



Crabtree, Rohrbaugh & Associates

DERRY TOWNSHIP SCHOOL DISTRICT

**Hershey Elementary School
Community Meeting
September 30, 2024**

AGENDA

1 Educational Program

2 Site Analysis

3 Conceptual Design

4 Cost Estimates

5 Next Steps

6 Questions



EDUCATIONAL PROGRAM

Programming of Spaces

EDUCATIONAL PROGRAM

Determining Building Size

Educational Program = 179,235 SF

Grossing Factor x1.6

Total Gross Floor Area = 286,776 SF

Seating Capacity = 1800 seats

Utilization Factor 90%

Educational Capacity = 1620 seats

5 Year Projected Enrollment = 1312

Plus 10%

Planned Student Capacity = 1443

**Educational Capacity exceeds
Planned Capacity by 177 Students*

Derry Township School District Hershey Elementary School Educational Program of Spaces					Projected Enrollment Plus 10%		Planned Student Capacity	
Seating Capacity		1800	ECC & HES Existing		HES Add/Reno			
Educational Capacity		1620	Current		Proposed			
K-2nd Grade			ECC	HES	Quantity	Capacity 25	SF Each	SF Subtotal
K	Kindergarten Classroom		8		12	300	1,000	12,000
1st	1st Grade Classroom		11		12	300	1,000	12,000
2nd	2nd Grade Classroom			11	12	300	1,000	12,000
K-2	Classroom Toilet Rooms				36		75	2,700
K-2	Interventionist		5		6		450	2,700
K-2	ELL		1		2		450	900
K-2	Sensory Space				1		450	450
K-2	Sensory Space				1		250	250
K-2	Descalation Room		1		1		1,000	1,000
K-1	Social Skills				1		450	1,350
K-2	Instructional Planning Center		2		3			45,350
Total Net Capacity and Area					36	900		
3rd-5th Grade			ECC	HES	Quantity	Capacity 25	SF Each	SF Subtotal
3rd	3rd Grade Classroom			10	12	300	900	10,800
4th	4th Grade Classroom			10	12	300	900	10,800
5th	5th Grade Classroom			10	12	300	900	10,800
3-5	Interventionist			8	5		450	2,250
3-5	ELL			1	2		450	900
3-5	Sensory Space			1	1		450	450
3-5	Descalation Room			2	3		250	250
3-5	Instructional Planning Center						450	1,350
Total Net Capacity and Area					36	900		37,600
Core Academic Gross Capacity and Area					72	1800		82,950
Collaborative Learning			ECC	HES	Quantity	Capacity	SF Each	SF Subtotal
Learning Commons					2		2,250	4,500
Breakout/Flex Areas					0		0	0
Total Net Area								
Special Education			ECC	HES	Quantity	Capacity	SF Each	SF Subtotal
K-2	Learning Support		3	9	6		1,000	6,000
3-5	Learning Support				6		900	5,400
K-5	Emotional Support				2		1,050	2,100
K-5	Autistic Support				2		1,050	2,100
K-5	Life Skills/MDS				2		1,100	2,200
	Life Skills Toilet Room				1		100	100
Grade Level Storage								

		450	1,800
		6,300	6,300
		850	850
		250	250
		150	150
		225	450
		8,000	
	SF Each	SF Subtotal	
		10,000	10,000
		175	350
		500	1,000
		850	850
		12,200	
	SF Each	SF Subtotal	
		4,250	8,500
		5,000	5,000
		1,000	1,000
		100	100
		100	100
		150	150
		14,850	
	SF Each	SF Subtotal	
		900	900
		900	
	Each	SF Subtotal	
		900	900
		150	250
		10	600
		1	450
		450	450

		110
	Subtotal	150
		100
		375
		100
		300
		100
		1,125
	SF Subtotal	250
		600
		150
		300
		350
		100
		1,750
	SF Subtotal	375
		125
		125
		125
		125
		875
	Each	1,000
		1,000
		300
		200
		1,000
		450
		2,700

DAO PROGRAM

Determining Building Size

DAO Program = 19.195 SF

Grossing Factor x1.5

Total Gross Floor Area = 28,793 SF

Elementary School: 286,776 SF

DAO: 28,793 SF

Total Building Area: 315,569 SF

Derry Township School District District Office						
District Office Spaces			District Office Current Specs		District Office Renovation	
			Existing		Proposed	
			Quantity		Quantity	SF Each SF Subtotal
Curriculum						
Assistant to the Superintendent			1	254	1	250
CIA specialist (Admin Assnt)			1	152	1	125
Director Of Professional Learning And Innovation			1	281	1	250
Total Net Area			3	687	3	625
Superintendents Office			Quantity		Quantity	SF Each SF Subtotal
Superintendent			1	430	1	350
Administrative Assistant			1	235	1	125
Small Conference Room			1	180	1	350
Bathroom w/ shower			0		1	100
Total Net Area			3	845	4	925
Human Resources			Quantity		Quantity	SF Each SF Subtotal
Assistant to the Superintendent			1	292	1	250
AA - HR Specialist			1	174	1	125
Records Closet			1	228	1	200
HR Supervisor			1	194	1	200
On-boarding Room			1	150	1	125
Bathroom w/ shower			0		1	100
Total Net Area			5	1038	6	1,000
Special Education			Quantity		Quantity	SF Each SF Subtotal
Director of Special Education			1	274	1	250
Assistant Director of Spec Ed			1	160	1	200
Administrative Assistants			2	407	2	125
Registrar			1		1	125
File Storage			1	130	1	200
Total Net Area			6	971	6	1,025

Quantity		Quantity	SF Each	SF Subtotal
1	255	1	250	250
1		1		250
Quantity		Quantity	SF Each	SF Subtotal
1	273	1	250	250
1	414	1	150	150
1	113	1	150	150
1	850	1	600	600
1	314	1	500	500
2	334	1	800	800
7	2298	6		2,450
Quantity		Quantity	SF Each	SF Subtotal
		1	250	250
		1		250
Quantity				
		1	250	250
		1	125	125
		2		375
242	1	250	250	
207	1	200	200	
115	1	150	150	
130	1	150	150	
	1	175	175	
228	1	200	200	
	1	250	250	
	1	125	125	
2	8		1,500	
1	450	450		
1	500	500		
1	300	300		
1	300	300		
1	900	900		
1	1,000	1,000		
5	200	1,000		
1	1,400	1,400		



SITE ANALYSIS

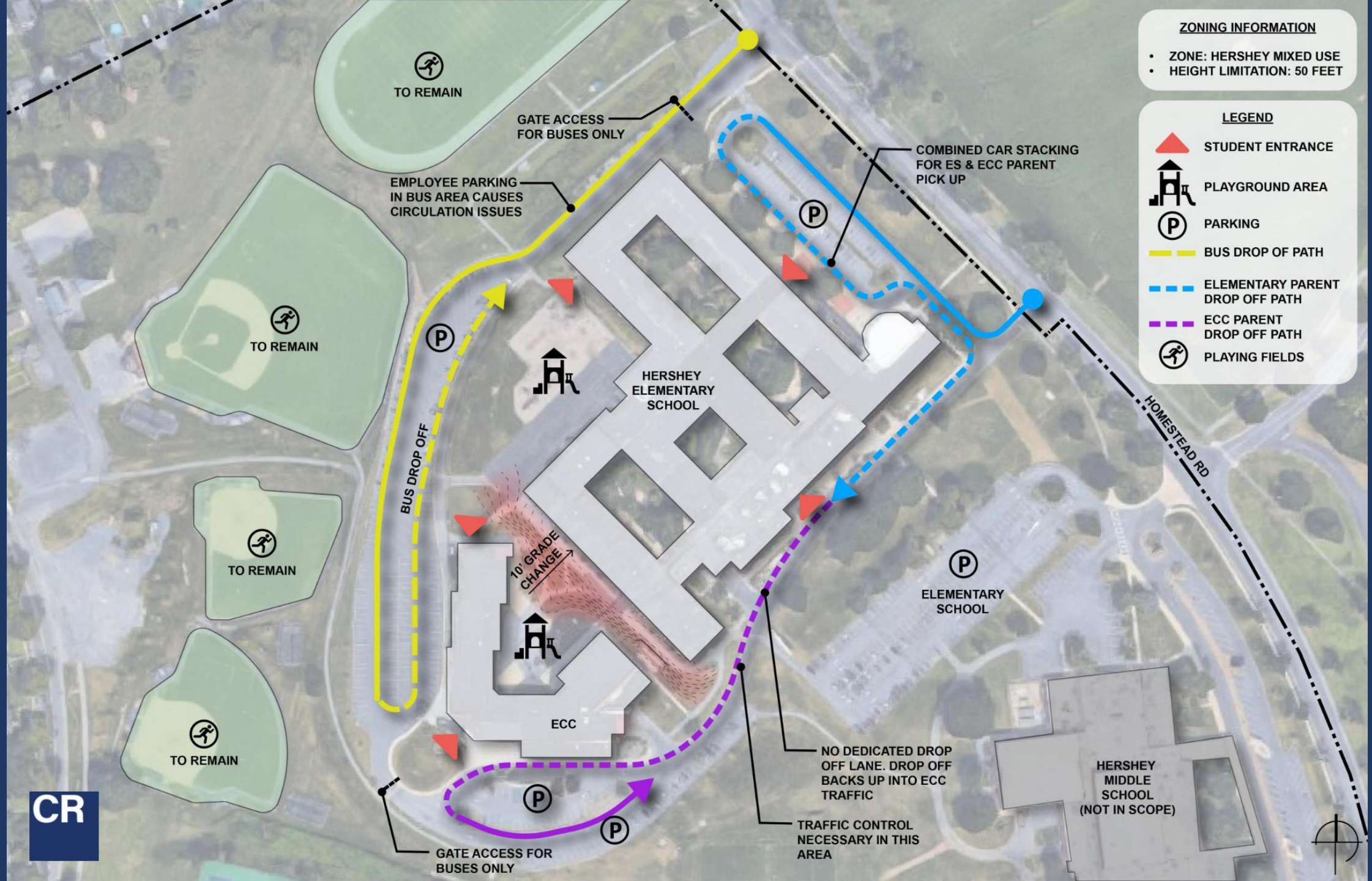
Guiding Principles for Design

ZONING INFORMATION

- ZONE: HERSHEY MIXED USE
- HEIGHT LIMITATION: 50 FEET

LEGEND

-  STUDENT ENTRANCE
-  PLAYGROUND AREA
-  PARKING
-  BUS DROP OFF PATH
-  ELEMENTARY PARENT DROP OFF PATH
-  ECC PARENT DROP OFF PATH
-  PLAYING FIELDS



BUILDING / SITE GUIDING PRINCIPLES

- 1 CONSTRUCTION PHASING - DEMOLITION OF ES DURING OR AFTER NEW CONSTRUCTION
- 2 CONSIDER OPTIONS FOR ECC TO REMAIN OR ECC TO BE DEMOLISHED
- 3 ES PARKING AREA CAN BE USED FOR CONSTRUCTION BUT MUST BE REPLACED
- 4 ATHLETIC FIELDS BEHIND MS CAN BE USED FOR CONSTRUCTION BUT MUST BE REPLACED
- 5 FRONT ENTRANCE TO FACE HOMESTEAD ROAD
- 6 D.A.O. INTEGRATED WITH DEDICATED ENTRANCE/PARKING
- 7 AVOID BASEBALL / SOFTBALL FIELDS

DESIGN GOALS

- IMPROVED PARKING/VEHICULAR CIRCULATION
- FRONT ENTRY FACING MAIN ROAD - CLARITY OF MAIN ENTRANCE FOR SCHOOL SAFETY & SUPERVISION
- 3 STORY CLASSROOM WINGS FOR EDUCATIONAL ORGANIZATION
- NOT A SUM OF MANY PARTS - A HOLISTIC VISION AND IDEA FOR THE BUILDING
- CONNECTED ACADEMIC WINGS SHARED RESOURCES



A high-angle, close-up photograph of several people's hands and forearms stacked in a circle, creating a sense of unity and teamwork. The individuals are wearing various casual clothing, including an orange button-down shirt, a blue long-sleeved sweater, and a grey zip-up jacket. The background is blurred, focusing attention on the hands. A semi-transparent blue horizontal band is overlaid across the middle of the image, containing the main title and subtitle.

CONCEPTUAL DESIGN

Option Development

CONCEPTUAL DESIGN

Option 1

New stand-alone ES and renovate portion of ECC into DAO. Demolish ES after construction of new ES.

Option 2

New stand-alone ES and DAO. Demolish ES and ECC after construction of new ES.

Rejected Concept A

New ES connected to ECC and phased demolition of existing ES. Renovate portion of ECC to be new DAO

Rejected Concept B

New ES and DAO with phased demolition of ECC and ES.



Existing Conditions



OPTION ONE

New ES and Repurpose ECC to DAO

OPTION 1

Pros:

1. Limited disturbance to educational instruction during construction
2. Efficient building organization and circulation
3. Reuse portion of ECC as new DAO
4. Maintain existing ECC gymnasium for community use
5. Maintain ECC classroom space for future needs

Unknowns:

1. Close proximity to existing Middle School can limit size of new play areas and access drives around school
2. Operational costs for vacant spaces in ECC

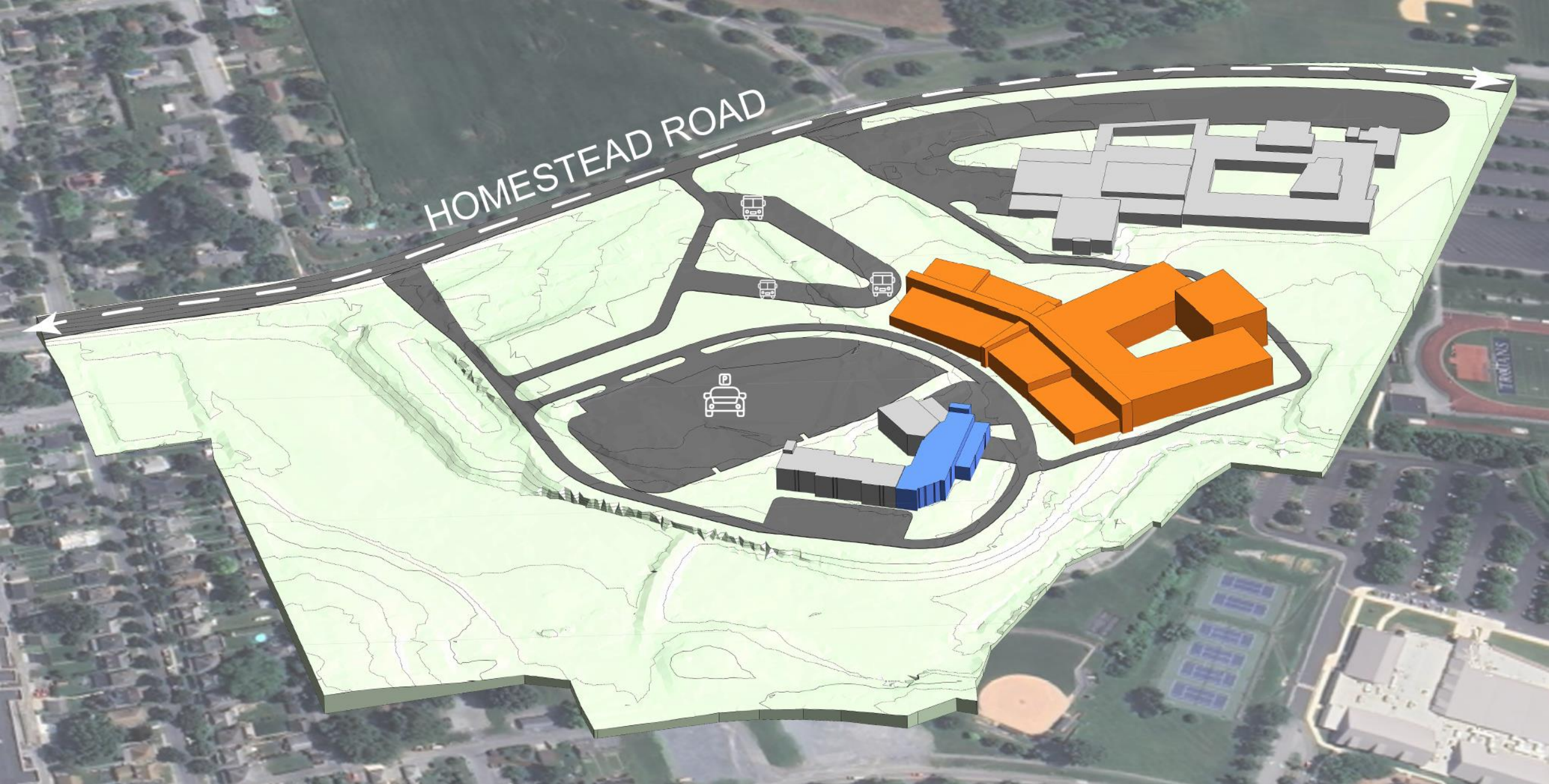




Phase 1: Construction of new school



Phase 2: Renovation of ECC to DAO and ES demolition



Phase 3: Complete site improvements



OPTION TWO

New ES and DAO

OPTION 2

Pros:

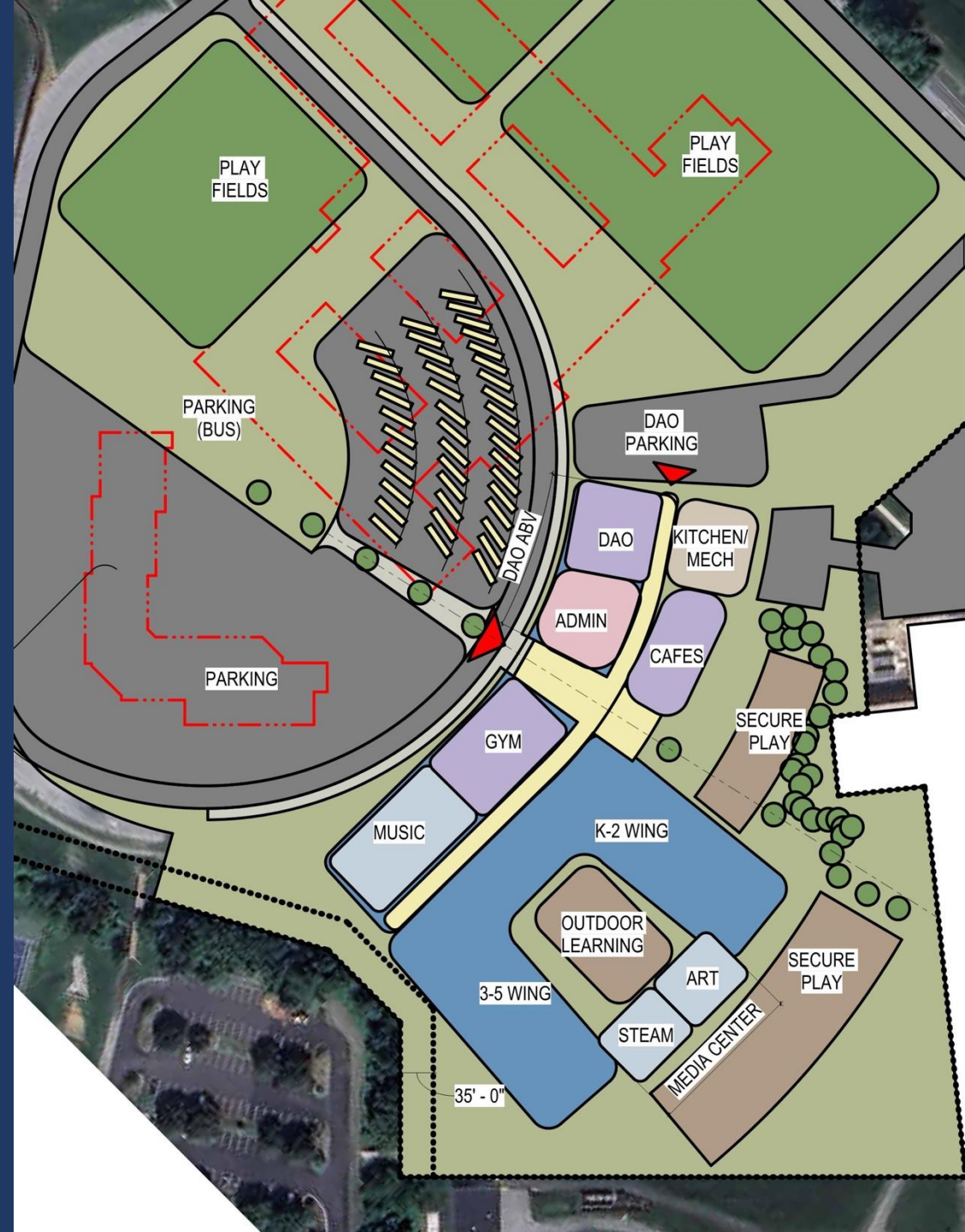
1. Limited disturbance to educational instruction during construction
2. Efficient building organization and circulation

Cons:

1. Demolition of existing ECC (built in 2001)

Unknowns:

1. Close proximity to existing Middle School can limit size of new play areas and access drives around school





Phase 1: Construction of new school



Phase 2: Demolition of ES and ECC



Phase 3: Complete site improvements



REJECTED CONCEPT A

New ES addition to ECC

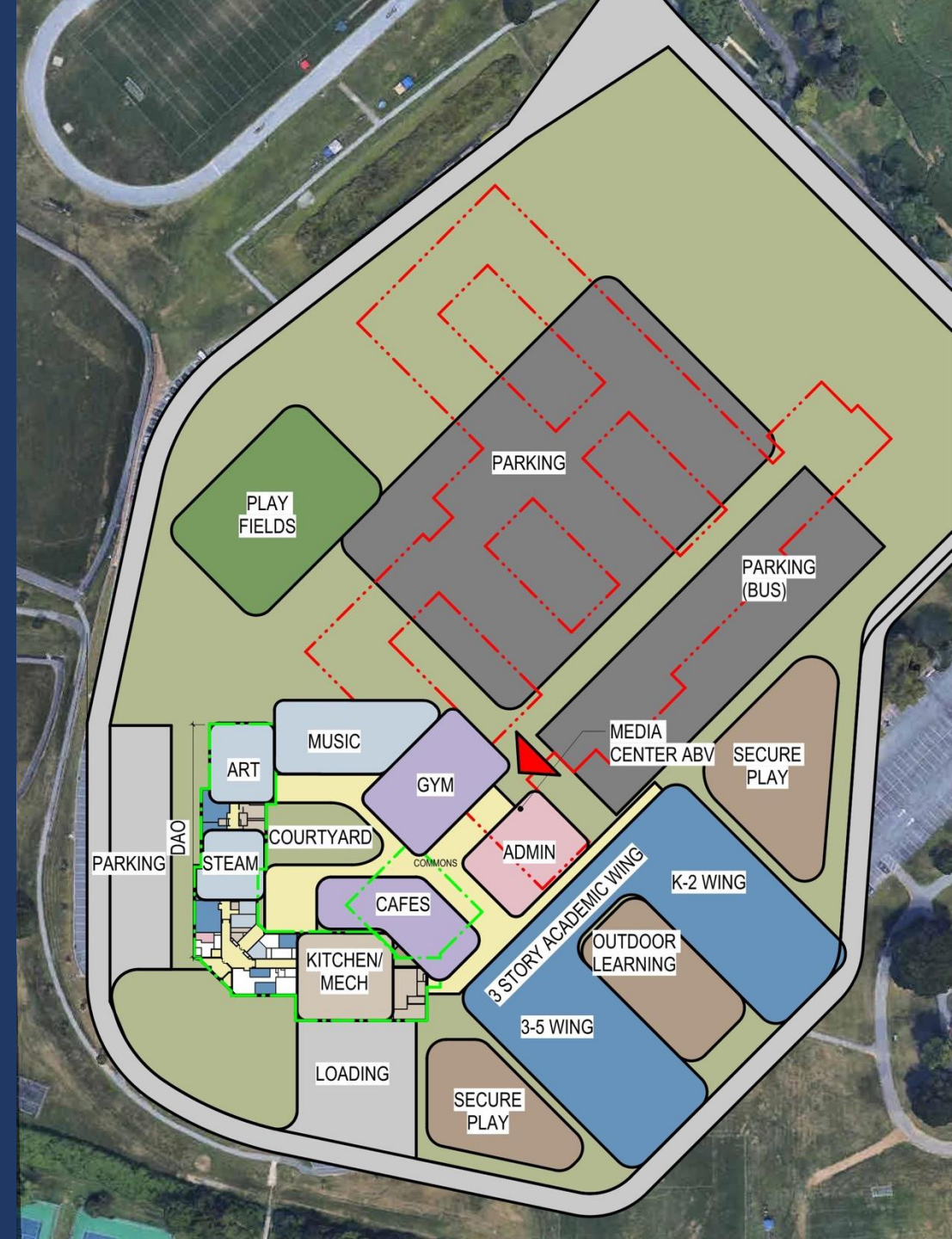
REJECTED CONCEPT A

Pros:

1. Maintain distance from existing Middle School

Cons:

1. Cost range exceeds District's budget
2. Repurpose ECC yields inefficient program adjacencies and space
3. Phased construction disrupts delivery of educational instruction
4. Temporary locations for drop-off and pick-up
5. School operations disjointed during construction, ie Food Service, P.E., Admin, etc.
6. Connecting to existing ECC requires larger building footprint and sprawling circulation
7. Extended construction duration





Phase 1: Construction of new academic wings



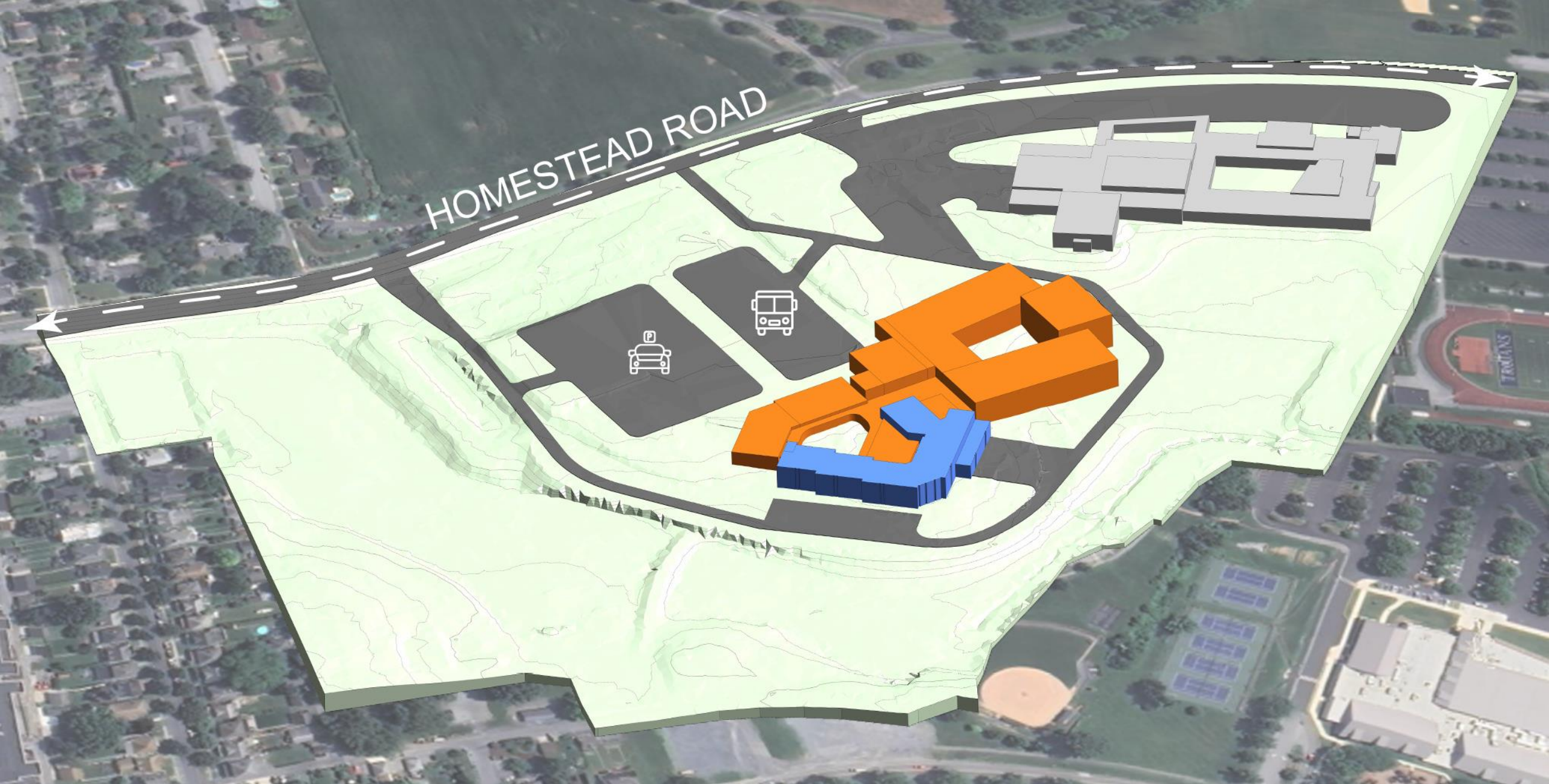
Phase 2: Phased demolition of existing 5th grade wing



Phase 3: New addition to ECC



Phase 4: Demolition of existing ES



Phase 5: Complete site improvements



REJECTED CONCEPT B

New ES and DAO with phased construction

REJECTED CONCEPT B

Pros:

1. Efficient building organization and circulation
2. Maintain distance from existing Middle School and athletic fields

Cons:

1. Cost range exceeds District's budget
2. Phased construction disrupts delivery of educational instruction
3. Temporary locations for drop-off and pick-up during construction
4. School operations disjointed during construction, ie Food Service, P.E., Admin, etc.
5. Demolition of existing ECC (built in 2001)
6. Extended construction duration





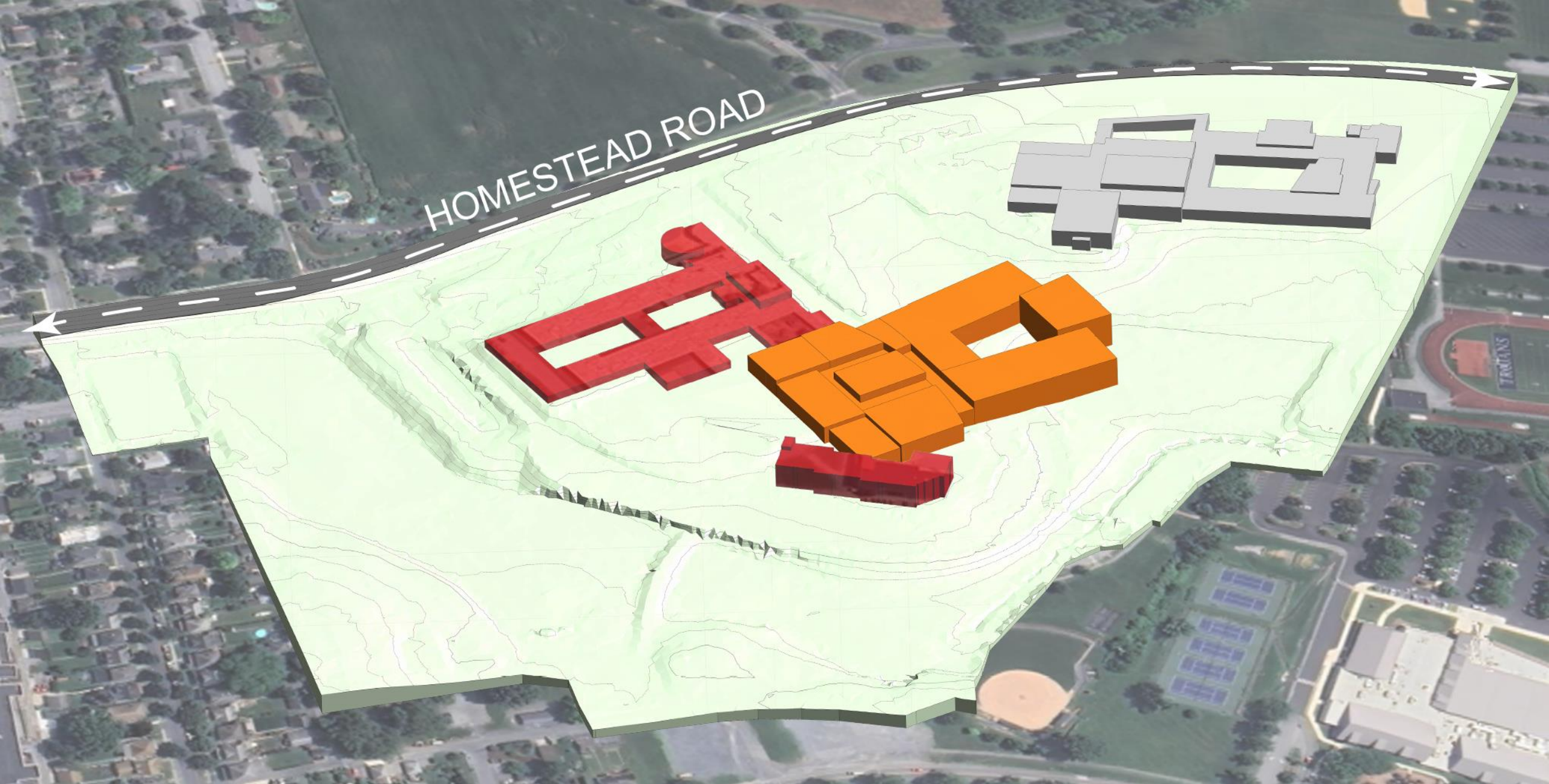
Phase 1: Construction of new academic wings



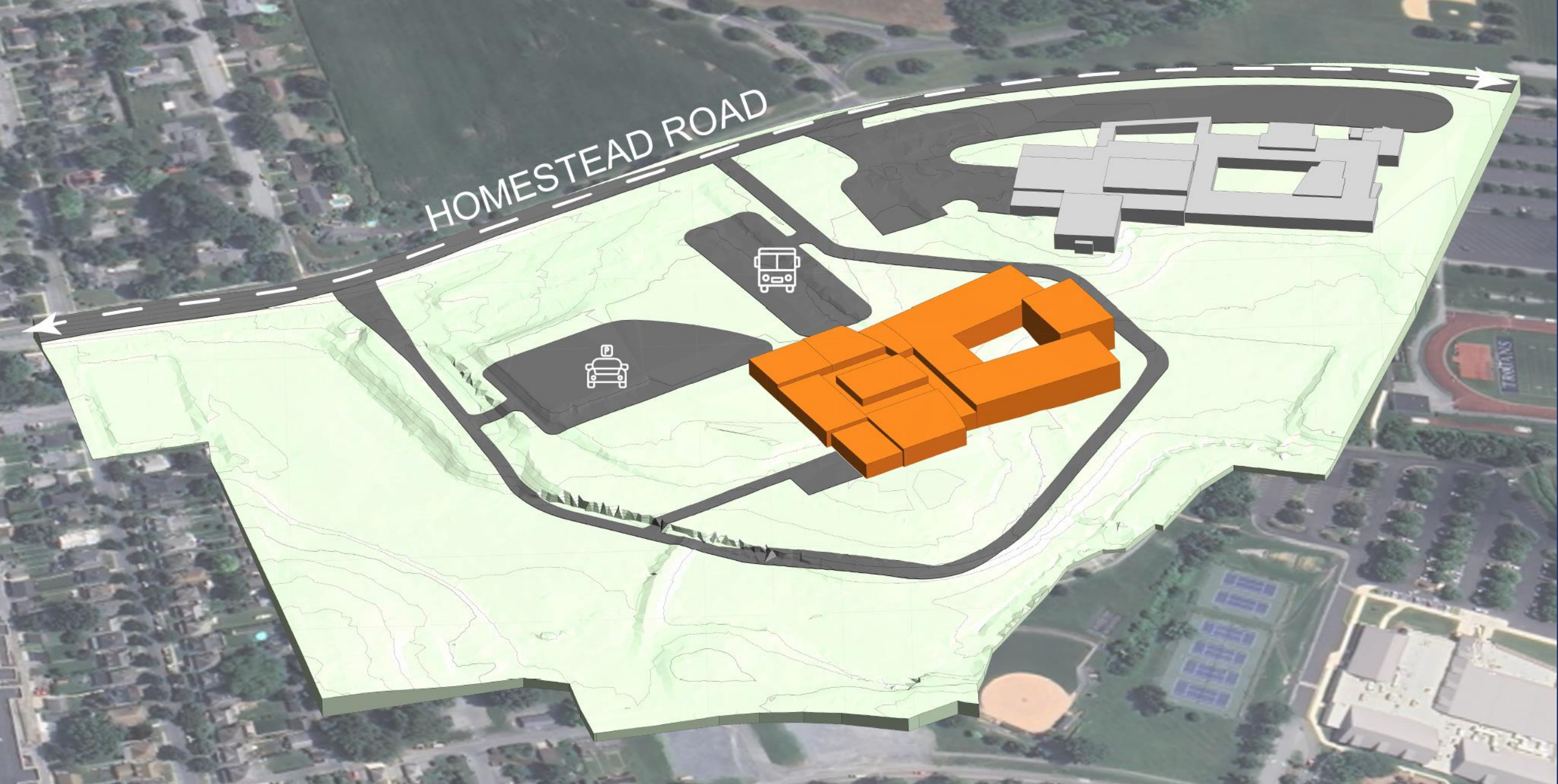
Phase 2: Phased demolition of ECC and ES



Phase 3: Complete new construction



Phase 4: Complete demolition of ECC and ES



Phase 5: Complete site improvements



COST ESTIMATES

Preliminary Cost Ranges of Conceptual Options

OUTLINE OF A TOTAL PROJECT COST ESTIMATE

1. CONSTRUCTION COST ESTIMATE

- General Construction
- HVAC Construction
- Plumbing Construction
- Electrical Construction

CONSTRUCTION COST ESTIMATE SUBTOTAL

2. CONSTRUCTION SOFT COST ESTIMATE

- Construction Contingency
- Regulatory Agency Review
- Testing and Inspections
- Commissioning
- Construction Manager

TOTAL CONSTRUCTION COST ESTIMATE

3. SOFT COST ESTIMATE

- Design Professional Fees
- Land and Traffic Surveys
- Geotechnical Investigation
- Financing
- Furniture, Fixtures & Equipment

TOTAL PROJECT COST ESTIMATE

NOTE: Cost Estimates for Conceptual Design are preliminary and presented in a range until final scope of work is determined.

OPTION 1 COST ESTIMATE

Hershey Elementary School				Date: 8/22/2024
Option 1 - New ES and maintain ECC		COST RANGE		
Renovation Construction Costs	32,600 SF	\$ 6,520,000		\$ 7,172,000
Additions Construction Costs	SF	\$ -		\$ -
New Building Construction Costs	286,776 SF	\$ 78,863,400		\$ 86,032,800
Site Construction Costs		\$ 9,199,635		\$ 10,425,950
Subtotal Construction Costs		\$ 94,583,035		\$ 103,630,750
Construction Soft Costs	9.0%	\$ 8,512,473		\$ 9,326,768
Total Construction Costs		\$ 103,095,508		\$ 112,957,518
Project Soft Costs	14.0%	\$ 14,433,371		\$ 15,814,052
TOTAL PROJECT COSTS		\$ 117,528,879		\$ 128,771,570

NOTE: Site Construction Costs include building demolition costs

OPTION 2 COST ESTIMATE

Hershey Elementary School				Date: 8/22/2024
Option 2 - New ES and demolition of ECC & ES		COST RANGE		
Renovation Construction Costs	SF	\$ -		\$ -
Additions Construction Costs	SF	\$ -		\$ -
New Building Construction Costs	315,569 SF	\$ 86,781,475		\$ 94,670,700
Site Construction Costs		\$ 8,800,745		\$ 10,077,405
Subtotal Construction Costs		\$ 95,582,220		\$ 104,748,105
Construction Soft Costs	9.0%	\$ 8,602,400		\$ 9,427,329
Total Construction Costs		\$ 104,184,619		\$ 114,175,434
Project Soft Costs	14.0%	\$ 14,585,847		\$ 15,984,561
TOTAL PROJECT COSTS		\$ 118,770,466		\$ 130,159,995

NOTE: Site Construction Costs include building demolition costs

REJECTED CONCEPT 'A' COST ESTIMATE

Hershey Elementary School		Date: 8/22/2024			
Reject A- New ES connected to ECC w/phased demo of ES		COST RANGE			
Renovation Construction Costs	51,425 SF	\$	11,570,625	\$	12,727,688
Additions Construction Costs	SF	\$	-	\$	-
New Building Construction Costs	275,943 SF	\$	75,884,325	\$	82,782,900
Site Construction Costs		\$	9,249,966	\$	10,257,845
Phasing Contingency	1%	\$	967,049	\$	1,586,526
Subtotal Construction Costs		\$	97,671,965	\$	107,354,959
Construction Soft Costs	9.0%	\$	8,790,477	\$	9,661,946
Total Construction Costs		\$	106,462,442	\$	117,016,906
Project Soft Costs	14.0%	\$	14,904,742	\$	16,382,367
TOTAL PROJECT COSTS		\$	121,367,184	\$	133,399,273

NOTE: Site Construction Costs include building demolition costs

REJECTED CONCEPT 'B' COST ESTIMATE

Hershey Elementary School				Date: 8/22/2024
Reject B - New ES w/phased demo of ECC & ES		COST RANGE		
Renovation Construction Costs	SF	\$ -		\$ -
Additions Construction Costs	SF	\$ -		\$ -
New Building Construction Costs	315,569 SF	\$ 86,781,475		\$ 94,670,700
Site Construction Costs		\$ 9,697,185		\$ 10,747,260
Phasing Contingency	1%	\$ 964,787		\$ 1,581,269
Subtotal Construction Costs		\$ 97,443,447		\$ 106,999,229
Construction Soft Costs	9.0%	\$ 8,769,910		\$ 9,629,931
Total Construction Costs		\$ 106,213,357		\$ 116,629,160
Project Soft Costs	14.0%	\$ 14,869,870		\$ 16,328,082
TOTAL PROJECT COSTS		\$ 121,083,227		\$ 132,957,242

NOTE: Site Construction Costs include building demolition costs

PRELIMINARY ESTIMATE SUMMARY

PRELIMINARY COST ESTIMATE SUMMARY OF CONCEPTUAL DESIGN OPTIONS

CONCEPTS	PROPOSED SCOPE	SF OF RENOVATION	SF OF NEW CONSTR.	TOTAL SF	TOTAL ESTIMATED COST RANGE		
OPTION 1	New stand-alone ES. Repurpose ECC to DAO	32,600	286,776	319,376	\$ 117,528,879	-	\$ 128,771,570
OPTION 2	New stand-alone ES/DAO. Demo ECC	-	315,569	315,569	\$ 118,770,466	-	\$ 130,159,995
REJECTED A	New ES connected to renovated ECC	51,425	275,943	327,368	\$ 121,367,184	-	\$ 133,399,273
REJECTED B	New ES/DAO. Phased demo of ECC and ES	-	315,569	315,569	\$ 121,083,227	-	\$ 132,957,242



NEXT STEPS

Upcoming Milestones

NEXT STEPS

October 2024

Consideration of Board Approval of a Conceptual Design

Following direction on preferred Conceptual Design, CRA will develop Schematic Design Plans to establish building square footage and adjust preliminary project cost estimate.

Upcoming Milestones

Project status updates – every first School Board Meeting of the month

Act 34 Public Hearing – Community update on project need, project description, cost estimate and financing

Questions?



Crabtree, Rohrbaugh & Associates
www.cra-architects.com