



Downingtown Area School District

Facility Capacity Study

November 8, 2021

FACILITY CAPACITY STUDY TABLE OF CONTENTS

STUDY INTRODUCTION	TAB 1
Section Introduction	Page 1
 ELEMENTARY SCHOOLS	 TAB 2
Section Introduction	Page 3
Elementary Schools Summary	Page 6
Four Options to Increase Elementary School Capacity	Page 7
Study of Option Components	
New 5/6 Center at Bradford Heights	Page 11
New Elementary School at McCausland Site	Page 13
Additions to Beaver Creek Elementary School	Page 17
Additions to West Bradford Elementary School	Page 22
Additions to Bradford Heights Elementary School	Page 27
 HIGH SCHOOLS	 TAB 3
Section Introduction	Page 34
High Schools Summary	Page 36
Downingtown High School West Study	Page 37
Downingtown High School East Study	Page 54
Summary of Increased Student Capacity	
Downingtown High School West	Page 66
Downingtown High School East	Page 67

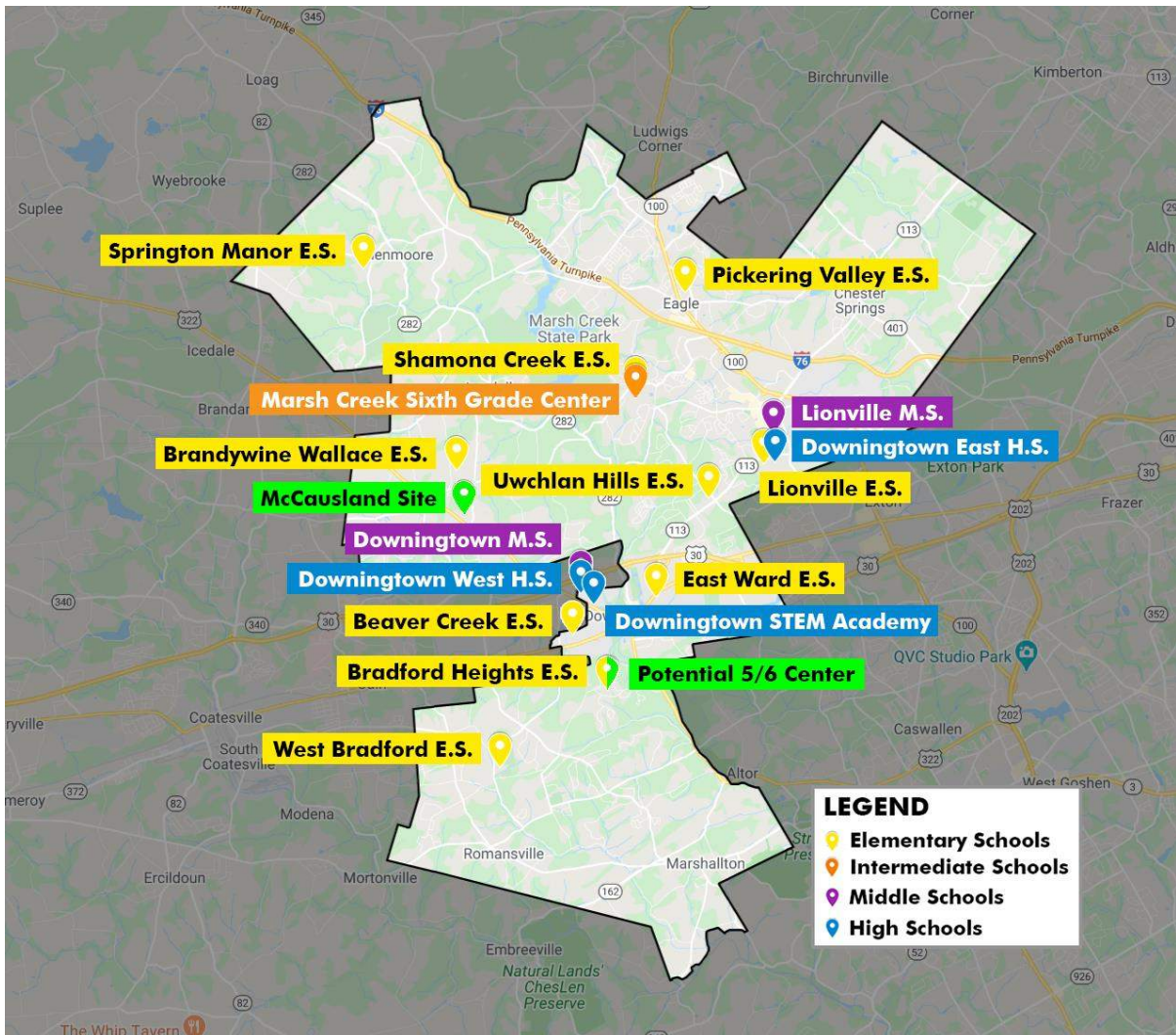
FACILITY CAPACITY STUDY TABLE OF CONTENTS

PROJECT COST ESTIMATES	TAB 4
New 5/6 Grade Center at Bradford Heights Site.....	Page 68
New Elementary School at McCausland Site	Page 69
Additions to Beaver Creek Elementary School.....	Page 70
Additions to West Bradford Elementary School	Page 71
Additions to Bradford Heights Elementary School.....	Page 72
Downtown High School West	
Courtyard Infill Only	Page 73
Additions Only – Options A and B	Page 74
Additions Only – Option C.....	Page 75
Downtown High School East Study	
Courtyard Infill Only	Page 76
Additions Only – Options A and B	Page 77
PRELIMINARY DRAFT CONCEPT SCHEDULES	TAB 5
Elementary Option 1 – Bradford Heights 5/6 Center.....	Page 78
Elementary Option 2 – New Elementary at McCausland..	Page 79
Elementary Options 3 & 4 – New Elementary School at McCausland Site and Elementary School Additions.....	Page 80
High School Projects	Page 81

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

INTRODUCTION

KCBA Architects would like to thank the School Board and Administration of the Downingtown Area School District for the opportunity to undertake this study investigating possibilities to expand student capacity at selected elementary schools, Downingtown High School West, and Downingtown High School East. We appreciate DASD's continued trust in KCBA to provide thorough, objective information as a resource to guide the district in making informed decisions regarding future facility planning.



Map depicting all current district schools (in yellow, orange, purple, and blue), as well as potential building sites (in green).

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

PURPOSE OF THE STUDY

This study is organized into two primary segments:

1. Elementary level – Four multi-step options are explored for increasing student capacity encompassing different combinations of the following components:
 - a. Construction of a new 1200 student 5-6 grade center at the Bradford Heights Elementary School property.
 - b. Construction of a new 700 student elementary school at the McCausland parcel.
 - c. Expansion of Beaver Creek, Bradford Heights, and West Bradford Elementary Schools.
2. High School level – Options are studied to increase student capacity at Downingtown High Schools West and East. This can be accomplished at each site by enclosing existing courtyards to provide instructional space, constructing additions, or by doing both.

It is important to note that the scope of this study does not include investigation of the need for maintenance or infrastructure improvements, identification of work required to correct any building code deficiencies, or improvements necessary to enable the delivery of educational programs. These needs would be identified, documented, and resolved as part of a future comprehensive building renovation campaign.

FACILITY CAPACITY STUDY DOWNTOWNTOWN AREA SCHOOL DISTRICT

INTRODUCTION – ELEMENTARY SCHOOL PROJECTS

As noted in the introduction to this report, the purpose of potential projects presented in this section are solely focused on increasing elementary student capacity. Other facility needs such as infrastructure improvements or projects to enhance the delivery of educational programs would occur in the future.

Evaluation Criteria

The following criteria were used when analyzing the ability to add capacity to existing elementary schools:

1. Cap the maximum Pennsylvania Department of Education (PDE) capacity at each school at 700 students in line with the size of the district's other elementary schools and commitment to small scale elementary learning environments. No existing elementary school in the district exceeds a PDE capacity of 700 students.
2. Document zoning/land development restraints that would prohibit or limit the construction of additions.
3. Verify that existing "core" functions such as cafeterias, kitchens, and gyms are sufficiently sized to serve the proposed added number of students.

In some cases, criterion #3 causes the need for renovations to some existing elementary school spaces or additions housing other elements in addition to classrooms. The scope of this report is limited to addition/renovation work required to serve capacity needs only.

Other additions or renovations may also be necessary to accomplish infrastructure improvements to support the increased student capacity or be required by local municipalities. Items such as mechanical, electrical, data, fire alarm, or plumbing upgrades could be needed. From an operating perspective, adding students could also create the need for more space to accommodate administration, guidance, nurse, or STEM programs.

In the extreme case, the need to add capacity, repair infrastructure, and enhance the delivery of educational programs could justify the total replacements of an existing elementary school as was the case at Uwchlan Hills Elementary School. For planning purposes, a budget to replace an existing elementary school would be similar to the budget

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

noted in this report for a new 700 student school at the McCausland site. Resolving these issues would be part of a future elementary facility upgrade campaign.

Elementary Study Scope

The following elementary school sites were explored as possibilities for adding elementary student capacity:

- New elementary school at the McCausland site
- Additions to Beaver Creek Elementary School
- Additions to West Bradford Elementary School
- Additions to Bradford Heights Elementary School

Summary of Elementary School Options

This section presents four options for increasing elementary school capacity. Each option is briefly summarized with a narrative, listing of added capacity, total project budget, and a potential occupancy date. All components of every option are then documented in greater detail.

Budget and schedule information can be reviewed in greater detail in the following locations:

- Project budgets – Tab 4
- Occupancy date – Tab 5

Budget and Schedule Note

The budgets and schedules presented in this section assume project authorization by Downtown Area School District in January 2022. A delay in authorization beyond that date will add one year of budget inflation and one year to the potential occupancy date.

Several factors make it difficult to provide accurate information concerning project costs and schedules for elementary school additions at this time because no discussions have occurred with the municipalities in which each school resides. Additions to any of the elementary schools will require a full Land Development process.

FACILITY CAPACITY STUDY DOWNTOWNTOWN AREA SCHOOL DISTRICT

This process could lead to improvements being requested to solve issues related to traffic, stormwater management, parking, and even off-site conditions deemed by the municipality to be the responsibility of the DOWNTOWNTOWN Area School District. Also, any construction project could trigger the requirement to renovate portions of the existing building to comply with current building codes.

Such requirements would increase project costs and could extend time frames. As the full Land Development and permitting implications are not yet known, the information presented in this report includes only costs related to the additions and renovations necessitated by the additions. This excludes any off-site construction costs and proposes schedule durations typical for public elementary school project.

All budgets prepared for this report exclude operating costs.

SUMMARY – ELEMENTARY SCHOOLS



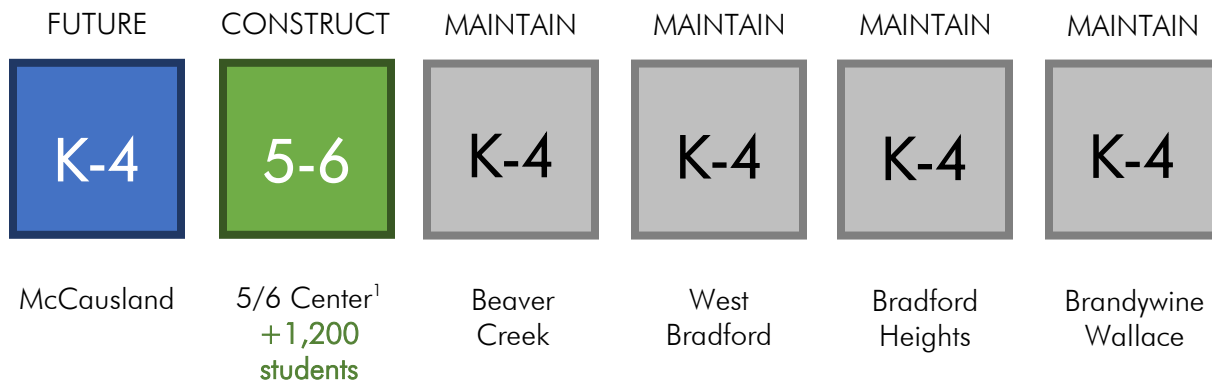
							<u>Added</u>	<u>Project</u>	<u>Potential</u>	<u>Add All Day K</u>	<u>1 thru 4/5</u>
							<u>Students</u>	<u>Budget</u>	<u>Occupancy</u>	<u>500 Students</u>	<u>Growth</u>
OPTION 1	<div><div>FUTURE</div><div>K-4</div><div>McCausland</div><div>+1,200 students</div></div>	<div><div>CONSTRUCT</div><div>5-6</div><div>5/6 Center¹</div><div>+1,200 students</div></div>	<div><div>MAINTAIN</div><div>K-4</div><div>Beaver Creek</div><div></div></div>	<div><div>MAINTAIN</div><div>K-4</div><div>West Bradford</div><div></div></div>	<div><div>MAINTAIN</div><div>K-4</div><div>Bradford Heights</div><div></div></div>	<div><div>MAINTAIN</div><div>K-4</div><div>Brandywine Wallace</div><div></div></div>	1,200	\$64 M	Aug 2025	<input checked="" type="checkbox"/> No Redistrict	+700
OPTION 2	<div><div>CONSTRUCT</div><div>K-5</div><div>McCausland</div><div>+700 students</div></div>	<div><div>OMIT</div><div>5-6</div><div>5/6 Center</div><div></div></div>	<div><div>MAINTAIN</div><div>K-5</div><div>Beaver Creek</div><div></div></div>	<div><div>MAINTAIN</div><div>K-5</div><div>West Bradford</div><div></div></div>	<div><div>MAINTAIN</div><div>K-5</div><div>Bradford Heights</div><div></div></div>	<div><div>MAINTAIN</div><div>K-5</div><div>Brandywine Wallace</div><div></div></div>	700	\$41 M	Aug 2025	<input checked="" type="checkbox"/> Massive Redistrict	+200
OPTION 3	<div><div>CONSTRUCT</div><div>K-5</div><div>McCausland</div><div>+700 students</div></div>	<div><div>OMIT</div><div>5-6</div><div>5/6 Center</div><div></div></div>	<div><div>ADDITION</div><div>K-5</div><div>Beaver Creek</div><div>+175 students</div></div>	<div><div>ADDITION</div><div>K-5</div><div>West Bradford</div><div>+125 students</div></div>	<div><div>ADDITION</div><div>K-5</div><div>Bradford Heights</div><div>+150 students</div></div>	<div><div>CLOSE</div><div>K-5</div><div>Brandywine Wallace</div><div>-600 students</div></div>	550	\$71.5 M	Aug 2028	<input checked="" type="checkbox"/> Massive Redistrict	+50
OPTION 4	<div><div>CONSTRUCT</div><div>K-5</div><div>McCausland</div><div>+700 students</div></div>	<div><div>OMIT</div><div>5-6</div><div>5/6 Center</div><div></div></div>	<div><div>ADDITION</div><div>K-5</div><div>Beaver Creek</div><div>+175 students</div></div>	<div><div>ADDITION</div><div>K-5</div><div>West Bradford</div><div>+125 students</div></div>	<div><div>ADDITION</div><div>K-5</div><div>Bradford Heights</div><div>+150 students</div></div>	<div><div>MAINTAIN</div><div>K-5</div><div>Brandywine Wallace</div><div></div></div>	1,150	\$71.5 M	Aug 2028	<input checked="" type="checkbox"/> Massive Redistrict	+650

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

Option #1

New 5-6 Grade Center/Future Elementary at McCausland Site

- Remove 5th grade from all existing elementary schools and convert to a grade K-4 configuration.
- Removing one full grade from each school frees space for full-day kindergarten with no redistricting because only half a grade is added.
- Construct a new 1200 student capacity 5-6 grade center at the existing Bradford Heights Elementary School site to house one half of the 5th and 6th grade population.
- Move one half of the 6th grade population from the existing Marsh Creek 6th Grade Center to the new 5-6 grade facility and replace with one half of the 5th grade population.
- At a future date once justified by regional population growth, construct a new 700 student capacity grade K-4 facility on the McCausland site.
- Operational costs for a new school would be added.



Increased Student Capacity: 1200 students²
 Total Project Budget: \$64,000,000^{2/3}
 Potential Occupancy Date: August 2025²

Note

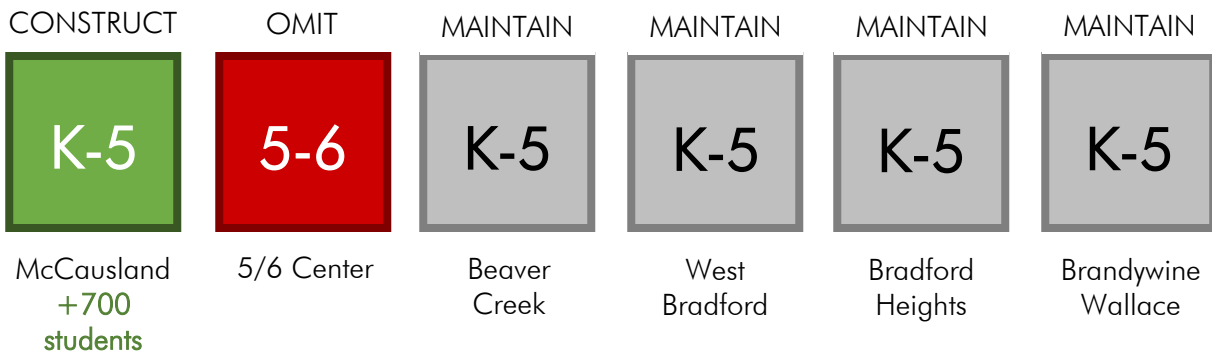
1. Full details provided in prior feasibility study.
2. Figures do not include future K-4 at McCausland site.
3. Budget excludes any operating costs.

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

Option #2

New K-5 Elementary at McCausland Site

- Construct a new 700 student grade K-5 facility at McCausland Site.
- Maintain all other existing elementary schools in a grade K-5 configuration.
- Maintain the existing Marsh Creek 6th Grade Center for the entire 6th grade population.
- Operational costs for a new school would be added.



Increased Student Capacity: 700 students
 Total Project Budget: \$41,000,000¹
 Potential Occupancy Date: August 2025

Note







1. Budget excludes any operating costs.

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

Option #3

New K-5/Additions to 3 Schools/Close Brandywine Wallace

- Construct a new grade K-5 facility at the McCausland site.
- Maintain all other existing elementary schools in a grade K-5 configuration.
- Move Brandywine Wallace Elementary School students into the new school at the McCausland site.
- Expand Beaver Creek, Bradford Heights, and West Bradford Elementary Schools and renovate each as required by municipalities or for “core” improvements required to support the added student capacity.
- Use Brandywine Wallace Elementary School for temporary instructional space to house students displaced by construction if major portions of Beaver Creek, Brandywine Heights, or West Bradford Elementary Schools must be renovated.
- At the conclusion of the elementary school renovation campaign, a future School Board could close Brandywine Wallace Elementary School and sell the property or maintain it for future growth at an added yearly cost.
- This option replaces the existing Brandywine Wallace Elementary; operational costs for a new school are not added.

CONSTRUCT	OMIT	ADDITION	ADDITION	ADDITION	CLOSE
					
McCausland +700 students	5/6 Center	Beaver Creek +175 students	West Bradford +125 students	Bradford Heights +150 students	Brandywine Wallace -600 students

Increased Student Capacity (total):	550 students
Total Project Budget:	\$71,500,000 ¹
Potential Occupancy Dates:	August 2025, '26, '27, '28

Note

1. Budget excludes any operating costs.

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

Option #4

New K-5/Additions to 3 Schools/Retain Brandywine Wallace

- Construct a new grade K-5 facility at the McCausland site.
- Maintain all other existing elementary schools in a grade K-5 configuration.
- Move Brandywine Wallace Elementary School students into the new school at the McCausland site.
- Expand Beaver Creek, Bradford Heights, and West Bradford Elementary Schools and renovate each as required by municipalities or for “core” improvements required to support the added student capacity.
- Use Brandywine Wallace Elementary School for temporary instructional space to house students displaced by construction if major portions of Beaver Creek, Brandywine Heights, or West Bradford Elementary Schools must be renovated.
- At the conclusion of the elementary school renovation campaign, reopen Brandywine Wallace Elementary School as a K-5 facility.
- Operational costs for a new school would be added.
- Operating two schools in such close proximity (McCausland and Brandywine Wallace are 1.7 miles apart) has disadvantages as it necessitates drawing students from a wider area and increases travel times.

CONSTRUCT	OMIT	ADDITION	ADDITION	ADDITION	MAINTAIN
K-5	5-6	K-5	K-5	K-5	K-5
McCausland +700 students	5/6 Center	Beaver Creek +175 students	West Bradford +125 students	Bradford Heights +150 students	Brandywine Wallace

Increased Student Capacity (total): 1,150 students
 Total Project Budget: \$71,500,000¹
 Potential Occupancy Dates: August 2025, '26, '27, '28

Note

1. Budget excludes any operating costs.

5/6 CENTER AT BRADFORD HEIGHTS SITE - EXISTING SITE PLAN



1. The site currently houses an existing 600 student capacity elementary school serving grades K-5.
2. Space is available between the existing building and Romig Road to build a new two-story structure serving 1,200 students in grades 5 and 6.
3. Constructing a second school on this site allows the efficiency of a shared bus loop and the flexibility of shared parking for special evening events.
4. This offers the opportunity to improve site circulation and security compromised by remote parking, undersized bus loop, and overlapping vehicle circulation.

5/6 CENTER AT BRADFORD HEIGHTS SITE - PROPOSED SITE PLAN



1. New two-story facility houses 1,200 students in grades 5 and 6.
2. Active areas are located in the center of the site shielded from Romig Road by the new building.
3. Separate bus/parent drop-off traffic flow increases safety.
4. Parking near each building can be shared for separately scheduled special events.
5. Shared bus loop increases efficiency while safely serving multiple additional functions: secure play, building service, and event parking.

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

MCCAUSLAND SITE – NEW ELEMENTARY SCHOOL

Introduction

The McCausland tract, which is owned by the Downingtown Area School District, is an approximately 20-acre parcel of vacant farmland located in East Brandywine Township. It is bordered on three sides by luxury residential homes on large lots. Opposite the fourth side boundary, Route 322, is open land offering views of the rural countryside. Route 322 offers ample opportunity for vehicle access.

KCBA is very familiar with the McCausland Parcel as we previously led a team of design professionals who studied the site in detail when investigating its suitability to house a school serving 1,200 students in grades 5 and 6. While the team developed a viable concept for a 5-6 grade center at McCausland, KCBA ultimately recommended construction of a K-4 elementary school at that location because its much smaller physical size, population, and service area causes less demand for utility and traffic improvements in this rural location.

Study Scope

It is not the purpose of this study to develop a design concept for a 700-student capacity elementary school at the McCausland site because previous studies confirmed construction of an elementary school to serve either grades K-4 or K-5 is feasible. Instead, this study focuses on the schedule and budget implications of building an elementary school on the site.

Schedule

Schedule Introduction

The schedule presented assumes project authorization by Downingtown Area School District in January 2022. A delay in authorization beyond that date will add one year to the potential occupancy date.

When considering a draft schedule for the McCausland site, it must be noted that two issues related to this site can be expected to extend the

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

time required to obtain the necessary approvals before construction can proceed.

Schedule – Public Sewer Approvals

The first of these is the need to obtain public sewer. No public sewer currently exists in the vicinity of the site. While East Brandywine Township has pledged to make future public sewer available to DASD, the nearest sewer main currently terminates approximately 2,500 ft. from the site. A lengthy process is required to obtain permission to connect to the existing public sewer system and then extend the sewer main to the site.

Another factor complicating the extension of public sewer service to this site is the requirement to pump treated effluent back to the site and set aside 150% of the required space for onsite drip disposal. As an alternate, DASD can attempt to purchase the required drip space at an offsite location in the township and pipe the treated effluent to that location. Each option has political, financial, and schedule implications.

The process will likely require significant time for engineering and obtaining easements, PennDOT approvals, legal agreements, Department of Environmental Protection (DEP) sewer module approvals, and Sewer Authority agreements. Based upon timeframes from previous similar projects, a minimum of 13 months should be allotted to accomplish this task.

Schedule – Traffic Improvements Approvals

The second issue impacting schedule is the process to obtain approvals from the Pennsylvania Department of Transportation (PennDOT) for traffic improvements on Route 322. While the exact scope is unknown at this time, traffic engineers have identified the need to obtain a Highway Occupancy Permit for access onto Route 322, construct turning lanes, provide a traffic signal which is desired by DASD if allowed by PennDOT, and possibly make improvements to the Route 322/Corner Ketch Road intersection. On previous projects of similar complexity, the PennDOT approval process has required 12 to 18 months. Therefore, the draft schedule included in this package assumes the average time of 15 months for this task.

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

Schedule Conclusion

To avoid construction delays caused by cold weather, it is desirable to start in early spring so that work can advance to the point of achieving adequate building enclosure by December. As noted in the draft schedule, time required for approval of public sewer and traffic improvements will delay the construction start to late July 2023. This will make achieving enclosure before cold weather very challenging.

If the time required to obtain either of these approvals causes construction to be delayed beyond the late July start noted in the draft schedule, it is not likely that the school will be ready for occupancy in August 2025.

Budget

As previously noted, many off-site sewer and traffic improvements will be required to support a school at the McCausland site. Since the scope is unknown, it is currently impossible to estimate accurate costs. Therefore, the budgets presented in this study exclude costs for off-site improvements. It should be noted that these could be significant. Also, project delays will result in budget inflation of 3% to 5% each year.

All budgets prepared as part of this report exclude any operating costs.

Regardless of grade configuration, if the facility constructed at the McCausland site is sized to house 700 students, the total project cost related to construction remains unchanged.

MCCAUSLAND TRACT - EXISTING SITE PLAN

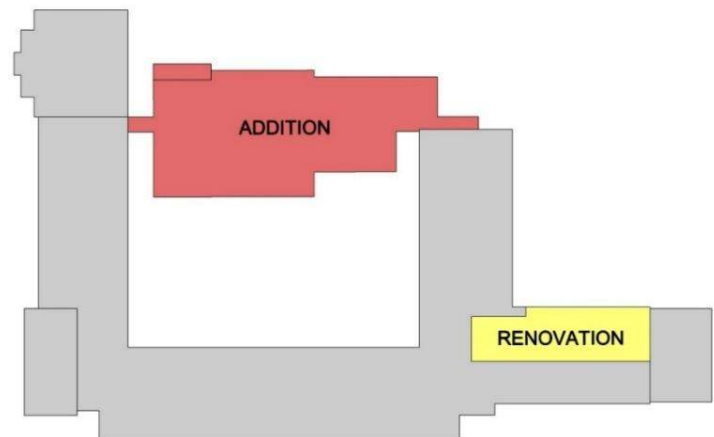


1. East Brandywine Township zoning ordinance calls for setback buffers ranging from 50-85 feet. Our team assumed a conservative 100' setback buffer around the entire perimeter of the property.
2. 24' slope influences the layout and configuration of the new building.
3. This area represents the ideal developable area in light of the location of neighbors, slope, and access to Horseshoe Pike.

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

BEAVER CREEK ELEMENTARY SCHOOL INTRODUCTION

- Add 7 classrooms at 25 student capacity = 175 students.
 - Create a kindergarten suite by renovating and repurposing existing undersized kitchen and cafeteria.
- Existing cafeteria and kitchen will not support added student capacity.
 - Build a new cafeteria and kitchen with support spaces.
 - Locate addition to improve building circulation.
- Add toilet facilities to serve the increased student capacity.
- Construct additional parking required by ordinance to support added student capacity (site restraints cause location to be remote).
- It is likely that additional infrastructure upgrades as well as additional work to enhance the delivery of education programs will be required.
- Permitting required (ability to obtain all approvals and hence full viability of project cannot be confirmed at this time).
 - Special Exception zoning hearing for use.
 - Modifications to mapped flood plan.
 - Full land development process – if zoning relief and flood plain modifications are granted.



Increased Student Capacity: 175 Students
 Total Project Budget: \$11,000,000¹
 Potential Occupancy Date: August 15, 2026

Note

1. Does not account for potential required infrastructure upgrades.

BEAVER CREEK ELEMENTARY SCHOOL EXISTING SITE PLAN



1. Existing building is one story.
2. No stormwater retention system currently exists.

3. Much of the site is noted on FEMA maps as flood plain. No development can occur in a flood plain. Flood plain mapping can be modified by detailed engineering studies. Note: much area noted as flood plain did not flood during recent record-setting events. Flood plain area restricts amount of allowed impervious surface (currently 37%, which exceeds 35% ordinance limit).
4. Building setbacks will not restrict development.

BEAVER CREEK ELEMENTARY SCHOOL PROPOSED SITE PLAN



1. Construct a one-story addition with classrooms and relocated core spaces. Building circulation is improved.
2. Build loading area with dock on edge of existing mapped flood plain.
3. Expand parking to meet ordinance requirements for additional parking required for additional capacity.

4. Impervious surface will be increased to approximately 43%. This exceeds ordinance limit of 35%. A variance is required and a stormwater management system must be constructed.

BEAVER CREEK ELEMENTARY SCHOOL EXISTING FLOOR PLAN



1. Existing cafeteria and kitchen is too small to serve increased student capacity.
2. No loading dock exists, limiting ability to serve additional students.
3. Existing gym is adequate to serve additional students.
4. Facility lacks the building storage required to support 700 students.

BEAVER CREEK ELEMENTARY SCHOOL PROPOSED FLOOR PLAN

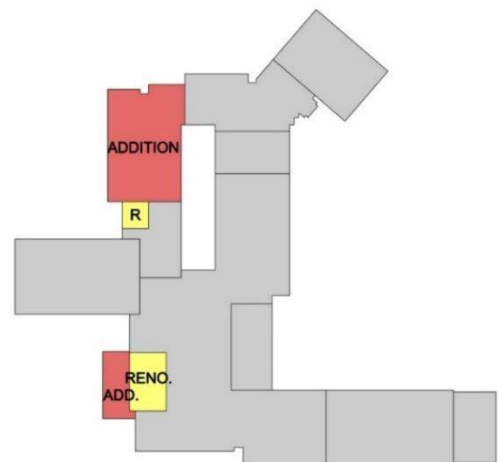


1. Construct a new one-story addition with four classrooms and relocated faculty room. Location improves building circulation.
2. Construct new kitchen and cafeteria with support spaces to serve 700 students.
3. Build a loading dock and building storage area.
4. Renovate and repurpose former cafeteria, kitchen, and facility space. Create a kindergarten suite of two new classrooms, an additional classroom, and small group instruction or STEM space.

FACILITY CAPACITY STUDY DOWNTOWNTOWN AREA SCHOOL DISTRICT

WEST BRADFORD ELEMENTARY SCHOOL INTRODUCTION

- Add 5 classrooms at 25 student capacity = 125 students.
 - Create a kindergarten suite by reassigning the use of rooms adjacent to existing kindergarten classrooms.
 - Locate addition to improve building circulation.
- Existing kitchen will not support added student capacity.
 - Enlarge and completely renovate the existing kitchen.
- Classroom addition requires two existing toilet rooms to be demolished and reconstructed in a new location.
 - Add toilet fixtures to serve increased student capacity.
- Construct additional parking required by ordinance to support added student capacity.
- It is likely that additional infrastructure upgrades as well as additional work to enhance the delivery of educational programs will be required.
- Permitting required (ability to obtain all approvals and hence full viability of project cannot be confirmed at this time).
 - Special Exception zoning hearing for use.
 - Impervious surface zoning variance.
 - Full land development process – if zoning relief is granted.



Increased Student Capacity:	125 Students
Total Project Budget:	\$6,500,000 ¹
Potential Occupancy Date:	August 15, 2027

Note

1. Does not account for potential required infrastructure upgrades.

WEST BRADFORD ELEMENTARY SCHOOL EXISTING SITE PLAN



1. Existing building is one story.
2. No stormwater retention system exists.
3. Existing impervious surface is approximately 22%. It fails to meet the maximum ordinance limit of 17% for sites with soils that infiltrate water. No data is available on site soil infiltration rates.
4. Building setbacks will not restrict development.

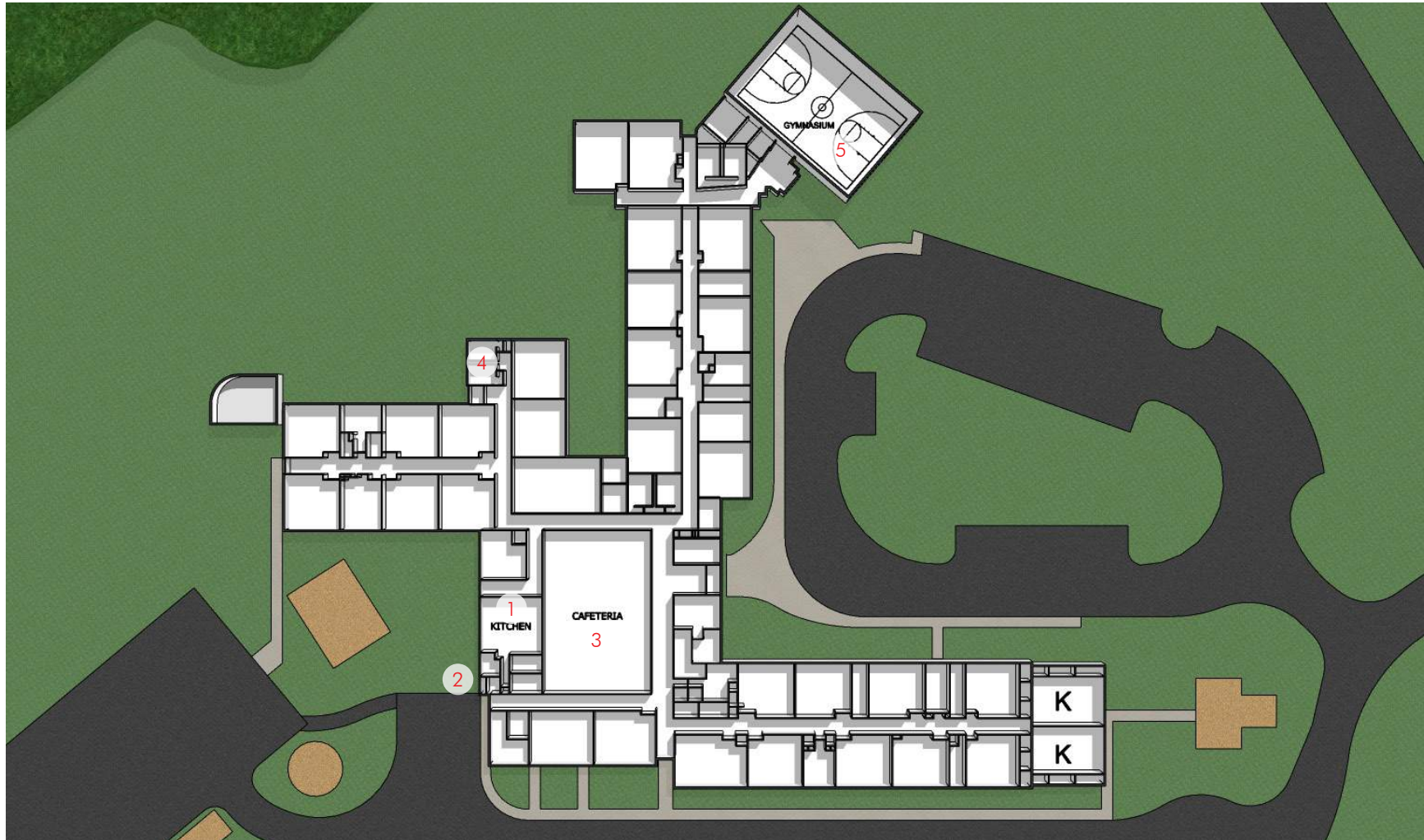
WEST BRADFORD ELEMENTARY SCHOOL PROPOSED SITE PLAN



1. Construct a one-story, five-classroom addition, connecting two wings and creating a courtyard. Some earth fill beneath the addition will be required.
2. Expand existing kitchen and add a loading area.
3. Expand parking to meet ordinance requirements for additional parking required for increased capacity.

4. Impervious surface will be increased to approximately 23%. This exceeds ordinance limit of 17% for sites which infiltrate water. A variance is required and a stormwater management system must be constructed.

WEST BRADFORD ELEMENTARY SCHOOL EXISTING FLOOR PLAN



1. Existing kitchen is too small to serve increased student capacity.
2. No loading dock exists, limiting ability to serve additional students.
3. Existing cafeteria is sufficient size to serve more students.
4. Existing toilet rooms restrict ability to extend corridor to serve an addition. They must be demolished and rebuilt in a new location.
5. Existing gym is sufficient to serve additional students.

WEST BRADFORD ELEMENTARY SCHOOL PROPOSED FLOOR PLAN



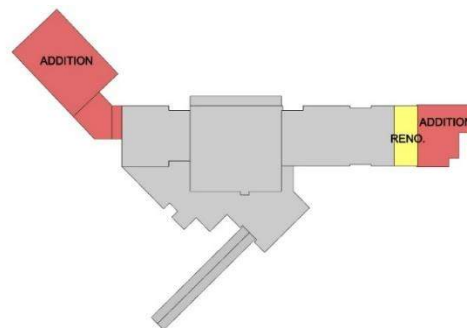
1. Construct a one-story, five-classroom addition, connecting two wings and creating a courtyard.
2. Rebuild toilet rooms and add fixtures to serve increased student capacity.
3. Renovate and repurpose former toilet room area.

4. Renovate and expand kitchen to serve 700 students.
5. Construct a loading dock.
6. Create a kindergarten suite by reassigning existing classrooms.

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

BRADFORD HEIGHTS ELEMENTARY SCHOOL INTRODUCTION

- Add 6 classrooms at 25 student capacity = 150 students
 - Establish new kindergarten suite in portion of the addition and repurposed existing classrooms
- Existing shared cafeteria/gym will not support added student capacity
 - Construct a new gym
 - Existing shared space then serves as full-time cafeteria and provides flexible instruction space when not used for dining
- Additions require two existing stair towers to be demolished and reconstructed
- Add toilet facilities to serve the increased student capacity
- Construct additional parking required by ordinance to support added student capacity
- It is likely that additional infrastructure upgrades as well as additional work to enhance the delivery of education programs will be required
- Permitting required (ability to obtain all approvals and hence full viability of project cannot be confirmed at this time)
 - Special Exception zoning hearing for use
 - Full land development process – if zoning relief is granted



Increased Student Capacity:	150 Students
Total Project Budget:	\$13,000,000 ¹
Potential Occupancy Date	August 15, 2028

Note

1. Does not account for potential required infrastructure upgrades.

BRADFORD HEIGHTS ELEMENTARY SCHOOL EXISTING SITE PLAN



1. Existing two-story classroom wing offers opportunity for additions at each end.
2. Existing playfield should be preserved.
3. A stormwater retention system exists. Design standards have changed since system was constructed. Existing impervious surface is approximately 13.25%. This is less than 17% ordinance limit for sites with soils that infiltrate water. Previous studies note that soil on this site infiltrates water.
4. Building setbacks will not restrict development.

BRADFORD HEIGHTS ELEMENTARY SCHOOL PROPOSED SITE PLAN



1. Construct a two-story, six-classroom addition at the end of the existing two-story classroom wing. Addition is sized to preserve the existing play field.
2. Add a gym at the Romig Road end of the existing building. This location will supplement other existing core functions.

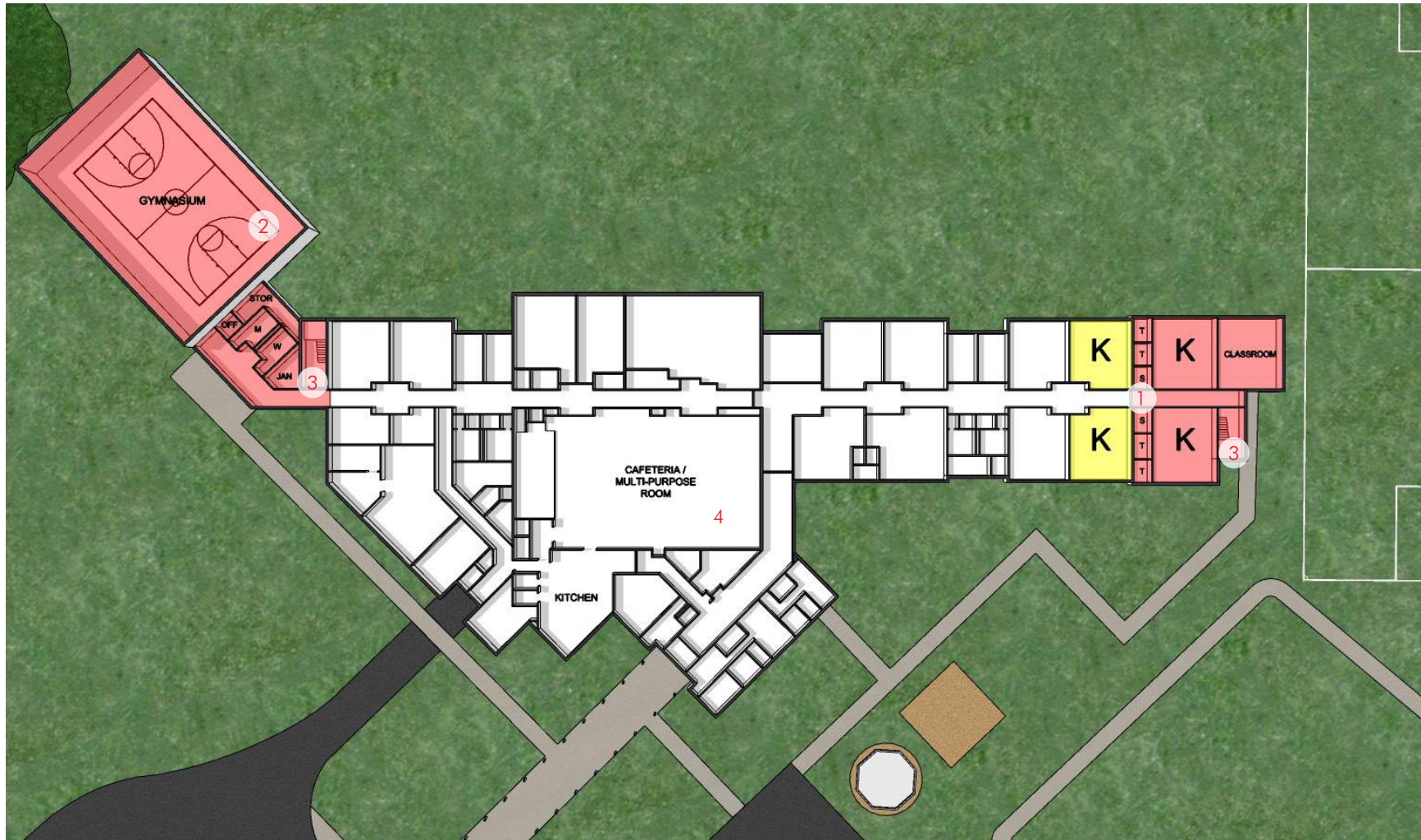
3. Expand parking to meet ordinance requirements for additional parking required for increased capacity.
4. Impervious surface will be increased to approximately 15%, which is less than 17% ordinance limit for sites which infiltrate water. Increased stormwater management will be required.

BRADFORD HEIGHTS ELEMENTARY SCHOOL EXISTING FIRST FLOOR PLAN



1. Existing shared gym and cafeteria space is too small to serve increased student capacity.
2. Existing kitchen is sufficient size to serve more students.
3. Existing stair towers on each end of the classroom wing block corridor extension for additions. They must be demolished and rebuilt in a new location.

BRADFORD HEIGHTS ELEMENTARY SCHOOL PROPOSED FIRST FLOOR PLAN



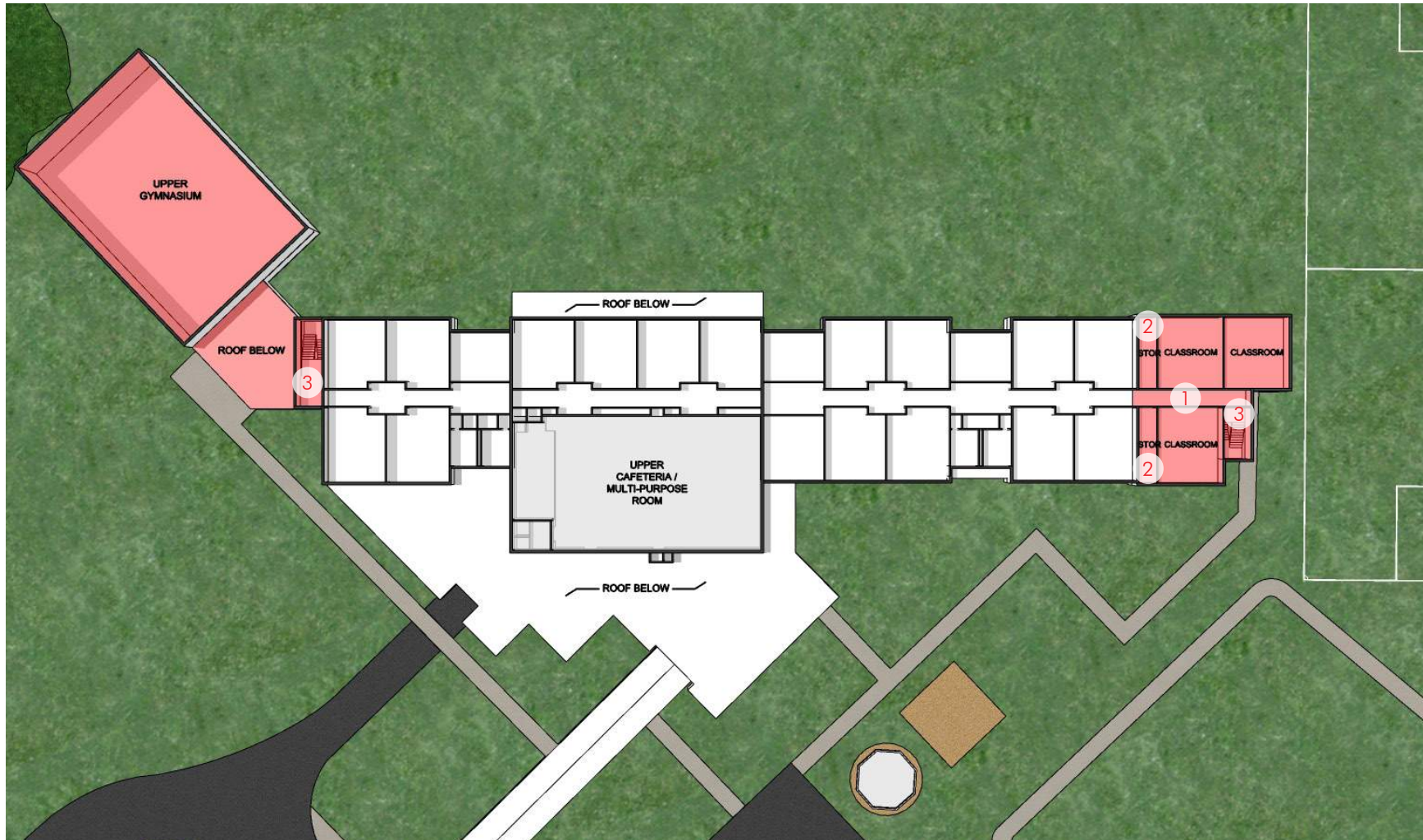
1. Construct a three-classroom addition to create a kindergarten suite. Provides toilets and storage for all four kindergarten classrooms. Also adds a classroom to house related programs.
2. Add a new gym and support spaces to free former space for reassignment.
3. Rebuild stair towers demolished to provide corridor access to new addition.
4. Existing space accommodates larger cafeteria/flexible instruction space.

BRADFORD HEIGHTS ELEMENTARY SCHOOL EXISTING SECOND FLOOR PLAN



1. A straight double-loaded corridor provides clear circulation for a classroom addition.
2. The location of existing stair towers on each end of the classroom wing prevent the corridor extension required for additions. They must be demolished and rebuilt to provide clear corridor access.

BRADFORD HEIGHTS ELEMENTARY SCHOOL PROPOSED SECOND FLOOR PLAN



1. Construct a three-classroom addition with walls aligning with the walls below. This is the most economically efficient configuration from a construction standpoint.
2. Two spaces above the toilet rooms below can be used for storage for other support functions.
3. Rebuild the stair tower demolished to provide corridor access to the new addition.

GENERAL INTRODUCTION – HIGH SCHOOL PROJECTS

As noted in the introduction to this report, the purpose of potential renovation or addition projects presented in this section are solely focused on increasing student capacity. Other facility needs such as infrastructure improvements or projects to enhance the delivery of educational programs would occur in the future. While the School Board has the option of authorizing projects separately at each high school, the schedule presented later in this package assumes a simultaneous delivery.

Courtyard Infills

After investigation, it was determined that the existing courtyards at Downingtown High Schools West and East should not be converted into traditional classrooms because inadequate space is available for access and natural daylight would be blocked to all adjacent classrooms.

However as shown in the following studies, the courtyards readily convert into interior atrium spaces supporting “blended learning”, an emerging curriculum where students alternate between learning in traditional classrooms and participating in a wide variety of learning options in open flexible spaces.

In addition to expanding educational options, the utilization of atrium spaces for scheduled daily instruction offers several other advantages:

- Adds building-wide capacity by hosting scheduled classes in periods throughout the day.
- Additional traditional classroom space is freed up by students who have been scheduled in atriums.
- More students can be taught with fewer instructors.
- Enables the opportunity to better achieve parity of instructional spaces with the Downingtown STEM Academy.
- Building circulation is improved.
- The central locations provide easy student access.
- Provides flexible space to initiate a one hour “resource period” combining personalized learning, counseling, and nutrition in lieu of a traditional cafeteria lunch period.

FACILITY CAPACITY STUDY DOWNTOWNTOWN AREA SCHOOL DISTRICT

Scheme Summary

The schemes in this section demonstrate possibilities to increase student capacity at each high school either by converting courtyards into atrium instructional spaces, adding classrooms, or doing both.

Each scheme includes an introduction page which provides a narrative summary, identification of increased student capacity, a total project budget, and a potential occupancy date. Detailed information concerning each item can be located as follows:

- Student capacity – The end of this High School section
- Project budgets – Tab 4
- Occupancy date – Tab 5

Budget, Schedule, and Permitting Note

The budgets and schedules presented in this section assume project authorization by Downingtown Area School District in January 2022. A delay in authorization beyond that date will add one year of budget inflation and one year to the potential occupancy date.

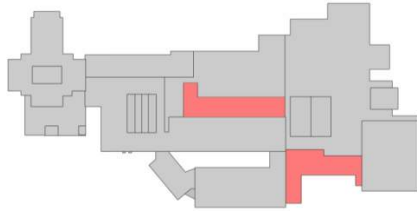
Several factors make it difficult to provide accurate information concerning project costs and schedules at this time because no discussions have occurred with the municipalities in which each High School resides. The possibility exists that Uwchlan Township when reviewing DHS-East, or Downingtown Borough when reviewing DHS-West, could require a Land Development Process even for a small project, whether infill or addition.

This process could lead to improvements being requested to solve issues related to traffic, stormwater management, parking, and even off-site conditions deemed by the municipality to be the responsibility of the Downingtown Area School District. Also, any construction project could trigger the requirement to renovate portions of the existing building to comply with current building codes.

Such requirements would increase project costs and could extend time frames. As the full Land Development and permitting implications are not yet known, the information presented in this report includes costs related to the infill or additions only, excludes any off-site construction costs, and proposes schedule durations typical for public high school projects.

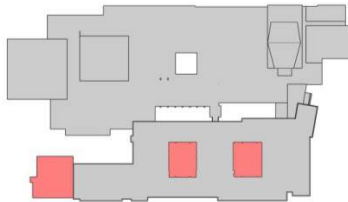
SUMMARY – HIGH SCHOOLS

DOWNTOWN HIGH SCHOOL WEST



	<u>Max Added Students</u>	<u>Project Budget</u>	<u>Potential Occupancy</u>
Atrium	269 Students	\$14.2 Million	August 2024
Option C	333 Students	\$11.5 Million	August 2024
Total	602 Students	\$25.7 Million	

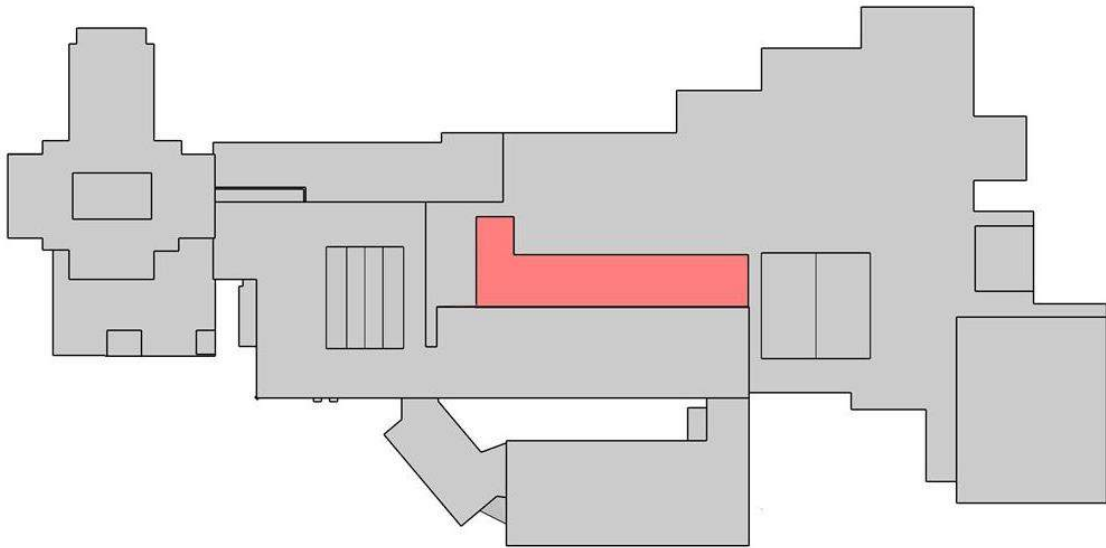
DOWNTOWN HIGH SCHOOL EAST



	<u>Max Added Students</u>	<u>Project Budget</u>	<u>Potential Occupancy</u>
Atrium	270 Students	\$12 Million	August 2024
Option B	280 Students	\$7.5 Million	Spring 2024
Total	550 Students	\$19.5 Million	

DHS-WEST: INTRODUCTION – COURTYARD INFILL

- Enclose the largest existing courtyard to create an atrium providing additional instruction space.
 - Modify and relocate some existing adjacent spaces to improve access.
 - Impervious surface would be slightly increased; may necessitate Land Development approval process.
- Provide a variety of flexible spaces for individual and group learning.
- Build mezzanines to establish two new floors of flexible instruction space.
- Construct a “Learning Stair”.
 - Provides circulation between first and second floors.
 - Offers opportunities for individual study.
 - Creates seating for group study.
- Add toilet facilities to serve the increased student capacity created by the infill.



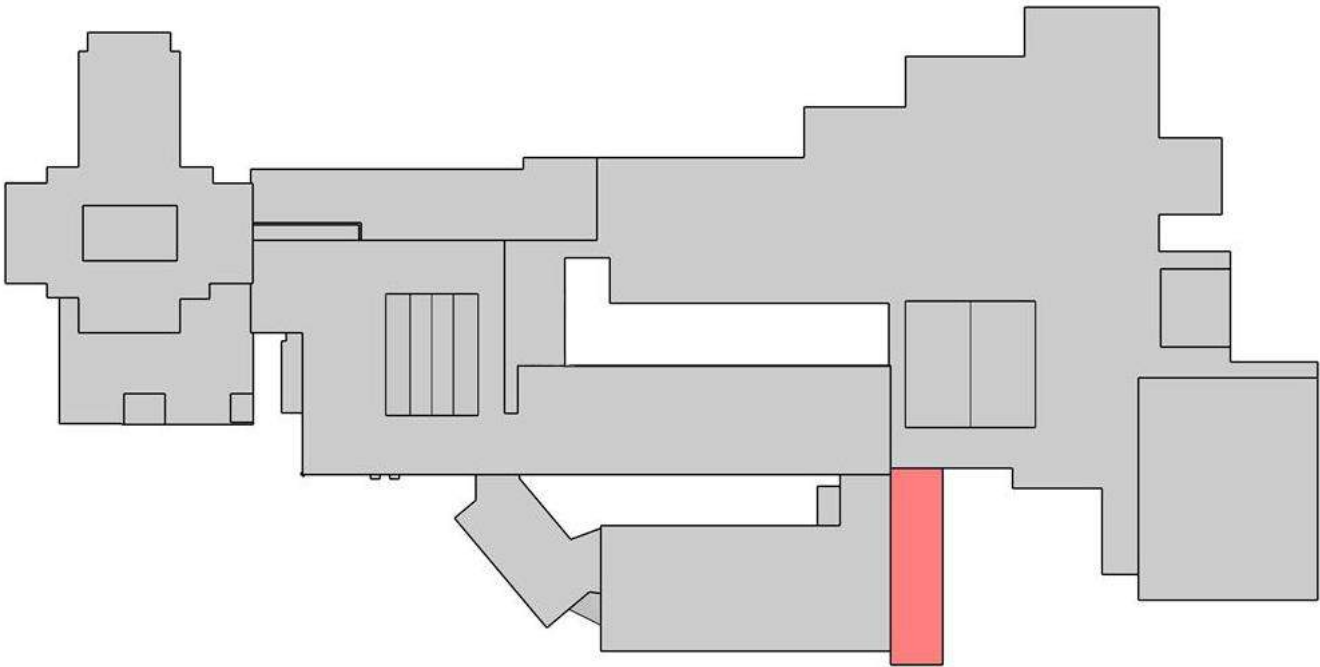
Increased Student Capacity: 269 Students
 Total Project Budget: \$14,225,000¹
 Potential Occupancy Date: August 2024

Note

1. Does not account for potential required infrastructure upgrades.

DHS-WEST: INTRODUCTION – ADDITION OPTION A

- Construct a two-story addition on the entrance plaza and lawn area adjacent to the athletic wing.
 - Four parking spaces must be relocated.
 - Impervious surface would be slightly increased; may necessitate Land Development approval process.
- Provide a variety of flexible spaces for individual and group learning.
 - Build two classrooms on each floor separated by a shared collaborative space.
 - Does not meet all future classroom needs.
- Include an elevator to serve the east end of the two-story existing classroom wings and addition.
- Add toilet rooms to serve the increased student capacity created by the addition.



Increased Student Capacity: 190 Students
 Total Project Budget: \$5,725,000¹
 Potential Occupancy Date: Spring Break 2024

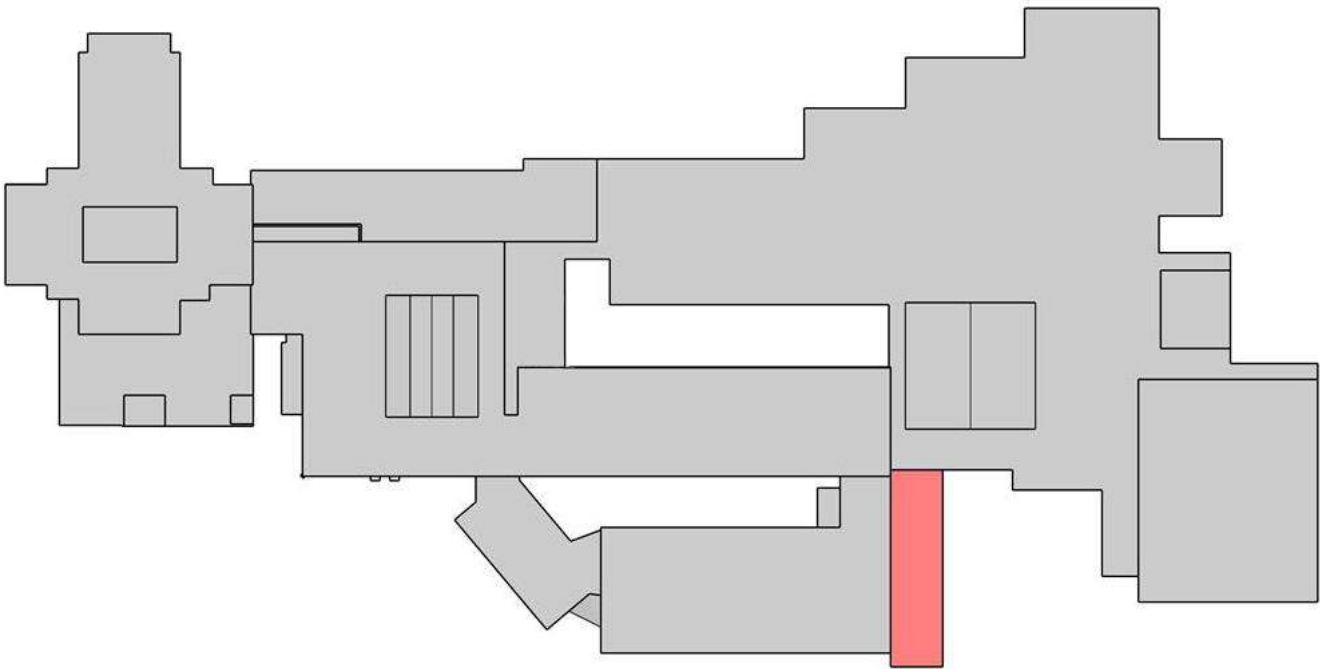
Note

1. Does not account for potential required infrastructure upgrades.

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

DHS-WEST: INTRODUCTION – ADDITION OPTION B

- Construct a two-story addition on the entrance plaza and lawn area adjacent to the athletic wing.
 - Four parking spaces must be relocated.
 - Impervious surface would be slightly increased; may necessitate Land Development approval process.
- Provide additional classrooms.
 - Build three classrooms and one small group instruction room on each floor.
 - Does not meet all future classroom needs.
- Include an elevator to serve the east end of the two-story existing classroom wings and addition.
- Add toilet rooms to serve the increased student capacity created by the addition.



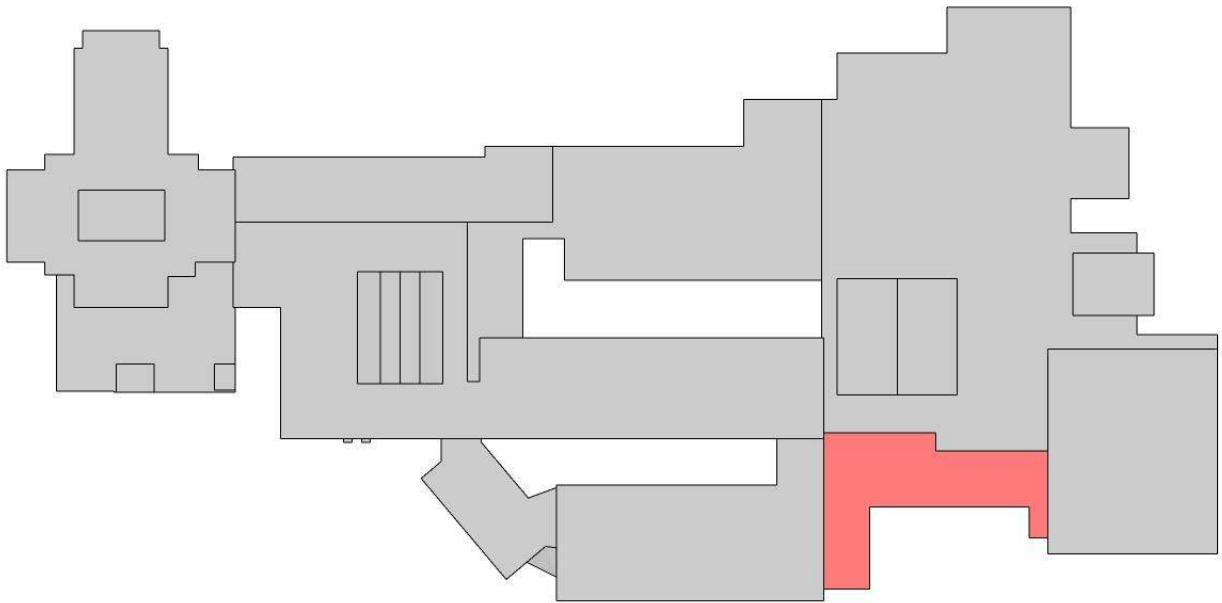
Increased Student Capacity: 180 Students
Total Project Budget: \$5,725,000¹
Potential Occupancy Date: Spring Break 2024

Note

1. Does not account for potential required infrastructure upgrades.

DHS-WEST: INTRODUCTION – ADDITION OPTION C

- Construct a two-story addition on the entrance plaza and lawn area connecting athletic wing with academic wing.
 - Four parking spaces must be relocated.
 - Impervious surface would be slightly increased; may necessitate Land Development approval process.
- Add 11 classrooms and one small group instruction room.
 - Meets anticipated future classroom needs.
 - Provides capacity parity with DHS-East Option B.
- Include an elevator to serve the east end of the two-story existing classroom wings and addition.
- Add toilet rooms to serve the increased student capacity created by the addition.



Increased Student Capacity: 285 + 48 Students (333 Total)
 Total Project Budget: \$11,500,000¹
 Potential Occupancy Date: August 2024

Note

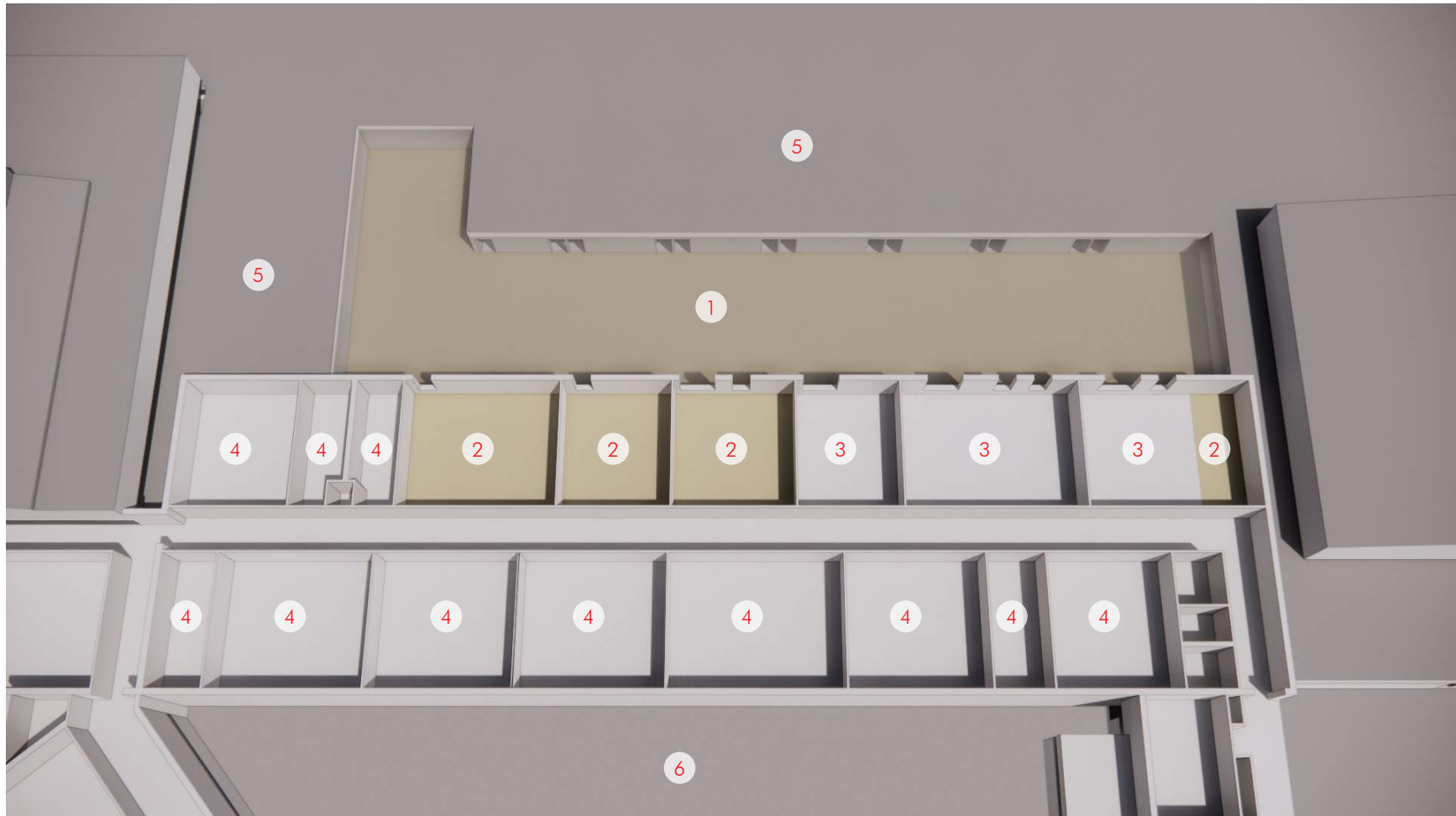
1. Does not account for potential required infrastructure upgrades.

DOWNINGTOWN AREA HIGH SCHOOL WEST EXISTING FIRST FLOOR PLAN



1. Existing courtyard to be enclosed.
2. Interior spaces to be reconfigured.
3. Adjacent spaces with venting to courtyard.
4. Adjacent space to receive no work.
5. Existing lab to be relocated.
6. Existing courtyard to receive no work.

DOWNINGTOWN AREA HIGH SCHOOL WEST EXISTING SECOND FLOOR PLAN



1. Existing courtyard below.
2. Interior spaces to be reconfigured.
3. Adjacent spaces with venting to courtyard.
4. Adjacent space to receive no work.
5. Gray tone denotes existing roof.
6. Existing courtyard to receive no work.

**DOWNINGTOWN AREA HIGH SCHOOL WEST COURTYARD INFILL
PROPOSED FIRST FLOOR PLAN**



1. Courtyard converted to atrium for flexible learning.
2. Relocated classroom from second floor.
3. Mechanical modifications required for adjacent existing spaces.
4. Adjacent spaces to receive no work.
5. Relocated lab.
6. Existing courtyard to receive no work.
7. Learning stair for educational programs and vertical circulation.
8. New toilets to support increased student capacity.
9. Terraced seating and ramps provide access from auditorium corridor.

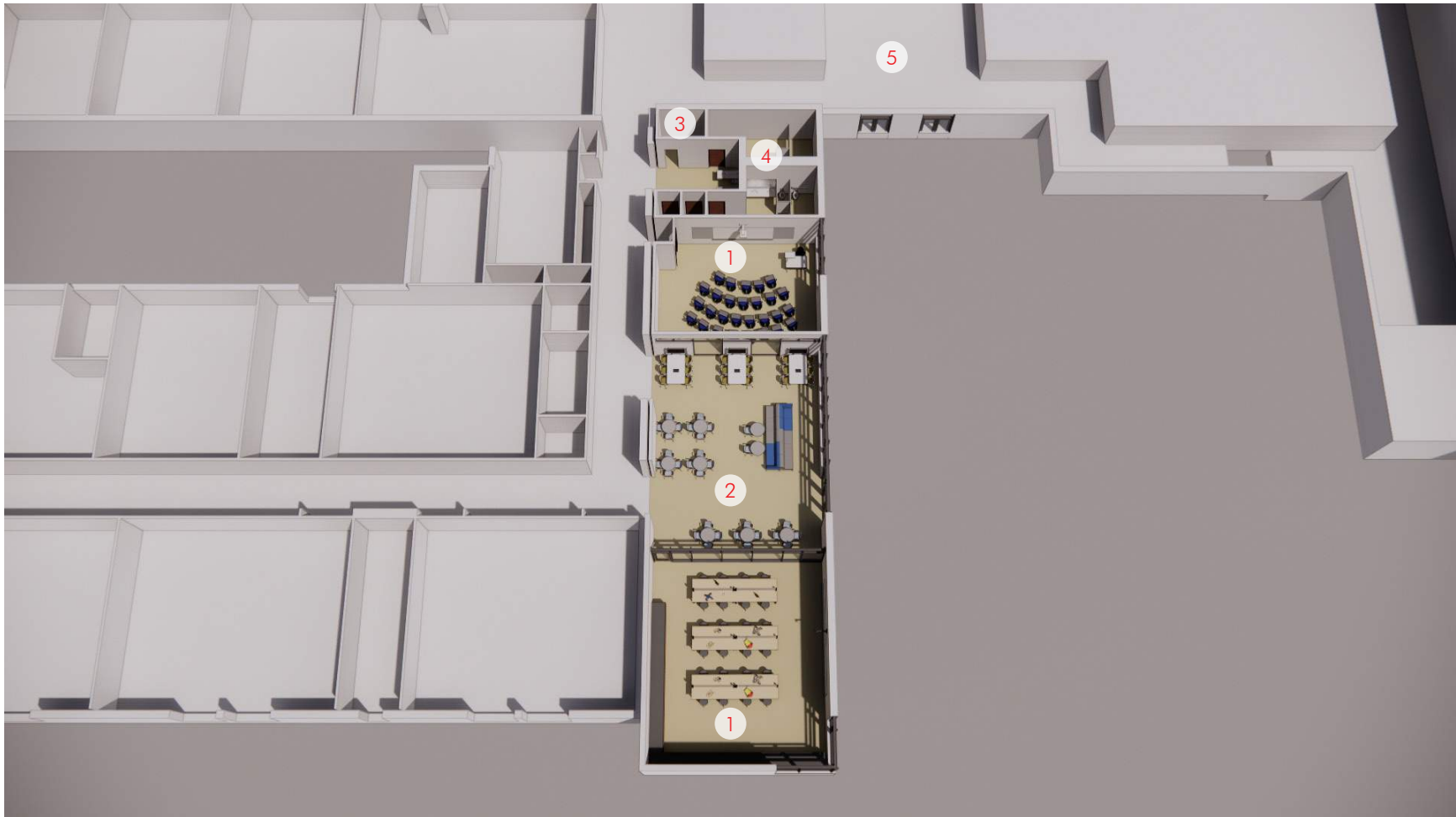
**DOWNINGTOWN AREA HIGH SCHOOL WEST COURTYARD INFILL
PROPOSED SECOND FLOOR PLAN**



1. New mezzanines for flexible learning.
2. Reconfigured enclosed learning spaces.
3. Mechanical modifications required for adjacent existing spaces.
4. Adjacent spaces to receive no work.

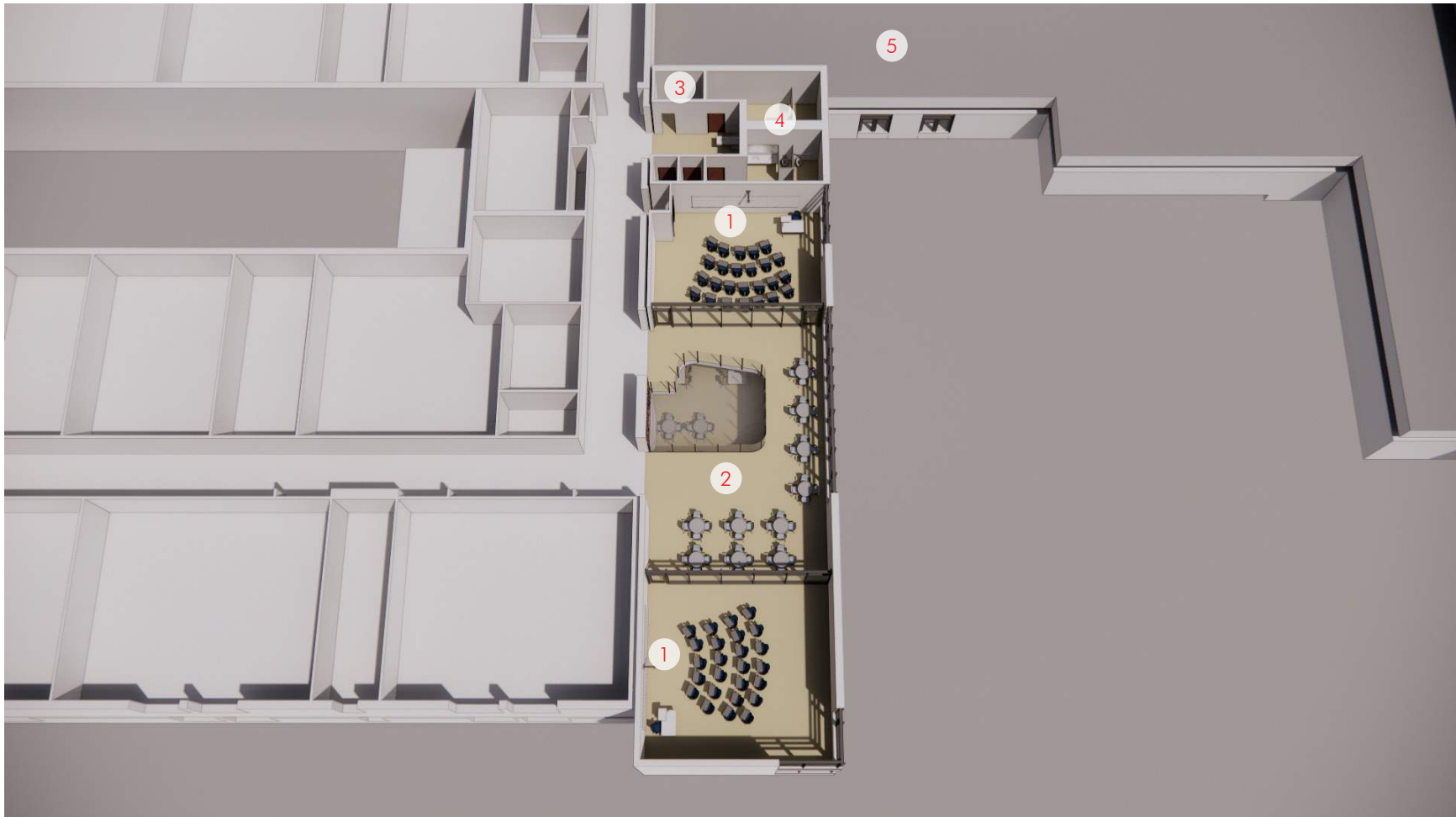
5. Gray tone denotes existing roof.
6. Adjacent courtyard to receive no work.
7. Tone shows open area below mezzanines.
8. Classroom has been reconfigured to provide access to mezzanine.

**DOWNINGTOWN AREA HIGH SCHOOL WEST OPTION A CLASSROOMS
PROPOSED FIRST FLOOR PLAN**



1. New classrooms.
2. New shared flexible learning space.
3. New elevator.
4. New toilets to serve increased student capacity.
5. Existing athletic lobby.

**DOWNINGTOWN AREA HIGH SCHOOL WEST OPTION A CLASSROOMS
PROPOSED SECOND FLOOR PLAN**



1. New classrooms.
2. New shared flexible learning space.
3. New elevator.
4. New toilets to serve increased student capacity.
5. Gray tone denotes roof of existing building.

**DOWNINGTOWN AREA HIGH SCHOOL WEST OPTION B CLASSROOMS
PROPOSED FIRST FLOOR PLAN**



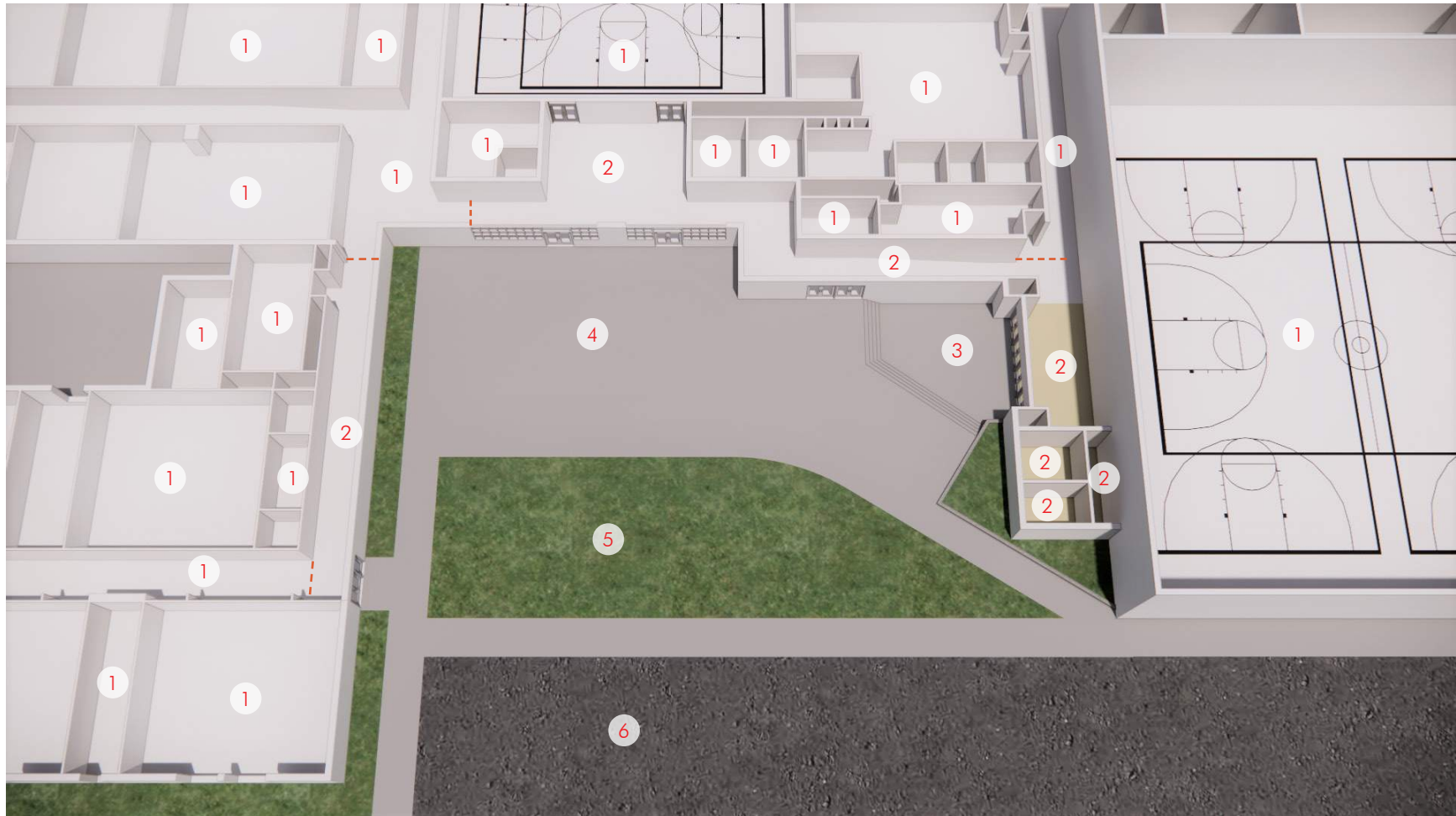
1. New classrooms.
2. New small group instruction room.
3. New elevator.
4. New toilets to serve increased student capacity.
5. Existing athletic lobby.

**DOWNINGTOWN AREA HIGH SCHOOL WEST OPTION B CLASSROOMS
PROPOSED SECOND FLOOR PLAN**



1. New classrooms.
2. New small group instruction room.
3. New elevator.
4. New toilets to serve increased student capacity.
5. Gray tone denotes roof of existing building.

**DOWNINGTOWN AREA HIGH SCHOOL WEST OPTION C CLASSROOMS
EXISTING FIRST FLOOR PLAN**



1. Existing spaces - no work.
2. Existing spaces to be reconfigured.
3. Existing sunken plaza.
4. Existing entrance plaza.
5. Existing lawn area.
6. Existing parking area.

--- Dashed line delineates division between existing space not changed versus those reconfigured.

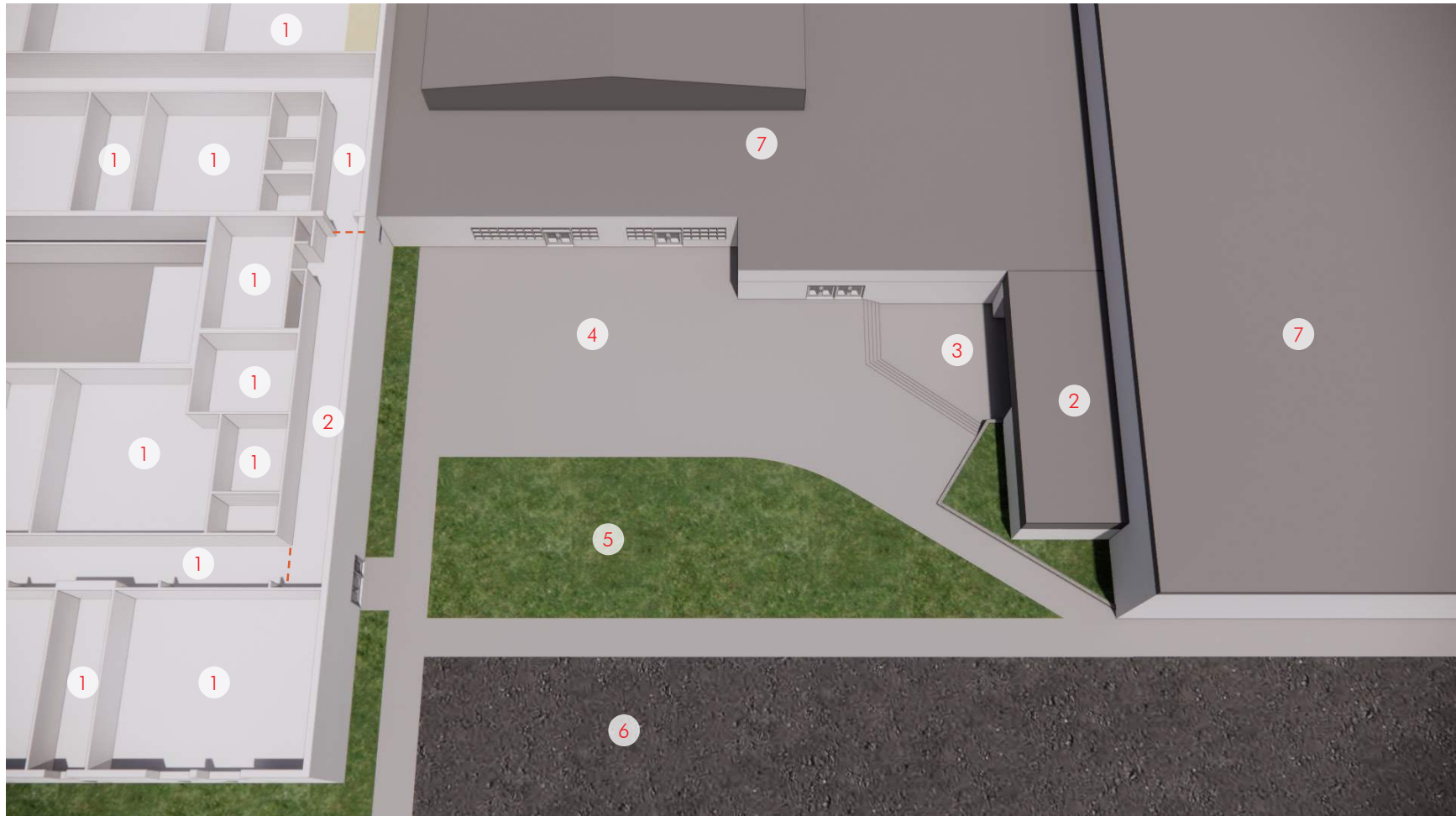
**DOWNINGTOWN AREA HIGH SCHOOL WEST OPTION C CLASSROOMS
PROPOSED FIRST FLOOR PLAN**



1. New classrooms.
2. Shared learning in athletic lobby.
3. New elevator.
4. New toilets to serve increased student capacity.
5. Storage.
6. Office.

7. New stair (required by code).
8. Existing spaces - no work.
9. Expanded athletic lobby.
10. Tickets.
11. Existing ramp to remain.
12. New ADA access ramp.

**DOWNINGTOWN AREA HIGH SCHOOL WEST OPTION C CLASSROOMS
EXISTING SECOND FLOOR PLAN**



1. Existing spaces - no work.
2. Existing spaces to be reconfigured.
3. Existing sunken plaza below.
4. Existing entrance plaza below.
5. Existing lawn area below.
6. Existing parking area below.

7. Existing roof.

--- Dashed line delineates division between existing space not changed versus those reconfigured.

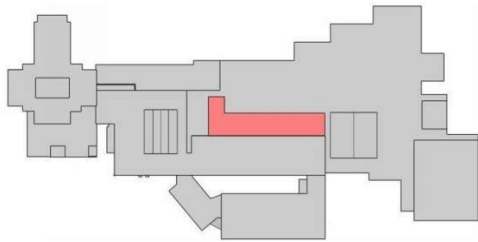
**DOWNINGTOWN AREA HIGH SCHOOL WEST OPTION C CLASSROOMS
PROPOSED SECOND FLOOR PLAN**



1. New classrooms.
2. Shared learning below.
3. New elevator.
4. New toilets to serve increased student capacity.
5. Storage.
6. Small group instruction.

7. New stair (required by code).
8. Existing spaces - no work.
9. Existing roof below.

DOWNINGTOWN HS WEST – Statistics

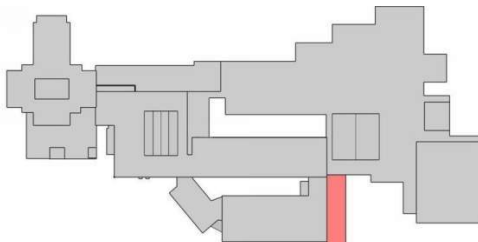


Atrium Infill

Increased Student Capacity = 269

Total Project Cost = \$14,225,000

Potential Occupancy = August 2024



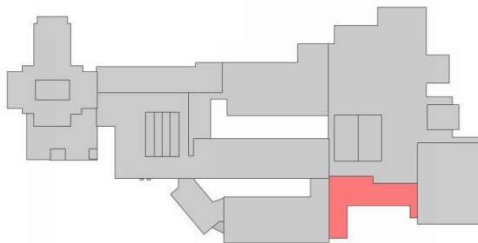
Addition – Option A or B

Increased Student Capacity

Option A = 190 / Option B = 180

Total Project Cost = \$5,725,000

Potential Occupancy = Spring 2024



Addition – Option C

Increased Student Capacity = 333

Total Project Cost = \$11,500,000

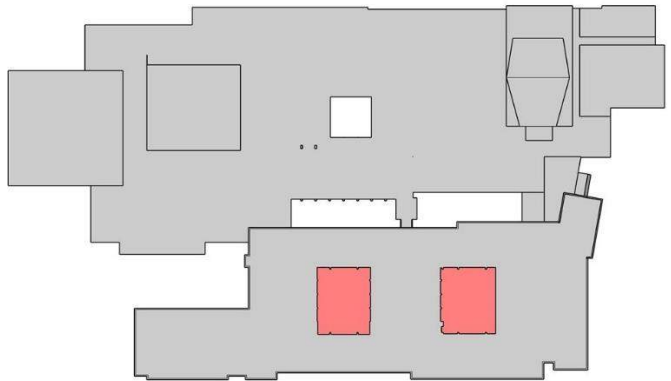
Potential Occupancy = August 2024



FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

DHS-EAST: INTRODUCTION – COURTYARD INFILLS

- Enclose two of the largest courtyards to create atriums providing additional instruction space.
 - Easy access is available from adjacent corridors.
 - Impervious surface would be slightly increased; may necessitate Land Development approval process.
- Provide a variety of flexible spaces for individual and group learning.
- Build mezzanines to establish two new floors of flexible instruction space.
- Construct a “Learning Stair”.
 - Provides circulation between first and second floors.
 - Offers opportunities for individual study.
 - Creates seating for group learning.
- Many existing toilet facilities are located near the proposed atriums and mezzanines.
 - Compliance with the number of toilet fixtures required by code would be confirmed during the design phase of the project.
 - If additional toilet fixtures are required, existing first floor storage rooms could be renovated into toilet rooms.



Increased Student Capacity: 270 Students
 Total Project Budget: \$12,000,000¹
 Potential Occupancy Date: August 2024

Note

1. Does not account for potential required infrastructure upgrades.

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

DHS-EAST: INTRODUCTION – ADDITION OPTION A

- Construct a two-story building addition on a lawn area at the east end of the existing two-story classroom wing.
 - Impervious surface would be slightly increased; may necessitate Land Development approval process.
- Provide a variety of flexible spaces for individual and group learning.
 - Build five enclosed classrooms – three on the first floor and two on the second floor.
 - Build collaborative commons spaces – one on the first floor and two smaller areas on second floor.
- Include an elevator to serve the east end of the two-story existing classroom wing and addition.
- Existing toilet facilities are located within the allowable travel distance from the proposed addition to satisfy code requirements.
 - Compliance with the number of toilet fixtures required by code would be confirmed during the design phase of the project.
 - If additional toilet fixtures are required, they would be incorporated into the design of the addition by reconfiguring support space.



Increased Student Capacity: 269 Students
Total Project Budget: \$7,500,000¹
Potential Occupancy Date: Spring Break 2024

Note

1. Does not account for potential required infrastructure upgrades.

FACILITY CAPACITY STUDY DOWNTOWN AREA SCHOOL DISTRICT

DHS-EAST: INTRODUCTION – ADDITION OPTION B

- Construct a two-story building addition on a lawn area at the east end of the existing two-story classroom wing.
 - Impervious surface would be slightly increased; may necessitate Land Development approval process.
- Provide additional classrooms.
 - Build three classrooms and three small group instruction rooms on each floor.
- Include an elevator to serve the east end of the two-story existing classroom wing and addition.
- Existing toilet facilities are located within the allowable travel distance from the proposed addition to satisfy code requirements.
 - Compliance with the number of toilet fixtures required by code would be confirmed during the design phase of the project.
 - If additional toilet fixtures are required, they would be incorporated into the design of the addition by reconfiguring a classroom space (this would reduce the net gain in student capacity).



Increased Student Capacity:	280 Students
Total Project Budget:	\$7,500,000 ¹
Potential Occupancy Date:	Spring Break 2024

Note

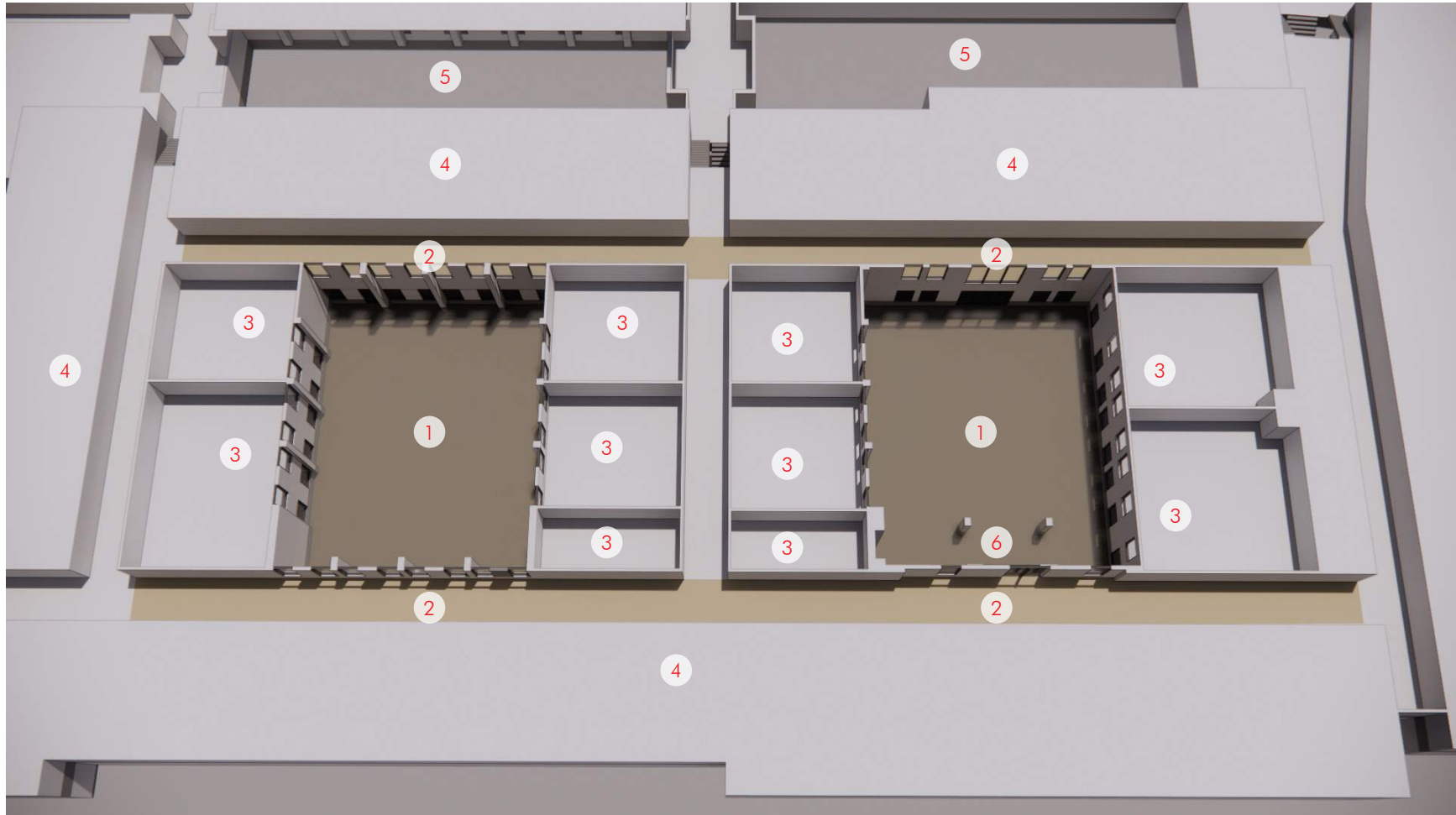
1. Does not account for potential required infrastructure upgrades.

DOWNINGTOWN AREA HIGH SCHOOL EAST EXISTING FIRST FLOOR PLAN



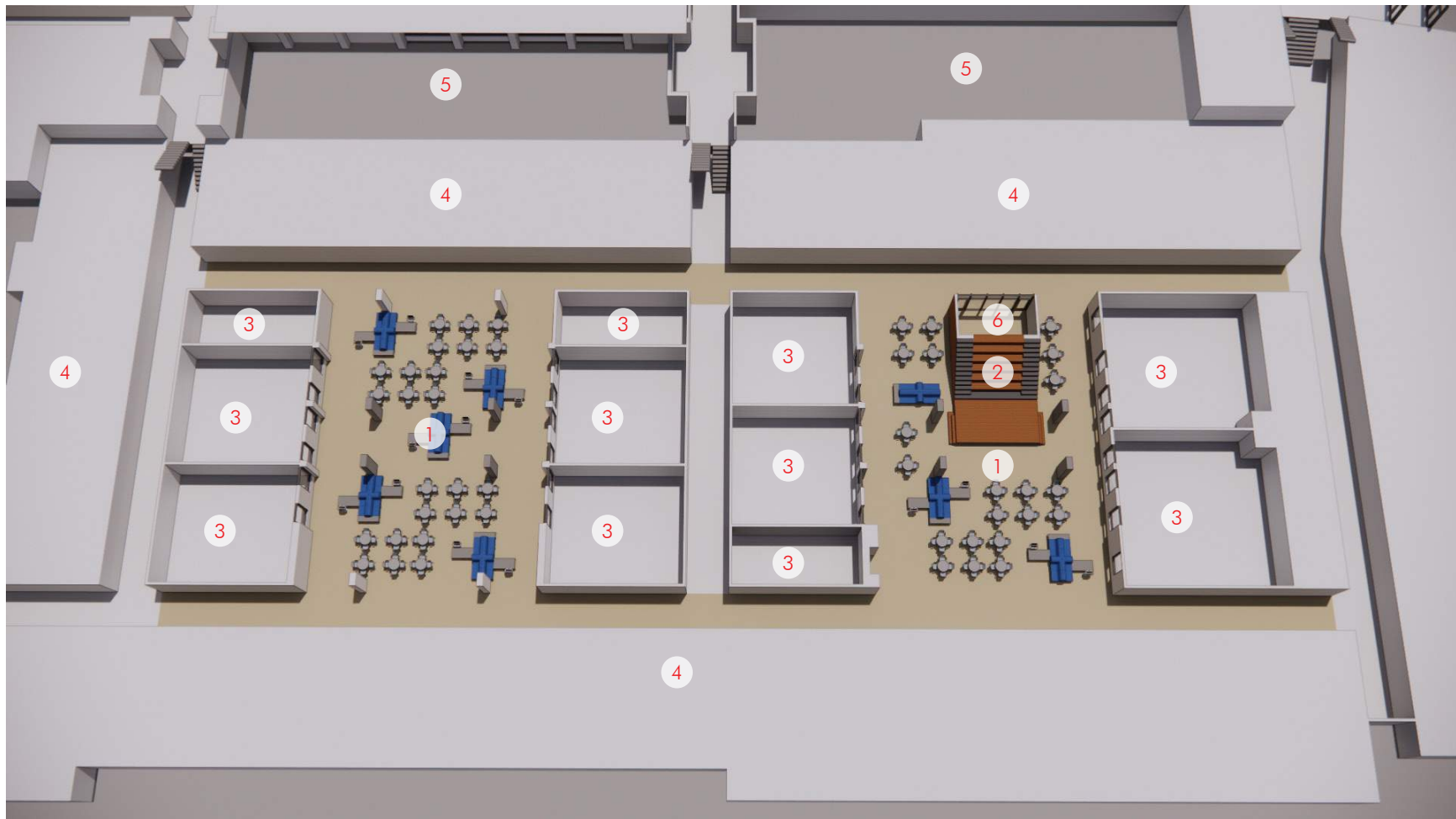
1. Existing courtyard to be enclosed.
2. Existing corridor to be renovated.
3. Existing adjacent classrooms and support spaces with mechanical vents to courtyards.
4. Adjacent spaces to receive no work.
5. Existing courtyard to remain.

DOWNINGTOWN AREA HIGH SCHOOL EAST EXISTING SECOND FLOOR PLAN



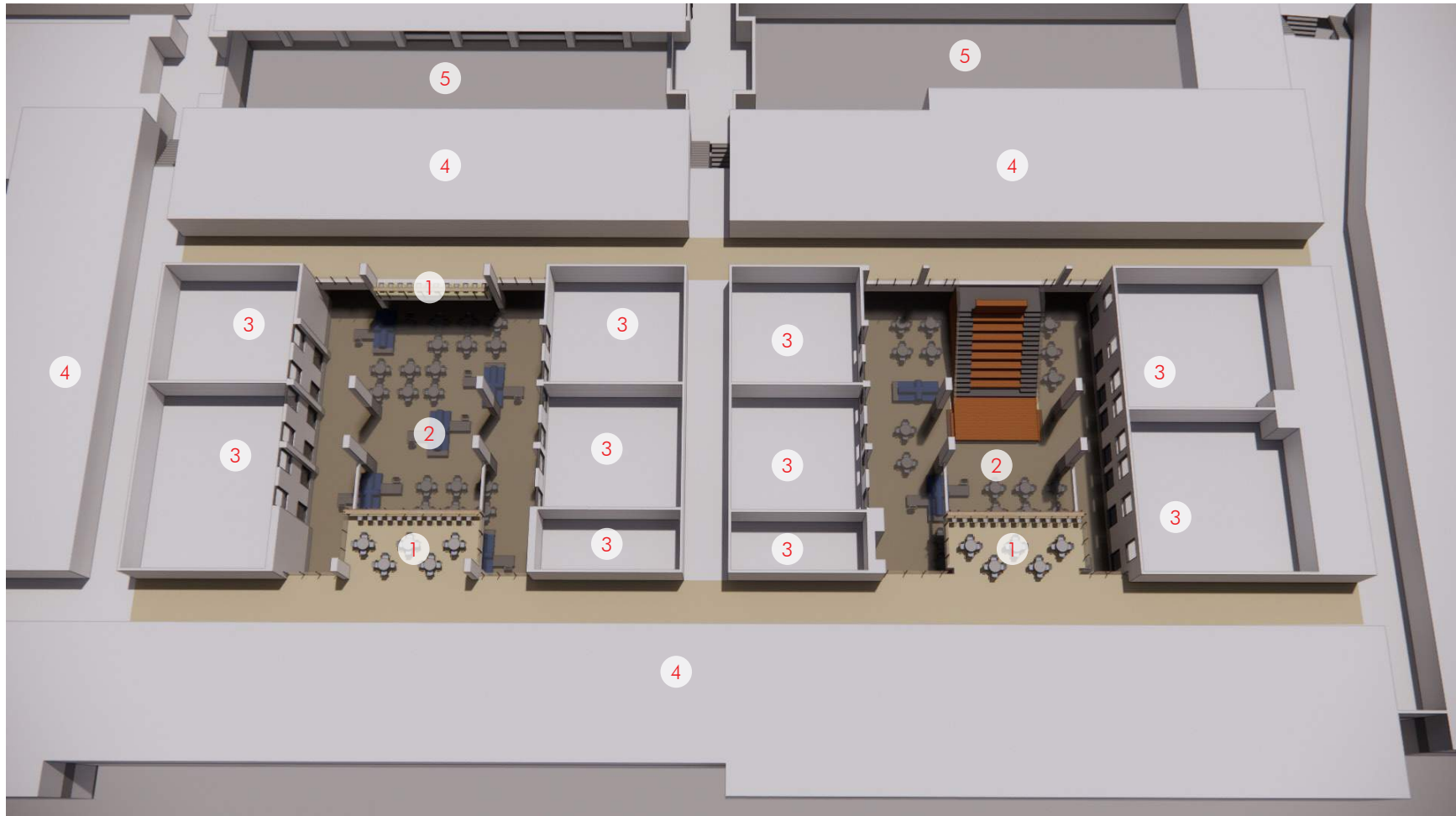
1. Existing upper courtyard.
2. Existing corridor to be renovated.
3. Existing adjacent classrooms and support spaces with mechanical vents to courtyards.
4. Adjacent spaces to receive no work.
5. Existing upper courtyard to remain.
6. Existing greenhouse to be removed.

**DOWNINGTOWN AREA HIGH SCHOOL EAST COURTYARD INFILL
PROPOSED FIRST FLOOR PLAN**



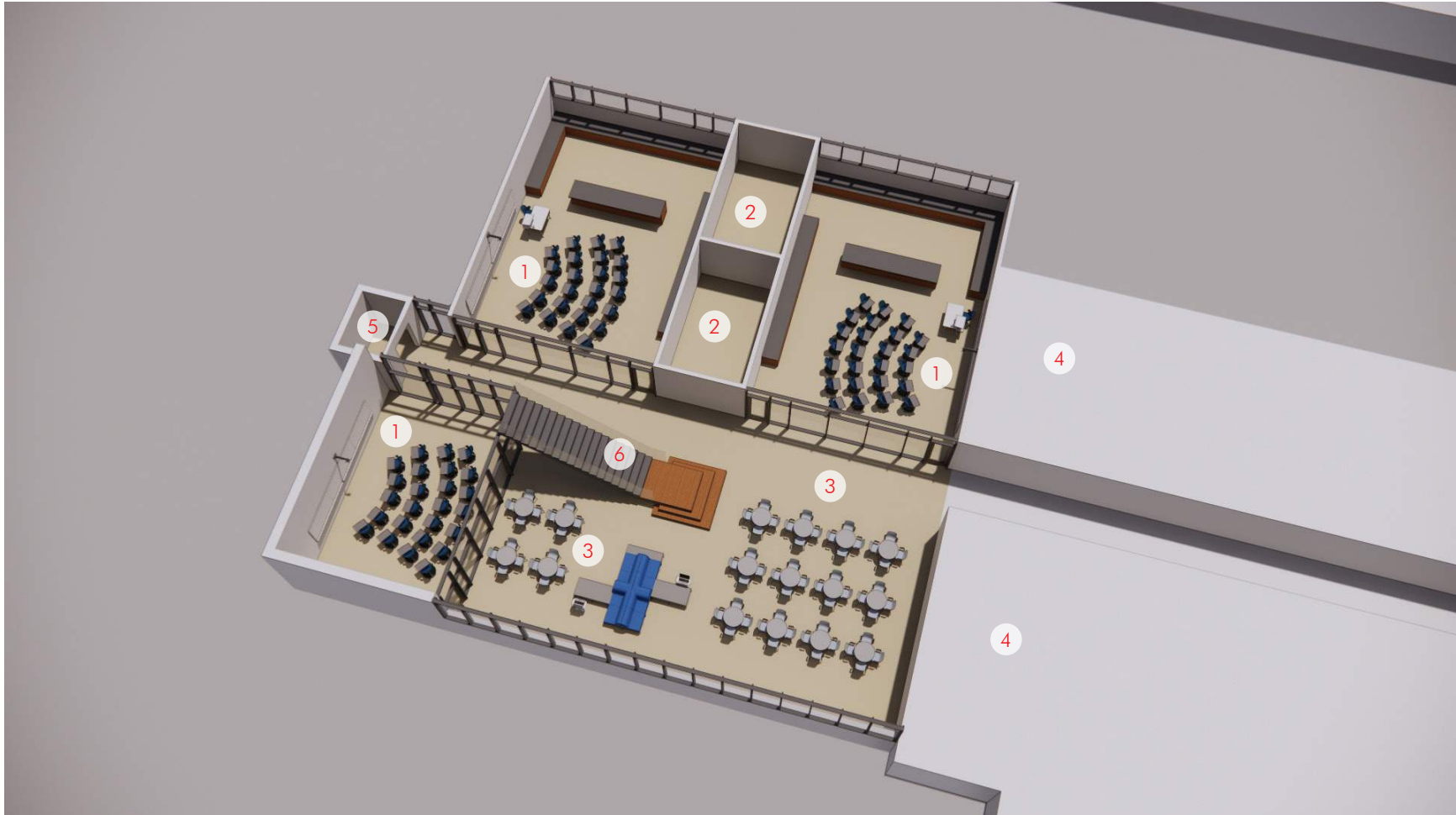
1. Courtyards converted to atrium for flexible learning.
2. Learning stair for educational programs and vertical circulation.
3. Mechanical modifications required for adjacent existing spaces.
4. Adjacent spaces to receive no work.
5. Existing courtyard to remain.
6. New small group instruction room.

DOWNTOWN AREA HIGH SCHOOL EAST COURTYARD INFILL PROPOSED SECOND FLOOR PLAN



- kcba-architects.com

DOWNINGTOWN AREA HIGH SCHOOL EAST OPTION A CLASSROOMS PROPOSED FIRST FLOOR PLAN

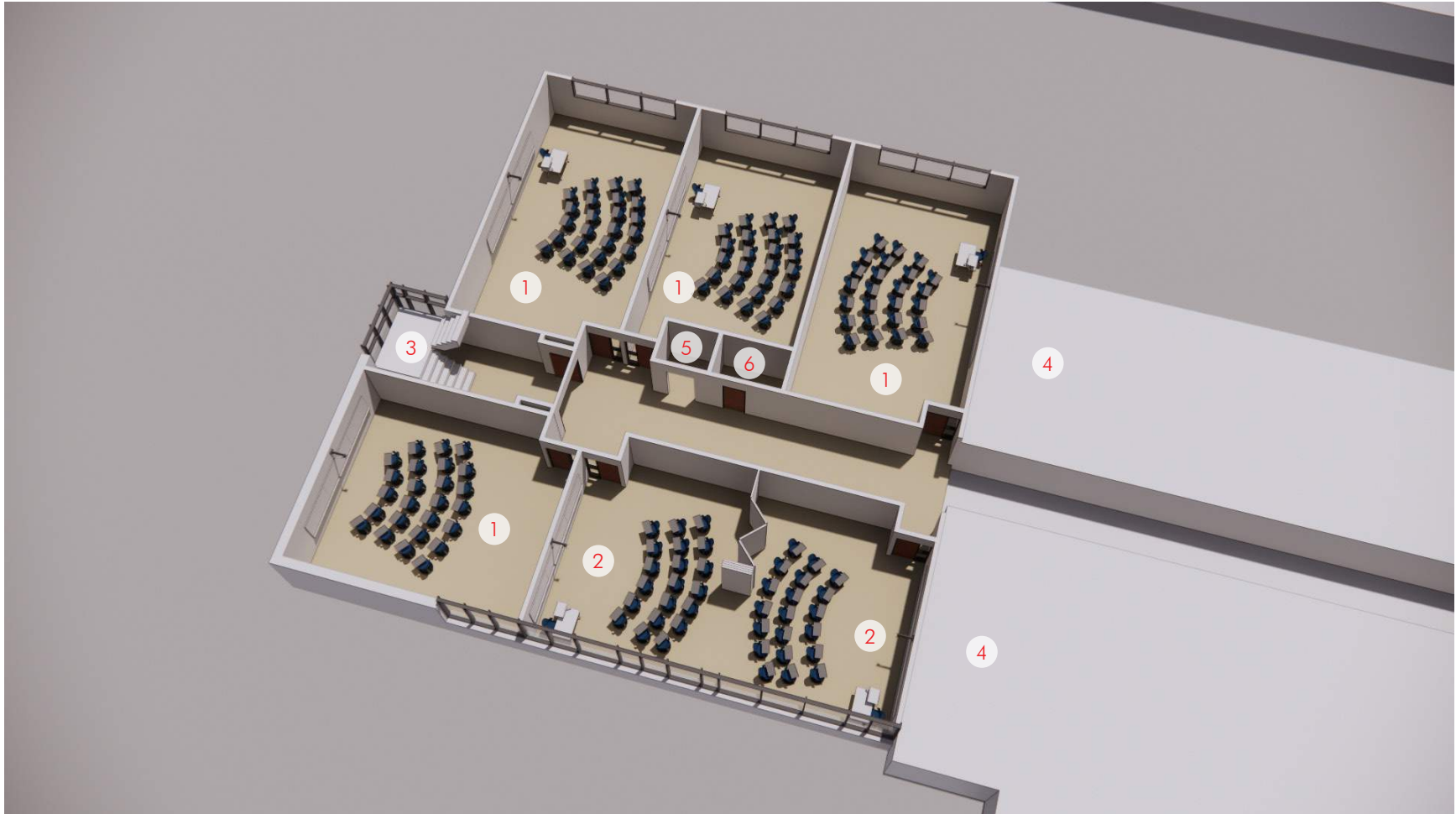


**DOWNINGTOWN AREA HIGH SCHOOL EAST OPTION A CLASSROOMS
PROPOSED SECOND FLOOR PLAN**



- | | |
|--|------------------------------------|
| 1. New classrooms. | 5. New elevator. |
| 2. New support space. | 6. Stair for vertical circulation. |
| 3. Shared flexible learning space. | 7. Open area below. |
| 4. Existing classrooms to receive no work. | |

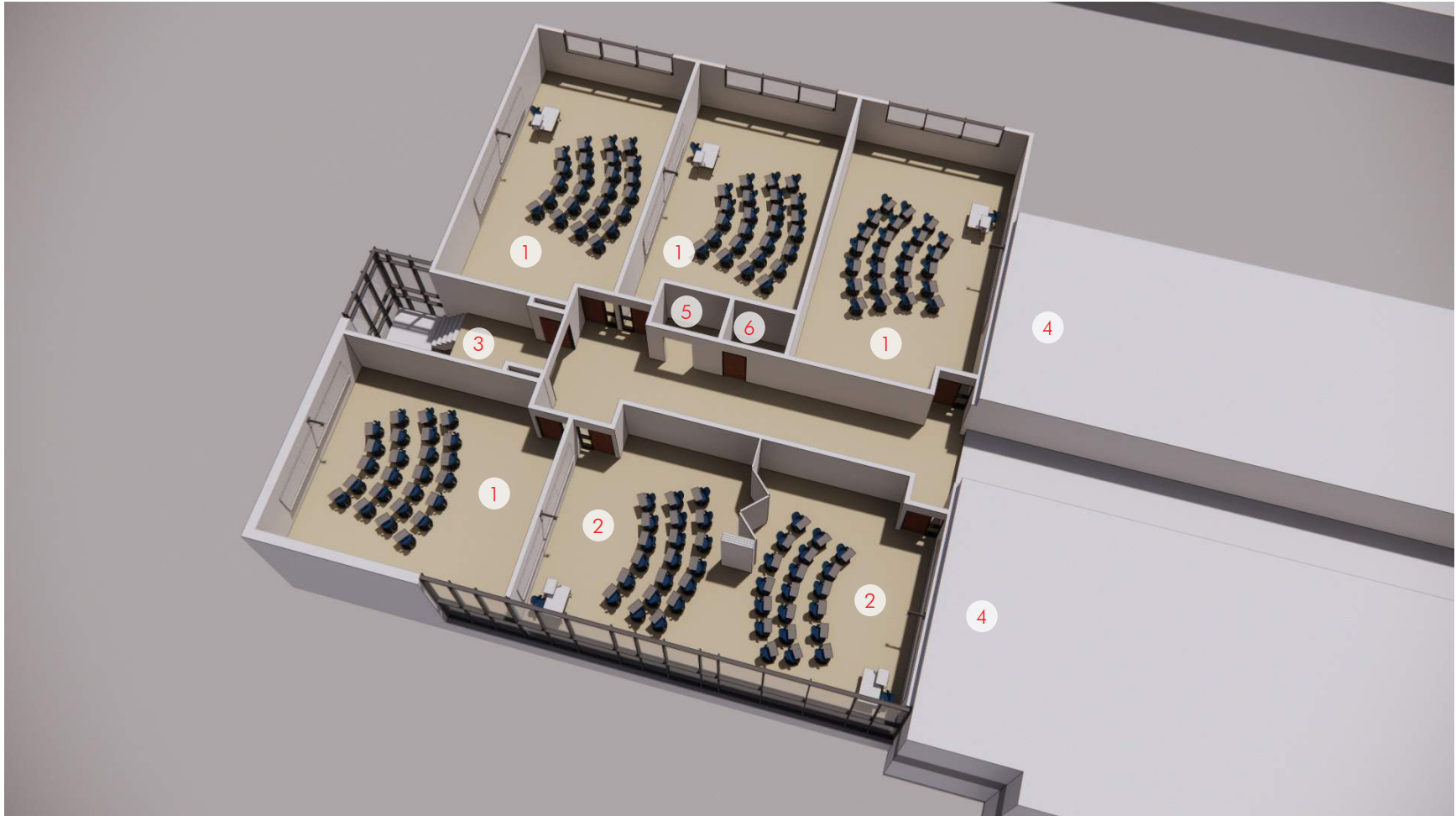
**DOWNINGTOWN AREA HIGH SCHOOL EAST OPTION B CLASSROOMS
PROPOSED FIRST FLOOR PLAN**



- 1. New classrooms.
- 2. New small group instruction rooms.
- 3. New stair (required by code).
- 4. Existing classrooms to receive no work.

- 5. New elevator.
- 6. Support space.

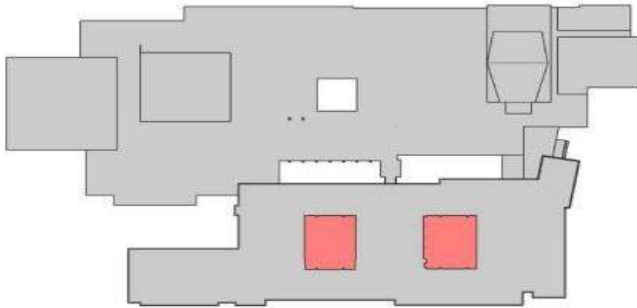
**DOWNINGTOWN AREA HIGH SCHOOL EAST OPTION B CLASSROOMS
PROPOSED SECOND FLOOR PLAN**



- 1. New classrooms.
- 2. New small group instruction rooms.
- 3. New stair (required by code).
- 4. Existing classrooms to receive no work.

- 5. New elevator.
- 6. Support space.

DOWNINGTOWN HS EAST – Statistics



Atrium Infill

Increased Student Capacity = 270

Total Project Cost = \$12,000,000

Potential Occupancy = August 2024



Addition – Option A or B

Increased Student Capacity

Option A = 269 / Option B = 280

Total Project Cost = \$7,500,000

Potential Occupancy = Spring 2024

Summary of Increased Student Capacity

Downtown High School - West

Areas of Work

Comments

Atrium Construction	Capacity	No.	
1st Floor Academic Atrium - Furniture	161	1	161
Atrium Learning Stair	20	1	20
2nd Floor Collaborative Commons	30	1	30
2nd Floor Collaborative Overlook	12	1	12
2nd Floor Collab. Classroom - Existing Wing	30	1	30
2nd Floor Small Group Instruction (SGI)	8	2	<u>16</u>
		Sub	269
Classroom Addition: Option A	Size	No.	
1st Floor Classrooms	25	2	50
1st Floor Collaborative Commons	50	1	50
2nd Floor Classrooms	25	2	50
2nd Floor Collaborative Commons	40	1	<u>40</u>
		Sub	190
Classroom Addition: Option B	Size	No.	
1st Floor Classrooms	25	3	75
1st Floor Small Group Instruction (SGI)	10	1	10
2nd Floor Classrooms	25	3	75
2nd Floor Small Group Instruction (SGI)	20	1	<u>20</u>
		Sub	180
Classroom Addition: Option C	Size	No.	
1st Floor Classrooms	25	5	125
2nd Floor Classrooms	25	6	150
2nd Floor Small Group Instruction (SGI)	10	1	10
		Sub	285
Athletic Commons Seating	48	1	48
		Sub	333
TOTAL CAPACITY - ATRIUM & OPTION C			
Atrium Capacity	269	1	269
Addition Capacity	285	1	285
		Sub	554
Potential Athletic Commons Seating			48
		TOTAL	602

Atrium construction includes relocating existing family and consumer science classroom, faculty room, and existing 2nd floor classroom to the 1st floor.

Summary of Increased Student Capacity

Downingtown High School - East

Areas of Work

Comments

Atrium Construction	Capacity	No.	
1st Floor Academic Atrium - Furniture	190	1	190
1st Floor Academic Atrium - SGI	10	1	10
Atrium Learning Stair	20	1	20
2nd Floor Collaborative Overlook	20	2	40
2nd Floor Technology Counter	10	1	<u>10</u>
		Sub	270
 Classroom Addition: Option A	 Size	 No.	
1st Floor Classrooms	25	3	75
1st Floor Collaborative Commons	70	1	70
2nd Floor Classrooms	25	2	50
2nd Floor Collaborative Commons	74	1	<u>74</u>
		Sub	269
 Classroom Addition: Option B	 Size	 No.	
1st Floor Classrooms	25	4	100
1st Floor Small Group Instruction (SGI)	20	2	40
2nd Floor Classrooms	25	4	100
2nd Floor Small Group Instruction (SGI)	20	2	<u>40</u>
		Sub	280
 TOTAL CAPACITY-ATRIUM & OPTION B	 Capacity	 No.	
Atrium Capacity	270	1	270
Addition Capacity	280	1	<u>280</u>
		TOTAL	550



Facility Capacity Study
Downingtown Area School District
Project Cost Estimate

Proposed New 5-6 Center

Areas of Work

Proposed New Construction	Sq. Foot	\$/sq. foot	
New School Building	150,000	\$290	\$43,500,000
• Site work required for new school		18%	<u>\$7,830,000</u>
		Sub Total	\$51,330,000

Design/Bidding Contingency	5%	<u>\$2,566,500</u>
----------------------------	----	---------------------------

TOTAL CONSTRUCTION COST	\$53,896,500
--------------------------------	---------------------

Construction Contingency	5%	\$2,694,825
Soft Costs (Permits, testing, fees, etc.)	11%	\$5,928,615
Budget: FF&E	\$1,200/Student	<u>\$1,440,000</u>

TOTAL PROJECT COST	\$63,959,940
---------------------------	---------------------

Clarifications

1. Excludes the cost of any offsite improvements.
2. Assume 3% to 5% yearly inflation for schedule delays.
3. Budget does not include operating costs.



Facility Capacity Study
Downtown Area School District
Project Cost Estimate

New Elementary School at McCausland Site (700 Students)

Areas of Work

Proposed New Construction		\$/sq. foot	
New School Building	95,000	\$290	\$27,550,000
• Site work required for new school		18%	<u>\$4,959,000</u>
		Sub Total	\$32,509,000

Design/Bidding Contingency	5%	<u>\$1,625,450</u>
----------------------------	----	--------------------

TOTAL CONSTRUCTION COST	\$34,134,450
--------------------------------	---------------------

Construction Contingency	5%	\$1,706,723
Soft Costs (Testing, Permits, Fees, etc.)	13%	\$4,437,479
Budget: FF&E	\$1,200/Student	<u>\$840,000</u>

TOTAL PROJECT COST	\$41,118,651
---------------------------	---------------------

Clarifications

1. Excludes the cost of any offsite improvements.
2. Assume 3% to 5% yearly inflation for schedule delays.
3. Budget does not include operating costs.



Facility Capacity Study
Downingtown Area School District
Project Cost Estimate

Beaver Creek Elementary School Additions/Partial Renovations

Areas of Work

Proposed New Construction	Sq. Foot	\$/sq. foot	
Additions to Existing Building	16,000	\$350	\$5,600,000
Renovations to Cafeteria / Kitchen Area	4,600	\$200	<u>\$920,000</u>
Sub Total			\$6,520,000

• Site work required for new school	18%	<u>\$1,173,600</u>
Sub Total		<u>\$7,693,600</u>

Design/Bidding Contingency	5%	<u>\$384,680</u>
TOTAL CONSTRUCTION COST		\$8,078,280

Construction Contingency	5%	\$403,914
Soft Costs (Testing, Permits, Fees, etc.)	15%	\$1,211,742
Budget: FF&E	\$1,200/Student	<u>\$210,000</u>

CURRENT PROJECT COST		\$9,903,936
-----------------------------	--	--------------------

Inflation from 2022 to 2025, Compounded @ 4% /Year Average	\$1,236,645
--	-------------

TOTAL PROJECT BUDGET		\$11,140,581
-----------------------------	--	---------------------

Clarifications

1. Excludes cost of offsite improvements.
2. Excludes work to existing mechanical, electrical, plumbing, other building systems, and infrastructure which is unrelated to the capacity project.
3. Excludes any work required to resolve any code compliance issues.
4. Excludes any work to enhance the delivery of educational programs.
5. Assumes bidding in February 2025. Add an additional 4% average year inflation for schedule delays.
6. Budget does not include operating costs.



Facility Capacity Study
Downingtown Area School District
Project Cost Estimate

West Bradford Elementary School Additions/Partial Renovations

Areas of Work

Proposed New Construction	Sq. Foot	\$/sq. foot	
Additions to Existing Building	8,730	\$350	\$3,055,500
Renovations to Toilets & Kitchen Area	2,310	\$200	<u>\$462,000</u>
Sub Total			\$3,517,500

• Site work required for new school	18%	<u>\$633,150</u>
Sub Total		<u>\$4,150,650</u>

Design/Bidding Contingency	5%	<u>\$207,533</u>
TOTAL CONSTRUCTION COST		\$4,358,183

Construction Contingency	5%	\$217,909
Soft Costs (Testing, Permits, Fees, etc.)	15%	\$653,727
Budget: FF&E	\$1,200/Student	<u>\$210,000</u>

CURRENT PROJECT COST		\$5,439,819
-----------------------------	--	--------------------

Inflation from 2022 to 2026, Compounded @ 4% /Year Average	\$924,000
--	-----------

TOTAL PROJECT BUDGET		\$6,363,819
-----------------------------	--	--------------------

Clarifications

1. Excludes cost of offsite improvements.
2. Excludes work to existing mechanical, electrical, plumbing, other building systems, and infrastructure which is unrelated to the capacity project.
3. Excludes any work required to resolve any code compliance issues.
4. Excludes any work to enhance the delivery of educational programs.
5. Assumes bidding in February 2026. Add an additional 4% average year inflation for schedule delays.
6. Budget does not include operating costs.



Facility Capacity Study Downington Area School District Project Cost Estimate

Bradford Heights Elementary School Additions/Partial Renovations

Areas of Work

Proposed New Construction	Sq. Foot	\$/sq. foot	
Additions to Existing Building	19,400	\$350	\$6,790,000
Renovations to tie in Classrooms	1,750	\$100	<u>\$175,000</u>
Sub Total			<u>\$6,965,000</u>

• Site work required for new school	18%	<u>\$1,253,700</u>
Sub Total		<u>\$8,218,700</u>

Design/Bidding Contingency	5%	<u>\$410,935</u>
TOTAL CONSTRUCTION COST		<u>\$8,629,635</u>

Construction Contingency	5%	\$431,482
Soft Costs (Testing, Permits, Fees, etc.)	15%	\$1,294,445
Budget: FF&E	\$1,200/Student	<u>\$210,000</u>

CURRENT PROJECT COST		<u>\$10,565,562</u>
----------------------	--	---------------------

Inflation from 2022 to 2027, Compounded @ 4% /Year Average	\$2,289,060
--	-------------

TOTAL PROJECT BUDGET		<u>\$12,854,622</u>
----------------------	--	---------------------

Clarifications

1. Excludes cost of offsite improvements.
2. Excludes work to existing mechanical, electrical, plumbing, other building systems, and infrastructure which is unrelated to the capacity project.
3. Excludes any work required to resolve any code compliance issues.
4. Excludes any work to enhance the delivery of educational programs.
5. Assumes bidding in February 2027. Add an additional 4% average year inflation for schedule delays.
6. Budget does not include operating costs.



Facility Capacity Study Downtown Area School District Project Cost Estimate

DHS - West Courtyard Infill Only

Areas of Work

Atrium Construction	Size	\$/sq. foot	
1st Floor Infill	9,375	\$600	\$5,625,000
2nd Floor Infill	2,745	\$600	\$1,647,000
1st Floor Hallway Reconfiguration	6,705	\$100	\$670,500
2nd Floor Hallway Reconfiguration	3,881	\$100	\$388,100
1st Floor Classroom Reconfig.	3,760	\$150	\$564,000
2nd Floor Classroom Reconfig.	2,700	\$150	\$405,000
• HVAC Reconfiguration in Classrooms	22,500	\$60	<u>\$1,350,000</u>
		Sub Total	\$10,649,600

Design/Bidding Contingency - 5% \$532,480

TOTAL CONSTRUCTION COST	\$11,182,080
--------------------------------	---------------------

Construction Contingency	10%	\$1,118,208
Soft Costs - (Testing, Fees, Permits, etc.)	15%	\$1,677,312
Budget: Furniture and Equipment	(\$1,200/Student)	<u>\$347,000</u>

TOTAL PROJECT COST	\$14,324,600
---------------------------	---------------------

Clarifications

1. Excludes cost of offsite improvements.
2. Excludes work to existing mechanical, electrical, plumbing, other building systems, and infrastructure which is unrelated to the capacity project.
3. Excludes any work required to resolve any code compliance issues.
4. Excludes any work to enhance the delivery of educational programs.
5. Assumes bidding in February 2023. Add an additional 4% average year inflation for any schedule delays.
6. Budget does not include operating costs.



Facility Capacity Study
Downingtown Area School District
Project Cost Estimate

DHS - West Addition Only - Options A & B

Areas of Work

Classroom Addition	Size	\$/sq. foot	
1st Floor (includes existing hallway)	5,200	\$350	\$1,820,000
2nd Floor (includes existing hallway)	5,200	\$350	\$1,820,000
• Site work required from addition only		15%	<u>\$546,000</u>
		Sub Total	\$4,186,000

Design/Bidding Contingency - 5% **\$209,300**

TOTAL CONSTRUCTION COST	\$4,395,300
--------------------------------	--------------------

Construction Contingency	10%	\$439,530
Soft Costs - (Testing, Fees, Permits, etc.)	15%	\$659,295
Budget: Furniture and Equipment	(\$1,200/Student)	<u>\$228,000</u>

TOTAL PROJECT COST	\$5,722,125
---------------------------	--------------------

Clarifications

1. Excludes cost of offsite improvements.
2. Excludes work to existing mechanical, electrical, plumbing, other building systems, and infrastructure which is unrelated to the capacity project.
3. Excludes any work required to resolve any code compliance issues.
4. Excludes any work to enhance the delivery of educational programs.
5. Assumes bidding in February 2023. Add an additional 4% average year inflation for any schedule delays.
6. Budget does not include operating costs.



Facility Capacity Study
Downingtown Area School District
Project Cost Estimate

DHS - West Addition Only - Option C

Areas of Work

Classroom Addition	Size	\$/sq. foot	
1st Floor (includes existing hallway)	10,800	\$350	\$3,780,000
2nd Floor (includes existing hallway)	9,750	\$350	\$3,412,500
• Site work required from addition only		15%	<u>\$1,182,720</u>
		Sub Total	\$8,375,220

Design/Bidding Contingency - 5% **\$418,761**

TOTAL CONSTRUCTION COST	\$8,793,981
--------------------------------	--------------------

Construction Contingency	10%	\$879,398
Soft Costs - (Testing, Fees, Permits, etc.)	15%	\$1,319,097
Budget: Furniture and Equipment	(\$1,200/Student)	<u>\$399,600</u>

TOTAL PROJECT COST	\$11,392,076
---------------------------	---------------------

Clarifications

1. Excludes cost of offsite improvements.
2. Excludes work to existing mechanical, electrical, plumbing, other building systems, and infrastructure which is unrelated to the capacity project.
3. Excludes any work required to resolve any code compliance issues.
4. Excludes any work to enhance the delivery of educational programs.
5. Assumes bidding in February 2023. Add an additional 4% average year inflation for any schedule delays.
6. Budget does not include operating costs.



Facility Capacity Study
Downtown Area School District
Project Cost Estimate

DHS-East - Courtyard Infill Only

Areas of Work

Atrium Construction	Size	\$/sq. foot	
Academic Infill (Both Courtyards)	9,080	\$600	\$5,448,000
1st Floor Hallway Renovation	11,400	\$100	\$1,140,000
2nd Floor Hallway Renovation	11,400	\$100	\$1,140,000
• HVAC Reconfiguration in Classrooms	20,000	\$60	\$1,200,000
	Sub Total		\$8,928,000

Design/Bidding Contingency - 5% \$446,400

TOTAL CONSTRUCTION COST	\$9,374,400
--------------------------------	--------------------

Construction Contingency	10%	\$937,440
Soft Costs - (Testing, Fees, Permits, etc.)	15%	\$1,406,160
Budget: Furniture and Equipment	(\$1,200/ Student)	<u>\$240,000</u>

TOTAL PROJECT COST	\$11,958,000
---------------------------	---------------------

Clarifications

1. Excludes cost of offsite improvements.
2. Excludes work to existing mechanical, electrical, plumbing, other building systems, and infrastructure which is unrelated to the capacity project.
3. Excludes any work required to resolve any code compliance issues.
4. Excludes any work to enhance the delivery of educational programs.
5. Assumes bidding in February 2023. Add an additional 4% average year inflation for any schedule delays.
6. Budget does not include operating costs.



Facility Capacity Study Downingtown Area School District Project Cost Estimate

DHS-East Addition Only - Options A & B

Areas of Work

Classroom Addition	Size	\$/sq. foot	
1st Floor Addition	6,700	\$350	\$2,345,000
2nd Floor Addition	6,700	\$350	\$2,345,000
• Sitework required for addition only		15%	<u>\$703,500</u>
		Sub Total	\$5,393,500

Design/Bidding Contingency - 5%	5%	<u>\$269,675</u>
---------------------------------	----	-------------------------

TOTAL CONSTRUCTION COST	\$5,663,175
--------------------------------	--------------------

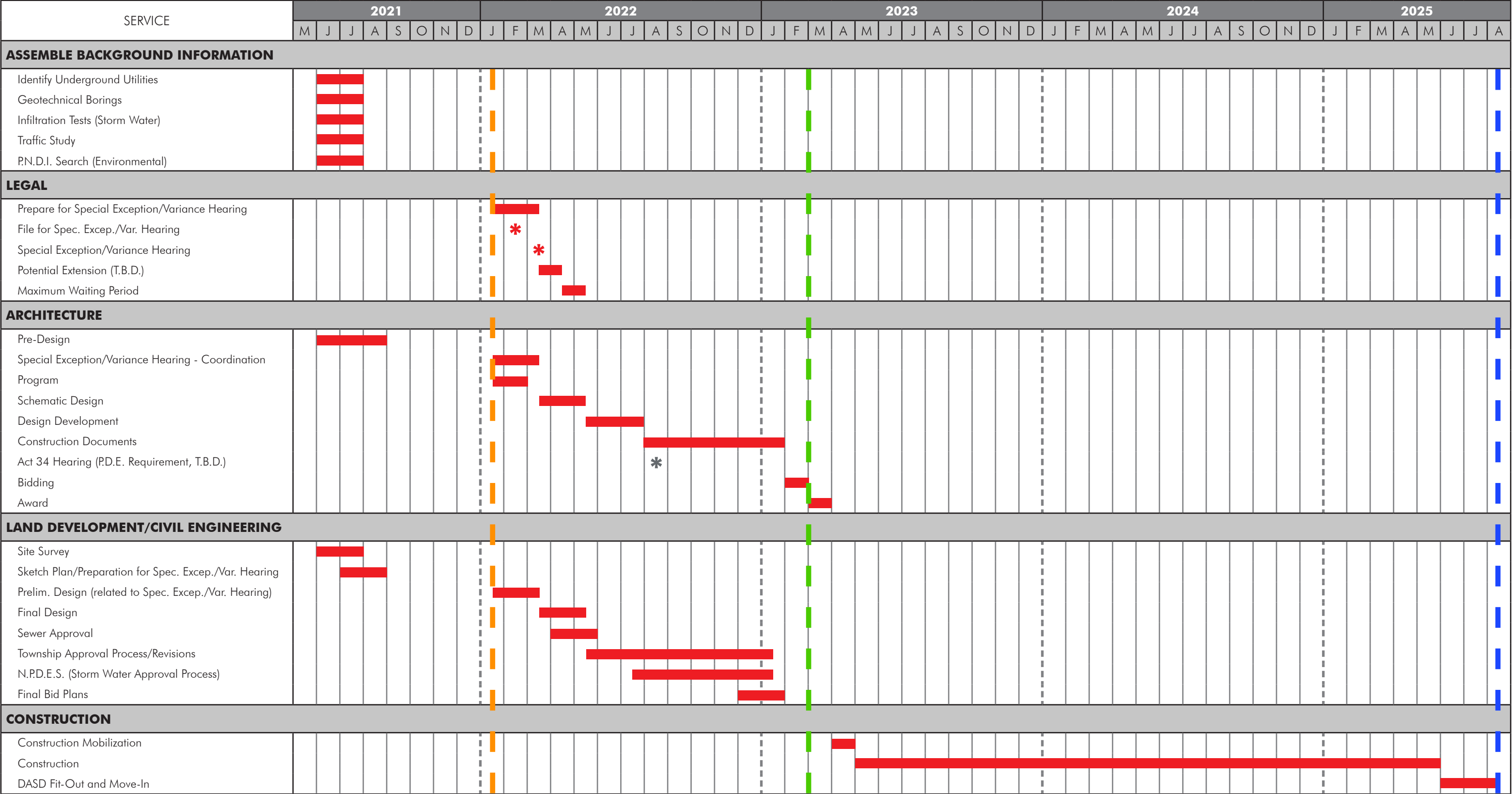
Construction Contingency	10%	\$566,318
Soft Costs - (Testing, Fees, Permits, etc.)	15%	\$849,476
Budget: Furniture and Equipment	(\$1,200/ Student)	<u>\$324,000</u>

TOTAL PROJECT COST	\$7,402,969
---------------------------	--------------------

Clarifications

1. Excludes cost of offsite improvements.
2. Excludes work to existing mechanical, electrical, plumbing, other building systems, and infrastructure which is unrelated to the capacity project.
3. Excludes any work required to resolve any code compliance issues.
4. Excludes any work to enhance the delivery of educational programs.
5. Assumes bidding in February 2023. Add an additional 4% average year inflation for any schedule delays.
6. Budget does not include operating costs.

ELEMENTARY OPTION 1 - DRAFT - BRADFORD HEIGHTS 5/6 CENTER CONCEPT SCHEDULE
DOWNTOWN AREA SCHOOL DISTRICT



Schedule Legend
School Board Authorizes Design of Facility
School Board Awards Bids
School Opens for Teachers

October 1, 2021



OPTION 2 - DRAFT - MCCAUSLAND SITE ELEMENTARY SCHOOL CONCEPT SCHEDULE
DOWNINGTOWN AREA SCHOOL DISTRICT



Schedule Legend

- School Board Authorizes Design of Facility
- School Board Awards Bids
- School Opens for Teachers





October 1, 2021



ELEMENTARY OPTIONS 3 & 4 - DRAFT - MCCAUSLAND SITE & ELEMENTARY SCHOOL ADDITIONS CONCEPT SCHEDULE
DOWNINGTOWN AREA SCHOOL DISTRICT

SERVICE	2022					2023					2024					2025					2026					2027					2028												
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J
MCCAUSLAND SITE NEW ELEMENTARY SCHOOL																																											
Design/Approval																																											
Bid/Award																																											
Construction (start August 1, 2023)																																											
Fit-Out/Move-In																																											
School Opens for Teachers (August 15, 2025)																																											
BEAVER CREEK ELEMENTARY SCHOOL RENOVATION/EXPANSION*																																											
Design/Approval (start is flexible)																																											
Bid/Award																																											
Order Materials																																											
Move-Out (June 15 - August 15, 2025)																																											
Construction (start August 15, 2025)																																											
Fit-Out/Move-In																																											
School Opens for Teachers (August 15, 2026)																																											
WEST BRADFORD ELEMENTARY SCHOOL RENOVATION/EXPANSION*																																											
Design/Approval (start is flexible)																																											
Bid/Award																																											
Order Materials																																											
Move-Out (June 15 - August 15, 2026)																																											
Construction (start August 15, 2026)																																											
Fit-Out/Move-In																																											
School Opens for Teachers (August 15, 2027)																																											
BRADFORD HEIGHTS ELEMENTARY SCHOOL RENOVATION/EXPANSION*																																											
Design/Approval (start is flexible)																																											
Bid/Award																																											
Order Materials																																											
Move-Out (June 15 - August 15, 2027)																																											
Construction (start August 15, 2027)																																											
Fit-Out/Move-In																																											
School Opens for Teachers (August 15, 2028)																																											

Schedule Legend

-  McCausland Site New Elementary School Opens for Teachers
-  Renovated and Expanded Beaver Creek Elementary School Opens for Teachers
-  Renovated and Expanded West Bradford Elementary School Opens for Teachers
-  Renovated and Expanded Bradford Heights Elementary School Opens for Teachers

***Schedule assumes major renovation of existing facilities**

October 1, 2021



DRAFT - HIGH SCHOOL PROJECTS CONCEPT SCHEDULE
DOWNINGTOWN AREA SCHOOL DISTRICT

SERVICE	2021				2022								2023								2024								2025							
	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
DUE DILIGENCE ITEMS																																				
Meet with Principals		*																																		
Review Concept with Township																																				
Traffic Study (if required)																																				
Geotechnical Borings																																				
LEGAL (TO BE DETERMINED)																																				
Prepare for Hearings (T.B.D.)																																				
File for Hearings (T.B.D.)																																				
Hearings (T.B.D.)																																				
Potential Extension (T.B.D.; Likely Not Needed)																																				
Maximum Waiting Period (T.B.D.; Likely Not Needed)																																				
ARCHITECTURE																																				
Pre-Design (Interaction with Municipalities)																																				
Hearings - Coordination (T.B.D.)																																				
Program																																				
Schematic Design																																				
Design Development																																				
Construction Documents																																				
Act 34 Hearing (Not Required)																																				
Bidding																																				
Award																																				
LAND DEVELOPMENT/CIVIL ENGINEERING (MAY NOT BE REQUIRED FOR COURTYARD INFILL ONLY OPTIONS)																																				
Site Surveys																																				
Sketch Plan																																				
Preliminary Design																																				
Sewer Approval (Likely Not Required)																																				
Final Design																																				
Township Approval Process/Revisions																																				
N.P.D.E.S. (Storm Water Approval Process)																																				
Final Bid Plans																																				
CONSTRUCTION - BUILDING ADDITION ONLY OPTIONS A & B																																				
Construction																																				
DASD Fit-Out and Move-In																																				
CONSTRUCTION - COURTYARD INFILL ONLY OPTIONS AND BUILDING ADDITION ONLY OPTION C																																				
Construction (Some Overtime Required)																																				
DASD Fit-Out and Move-In																																				

Schedule Legend
School Board Authorizes Design of Facility
School Board Awards Bids
Occupy by Spring Break 2024 - Building Additions Only Option
Occupy by Start of 2024-2025 School Year - Courtyards Only Option

September 16, 2021



