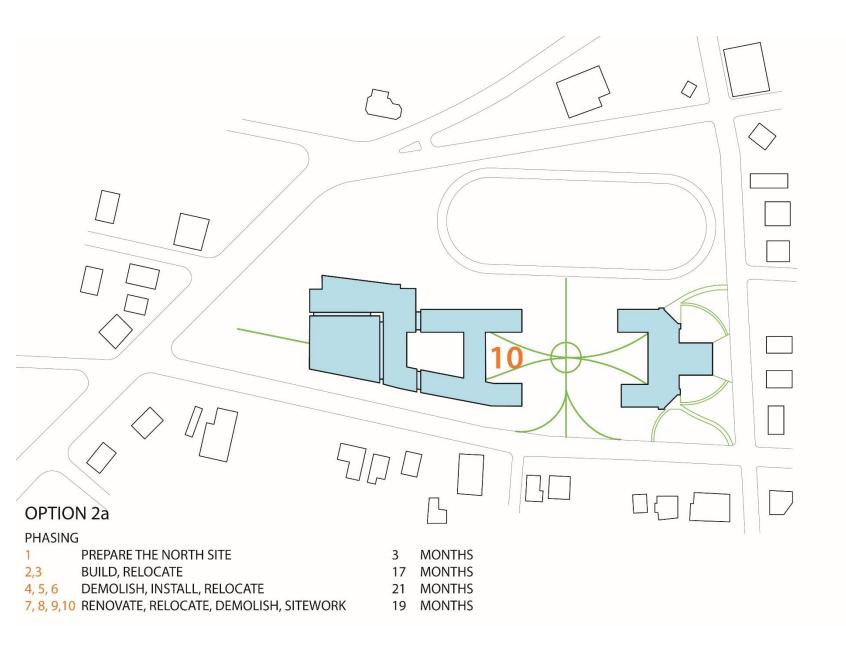


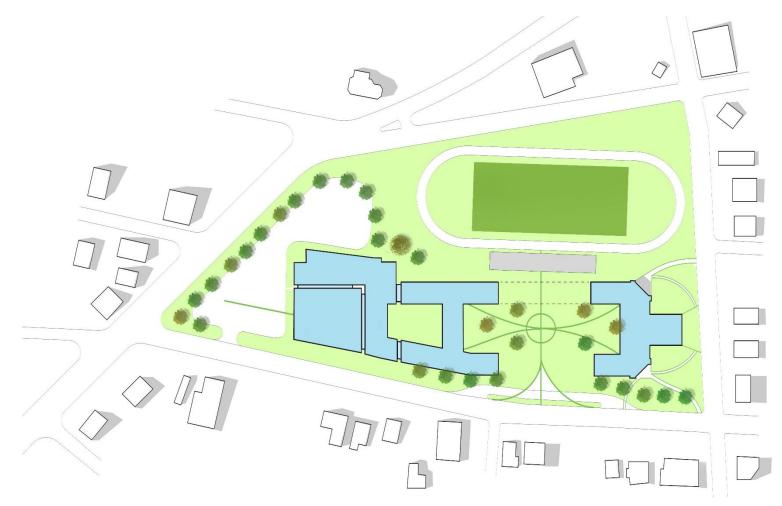










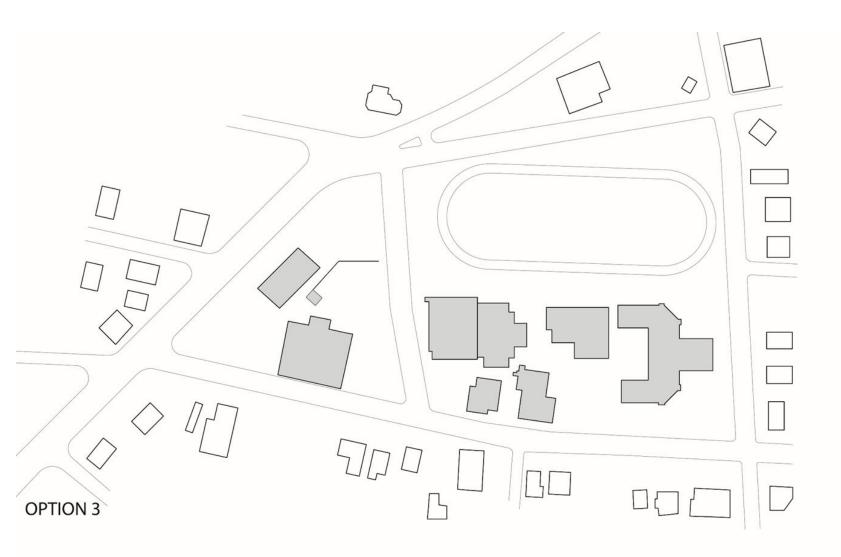


#### OPTION 2a

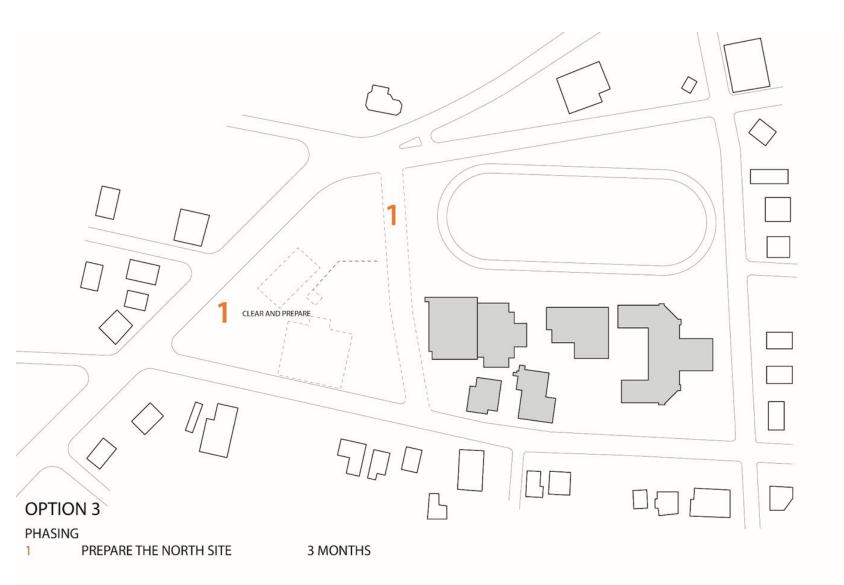
INCORPORATE EXISTING	GYMNASIUM ON CAMPUS	# NEW BLDG. PHASES	LENGTH CONSTRUCTION	MODULAR VILLAGE
Yes	Always	3	60 Months (3/3022)	No

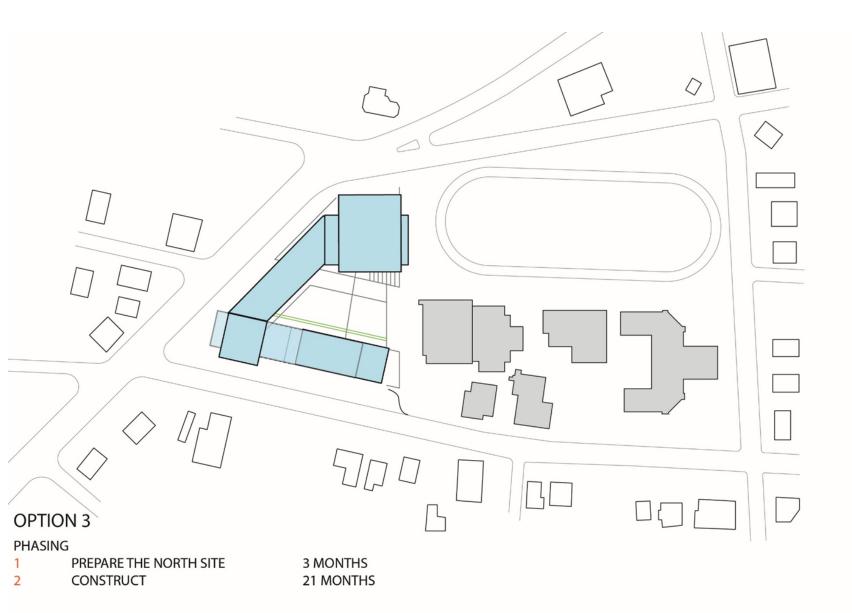
#### OPTION 3 – ALL NEW BUILDINGS

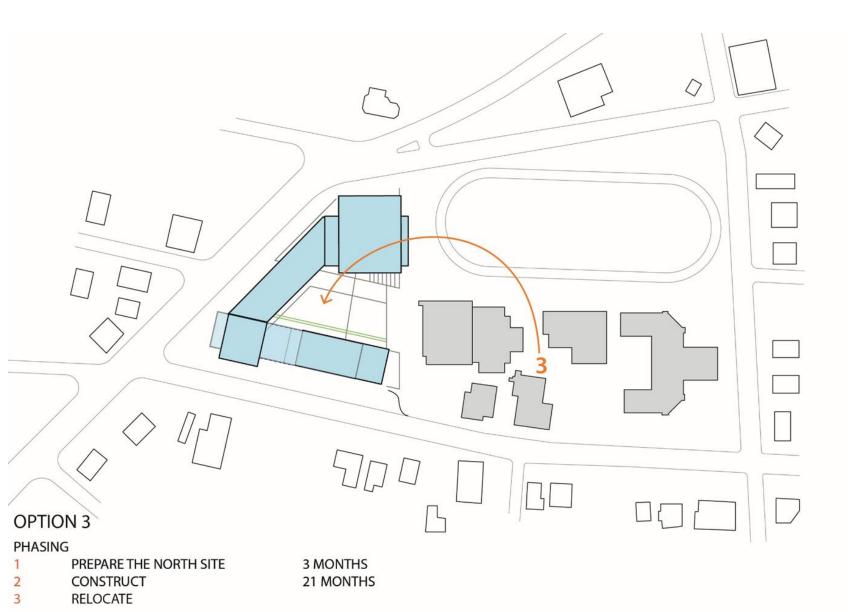
- Develop a brand new school.
- Fit the school within the 'Boyd Site' footprint, allowing for the entire school to be built at once.
- Suggest a future use for the original classroom building.

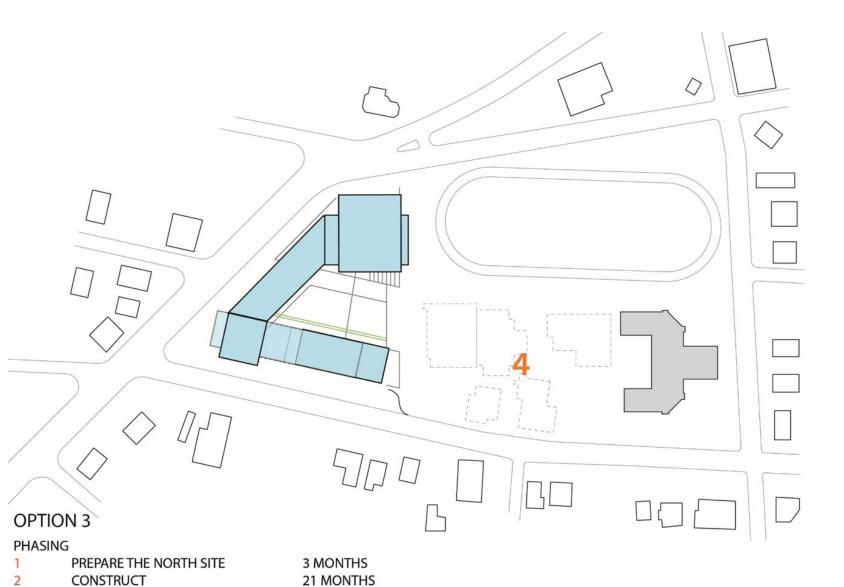


INCORPORATE EXISTING	GYMNASIUM ON CAMPUS	# NEW BLDG. PHASES	LENGTH CONSTRUCTION	MODULAR VILLAGE
No	Always	1	32 Months (10/2019)	No





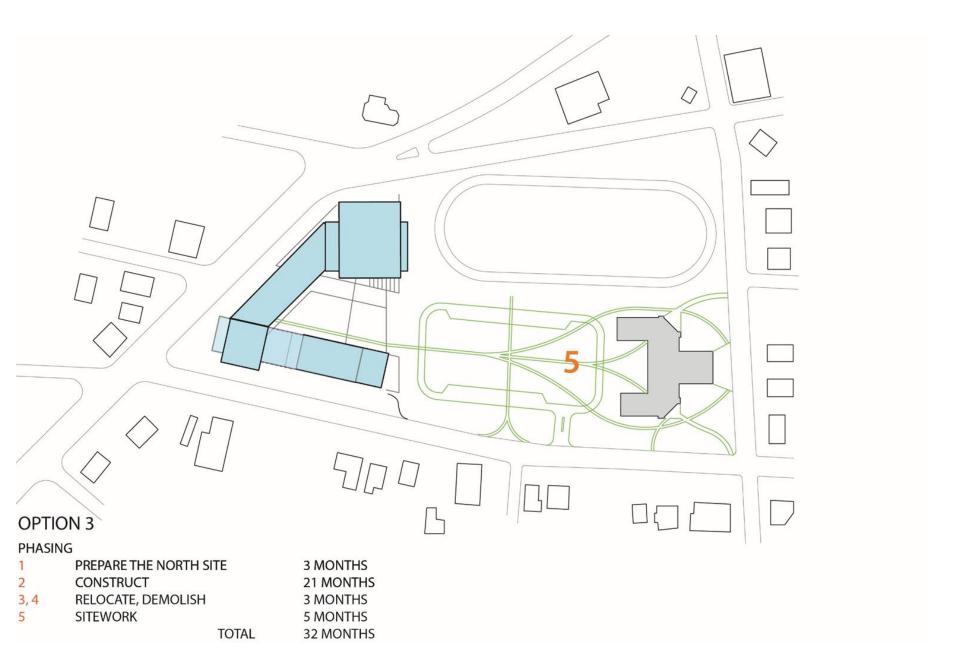


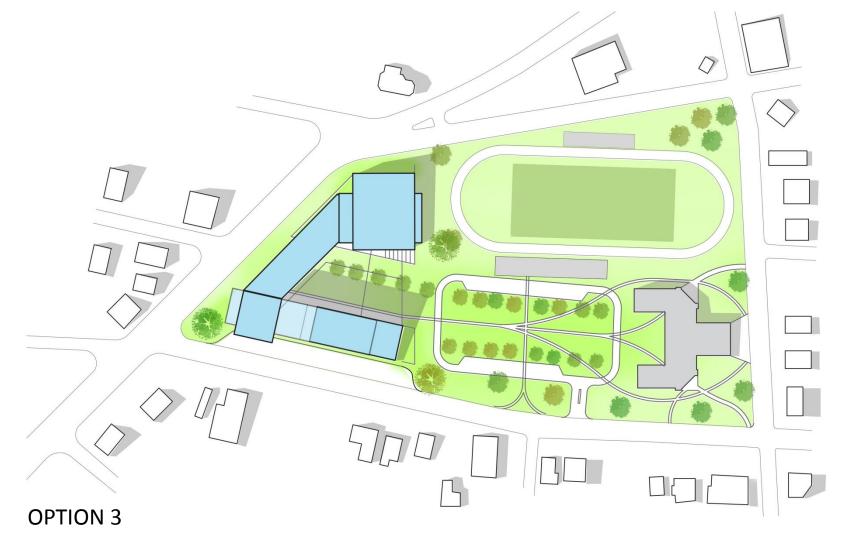


3 MONTHS

RELOCATE, DEMOLISH

3,4

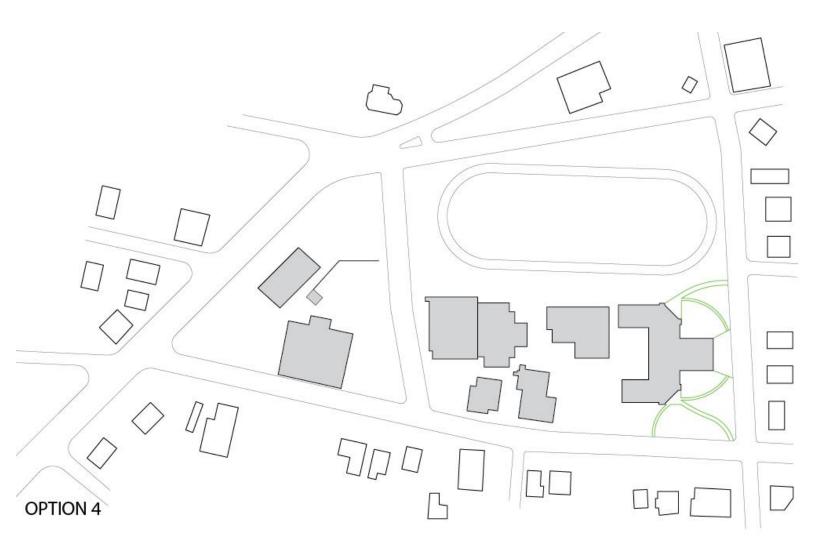




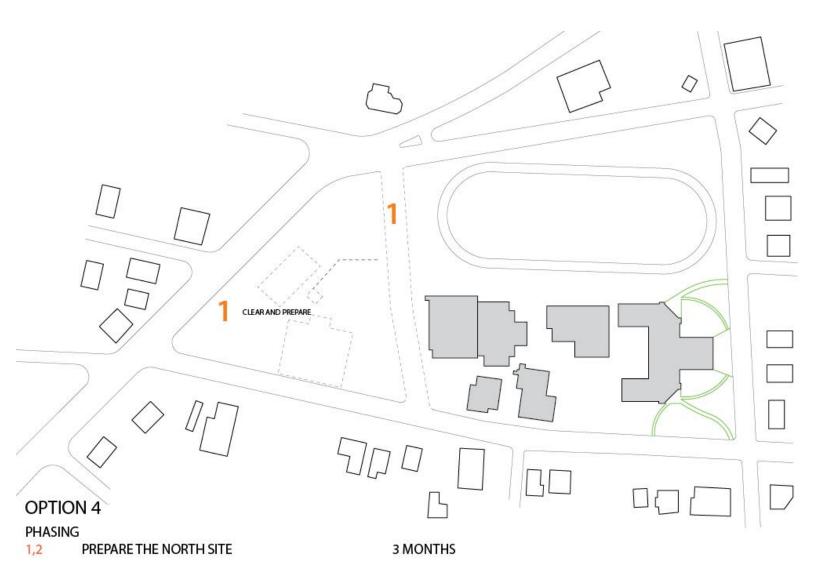
INCORPORATE EXISTING	GYMNASIUM ON CAMPUS	# NEW BLDG. PHASES	LENGTH CONSTRUCTION	MODULAR VILLAGE
No	Always	1	32 Months (10/2019)	No

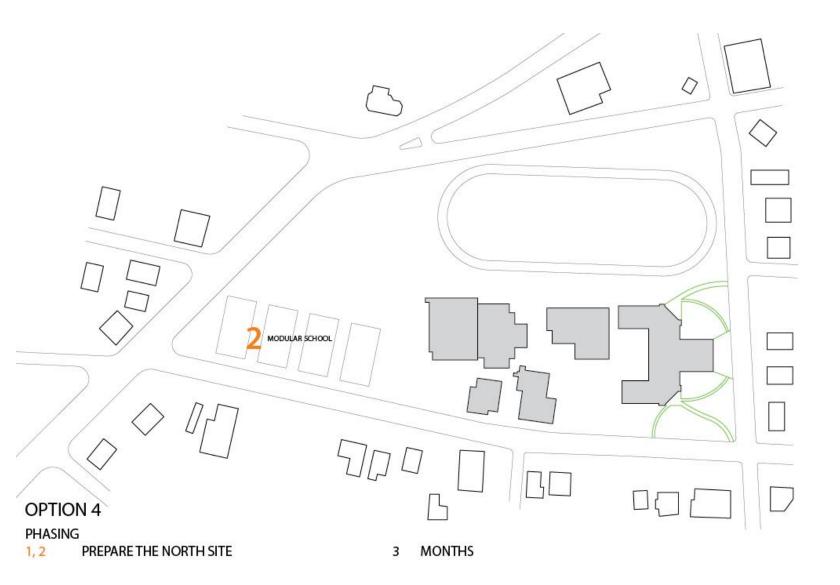
#### OPTION 4 - RENOVATION AND NEW

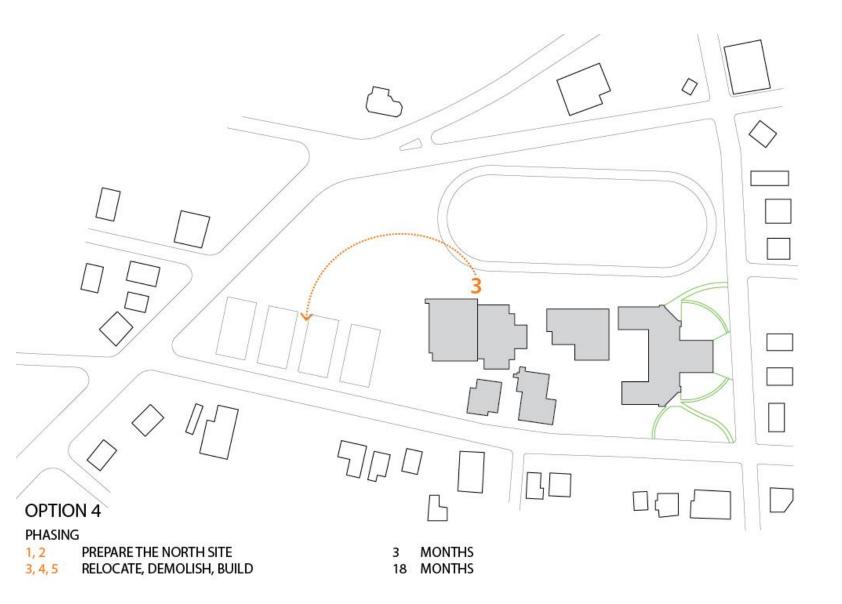
- Develop a combination of renovated and new buildings.
- Keep buildings which have character.
- Create a tighter overall campus.

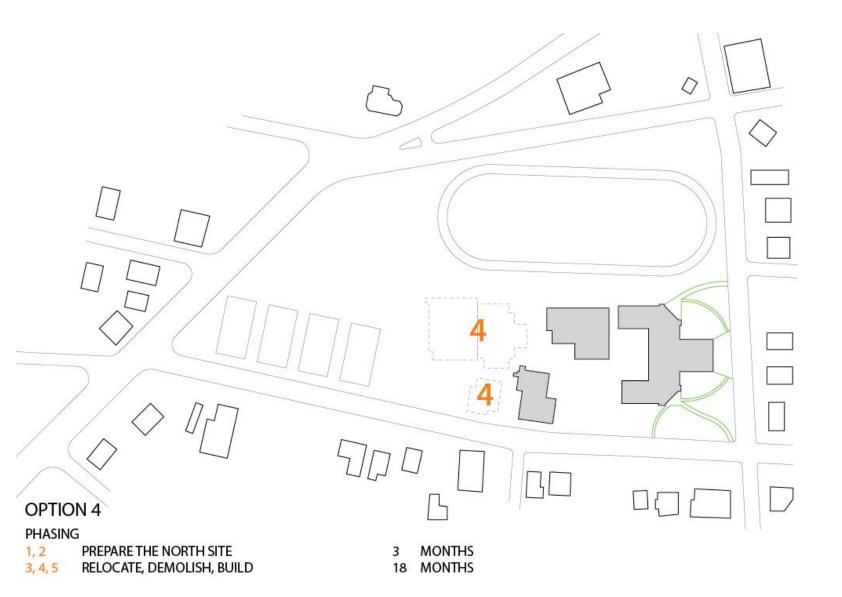


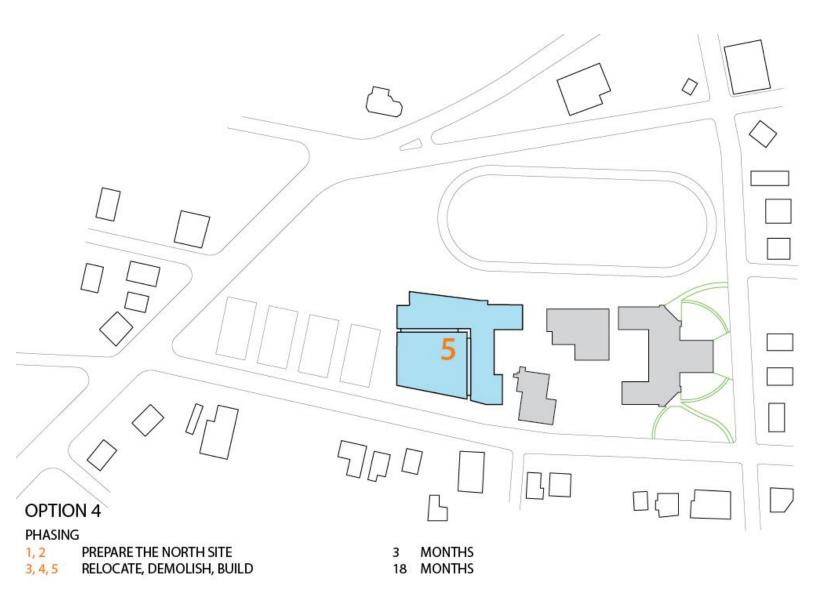
INCORPORATE EXISTING	GYMNASIUM ON CAMPUS	# NEW BLDG. PHASES	LENGTH CONSTRUCTION	MODULAR VILLAGE
Yes	Not for 1.5 Years	2	44 Months (10/2020)	Yes, for 36 months

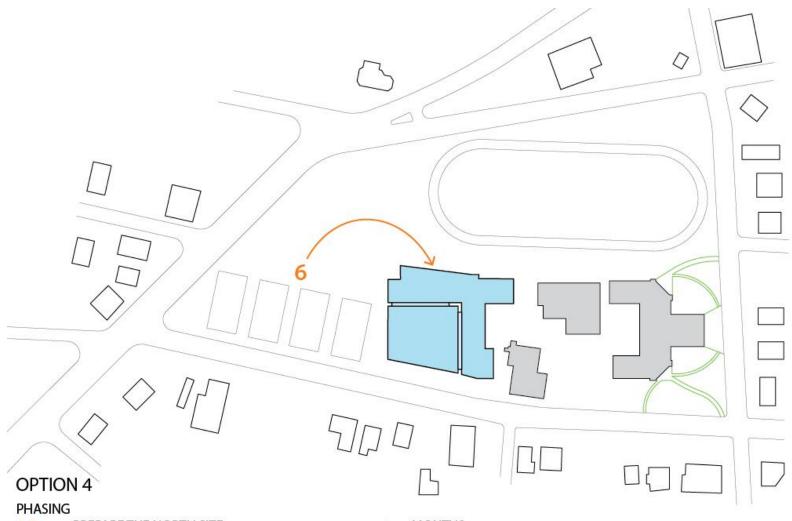










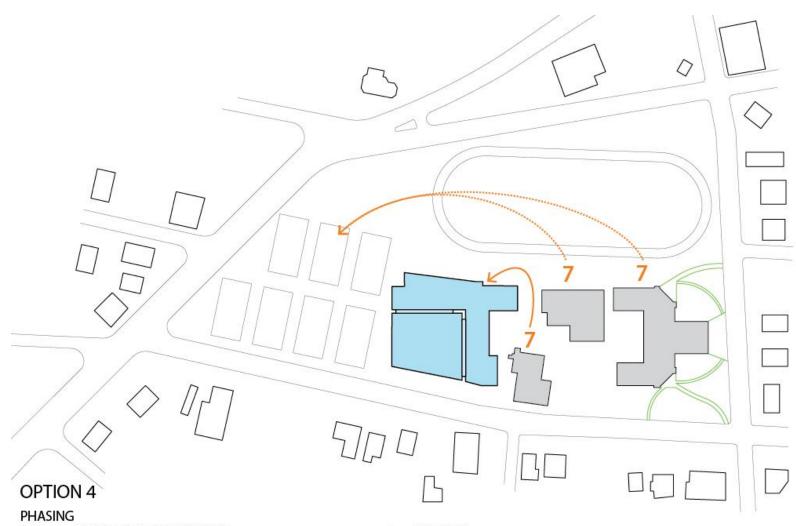


3, 4, 5 RELOCATE, DEMOLISH, BUILD

6, 7, 8, 9 RELOCATE, INSTALL, DEMOLISH, BUILD

3 MONTHS

18 MONTHS



3, 4, 5 RELOCATE, DEMOLISH, BUILD

6, 7, 8, 9 RELOCATE, INSTALL, DEMOLISH, BUILD

3 MONTHS

18 MONTHS



3, 4, 5 RELOCATE, DEMOLISH, BUILD

6, 7, 8, 9 RELOCATE, INSTALL, DEMOLISH, BUILD

3 MONTHS

18 MONTHS

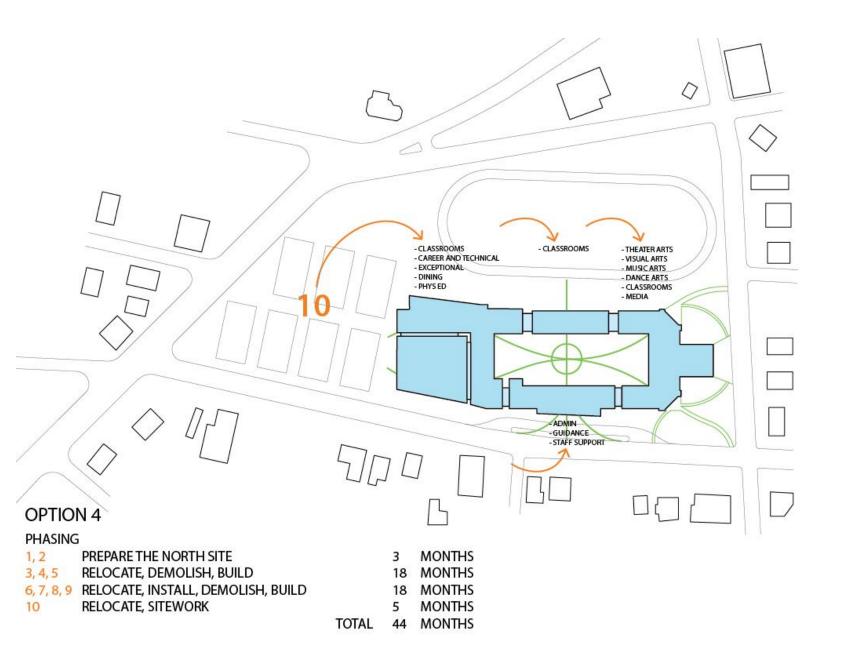


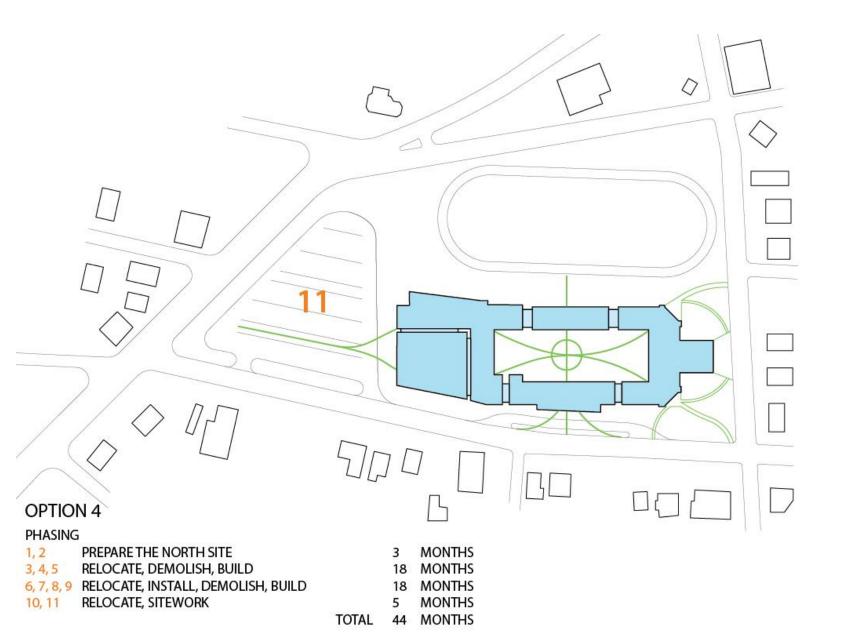
3, 4, 5 RELOCATE, DEMOLISH, BUILD

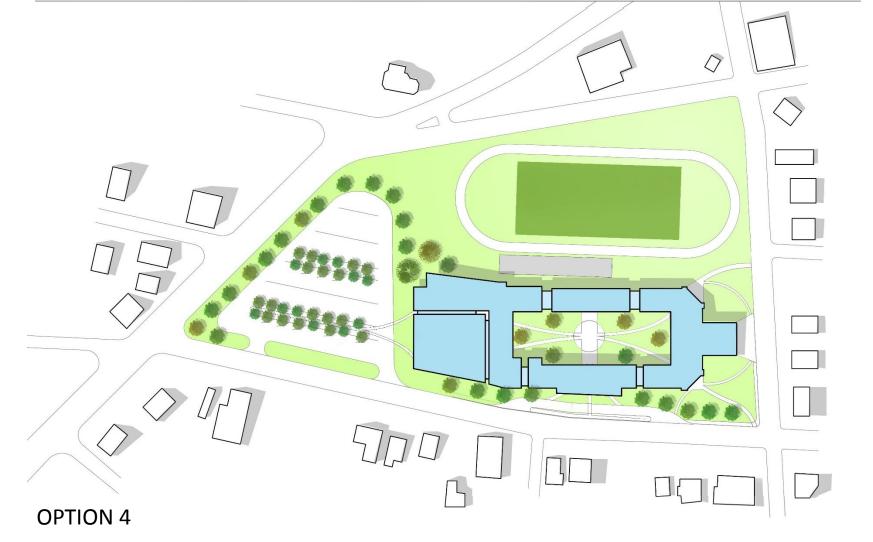
6, 7, 8, 9 RELOCATE, INSTALL, DEMOLISH, BUILD

3 MONTHS

18 MONTHS







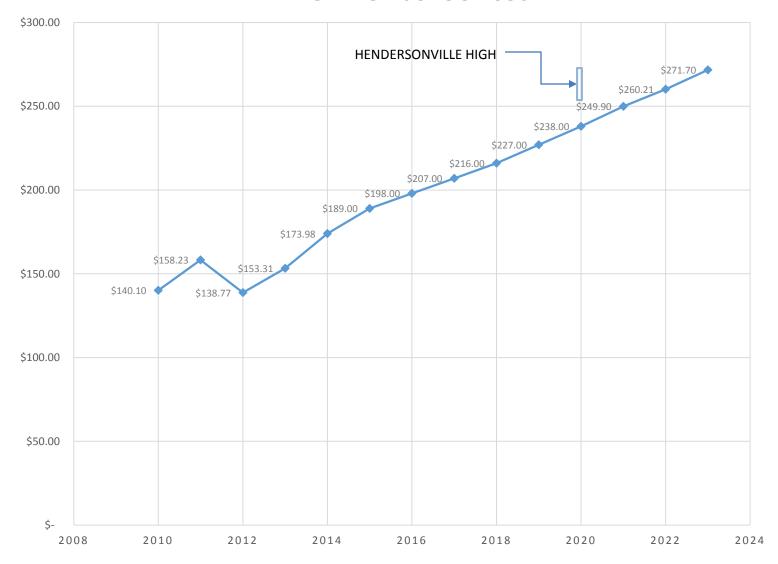
INCORPORATE EXISTING	GYMNASIUM ON CAMPUS	# NEW BLDG. PHASES	LENGTH CONSTRUCTION	MODULAR VILLAGE
Yes	Not for 1.5 Years	2	44 Months (10/2020)	Yes, for 36 months

Option	INCORPORATE EXISTING	GYMNASIUM ON CAMPUS	# NEW BLDG. PHASES	LENGTH CONSTRUCTION	MODULAR VILLAGE
1	Yes	Not for 1.5 Years	2	32 Months (5/2020)	Yes, for 32 Months
2	Yes	Throughout	2	47 Months (1/2021)	Yes, for 21 Months
2A	Yes	Throughout	3	60 Months (3/2022)	No
3	No	Throughout	1	32 Months (10/2019)	No
4	Yes	Not for 1.5 Years	2	44 Months (10/2020)	Yes, for 36 months



### **BUDGET SUMMARY**

#### **AVERAGE HIGH SCHOOL COST**



Avg cost of a high school school will jump over 70% from 2010-2020

				Cost/Sf	
Option 1					
Grand Total Construction Costs	\$ 42,832,048.15	161,500	sf	\$ 265.21	\$4.50 Million Escalation
Overall Project Costs	\$ 54,041,778.26				\$2.09 Million Modular Village
Length of Project	39 months				
Option 2					
Grand Total Construction Costs	\$ 43,364,995.38	161,500	sf	\$ 268.51	\$5.25 Million Escalation
Overall Project Costs	\$ 52,612,694.55				\$0.85 Million Modular Village
Length of Project	47 months				
Option 2a					
Grand Total Construction Costs	\$ 47,132,852.16	181,500	sf	\$ 259.69	\$6.51 Million Escalation
Overall Project Costs	\$ 57,218,765.55				
Length of Project	 60 months				
Option 3	 				
Grand Total Construction Costs	\$ 41,491,744.34	161,500	sf	\$ 256.91	\$3.89 Million Escalation
Overall Project Costs	\$ 50,402,258.32				
Length of Project	32 months				
Option 4					
Grand Total Construction Costs	\$ 44,378,356.00	161,500	sf	\$ 274.79	\$5.15 Million Escalation
Overall Project Costs	\$ 53,808,460.08				\$1.73 Million Modular Village
Length of Project	 44 months				

# OPTION 1 – CONCEPTUAL BUDGETING DETAIL



Phase 1 - Clear and Prepare the Site	3.8	acres	@	\$ 250,000.00		\$ 947,021
Escalation-Assumed construction complete by 5/2017	20.0	month	@	.37% per month	7.400%	\$ 70,079
Phase 2 - Install Modular School	1	Village	@	\$ 2,089,626.67		\$ 2,089,626
Escalation-Assumed construction complete by 5/2017	20.0	month	@	.37% per month	7.400%	\$ 154,632
Phase 3 - Relocate		months				 
Phase 4 - Renovate Existing Buildings	77,487	·\$	@	\$ 190.00		\$ 14,722,530
Phase 4 - Construct New Buildings	16,476	sf	@	\$ 198.00		\$ 3,262,248
Phase 4 - Sitework	2	acres	@	\$ 250,000.00		\$ 500,000
Phase 5 - Relocate	3	months				 
Escalation-Assumed construction complete by 11/2018	29.0	month	@	.37% per month	10.730%	\$ 1,983,416
Phase 6 - Relocate	2	months				
Phase 7 - Demolish Existing Old Gym	27,120	sf	@	\$ 7.00		\$ 189,84
Phase 8 - Renovate Existing Buildings	34,573	sf	@	\$ 190.00		\$ 6,568,870
Phase 8 - Construct New Buildings	32,964	sf	@	\$ 198.00		\$ 6,526,872
Phase 8 - Sitework	2	acres	@	\$ 200,000.00		\$ 300,000
Phase 9 - Relocate	3	months				
Phase 10 - Sitework	4	acres	@	\$ 50,000.00		\$ 200,00
Escalation-Assumed construction complete by 5/2020	45.0	month	@	.37% per month	16.650%	\$ 2,295,29
Sub total						\$ 39,810,430
Overhead and Profit					6.0%	\$ 2,388,62
Sub total						\$ 42,199,06
Bonds and insurance					1.5%	\$ 632,985
Grand Total Construction costs						\$ 42,832,048
Owner Contingency					8.0%	\$ 3,426,56
Soft Costs(AE fees, CM pre-con fee, survey, permitting, geotech,						
special inspector, material testing agent, Air Monitoring etc.)					12.0%	\$ 5,139,84
Commissioning agent					1.0%	\$ 428,32
Furniture, fixture, equipment	161,500	sf	@	\$ 10.00		\$ 1,615,00
Technology/ Equipment						\$ 600,00
Total Project costs						\$ 54,041,778

# OPTION 2 – CONCEPTUAL BUDGETING DETAIL

Phase 1 - Clear and Prepare the Site	3.8	acres	@	\$	300,000.00		\$	1,136,425.6
Escalation-Assumed construction complete by 5/2017		month	@		6 per month	7.400%		84,095.5
Phase 2 - Construct the new Phys Ed, Media, Dining Facility	58,000	sf	@	\$	205.00		\$	11,890,000.0
Phase 3 - Relocate	2	months				***************************************		***************************************
Escalation-Assumed construction complete by 10/2018	28.5	month	@	.37%	6 per month	10.545%	\$	1,253,800.5
Phase 4 - Demolish Existing Buildings	61,693	<i>}</i>	@	\$	7.00		\$	431,851.0
Phase 5 - Install Modular School	1	Village	@	\$	852,683.33		\$	852,683.3
Phase 6 - Relocate	2	months						
Phase 7 - Renovate Existing Building	59,487	sf	@	\$	190.00		\$	11,302,530.0
Phase 7 - Construct New Buildings	44,013	sf	@	\$	194.00		\$	8,538,522.0
Escalation-Assumed construction complete by 7/2020	47.5	month	@	.37%	6 per month	17.575%	\$	3,712,821.
Phase 8 - Relocate	2	months						
Phase 9 - Demolish Existing Vocational	21,420	sf	@	\$	7.00		\$	149,940.0
Phase 10 - Remaining Sitework	3	acres	@	\$	250,000.00		\$	750,000.
Escalation-Assumed construction complete by 1/2121	61.0	month	@	.37%	6 per month	22.570%	\$	203,116.
Sub total							\$	40,305,786.
Overhead and Profit						6.0%	\$	2,418,347.
Sub total							\$	42,724,133.
Bonds and insurance						1.5%	\$	640,862.
Grand Total Construction costs							\$	43,364,995.
Owner Contingency						5.0%	\$	2,168,249.
Soft Costs(AE fees, CM pre-con fee, survey, permitting, geotech, special							**************	***************************************
inspector, material testing agent, Air Monitoring etc.)						12.0%	\$	5,203,799.
Commissioning agent						1.0%	\$	433,649.
Furniture, fixture, equipment	161,500	sf	@	\$	8.00		\$	1,292,000
Technology/ Equipment	***************************************					***************************************	\$	150,000
Total Project costs			,		8		\$	52,612,694

# OPTION 2A - CONCEPTUAL BUDGETING DETAIL



Phase 1 - Clear and Prepare the Site	2 2	acres	@	\$ 300,000.00		\$	1,136,425.6
Escalation-Assumed construction complete by 5/2017		month	@	.37% per month	7.400%		84,095.5
Escalation-Assumed Construction Complete by 3/2017	20.0	IIIOIIIII	le.	.37% per month	7.400/6	۲	04,033.
Phase 2 - Construct the new Phys Ed, Media, Dining Facility	58,000	sf	@	\$ 205.00		\$	11,890,000.0
Phase 3 - Relocate	2	months					
Escalation-Assumed construction complete by 10/2018	28.5	month	@	.37% per month	10.545%	\$	1,253,800.
Phase 4 - Demolish Existing Buildings	61,693	sf	@	\$ 7.00		\$	431,851.0
Phase 5 - Construct New Buildings	60,000	sf	@	\$ 194.00		\$	11,640,000.0
Phase 6 - Relocate	2	months					
Escalation-Assumed construction complete by 7/2020	47.5	month	@	.37% per month	17.575%	\$	2,121,627.
Phase 7 - Renovate Existing Building	59,487	sf	@	\$ 190.00		\$	11,302,530.
Phase 8 - Relocate	2	months					
Phase 9 - Demolish Existing Vocational	21,420	sf	@	\$ 7.00		\$	149,940.
Phase 10 - Remaining Sitework	3	acres	@	\$ 250,000.00		\$	750,000.
Escalation-Assumed construction complete by 3/2023	67.5	month	@	.37% per month	24.975%	\$	3,047,566.
Sub total						\$	43,807,837.
Overhead and Profit					6.0%	\$	2,628,470.
Sub total						\$	46,436,307.
Bonds and insurance					1.5%	\$	696,544.
Grand Total Construction costs						\$	47,132,852.
Owner Contingency					5.0%	\$	2,356,642
Soft Costs(AE fees, CM pre-con fee, survey, permitting, geotech, special							
inspector, material testing agent, Air Monitoring etc.)					12.0%	\$	5,655,942
Commissioning agent					1.0%	\$	471,328
Furniture, fixture, equipment	181,500	sf	@	\$ 8.00		\$	1,452,000
Technology/ Equipment						\$	150,000
Total Project costs						\$	57,218,765

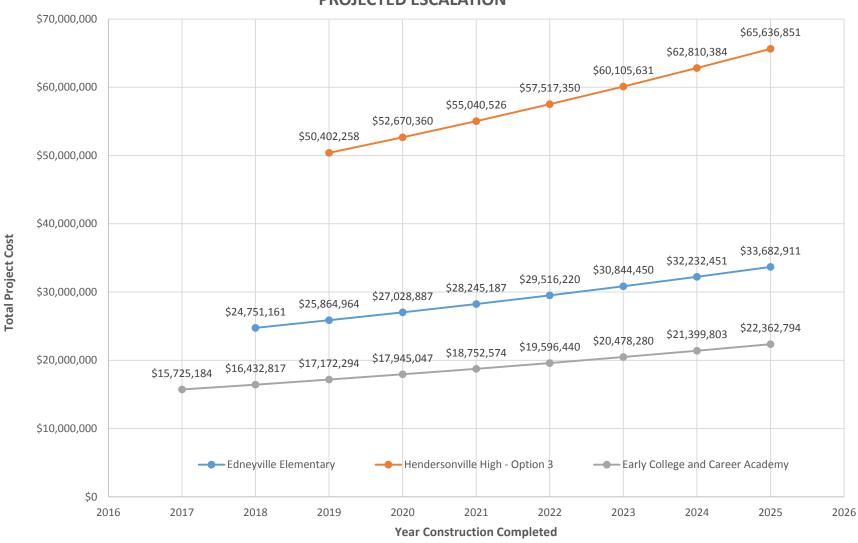
## OPTION 3 – CONCEPTUAL BUDGETING DETAIL

Phase 1 - Clear and Prepare the Site	3.8	acres	@	\$ 300,000.00		\$	1,136,425.6
Escalation-Assumed construction complete by 5/2017	20	month	@	.37% per month	7.400%	\$	84,095.5
Phase 2 - Construct the new Facility	161,500	sf	@	\$ 198.00		\$	31,977,000.0
Phase 2 - Sitework	4	acres	@	\$ 100,000.00		\$	380,000.0
Escalation-Assumed construction complete by 2/2019	30.5	month	@	.37% per month	11.285%	\$	3,608,604.4
Phase 3 - Relocate	3	months					
Phase 4 - Demolish Existing Buildings	83,113	sf	@	\$ 7.00		\$	581,791.
Phase 5 - Sitework	3	acres	@	\$ 200,000.00		\$	600,000.
Escalation-Assumed construction complete by 10/2019	45	month	@	.37% per month	16.650%	\$	196,768.
Sub total						\$	38,564,684.
Overhead and Profit					6.0%	\$	2,313,881.
Sub total						\$	40,878,565
Bonds and insurance					1.5%	\$	613,178.
Grand Total Construction costs						\$	41,491,744.
Owner Contingency				M00000000	5.0%	\$	2,074,587.
Soft Costs(AE fees, CM pre-con fee, survey, permitting, geotech,							
special inspector, material testing agent, Air Monitoring etc.)					12.0%	\$	4,979,009
					1.0%	\$	414,917
Commissioning agent						***********	
	161,500	sf	@	\$ 8.00		\$	1,292,000.
Commissioning agent Furniture, fixture, equipment Technology/ Equipment	161,500	sf	@	\$ 8.00		\$ \$	1,292,000. 150,000.

# OPTION 4 – CONCEPTUAL BUDGETING DETAIL

Phase 1 - Clear and Prepare the Site	3.8	acres	@	\$ 300,000.00	\$	1,136,425.6
Escalation-Assumed construction complete by 5/2017	20	month	@	.37% per month	7.400% \$	84,095.
Phase 2 - Install Modular School	1	Village	@	\$ 1,044,813.33	\$	1,044,813.
Escalation-Assumed construction complete by 5/2017	20	month	@	.37% per month	7.400% \$	77,316.
Phase 3 - Relocate	2	months				
Phase 4 - Demolish Existing Buildings	54,373	sf	@	\$ 7.00	\$	380,611.
Phase 5 - Construct New Phys Ed Buildings	28,000	sf	@	\$ 205.00	\$	5,740,000.
Phase 5 - Construct New Buildings	32,000	sf	@	\$ 194.00	\$	6,208,000.
Escalation-Assumed construction complete by 11/2018	29	month	@	.37% per month	10.730% \$	1,322,859
Phase 6 - Relocate	2	months				
Phase 7 - Install Modular School	1	Village	@	\$ 682,146.67	\$	682,146
Phase 8 - Demolish Existing Buildings	28,740	sf	@	\$ 7.00	\$	201,180
Phase 9 - Renovate Existing Building	59,487	sf	@	\$ 190.00	\$	11,302,530
Phase 9 - Construct New Buildings	42,013	sf	@	\$ 194.00	\$	8,150,522
Phase 9 - Sitework	2	acres	@	\$ 250,000.00	\$	500,000
Phase 10 - Relocate	3	months				
Escalation-Assumed construction complete by 5/2020	47	month	@	.37% per month	17.390% \$	3,504,820
Phase 11 - Remaining Sitework	3	acres	@	\$ 250,000.00	\$	750,000
Escalation-Assumed construction complete by 10/2020	58.5	month	@	.37% per month	21.645% \$	162,337
Sub total					\$	41,247,658
Overhead and Profit					6.0% \$	2,474,859
Sub total					\$	43,722,518
Bonds and insurance					1.5% \$	655,837
Grand Total Construction costs					\$	44,378,356
Owner Contingency				***************************************	5.0% \$	2,218,917
Soft Costs(AE fees, CM pre-con fee, survey, permitting, geotech, special	***************************************					
nspector, material testing agent, Air Monitoring etc.)					12.0% \$	5,325,402
Commissioning agent	000000000000000000000000000000000000000				1.0% \$	443,783
Furniture, fixture, equipment	161,500	sf	@	\$ 8.00	\$	1,292,000
Technology/ Equipment					\$	150,000
Total Project costs					\$	53,808,460

#### **PROJECTED ESCALATION**



### Henderson County Public Schools where tomorrow begins



# HENDERSON COUNTY - North Carolina -

