



ALLENTOWN SCHOOL DISTRICT FEASIBILITY STUDY UPDATE

Board Presentation
April 22, 2021

BRESLIN
ARCHITECTS





FIRM PROFILE

FOUNDED 1964 - 56 years of service in Allentown

- **SPECIALIZE IN EDUCATION**
 - 95% OF WORK IS PUBLIC SCHOOL DESIGN
 - OVER \$400 MILLION IN CONSTRUCTION
- **HISTORY WITH ASD**
 - 1973 - FIRST PROJECT
 - 7 MAJOR BUILDING PROJECTS
 - 40+ REROOF, HVAC, BOILERS, WINDOWS, ETC.
 - RELIABLE SCHEDULES / PHASING / COSTS
- **PREVIOUS STUDIES**
 - TOTAL OF 11
 - 1993 - DISTRICT-WIDE STUDY
 - 1995 - ELEMENTARY SCHOOLS STUDY
 - 2016 - FIVE BUILDING STUDY
 - 2017 - DISTRICT-WIDE STUDY



Jefferson Elementary School
1910

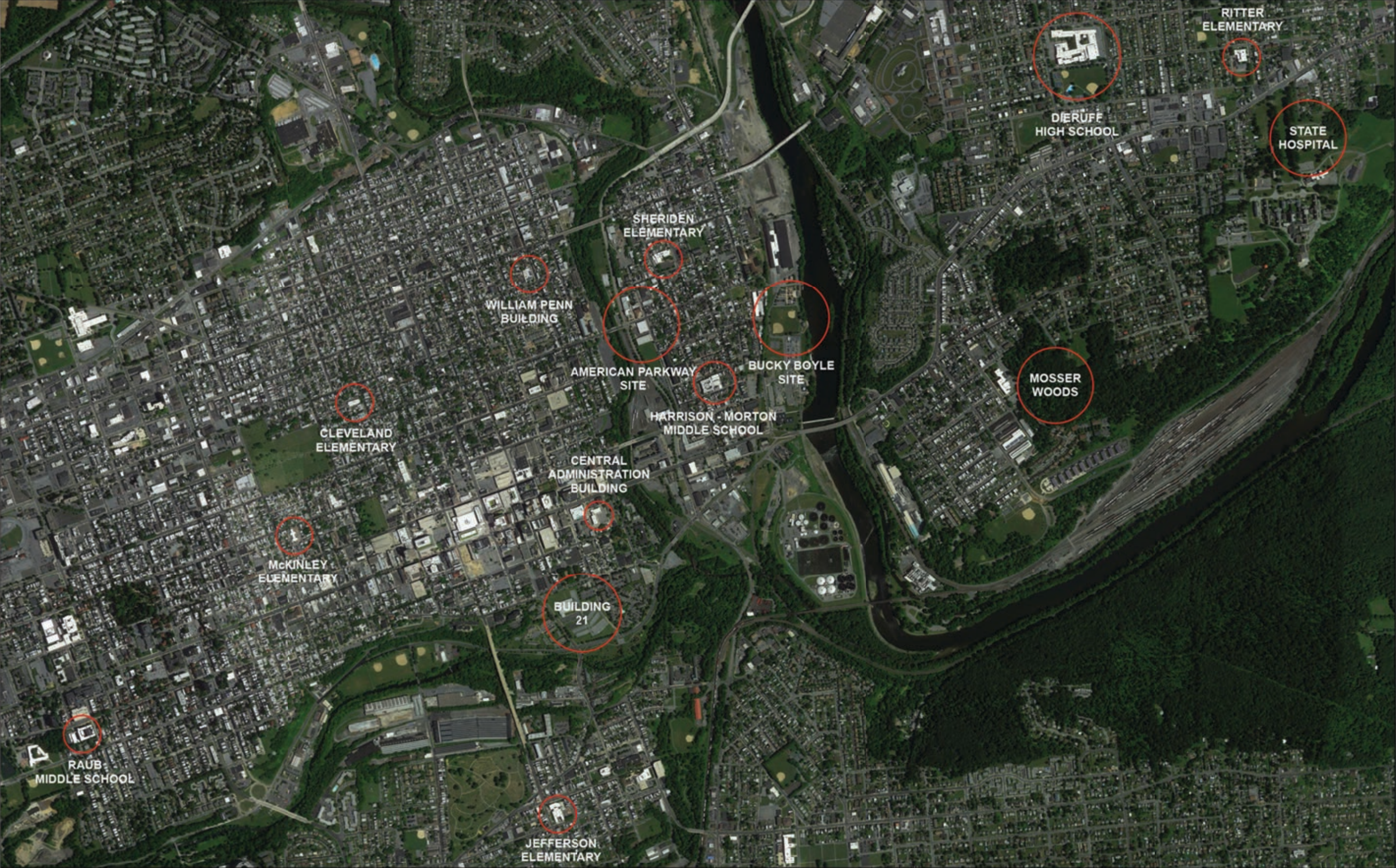


Harrison-Morton Middle School
1874



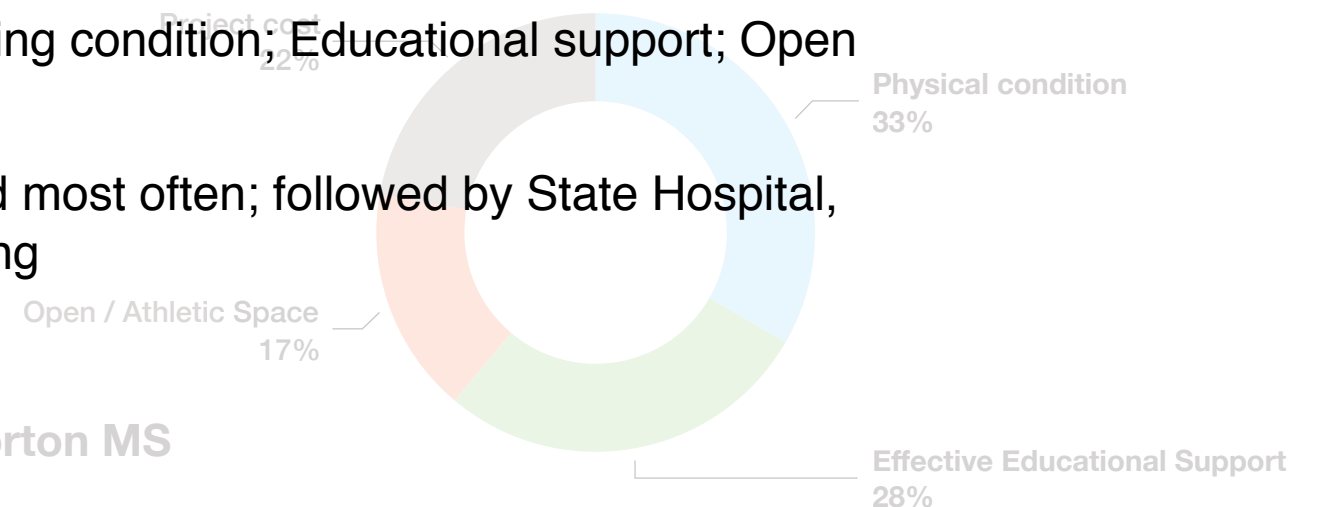
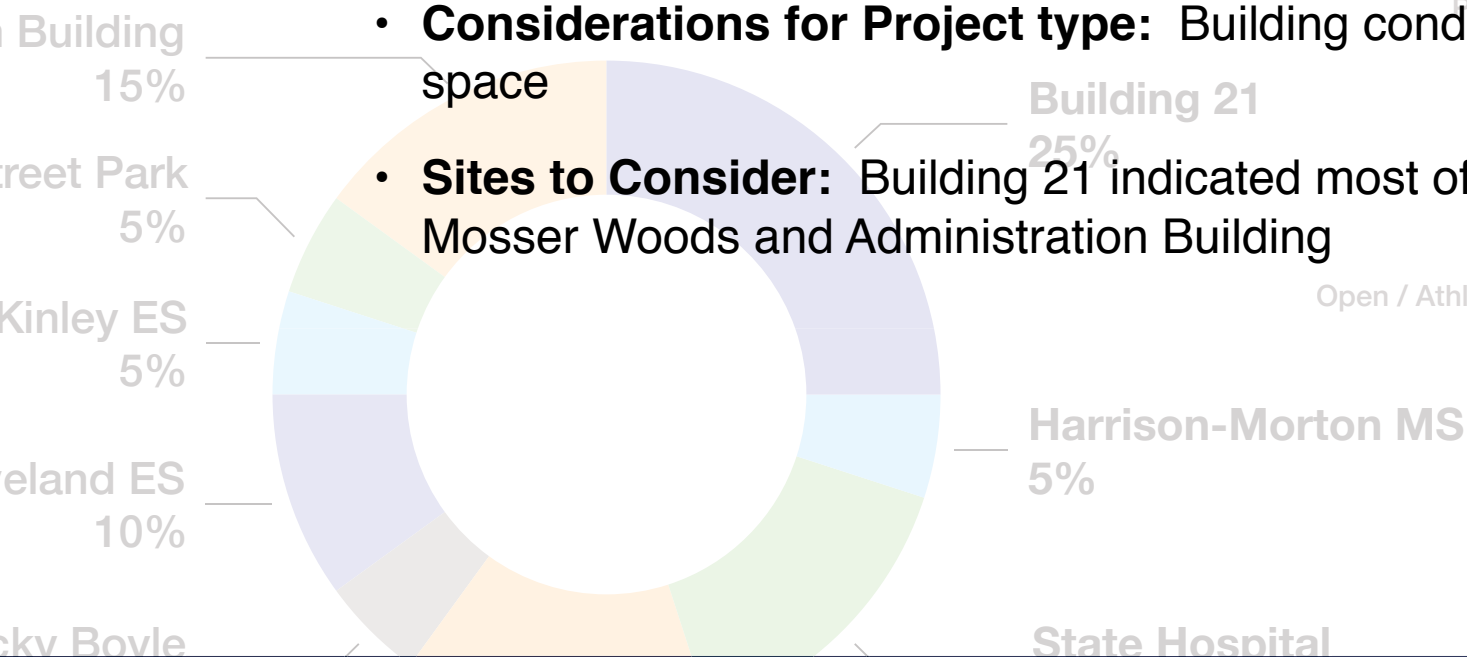
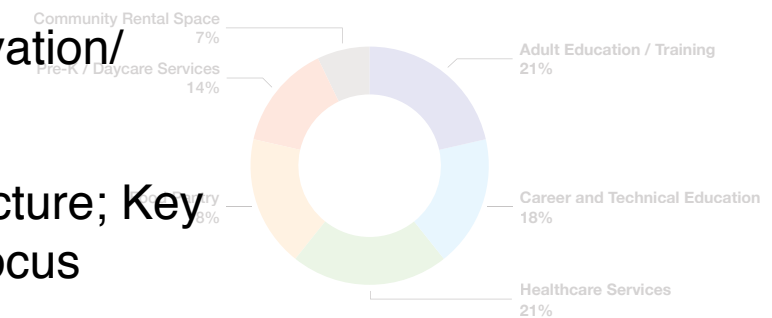
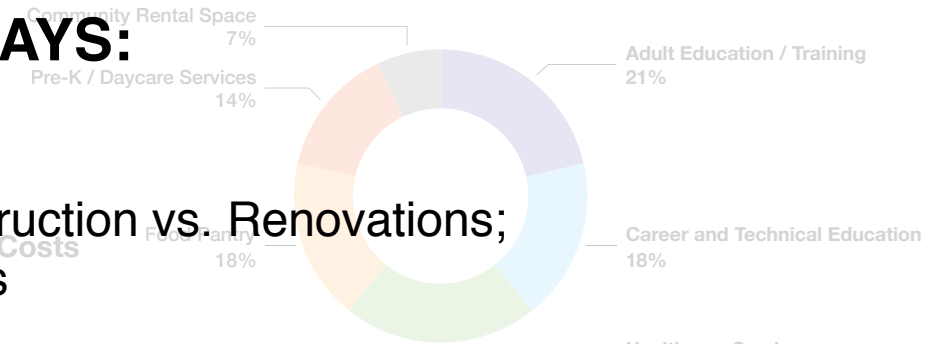
Raub Middle School
1923

SUBJECT BUILDINGS



BOARD QUESTIONNAIRE - KEY TAKEAWAYS:

- **Study Priorities:** Compare the value of New Construction vs. Renovations; Provide healthy education environments for students
- **Greatest Needs at Middle Schools:** Overwhelming concern for poor condition of existing schools and the inability of aging buildings to support quality, contemporary education models
- **Recommended Solutions:** New Schools heavily favored over Renovation/Expansion; Consider Magnet Schools
- **Grade Alignment:** PreK-8 and 9-12 selected as often as current structure; Key considerations identified are the age range of students and program focus
- **Building Size:** Responses leaned toward larger buildings over smaller
- **Considerations for Project type:** Building condition; Educational support; Open space
- **Sites to Consider:** Building 21 indicated most often; followed by State Hospital, Mosser Woods and Administration Building



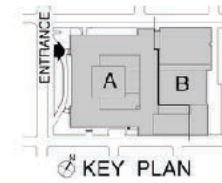
CATEGORY

S = SITE
B = BUILDING
ADA = ACCESSIBILITY
LS = LIFE SAFETY
P = PLUMBING
H = HVAC
E = ELECTRICAL

PRIORITY

1 = Excellent Condition - Does not need to be addressed in the next 10 years
2 = Very Good Condition - Does not need to be addressed in the next 5 years
3 = Good Condition - Satisfactory for now, but should be budgeted for within the next 5 years
4 = Poor Condition - Should be addressed within the next 3 years for repair or replacement
5 = Critical Condition - Should be addressed immediately

Note: Priority is related to the Capital Improvement Plan relevance. Number may be low because of grandfathering.



Harrison-Morton Capital Improvement Plan

Allentown School District
Feasibility Study Update

updated May 18, 2020

Item #	School	Item	Category	Quantity	Unit (sf, lf, ls, etc)	2016 Cost per Unit	2016 Estimated Cost Including 20% Indirect	2020 Estimated Cost Including 20% Indirect	Priority	Comment
1.1	HARRISON MS	Sidewalk replacement	S	10,626	sf	\$ 12.00	\$ 127,512	\$ 127,512		
1.2	HARRISON MS	Storm water collection system	S	400	lf	\$ 40.00	\$ 16,000	\$ 16,000		downspouts are discharging onto causing icy conditions.
2	HARRISON MS	Pavement replacement	S	10,862	sf	\$ 4.00	\$ 43,448	\$ 43,448		
3	HARRISON MS	Exterior concrete stair replacement	S	286	sf	\$ 10.86	\$ 3,100	\$ 3,100		stairs and handrails
4.1	HARRISON MS	Asbestos Abatement	B	1	ls	\$ 286.00	\$ 286	\$ 286		
4.2	HARRISON MS	Reconstruct soffit on east side of building	B	220	sf	\$ 10.86	\$ 2,389	\$ 2,389		
4.3	HARRISON MS	Install floor tile	B	54,516	sf	\$ 0.05	\$ 2,726	\$ 2,726		
4.4	HARRISON MS	Install pipe insulation	B	625	lf	\$ 0.10	\$ 63	\$ 63		
4.5	HARRISON MS	New whiteboards	B	4,032	sf	\$ 0.01	\$ 40	\$ 40		
4.6	HARRISON MS	New tackboards	B	2,016	sf	\$ 0.01	\$ 20	\$ 20		
5.1	HARRISON MS	Radon testing	B	1	ls	\$ 1.00	\$ 1	\$ 1		
5.2	HARRISON MS	Install radon mitigation system	B	1	ls	\$ 1.00	\$ 1	\$ 1		
6	HARRISON MS	Lead testing	B	1	ls	\$ 1.00	\$ 1	\$ 1		
7	HARRISON MS	Roof replacement	B	28,900	sf	\$ 0.83	\$ 24,000	\$ 24,000		
8	HARRISON MS	Window replacement	B	11,100	sf	\$ 0.10	\$ 1,110	\$ 1,110		
9	HARRISON MS	General brick and limestone restoration	B	1	ls	\$ 1.00	\$ 1	\$ 1		
10	HARRISON MS	Settlement cracks in the exterior brick of the SE Boys Locker Room Addition.	B	1	lf	\$ 1.00	\$ 1	\$ 1		
11.1	HARRISON MS	Modify classroom door vestibule to meet ADA requirements	ADA	45	ea	\$ 1.00	\$ 45	\$ 45		
11.2	HARRISON MS	Interior single door replacement: New frames, doors and hardware to meet ADA requirements	ADA/LS	106	ea	\$ 1.00	\$ 106	\$ 106		
12	HARRISON MS	Interior double door replacement: New frames, doors and hardware to meet ADA requirements	ADA/LS	23	pr	\$ 1.00	\$ 23	\$ 23		
13	HARRISON MS	Exterior double door replacement: Install electric strike, power, FRP doors, hardware and frames.	ADA/LS	10	pr	\$ 1.00	\$ 10	\$ 10		
14	HARRISON MS	Replace stair fire doors and hardware with hold-open devices to improve student traffic flow.	B	13	pr	\$ 1.00	\$ 13	\$ 13		
15	HARRISON MS	Provide ADA signage	ADA	200	ea	\$ 1.00	\$ 200	\$ 200		
16	HARRISON MS	Miscellaneous plaster repairs	B	1	ls	\$ 1.00	\$ 1	\$ 1		
17	HARRISON MS	Paint interior walls	B	151,398	sf	\$ 0.01	\$ 1,514	\$ 1,514		
18	HARRISON MS	Replace stair handrails to meet current standards	ADA	860	lf	\$ 0.83	\$ 714	\$ 714		
19	HARRISON MS	Renovate toilet rooms to meet ADA standards	ADA	3,590	sf	\$ 0.83	\$ 2,980	\$ 2,980		code height: 2'-10".
20	HARRISON MS	Install area of rescue assistance intercom	ADA	2	ls	\$ 1.00	\$ 2	\$ 2		
21	HARRISON MS	Remove and install new terrazzo flooring	B	4,500	sf	\$ 0.83	\$ 3,735	\$ 3,735		
22	HARRISON MS	Replace student corridor lockers (2 high: 15"h x 18"d x 72"h)	B	425	ea	\$ 0.83	\$ 353	\$ 353		
23	HARRISON MS	Area B: Renovate home economics, art and science rooms	B	5,594	sf	\$ 0.83	\$ 4,643	\$ 4,643		
24	HARRISON MS	Area B: Remove science room stepped seating	B	910	sf	\$ 0.83	\$ 755	\$ 755		
25	HARRISON MS	Provide ADA access to the band area	B	1	ls	\$ 40,000.00	\$ 48,000.00	\$ 58,560.00	2	

CAPITAL PLAN ESTIMATES

SCHOOL

ESTIMATED COST

Francis D. Raub Middle School
(897 Student Capacity)

\$33,720,624

Harrison-Morton Middle School
(785 Student Capacity)

\$30,687,430

Jefferson Elementary School
(575 Student Capacity)

\$17,615,358

TOTAL

\$82,023,412

Study pp. 9-16

ENROLLMENT PROJECTIONS

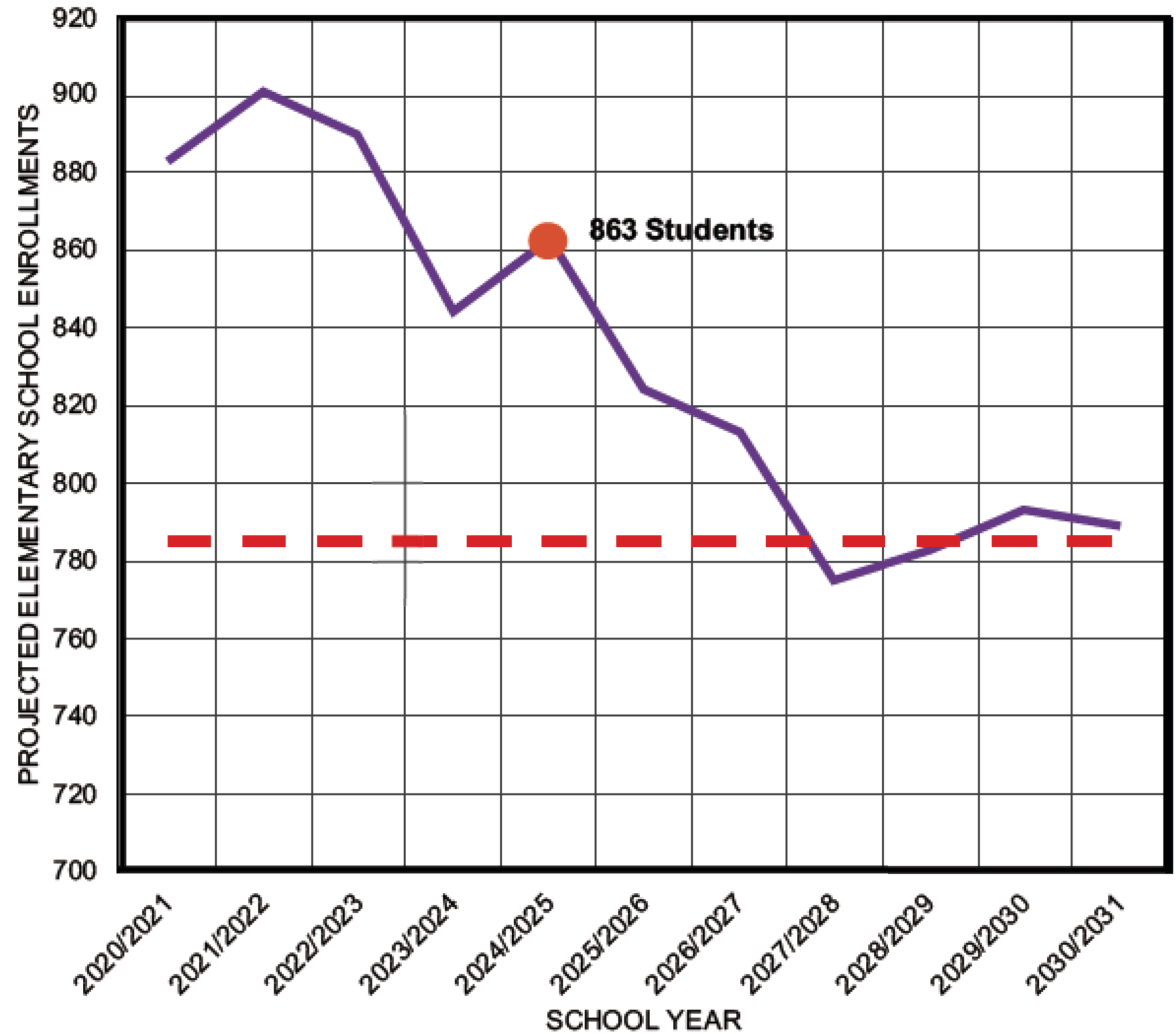
MIDDLE SCHOOLS (6-8)	CURRENT FUNCTIONAL CAPACITY	ACTUAL ENROLLMENTS	DECISIONINSITE 10 YR MAXIMUM PROJECTED ENROLLMENT	PDE PROJECTIONS		MAX/MIN CAPACITY DIFFERENCE
		11/3/2020		2024/2025	2029/2030	year varies
Harrison-Morton	785	883	863	NOTE 2	NOTE 2	-78
Raub	897	1,002	1,081	NOTE 2	NOTE 2	-184
South Mountain	1,039	1,244	1,244	NOTE 2	NOTE 2	-205
Trexler	781	828	828	NOTE 2	NOTE 2	-47
TOTALS:	3,502	3,957	4,016	3,455	3,740	-514
				(5 year)	(10 year)	
ELEMENTARY SCHOOLS (K-5)	CURRENT PDE CAPACITY					2024-2025
Jefferson	575	527	564	NOTE 2	NOTE 2	11
TOTALS:	575	527	564	NOTE 2	NOTE 2	11

NOTES:

1. The PDE Capacity includes regular classrooms only and does not include Temporary Classrooms, Special Education Classrooms, ESOL Classrooms
2. PDE Projections are not available for individual schools
3. Max/Min Capacity Difference is based on the highest projected amount of students compared to the current PDE capacity of each individual school and is expressed as either the most students above or the least students below the current PDE Capacity.
4. Functional capacity for Middle Schools is calculated based on a 0.8 Utilization factor

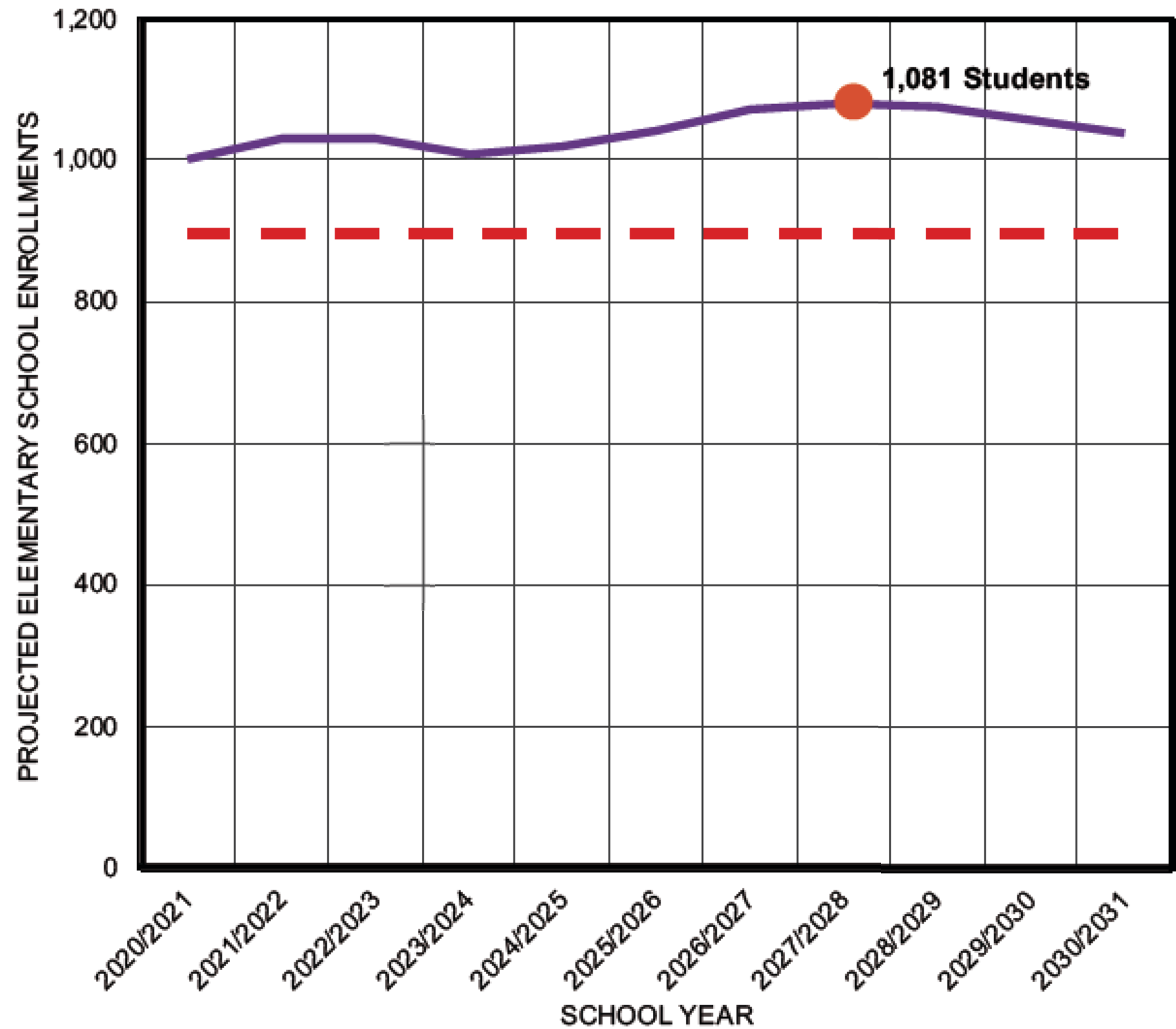
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HARRISON-MORTON MIDDLE SCHOOL



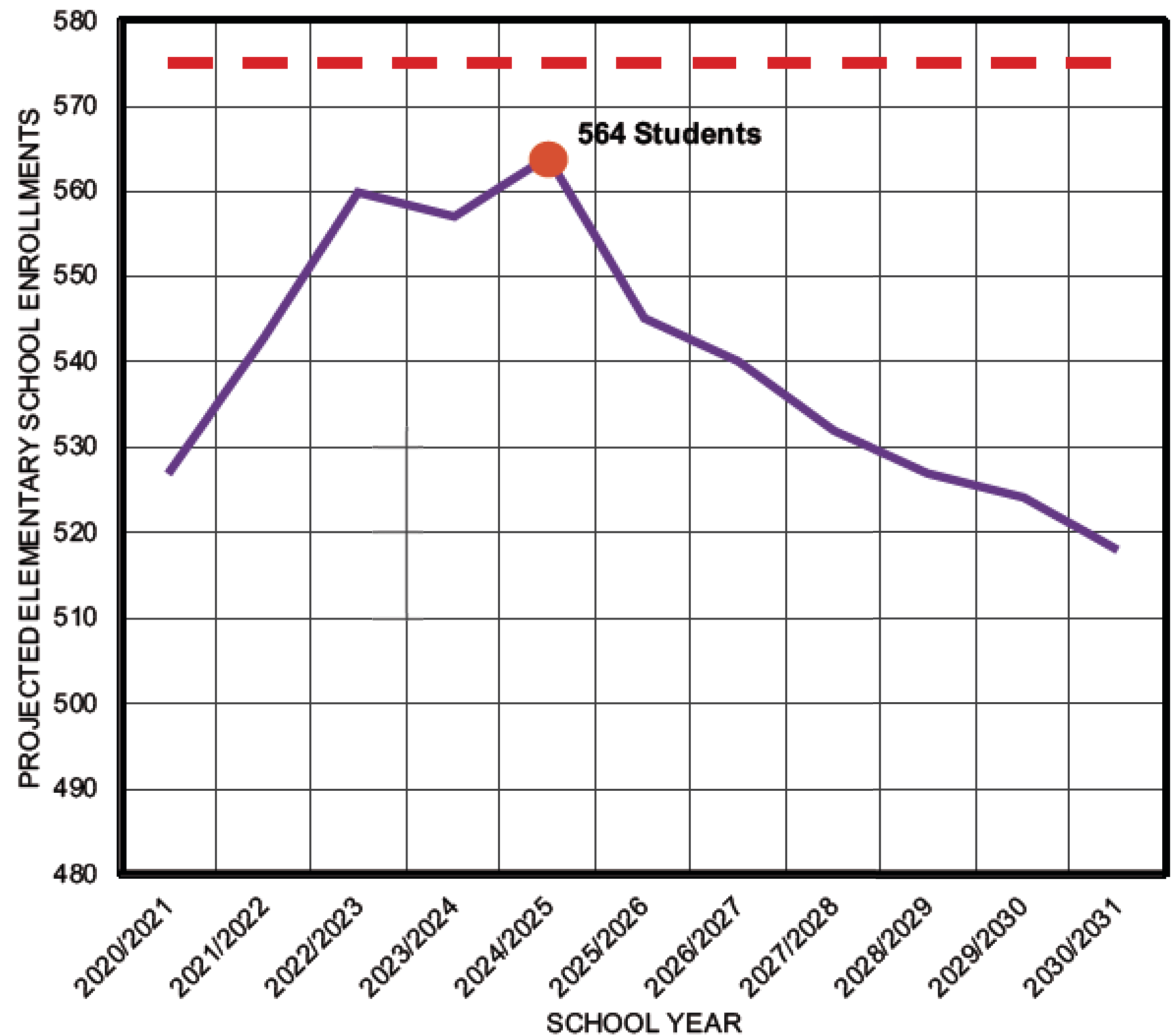
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FRANCIS D. RAUB MIDDLE SCHOOL



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JEFFERSON ELEM. SCHOOL

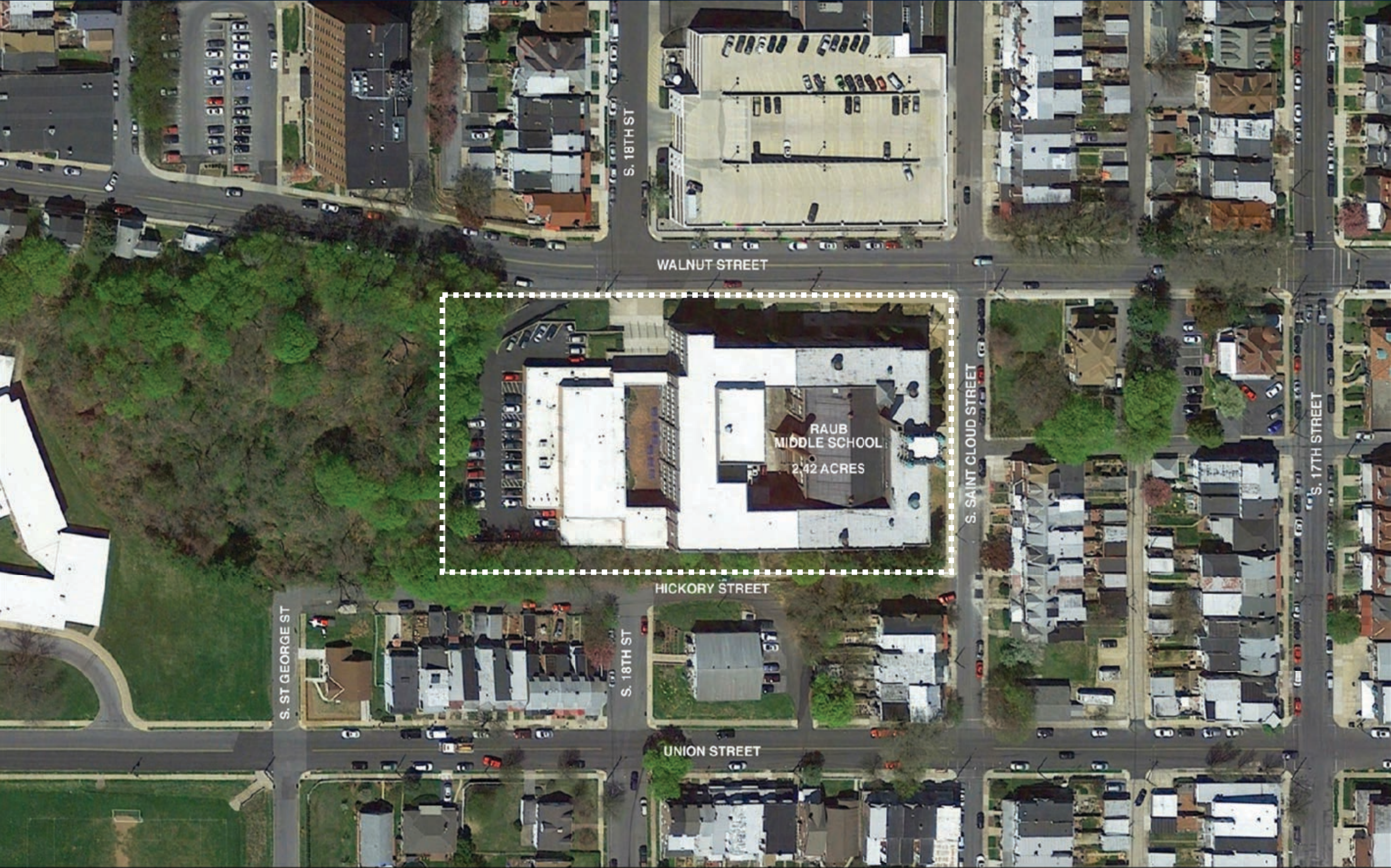


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OPTION 1

COMPONENT	ESTIMATED COST
Renovate Raub Middle School (837 Student Capacity)	\$48,000,000
Renovate Harrison-Morton Middle School (725 Student Capacity)	\$42,400,000
New 600 Student Magnet Middle School	\$65,200,000
TOTAL	\$155,600,000

Study p. 19



MIDDLE SCHOOL STUDY
 BRESLIN RIDYARD FADERO ARCHITECTS

STATISTICS			
NEW SITE AREA	0 acres	EXISTING BUILDING	180,500 sq. ft.
EXISTING SITE AREA	2.42 acres	STUDENT CAPACITY	607 students
TOTAL SITE AREA	2.42 acres	PARKING	35 spaces

This Exhibit represents an Architectural Evaluation.
 Further Site & Zoning Analysis will be required.

SITE VIABILITY PLAN

RAUB

OPT. IA

North

0 30 60 120



MIDDLE SCHOOL STUDY
 BRESLIN RIDYARD FADERO ARCHITECTS

STATISTICS

NEW SITE AREA	0 acres	EXISTING BUILDING	151,400 sq. ft.
EXISTING SITE AREA	1.77 acres	STUDENT CAPACITY	725 students
TOTAL SITE AREA	1.77 acres	PARKING	70 spaces

This Exhibit represents an Architectural Evaluation.
 Further Site & Zoning Analysis will be required.

SITE VIABILITY PLAN

OPT. IB

HARRISON-MORTON



OPTION 1

ADVANTAGES

- Lowest first cost
- No land acquisition required
- Maintains current school locations
- Provides east side Middle School

DISADVANTAGES

- Disruptive phased renovations will take minimum 1.5 to 2 years
- 100% ADA access not feasible at existing schools
- Increased maintenance costs moving forward
- Outdoor athletic / PE space is very limited
- Parking is very limited
- Construction staging area is very limited

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OPTION 2

COMPONENT	ESTIMATED COST
New Middle School at American Parkway site (900 Student Capacity)	\$82,000,000
Middle School Addition at Building 21 (1,000 Student Capacity)	\$89,300,000
TOTAL	\$171,300,000

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MIDDLE SCHOOL STUDY
BRESLIN RIDYARD FADERO ARCHITECTS

STATISTICS

NEW SITE AREA	1.41 acres
EXISTING SITE AREA	2.13 acres
TOTAL SITE AREA	3.54 acres

EXISTING SITE PLAN

OPT IIA

AMERICAN PARKWAY





MIDDLE SCHOOL STUDY

STATISTICS

BRESLIN RIDYARD FADERO ARCHITECTS

NEW SITE AREA 4.41 acres
EXISTING SITE AREA 2.13 acres
TOTAL SITE AREA 6.54 acres

NEW BUILDING STUDENT CAPACITY PARKING

190,000 sq. ft.
900 students
108 spaces

This Exhibit represents an Architectural Evaluation. Further Site & Zoning Analysis will be required.

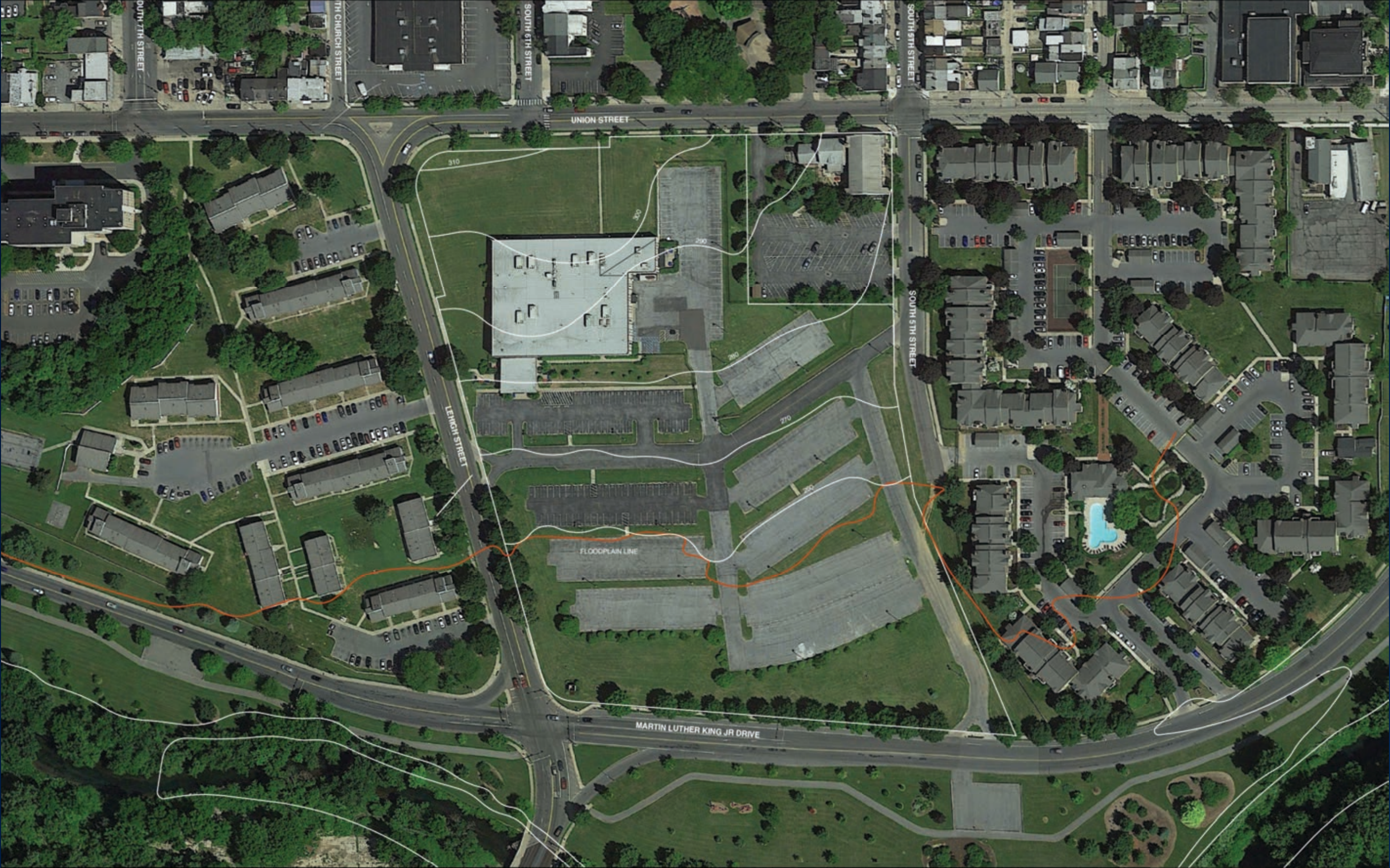
SITE VIABILITY PLAN

OPT IIA

AMERICAN PARKWAY



0 50 100 200



MIDDLE SCHOOL STUDY

BRESLIN RIDYARD FADERO ARCHITECTS

STATISTICS

NEW SITE AREA	0 acres	EXISTING BUILDING	70,000 sq. ft.
EXISTING SITE AREA	11 acres	STUDENT CAPACITY	550 students
TOTAL SITE AREA	11 acres	PARKING	140 lined spaces

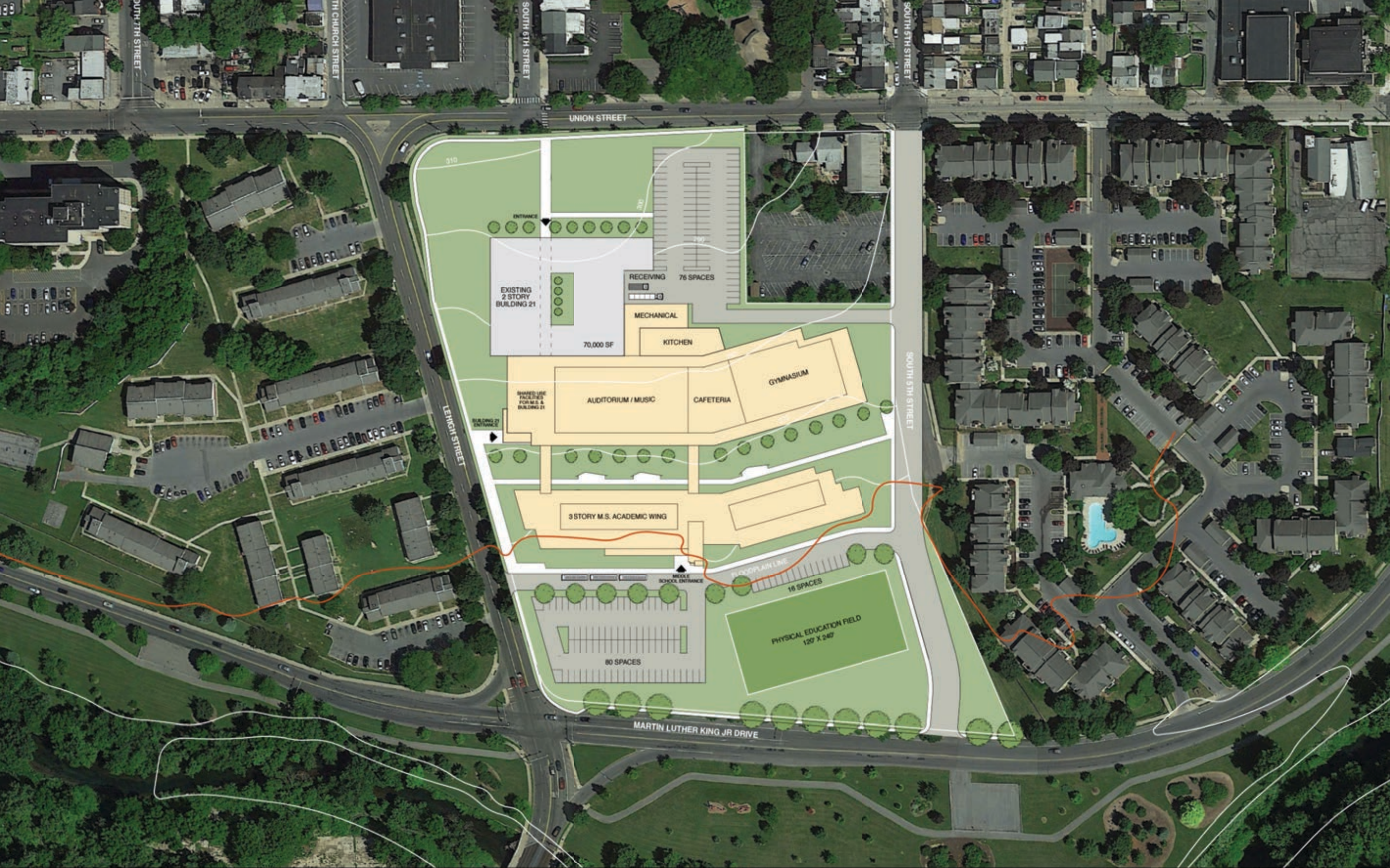
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SITE VIABILITY PLAN

BUILDING 21

OPT. IIB & IIIC





MIDDLE SCHOOL STUDY

BRESLIN RIDYARD FADERO ARCHITECTS

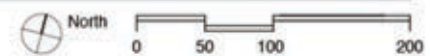
STATISTICS

NEW SITE AREA	0 acres	NEW M.S. BUILDING	206,000 sq. ft.	This Exhibit represents an Architectural Evaluation. Further Site & Zoning Analysis will be required.
EXISTING SITE AREA	11 acres	STUDENT CAPACITY	1,000 students	
TOTAL SITE AREA	11 acres	PARKING	172 spaces	

SITE VIABILITY PLAN

BUILDING 21

OPT. IIB & IIIC



OPTION 2

ADVANTAGES

- New state-of-the-art Middle School in 1st Ward with no disruption to HMS during construction
- American Parkway site is adjacent to District-owned athletic field
- Improves Building 21 with new shared core facilities
- New state-of-the-art Middle School closer to downtown student concentration

DISADVANTAGES

American Parkway site

- Requires land acquisition
- Additional cost for demolition
- Flood plain increases cost of development
- Four-story school will span Gordon Street

Building 21 site

- Sloping site creates challenges that add cost
- Flood plain limits development at southern end

Study p. 24

OPTION 3

COMPONENT	ESTIMATED COST
New Middle School on the Bucky Boyle site (900 Student Capacity)	\$74,300,000
Middle School Addition at Building 21 (1000 Student Capacity)	\$89,300,000
New Community Athletic Fields (+ cost of property acquisition)	\$6,000,000
TOTAL	\$169,600,000

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MIDDLE SCHOOL STUDY

BRESLIN RIDYARD FADERO ARCHITECTS

ADDITIONAL SITE AREA 1.06 acres (.86 + .20)
 EXISTING PARK AREA 7.84 acres
 TOTAL SITE AREA 8.90 acres

This Exhibit represents an Architectural Evaluation.
 Further Site & Zoning Analysis will be required.

SITE VIABILITY PLAN

BUCKY BOYLE PARK



0 100 200 300

OPT IIIA



MIDDLE SCHOOL STUDY BRESLIN RIDYARD FADERO ARCHITECTS

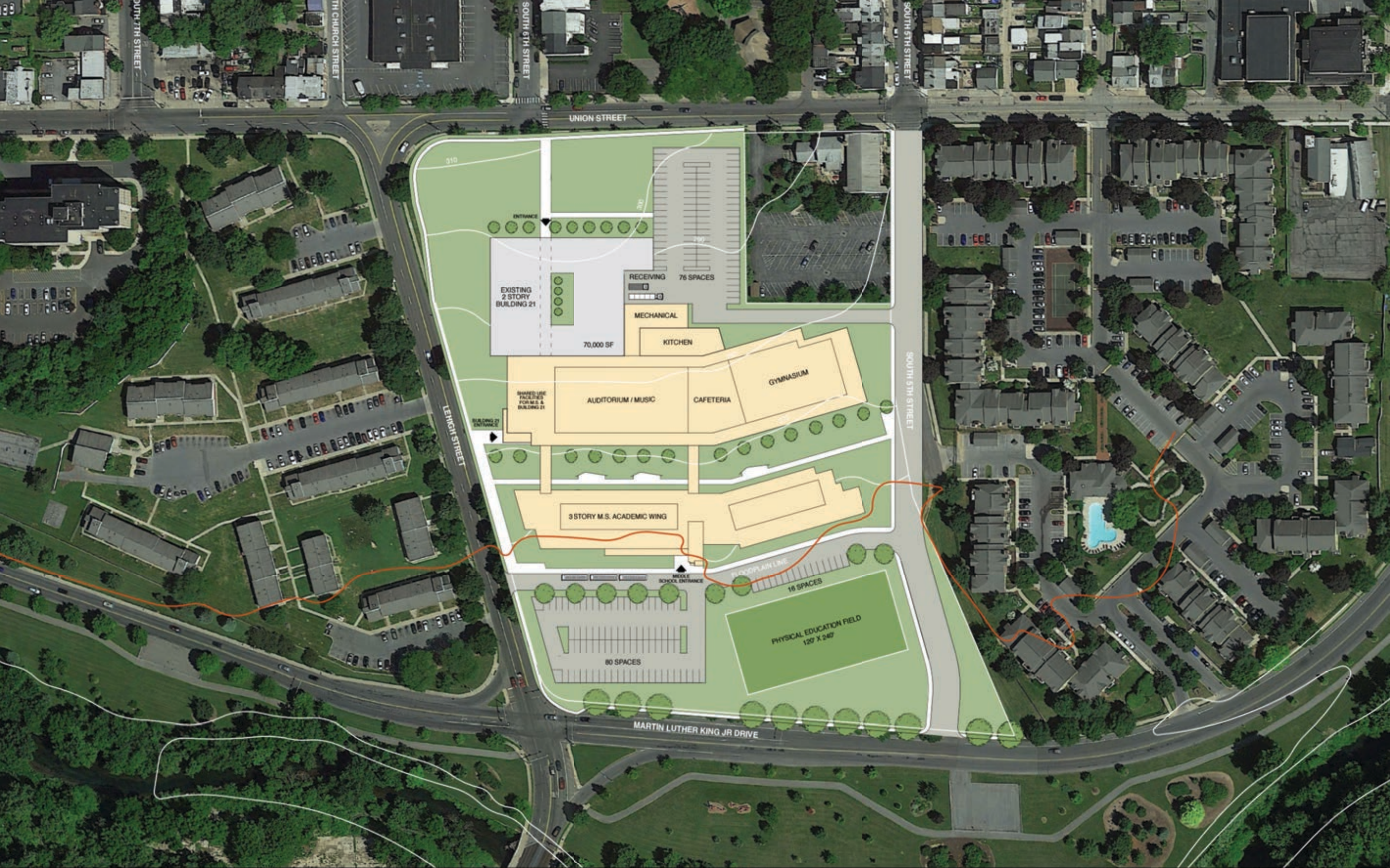
NEW M.S. SITE AREA	6.40 acres	NEW BUILDING	190,000 sq. ft.	This Exhibit represents an Architectural Evaluation. Further Site & Zoning Analysis will be required.
REMAINING PARK AREA	2.50 acres	STUDENT CAPACITY	900 students	
TOTAL SITE AREA	8.90 acres	PARKING	36 spaces	

SITE VIABILITY PLAN

BUCKY BOYLE PARK



OPT IIIA



MIDDLE SCHOOL STUDY

BRESLIN RIDYARD FADERO ARCHITECTS

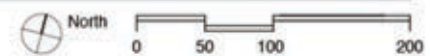
STATISTICS

NEW SITE AREA	0 acres	NEW M.S. BUILDING	206,000 sq. ft.	This Exhibit represents an Architectural Evaluation. Further Site & Zoning Analysis will be required.
EXISTING SITE AREA	11 acres	STUDENT CAPACITY	1,000 students	
TOTAL SITE AREA	11 acres	PARKING	172 spaces	

SITE VIABILITY PLAN

BUILDING 21

OPT. IIB & IIIC



OPTION 3

ADVANTAGES

- Keeps Middle School in 1st Ward
- Improves Building 21 with new shared core facilities
- New state-of-the-art Middle School closer to downtown student concentration

DISADVANTAGES

Bucky Boyle site

- Requires land acquisition
- Safety concerns nearby
- Difficult to replace Community Athletic Fields in the area
- Requires offsite pedestrian and vehicle access improvements
- Parking is very limited
- Construction staging area is very limited

Building 21 site

- Sloping site creates challenges that add cost
- Flood plain limits development at southern end

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ADDITIONAL OPTIONS

DESCRIPTION	ESTIMATED COST
1. New Magnet School on State Hospital Site (600 Student Capacity)	\$63,760,000
2. Expand Building 21 (with CTE program)	\$8,493,400
3. Expand Building 21 (with District Admin.)	\$16,719,800
4. Replace Jefferson Elementary (700 Student Capacity)	\$38,000,000
5. Renovate Jefferson Elementary (525 Student Capacity)	\$28,500,000

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MIDDLE SCHOOL STUDY

BRESLIN RIDYARD FADERO ARCHITECTS

STATISTICS

BUILDING SITE AREA 8.7 acres*
EXISTING SITE AREA 186.3 acres
TOTAL SITE AREA 195.0 acres
* (includes 3 acre soccer field)

NEW BUILDING STUDENT CAPACITY PARKING
160,000 sq. ft.
600 students
107 spaces

This Exhibit represents an Architectural Evaluation. Further Site & Zoning Analysis will be required.

SITE VIABILITY PLAN ADDITIONAL OPT 1

STATE HOSPITAL
TOWN SQUARE OPTION

North 0 200 400 800



MIDDLE SCHOOL STUDY

BRESLIN RIDYARD FADERO ARCHITECTS

STATISTICS

BUILDING SITE AREA 8.7 acres*
 EXISTING SITE AREA 186.3 acres
 TOTAL SITE AREA 195.0 acres
 * (includes 3 acre soccer field)

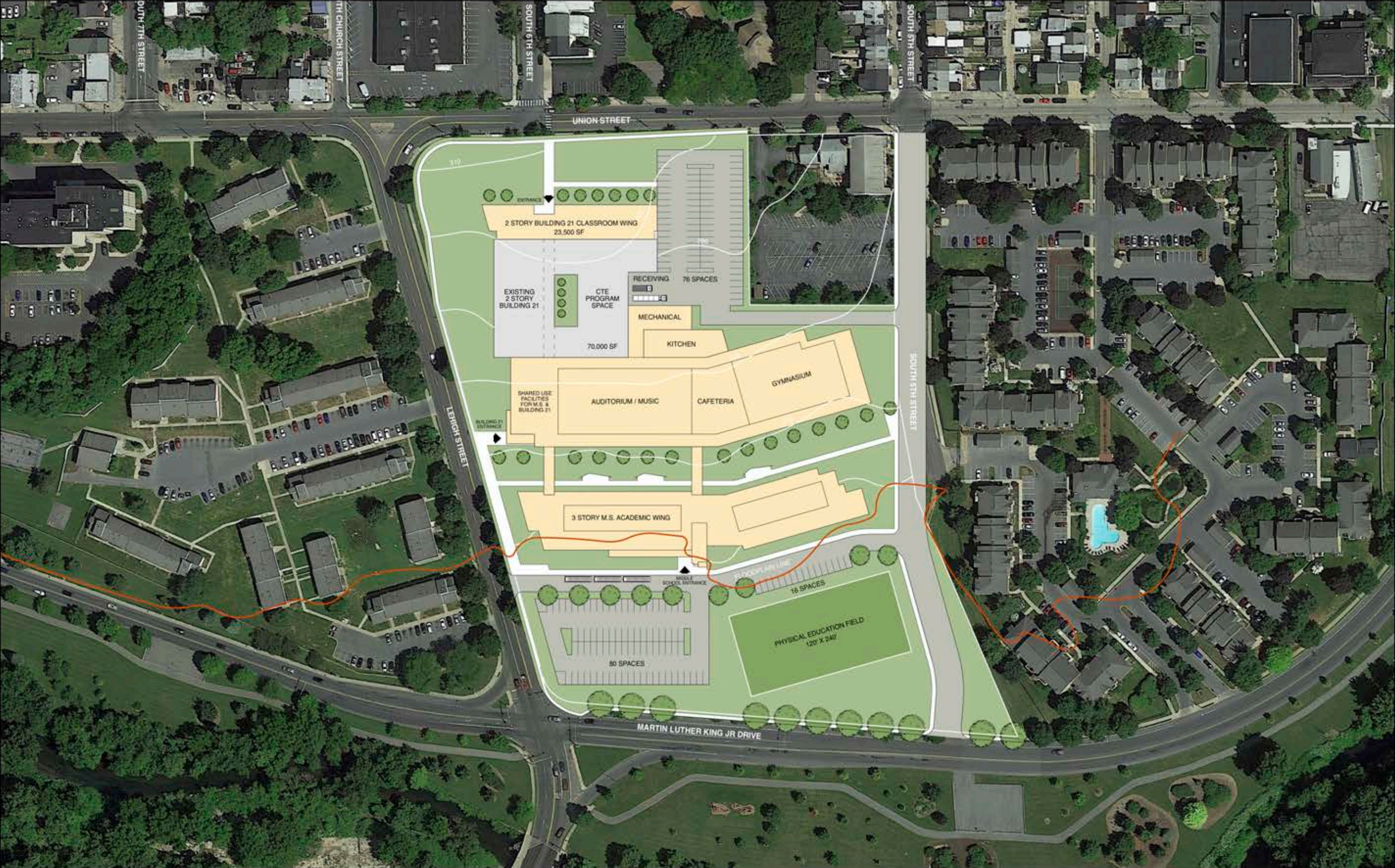
NEW BUILDING
 STUDENT CAPACITY 160,000 sq. ft.
 PARKING 600 students
 107 spaces

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 Further Site & Zoning Analysis will be required.

SITE VIABILITY PLAN ADDITIONAL OPT 1

STATE HOSPITAL
 TOWN SQUARE OPTION

North 0 50 100 200



MIDDLE SCHOOL STUDY

BRESLIN RIDYARD FADERO ARCHITECTS

STATISTICS

NEW SITE AREA 0 acres
EXISTING SITE AREA 11 acres
TOTAL SITE AREA 11 acres

NEW M.S. BUILDING 206,000 sq. ft.
STUDENT CAPACITY 1,000 students
BUILDING 21 ADDITION 23,500 sq. ft.
PARKING 172 spaces

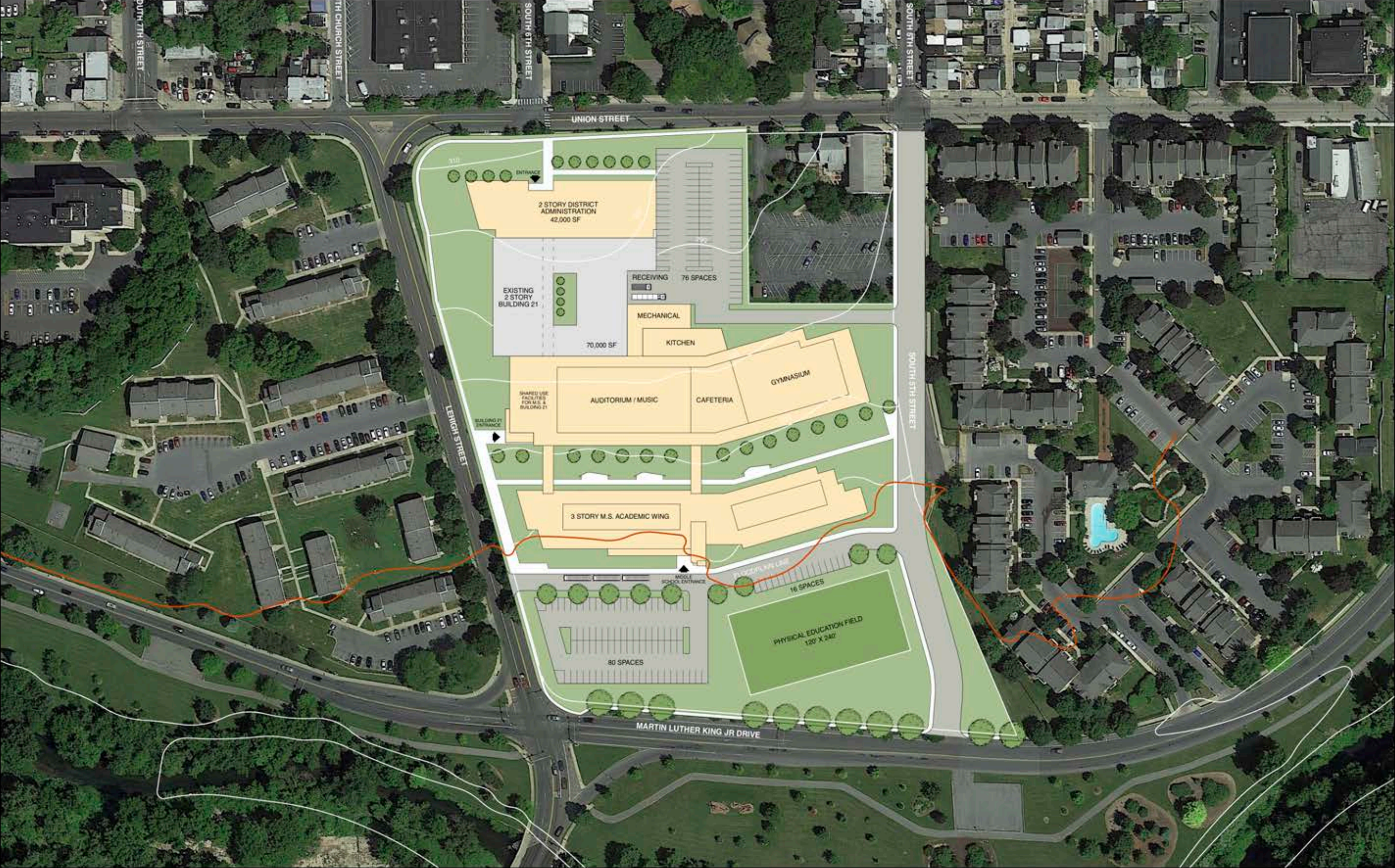
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SITE VIABILITY PLAN

BUILDING 21

ADDITIONAL OPT. 2

North
0 50 100 200



MIDDLE SCHOOL STUDY

BRESLIN RIDYARD FADERO ARCHITECTS

STATISTICS

NEW SITE AREA 0 acres
EXISTING SITE AREA 11 acres
TOTAL SITE AREA 11 acres

NEW M.S. BUILDING 206,000 sq. ft.
STUDENT CAPACITY 1,000 students
DISTRICT ADMIN. 42,000 sq. ft.
PARKING 172 spaces

This Exhibit represents an Architectural Evaluation.
Further Site & Zoning Analysis will be required.

SITE VIABILITY PLAN

BUILDING 21

ADDITIONAL OPT. 3

North
0 50 100 200



ELEMENTARY SCHOOL STUDY

BRESLIN RIDYARD FADERO ARCHITECTS

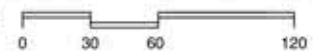
STATISTICS

NEW SITE AREA	0 acres	EXISTING BUILDING	105,114 sq. ft.	This Exhibit represents an Architectural Evaluation. Further Site & Zoning Analysis will be required.
EXISTING SITE AREA	2 acres	STUDENT CAPACITY	525 students	
TOTAL SITE AREA	2 acres	EXISTING PARKING	8 spaces	

SITE VIABILITY PLAN

OPT. 4

JEFFERSON ELEMENTARY





ELEMENTARY SCHOOL STUDY

BRESLIN RIDYARD FADERO ARCHITECTS

STATISTICS

NEW SITE AREA 0 acres
EXISTING SITE AREA 2 acres
TOTAL SITE AREA 2 acres

NEW E.S. BUILDING STUDENT CAPACITY PARKING

85,000 sq. ft.
700 students
42 spaces

This Exhibit represents an Architectural Evaluation. Further Site & Zoning Analysis will be required.

SITE VIABILITY PLAN

OPT. 4

JEFFERSON ELEMENTARY



0 30 60 120



THANK YOU !

