

SOUTHERN HUNTINGDON COUNTY  
SCHOOL DISTRICT  
THREE SPRINGS, PA

DISTRICT-WIDE FEASIBILITY STUDY  
21 MAY 2019



ARCHITECTURE  
ENGINEERING  
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## **FEASIBILITY STUDY INTRODUCTION**

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This Feasibility Study, completed by EI Associates, as commissioned by the Board of School Directors, is intended as a tool in evaluating the Southern Huntingdon County School District's current and future facility needs and expenditures.

The Commonwealth of Pennsylvania requires that School Districts complete a Feasibility Study of all facilities owned by the School District as part of receiving State reimbursement for a PlanCon project. The study must provide an appraisal of the ability of existing schools to meet current and planned educational programs and space needs including an analysis of projected enrollment. The District-wide feasibility study requirements are outlined on the following pages.

This study has been compiled using data gathered at recent meetings with District Administrators. Visits to the buildings have been conducted to evaluate their compliance with Department of Education Standards; International Building Codes; Pennsylvania Department of Labor and Industry Standards; National Plumbing and Electrical Codes; and the American Disability Act Accessibility Standards. The Feasibility Study began with a tour of each existing building to evaluate its size, age, condition, suitability as an educational facility and potential for upgrading or expansion. Discussions took place with the School District, following the building tours, to confirm current and projected building usage and school programs, also to explore possible future changes in program and developments that might affect the study.

The following topics are covered within the study:

- An overview of the Southern Huntingdon County School District that considers such factors as geography, population, and wealth. Distinguishing characteristics that will have an impact on Southern Huntingdon County School District's facilities are identified such as geographically separate population centers.
- An analysis of Southern Huntingdon County School District's projected enrollment, including population projection charts 10 years into the future for grade groupings K-5, 6-12; and K-12.
- An overview of Southern Huntingdon County School District's educational program that highlights special facility needs, including curriculums that would require special design features.
- An analysis of each building's capacity as it relates to the educational program.
- Existing educational trends, future technologies, and future learning strategies/activities are considered as part of this evaluation as criteria to judge a facility and to determine its long-range usefulness as a school.
- An analysis of each building's physical condition includes the following: Current building codes, PA Department of Education Standards, energy conservation measures, and the American Disability Act Accessibility Standards (ADA). The analysis is divided into six major facility components: Site, Exterior, Interior, Mechanical / Electrical / Plumbing (MEP), Code Deficiencies, and Miscellaneous upgrades per building; as well as applicable components including Security, IT and Communications, and Educational Upgrades.
- An analysis of construction options, including cost estimates, and a summary depicting buildings, options, and costs.

# FEASIBILITY STUDY GUIDELINES

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## Pennsylvania Department of Education: District-Wide Facility Study Guidelines

"District-Wide Facility Study Guidelines", which are based on the Pennsylvania Department of Education (PDE) PlanCon-A instructions, are outlined below.

Basic Education Circular (BEC) 24 P.S. § 7-733, "School Construction Reimbursement Criteria," explains the requirement for school building district-wide facility studies as a condition for reimbursement.

School districts must develop a complete building facility study of all district educational facilities including the district administration office. The study must be completed prior to, and within two years of, the Department's receipt of the PlanCon Part A, Project Justification, submission. The study must provide an appraisal as to each facility's ability to meet current and planned educational program requirements, the degree to which the present facilities meet reasonably current construction standards, and an estimated cost of necessary repairs and improvements. Facility studies must contain documentation regarding the authors' credentials for producing the document.

The Department no longer requires the entire facility study to be submitted. In lieu of the study, Page A03, District-Wide Facility Study Certification, must be submitted. The Department of Education, however, reserves the right to request a copy of the entire district-wide facility study. Completion of a district-wide facility study is a prerequisite to submission of Part A. A PlanCon project must be one of the options evaluated and considered in the study.

Before the Commonwealth will consider a building project for reimbursement, school districts must demonstrate that they have evaluated all of their facilities. The purpose of the district-wide facility study is to develop a plan for addressing the **entire** school district's facility needs. The study must consider how well each building lends itself to the school district's current and planned educational program, both in terms of the building's **design** (e.g., arrangement, number, layout and size of various spaces relative to current and projected enrollment) and **structure** (e.g., soundness, compliance with codes, access, environmental conditions). When the study indicates some inadequacy or deficiency, it must provide an estimate of the cost to correct the problem.

It is important to remember that PlanCon is designed as an administrative tool with the primary purpose of documenting planning and determining subsidy. It contains assumptions that may not apply to a particular school district. PlanCon, for instance, computes full time equivalent elementary capacity based on the assumption of 25 students per room. Secondary capacity presumes a 90 percent utilization rate. Capacity for special education rooms is calculated only for reimbursement purposes. It is important that facility studies provide a clear explanation of methodologies used to determine such things as capacity and enrollment.

# **FEASIBILITY STUDY GUIDELINES**

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## **Pennsylvania Department of Education: District-Wide Facility Study Guidelines (con't)**

**District-wide facility studies must contain all of the following elements and include answers to all the of questions asked:**

1. An overview of the school district that considers such factors as geography, population, and wealth. The overview must include:
  - a. population and wealth statistics
  - b. a map showing the general location of the school district in the state or geographic region
  - c. a map of the school district showing the general location of all existing buildings and owned sites in the school district
  - d. information on any distinguishing characteristics, such as geographically separate population centers, that will have an impact on facilities
2. An overview of the school district's educational program. The overview must address for all grades (K-12):
  - a. instructional practices or planned curriculums by grade structure (elementary, middle, secondary, etc.)
  - b. special facility needs, if applicable, needed to support planned curriculums
3. An analysis of projected enrollment. The analysis must include:
  - a. the likely enrollment for each grade structure ten years into the future
  - b. a discussion of the reliability of the enrollment projections
4. An analysis of each building's capacity as it relates to the educational program. The analysis must address:
  - a. how many students a building can house
  - b. the types of educational spaces required by the educational program described
  - c. grade alignments
  - d. length of school day and number of classes per day, if applicable
  - e. size of particular rooms and adequacy of those rooms, if applicable
5. An analysis of each building's condition. The analysis must address:
  - a. the building's physical condition
  - b. the projected useful life of each building's major components (electrical, HVAC, plumbing, etc.)
  - c. code violations
  - d. universal accessibility
  - e. Energy Portfolio Surveys
  - f. the cost to upgrade each building to current standards

# **FEASIBILITY STUDY GUIDELINES**

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## **Pennsylvania Department of Education: District-Wide Facility Study Guidelines (con't)**

6. An analysis of construction options. The analysis must address:
  - a. the alternatives available to the school district based on the above analysis
  - b. cost estimates for each alternative
  - c. the pros and cons for each alternative
  - d. a summary page depiction of options and costs
  - e. Energy Portfolio Surveys
7. Documentation regarding the authors' credentials. This section must include the education, registration or licensure and experience for each author.

### **Energy Portfolio Surveys:**

Within the District-Wide Facility Study, Energy Portfolio Surveys must be included for each existing building and for each construction option that is being considered. The specific requirements for these Surveys are as follows:

1. Surveys for each Existing Building:

This Survey entails facility benchmarking, using the EPA/DOE Portfolio Manager Tool, identifying the annual site and source energy and annual water consumption.

Portfolio Manager is an interactive energy management tool that helps track and assess a building's energy and water consumption. Portfolio Manager requires the input of existing utility bills and basic facility data.

2. Surveys for each Construction Option (i.e.: for each New Building, Building Alteration, and/or Building Additions/Alterations)

This Survey entails providing a predictive utility budget, using the EPA/DOE Target Finder tool, identifying the annual site and source energy and annual water consumption.

Target Finder helps establish an energy performance target for new design projects and major building renovations.







## **DISTRICT OVERVIEW INTRODUCTION**

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This section of the Feasibility Study is an overview of the Southern Huntingdon County School District that considers such factors as geography, population, and wealth. Distinguishing characteristics that will have an impact on Southern Huntingdon County School District's facilities are identified such as geographically separate population centers.

The topics covered in this section of the Feasibility Study include:

- A summary of School District Buildings.
- Geography / Geographic Population Centers including data and respective maps.
- Population / Population Density / Population Distribution by Land Use including data and respective maps.
- Housing Characteristics including Total Housing Units as well as Occupied Housing Units, Vacant Housing Units, and Persons Per Household.
- Economic Characteristics including Income and Occupation data.
- General Population Characteristics.

## DISTRICT OVERVIEW

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### School District Buildings

The Elementary School program consists of grades K-5 located in Rockhill Elementary, Shade Gap Elementary, and Spring Farms Elementary Schools; the Middle School and High School programs consists of grades 6-12 located in the Southern Huntingdon Co. High School / Middle School.

The District Administration Offices are located in the Southern Huntingdon Co. High School / Middle School facility.

**Table 1 profiles the School District Buildings.** Refer to Map 1 for a geographic illustration of the School District.

<b>TABLE 1 Southern Co. S.D. Buildings</b>	Grade Levels	2018-19 Student Enrollment	PDE Total Capacity	Architectural Area (SF)	Site Size Acres	Construction / Renovation Dates
Rockhill Elementary	K-5	167	250	23,375	5.64	1955(B) <b>PlanCon Eligibility: Yes</b>
Shade Gap Elementary	K-5	133	200	18,490	10	1955(B) <b>PlanCon Eligibility: Yes</b>
Spring Farms Elementary	K-5	216	275	22,005	16.55	1960(B) <b>PlanCon Eligibility: Yes</b>
High School / Middle School / DAO	6-12	627	926	148,100	45.13	1960(B), 2004 (A&A) <b>PlanCon Eligibility: 2024</b>

### School Board of Directors

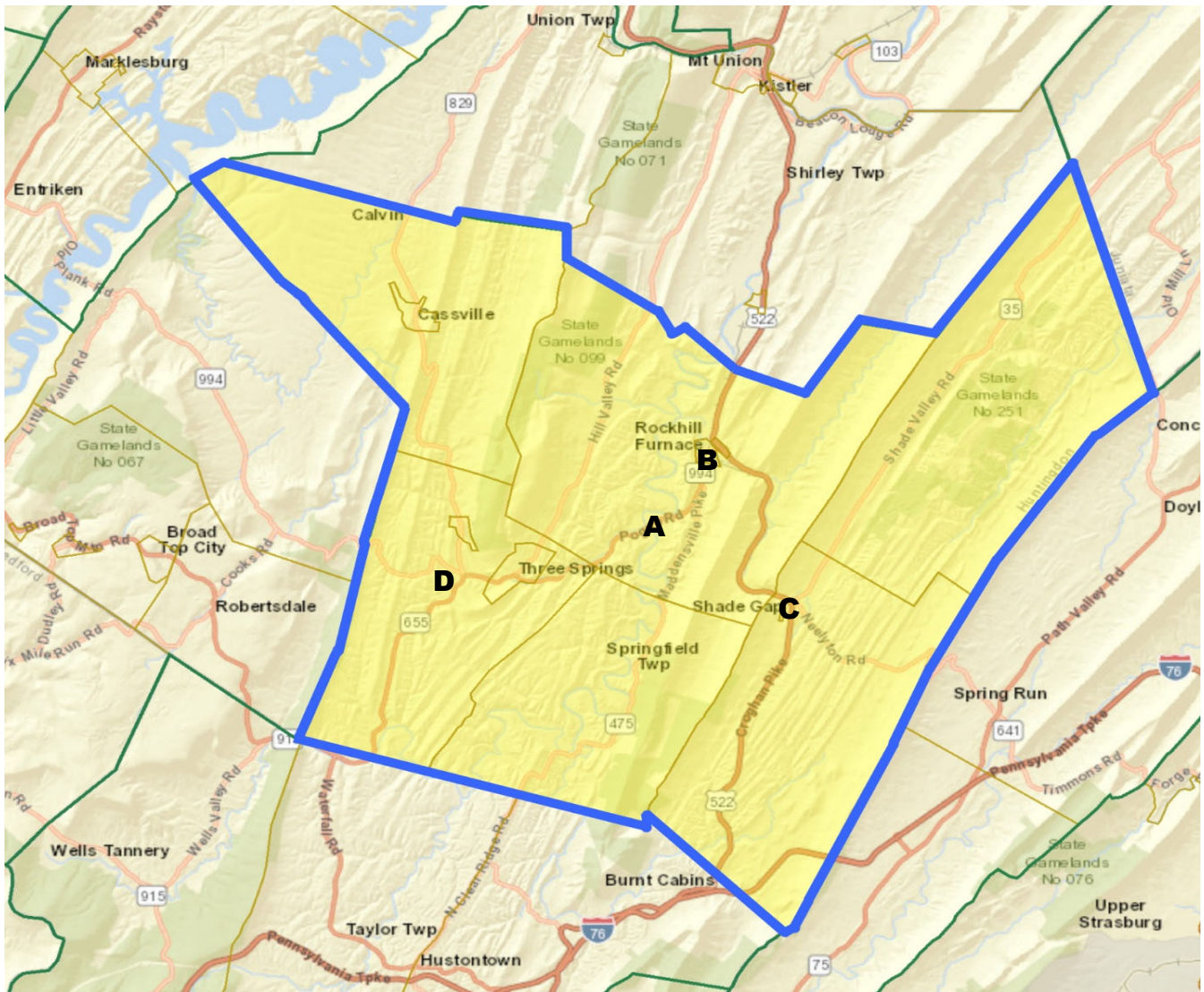
The Board of School Directors is made up of nine members. The nine directors are elected from the District's residents as a whole. Elections are held in alternate years in accordance with law. Director's terms last four years. The Superintendent is the chief administrative officer of the School District, with overall responsibility for all aspects of operations, including education, finance and facility planning. The Business Administrator is responsible for budget and financial operations. Both of these officials are selected by the Board of School Directors.

## DISTRICT OVERVIEW

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### Southern Huntingdon County School District - District Map

Map 1 illustrates the Southern Huntingdon County School District. Map source is the 2010 U.S. Census.



- A. High School / Middle School
- B. Rockhill Elementary School
- C. Shade Gap Elementary School
- D. Spring Farms Elementary School

## **DISTRICT OVERVIEW**

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### **Geography / Geographic Population Centers**

The Southern Huntingdon County School District is located in the southeastern part of Huntingdon County, Pennsylvania in Three Springs, Pennsylvania. Refer to Maps 1 and 2 for geographic illustrations. Refer to Maps 5 & 6 for existing and proposed land-use including residential and commercial centers.

The Southern Huntingdon County School District includes the municipalities of: Cass Township, Cassville Borough, Clay Township, Cromwell Township, Dublin Township, Orbisonia Borough, Rockhill Furnace Borough, Saltillo Borough, Shade Gap Borough, Springfield Township, Tell Township, and Three Springs Borough.

The main arteries that traverse the School District include: Route 76 running East/West through the Southern tip of the District; Route 522 running North/South through the middle of the District; also Routes 994, 829, 747, 655, 475 and 35 running through the various parts of the District.

The School District presently operates three K-5 Elementary Schools, and a 6-12 High School / Middle School. Elementary School attendance is divided among the three Elementary Schools, while the High School / Middle School encompass attendance from the School District as a whole. The District Administration Offices are located at the High School / Middle School facility.

### **Population / Population Density / Population Distribution by Land Use**

The population age percentages based on the 2010 U.S. Census for the School District are as follows: 6% of residents are Pre-school age children 0 to 4 years; 17% of residents are School age children 5 to 17 years; 60% of residents are Adults age 18 to 64 years; and 17% of residents are Adults age 65+ years.

The School District serves an approximate population of 7,984 residents within 221.4 square miles. The approximate average Population Density of the School District is 36 persons per square mile, while the Household Average Density is 20 households per square mile.

The majority of the School District's population lives in rural areas with 100% of Housing classified as Rural; and 100% of residents are located in Rural areas.

U.S. Census profiles for the Population of each Municipality that comprise the School District illustrate: a net decrease from 2000 to 2010 in the Total Population as well as Pre-school age children 0-4 years and School age children 5-17 years, and Adults ages 65+ years; and a net increase in Adults age 18-64 years from 2000 to 2010. The 2010 Census Data indicates that the median age is 41.8, illustrating a net increase in the median age.

## **DISTRICT OVERVIEW**

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### **Housing Characteristics**

U.S. Census profiles for the Housing Data of each Municipality comprising the School District illustrate: a net increase in the Total Housing Units as well as Occupied Housing Units, Owner Occupied Units, and Renter Occupied Units; and net decrease in Vacant Housing Units and Persons Per Household from 2000 to 2010. The 2010 Census Data indicates 2.47 Persons Per Household, illustrating a net decrease in Persons Per Household.

The Years that Housing Structures (all occupied and unoccupied units) were built in the School District are as follows: 29.2% were built 1939 or Earlier; 12.4% were built between 1940 to 1959; 28.2% were built between 1960 to 1979; 24.6% were built between 1980 to 1999; 4.0% were built between 2000 to 2004; and 1.6% were built 2005 or later.

The Years that the Householder moved into the Housing Unit (total occupied housing units) in the School District are as follows: 13.9% in 1969 or Earlier; 14.1% between 1970 to 1979; 13.3% between 1980 to 1989; 27.4% between 1990 to 1999; 15.8% between 2000 to 2004; 15.5% in 2005 or later.

### **Economic Characteristics**

Economic data based on the 2010 U.S. Census for the School District: \$44,233 was the Median Household Income; \$56,371 was the Mean Household Income; \$21,697 was the Per Capita Income; and \$112,000 was the Median House Value.

The Occupation data of employed civilian population age 16 years and over for the School District: 24.5% Management, Business, Science, and Arts Occupations; 16.4% Service Occupations; 16.8% Sales & Office; 20.2% Natural Resources, Construction, and Maintenance Occupations; and 22.1% Production, Transportation & Material Moving.

The Industry data of employed civilian population age 16 years and over for the School District: 4.8% Agriculture, forestry, fishing and hunting, and mining; 14.9% Construction; 17.98% Manufacturing; 2.7% Wholesale trade; 7.4% Retail trade; 6.8% Transportation and warehousing, and utilities; 3.1% Information; 4.7% Finance and insurance, and real estate and rental and leasing; 2.1% Professional, scientific, and management, and administrative and waste management services; 19.4% Educational services, and health care and social assistance; 4.9% Arts, entertainment, and recreation, and accommodation and food services; 5.6% Other services, except public administration; and 5.6% Public administration.

### **General Population Characteristics**

Total population of the School District: 50.5% Male and 49.5% Female.

Total Population over 16 years of age: 55.4% are in the Labor Force; 95% commute to work by transportation other than walking or working at home; Mean travel time to work is 36.1 minutes.

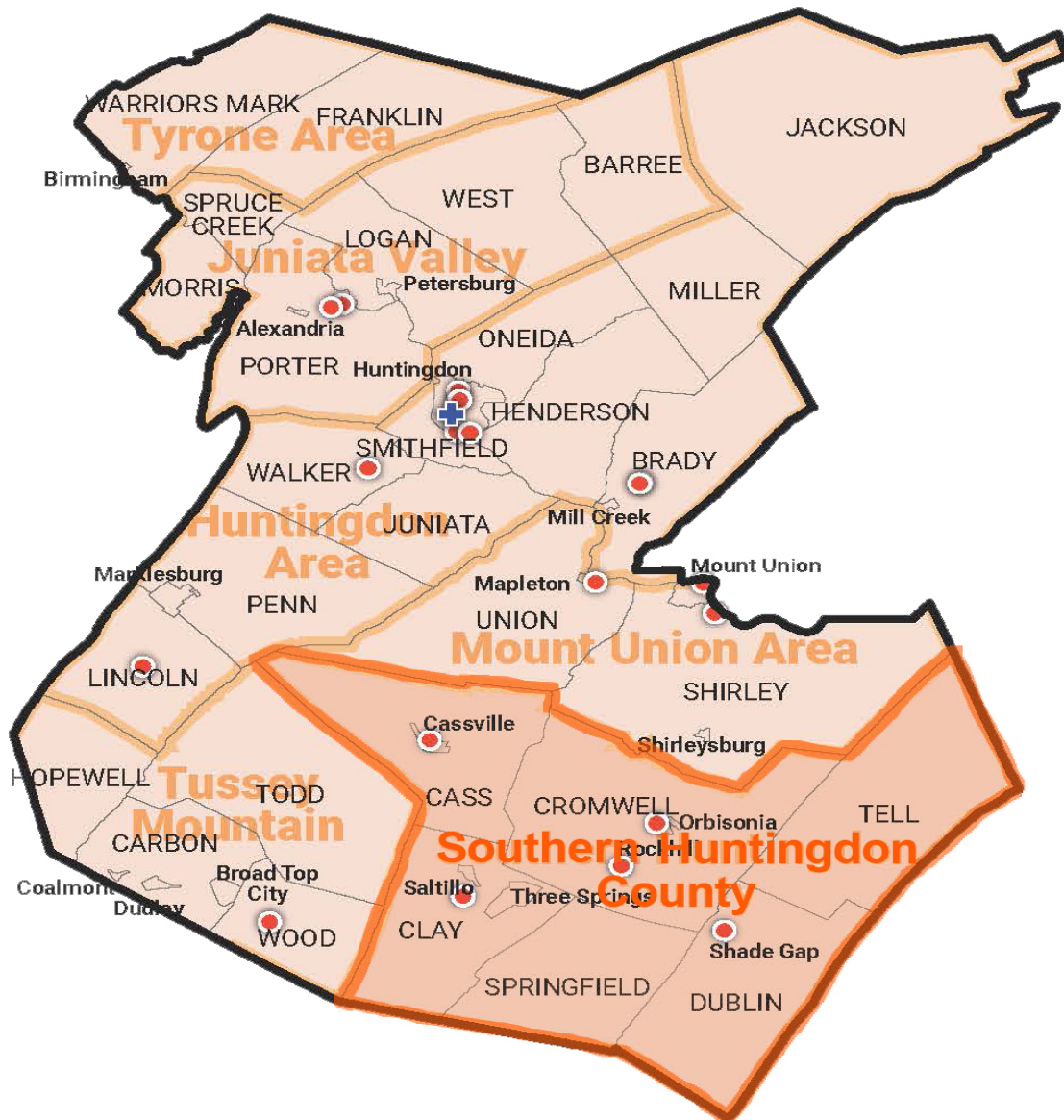
The racial makeup of the School District in 2010 was 99.1% White, 0.2% African American, 0.1% Native American, 0.1% Asian, 0% Pacific Islander, 0.1% Other Races, and 0.4% from two or more races. Hispanic or Latino of any race were 0.5% of the population.

## DISTRICT OVERVIEW

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### Huntingdon County School Districts - County Map

Map 2 illustrates the School Districts located in Huntingdon County. Map source is the Comprehensive Plan for the Southern Alleghenies Region.





## DISTRICT OVERVIEW

### Population

The School District Population age percentages based on the 2010 U.S. Census: 6% of residents are Pre-school age children 0 to 4 years; 17% of residents are School age children 5 to 17 years; 60% of residents are Adults age 18 to 64 years; and 17% of residents are Adults age 65+ years.

**Table 2 profiles the School District population and percentages by age groupings.** The Data is based on the 2010 U.S. Census.

<b>TABLE 2 Population</b>	Number of Residents	Percentage of Residents
Pre-school children 0 to 4 years	487	6%
School age children 5 to 17 years	1,379	17%
Adults 18 to 64 years	4,775	60%
Adults 65+ years	1,343	17%
<b>School District Total</b>	<b>7,984</b>	<b>100%</b>

### Population Density

The School District serves an approximate population of 7,984 residents within 221.4 square miles. The approximate average Population Density of the School District is 36 persons per square mile, while the Household Average Density is 20 households per square mile. The majority of the School District's population lives in Rural areas with 100% of Housing classified as Rural; and 100% of residents located in Rural areas.

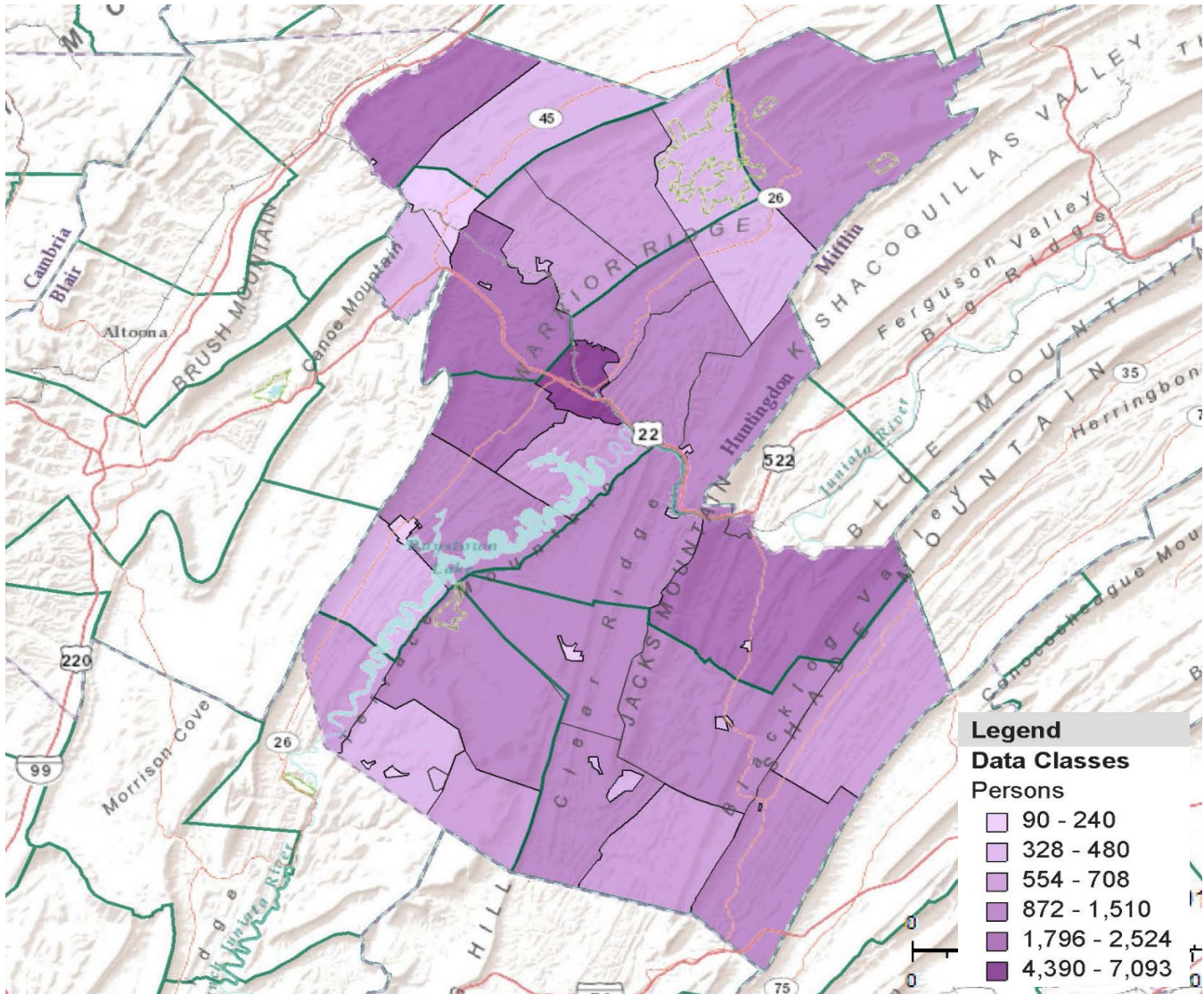
**Table 3 profiles the population density of each municipality.** The Data is based on the 2010 U.S. Census. Refer to Maps 3 & 4 for graphic illustrations of the Huntingdon County Population and Housing Density Distribution by Data Classes.

<b>TABLE 3 Population Density</b>	Total Area sq. mi.	Number of Residents	Number of Households	No. of Housing Units	Population Density per sq. mi.	Household Avg. Density per sq. mi.
Cass Township	32.98	1,119	432	653	33.9	13.1
Cassville Borough	0.59	143	60	67	242.4	101.7
Clay Township	28.46	926	379	511	32.5	13.3
Cromwell Township	50.84	1,510	595	849	29.7	11.7
Dublin Township	36.82	1,290	515	652	35.0	14.0
Orbisonia Borough	0.09	428	205	242	4,755.6	2,277.8
Rockhill Furnace Borough	0.29	371	160	168	1,279.3	551.7
Saltillo Borough	0.25	346	129	143	1,384.0	516.0
Shade Gap Borough	0.03	105	44	48	3,500.0	1,466.7
Springfield Township	27.52	654	267	423	23.8	9.7
Tell Township	42.65	662	256	374	15.5	6.0
Three Springs Borough	1.23	444	197	218	361.0	160.2
<b>School District Total</b>	<b>221.40</b>	<b>7,984</b>	<b>3,230</b>	<b>4,328</b>	<b>36</b>	<b>20</b>

## DISTRICT OVERVIEW

### Huntingdon County Population Density - County Map

Map 3 illustrates the Huntingdon County Population Distribution by Data Classes. Map source is the 2010 U.S. Census.

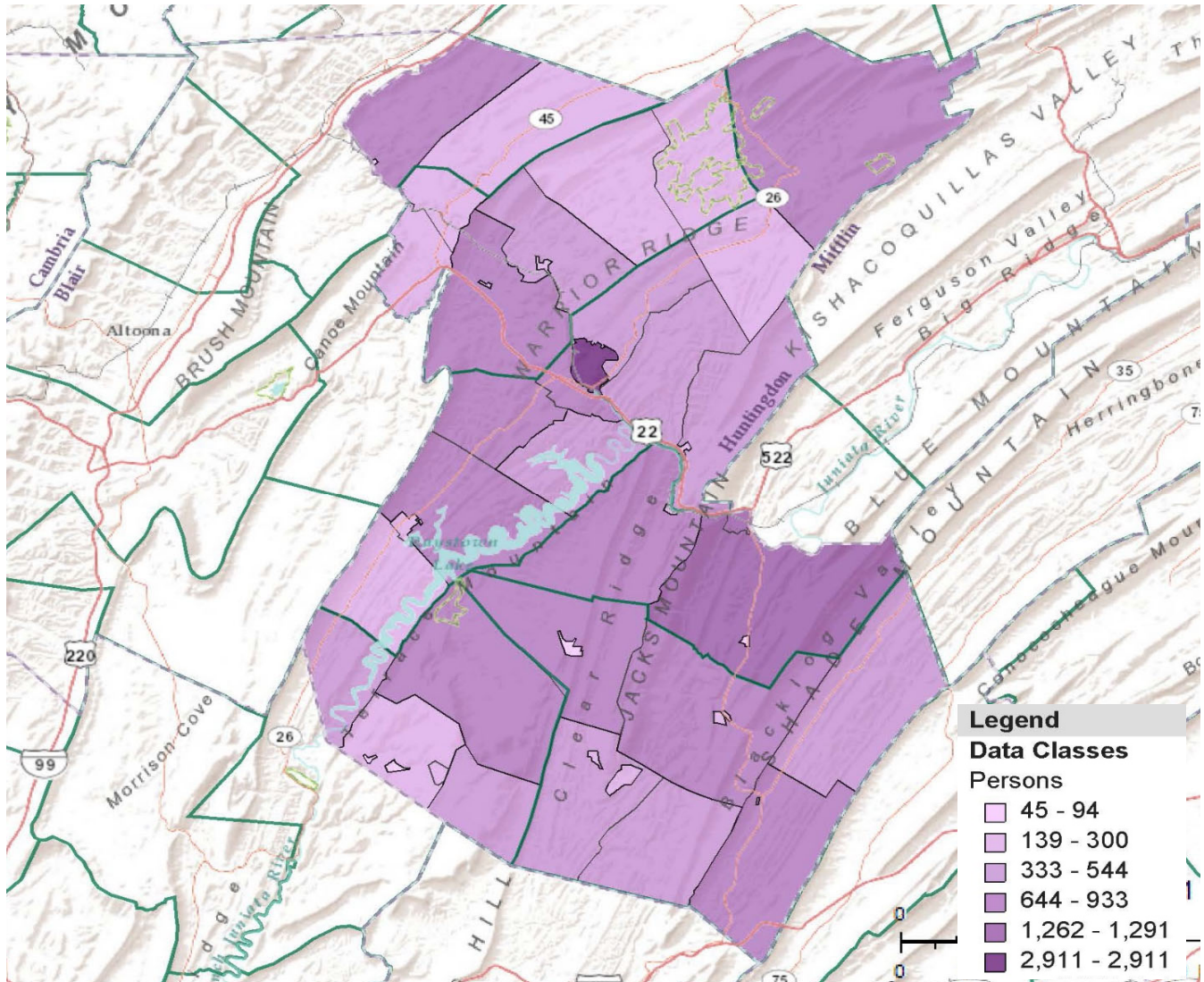




## DISTRICT OVERVIEW

### Huntingdon County Housing Density - County Map

Map 4 illustrates the Huntingdon County Housing Unit Distribution by Data Classes. Map source is the 2010 U.S. Census.

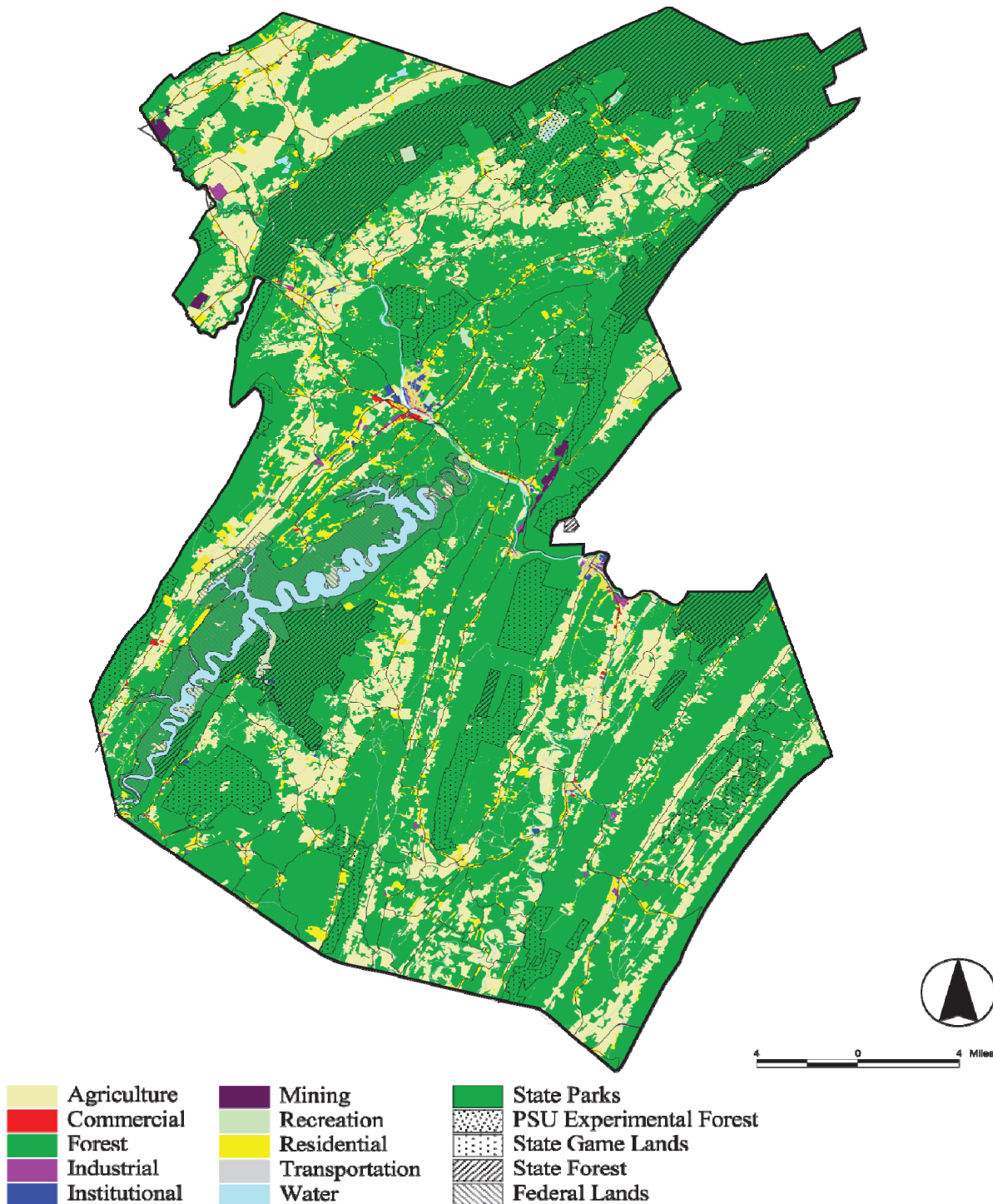


## DISTRICT OVERVIEW

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### Huntingdon County Existing Land Use - County Map

Map 5 illustrates the Existing Land Use in Huntingdon County. Map source is the 2007 Huntingdon County Comprehensive Plan. Huntingdon County is approximately 889 square miles in area. The existing land use categories of Huntingdon County's total land area are listed below.



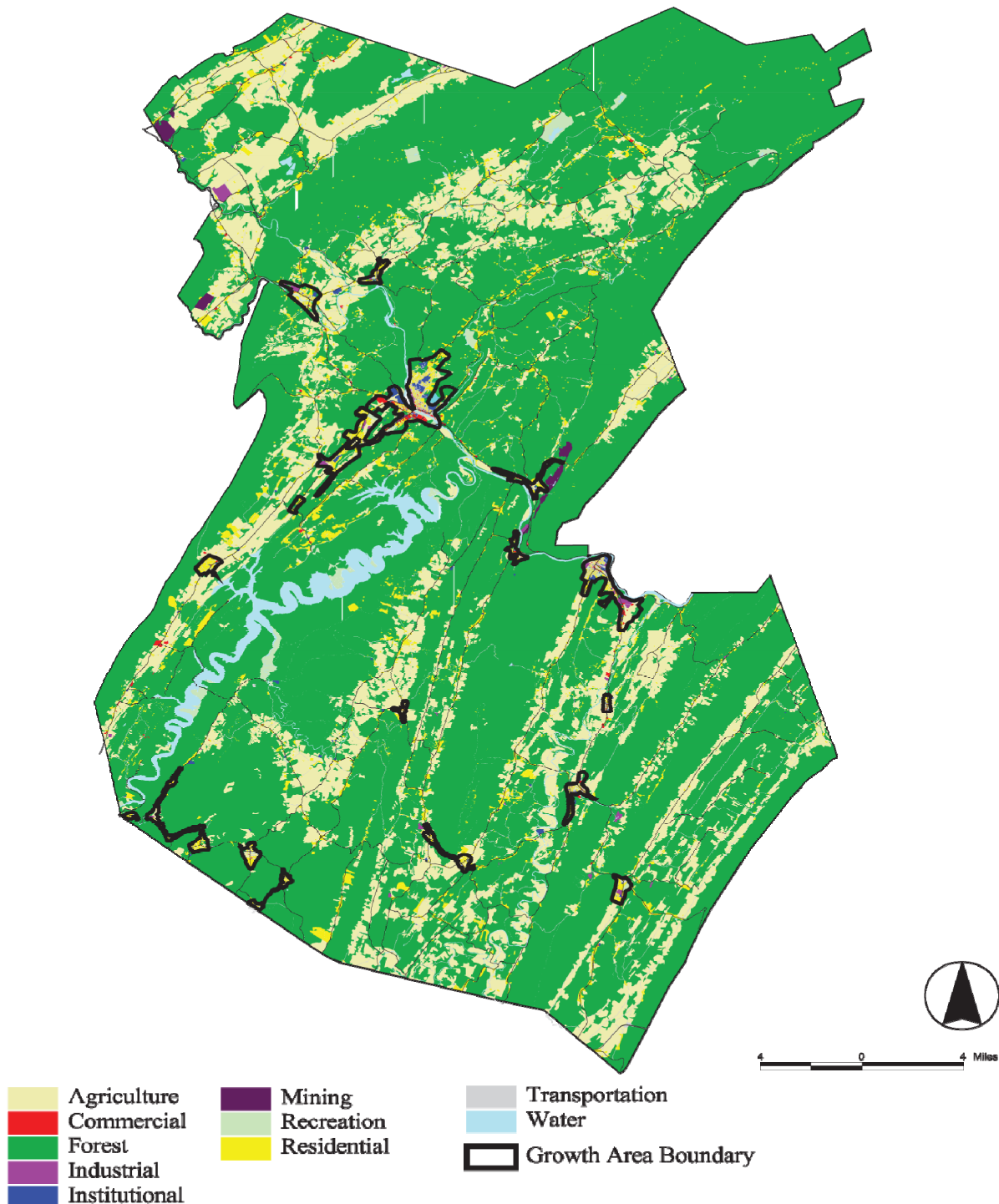


## DISTRICT OVERVIEW

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### Huntingdon County Proposed Land Use - County Map

Map 6 illustrates the Proposed Land Use in Huntingdon County. Map source is the 2007 Huntingdon County Comprehensive Plan. Huntingdon County is approximately 889 square miles in area. The proposed land use categories of Huntingdon County's total land area are listed below.











## **DEMOGRAPHIC EXPLORATION INTRODUCTION**

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This section of the Feasibility Study is divided into two parts. Part A explores demographic data for the General Population and the resulting effects on the Student Population of the Southern Huntingdon County School District including: Population Information; Household Information; Housing Unit Developments; and Live Birth Data. Part B explores demographic data that focuses on the Student Population of the School District including: Projected Student Enrollment Data; Building Capacity Data; Student Enrollment vs. Building Capacity Data; as well as Educational Program Information.

Demographic projections are the basis for making decisions concerning the establishment of facilities, both existing and new. Recognizing that the intent of a School District's physical plan is to house students for the purpose of education, appropriate criteria must be used to determine those projections. Student enrollment projections for this study were supplied by the Department of Education, the School District, and EI Associates. This data also was used to generate future building requirements.

The Projected Student Enrollment Tables show the student enrollment projections by grade level, by grade grouping, and by year. Future student enrollment has been computed from known live births and interpolated, where necessary, using the cohort survival methodology. The cohort survival method has a record of reliability in relatively stable districts (what has occurred in the past will, to a large extent, continue to occur). However, changes can occur in birth trends, in-migration patterns, internal policies, economic climate, zoning and land use controls, infrastructure considerations, and interest rates that may affect projections. Thus, influencing factors must be monitored and analyzed every year by the School District. Significant changes, therefore, can be quickly identified and appropriate adjustments made.

It is not only the number of students that affects the capability of adequate facilities. The educational program also must be analyzed. Other factors that may affect the ability of the existing facilities to meet the needs of the educational program are:

1. Full-day or half day Kindergarten programs and Pre-Kindergarten program
2. Grade groupings to remain or change
3. Future trends in special education
4. Trends in technology-based education and S.T.E.M or academy programs
5. Desired classroom size as noted in study

**General and Student Population****Population**

Data based on the 2000 and 2010 U.S. Census illustrates a net decrease in the Total Population as well as Pre-school age children 0-4 years, School age children 5-17 years, and Adults ages 65+ years from 2000 to 2010. The data illustrates a net increase in the Adults age 18-64 years from 2000 to 2010.

The U.S. Census data also illustrates a net decrease in the Total Population from 2010 to 2017 by 164 persons.

**Households**

Data based on the 2000 and 2010 U.S. Census illustrates a net increase in the Total Housing Units as well as Occupied Housing Units, Owner Occupied Units, and Renter Occupied Units from 2000 to 2010. The data illustrates a net decrease in Vacant Housing Units and Persons Per Household from 2000 to 2010.

The U.S. Census data also illustrates a net increase in the Total Housing Units by 236 housing units from 2010 to 2017, and a net increase in Vacant Housing Units by 306 units from 2010 to 2017. The U.S. Census indicates that in 2017 there were 1404 Vacant Housing Units or 31% of the Total Housing Units, while in 2010 there were 1098 Vacant Housing Units or 25% of the Total Housing Units. 981 of the Vacant Housing Units were identified as seasonal, recreational or occasional use in 2017, which is an increase of 97 Vacant Housing Units that were identified as seasonal, recreational or occasional use in 2010.

**Housing Unit Developments**

There is the potential availability of land for development within the School District. Data based on information obtained from the Huntingdon County's Comprehensive Plans also Subdivision and Land Development reports indicate potential and/or planned housing development within the School District. Clay and Cromwell Townships appear to have had the most recent growth. Each municipality has the potential for additional growth, however, the Boroughs have limited land availability for growth.

**Live Birth Data**

The Live Birth Data, based on information from the Pennsylvania Department of Education, illustrates an overall net increase in the number of children entering Kindergarten and in the number of children entering First Grade compared to the number of Births.

**Students not included in Enrollment Projections**

Each year there are a number of students who are not attending District Schools including eligible 5-year olds that do not start Kindergarten until age 6. In the 2018-19 school-year, 20 students are special needs and special education students placed outside the District; 16 students are home-schooled students; and 23 students are Charter / Cyber School students. There are also 73 students attending half-day Vo-Tech School program which are included in the 2018-19 student enrollment.

**General and Student Population****Student Population attending District Schools**

The K-12 student population attending District Schools had risen to 1440 in 1996-97 and then decreased during the latter 1990's. The K-12 student enrollment has fluctuated slightly while continuing to illustrate an overall decrease throughout the 2000's as well. The 2004-05 student enrollment was 1381, while the 2018-19 K-12 student enrollment was 1143.

The K-5 and 6-12 student enrollment has fluctuated over the past 15-years, illustrating both slight increases followed by slight decreases while continuing to illustrate an overall decrease through the 2018-19 school year.

Current student enrollment projections indicate that the 10-year K-12 Student Enrollment may continue to hold steady with a potential slight decrease based upon current projections through the 2028-29 school-year.

**Students per Household - 2010**

Approximately 1379 school age children resided in the School District; 1291 students or 93% attended the School District and 88 school-age children or 7% did not attend District Schools.

The percentage of Students per Total Housing Units was 0.32 in 2010; the percentage of students attending the School District for the 2010-11 school year was 0.30.

**Data Summary**

There was a decrease in the Total Population of 46 persons or -0.6% from 2000 to 2010 and an estimated decrease of 164 persons or -2.1% from 2010 to 2017; there was an increase in the Total Housing Units of 112 units or 2.64% from 2000 to 2010 and an estimated increase of 236 units or 5.45% from 2010 to 2017; and there was a decrease in the number of Persons per Household from 2000 to 2010. While there is available housing to support the overall population and student population, the School District has had a steady decline in population.

There is a potential for population growth within the School District by both the current vacant housing units and potential new Housing Units. Much of the land within the School District is undeveloped and forest land, with public recreation land, resort & commercial recreation, agricultural and conservation land, therefore, while an abundance of land is undeveloped, there is a limit to the amount of land which may ultimately be developed.

The U.S. Census indicates that in 2017 there were 1404 Vacant Housing Units or 31% of the Total Housing Units. 981 of the Vacant Housing Units are identified as seasonal, recreational or occasional use, with 423 remaining Vacant Housing Units. If half of the Total Vacant Housing Units are occupied, then given the rate of 0.30 students per household attending the District Schools, this would equate to an additional 210 students in the Vacant Housing Units.

The percentage of School age Students residing in the District that were not attending District Schools was 7% in 2010. There is a potential for any portion of the current percentage of School age Students residing in the District who are not currently attending District Schools to attend the District Schools in the future.

## DEMOGRAPHIC EXPLORATION

## PART A

### Population Information

**Tables 4-6** profile the Population of each Municipality that comprise the Southern Huntingdon County School District. The Data is based on the U.S. Census. **The Tables illustrate a net decrease in the Total Population as well as Pre-school age children 0-4 years, School age children 5-17 years, and Adults ages 65+ years. The Tables illustrate a net increase in the Adults age 18-64 years. The 2010 Census data indicates that the median age is 41.8.**

**Table 4** profiles data from the 2000 Census and **Table 5** profiles data from the 2010 Census. The Tables profile Total Population as well as various age groupings including: Pre-school age children 0-4 years; School age children 5-17 years; Adults age 18-64 years; and Adults age 65+ years.

<b>TABLE 4 2000 U.S. Census</b>	Total Population	Age 0-4 Yrs.	Age 5-17 Yrs.	Age 18-64 Yrs.	Age 65+ Yrs.	Median Age
Cass Township	1,062	65	200	648	149	37.7
Cassville Borough	152	12	19	82	39	41.6
Clay Township	920	51	163	554	152	40.4
Cromwell Township	1,632	99	277	911	345	40.3
Dublin Township	1,280	82	232	784	182	36.9
Orbisonia Borough	425	27	70	213	115	43.6
Rockhill Furnace Borough	414	19	79	242	74	40.9
Saltillo Borough	343	26	69	197	51	33.7
Shade Gap Borough	97	3	22	54	18	36.5
Springfield Township	612	32	119	373	88	40.1
Tell Township	648	55	113	392	88	36.0
Three Springs Borough	445	28	60	256	101	42.5
<b>School District Total</b>	<b>8,030</b>	<b>499</b>	<b>1,423</b>	<b>4,706</b>	<b>1,402</b>	
<b>School Dist. % Total</b>	<b>100%</b>	<b>6%</b>	<b>18%</b>	<b>59%</b>	<b>17%</b>	

<b>TABLE 5 2010 U.S. Census</b>	Total Population	Age 0-4 Yrs.	Age 5-17 Yrs.	Age 18-64 Yrs.	Age 65+ Yrs.	Median Age
Cass Township	1,119	51	212	673	183	41.9
Cassville Borough	143	10	20	81	32	46.8
Clay Township	926	51	173	539	163	41.2
Cromwell Township	1,510	91	278	919	222	40.8
Dublin Township	1,290	79	214	786	211	42.6
Orbisonia Borough	428	32	60	242	94	44.6
Rockhill Furnace Borough	371	27	54	214	76	44.3
Saltillo Borough	346	27	62	215	42	37.9
Shade Gap Borough	105	6	16	65	18	37.5
Springfield Township	654	41	98	399	116	43.1
Tell Township	662	41	120	405	96	42.5
Three Springs Borough	444	31	72	245	96	41.8
<b>School District Total</b>	<b>7,984</b>	<b>487</b>	<b>1,379</b>	<b>4,775</b>	<b>1,343</b>	<b>41.8</b>
<b>School Dist. % Total</b>	<b>100%</b>	<b>6%</b>	<b>17%</b>	<b>60%</b>	<b>17%</b>	

## DEMOGRAPHIC EXPLORATION

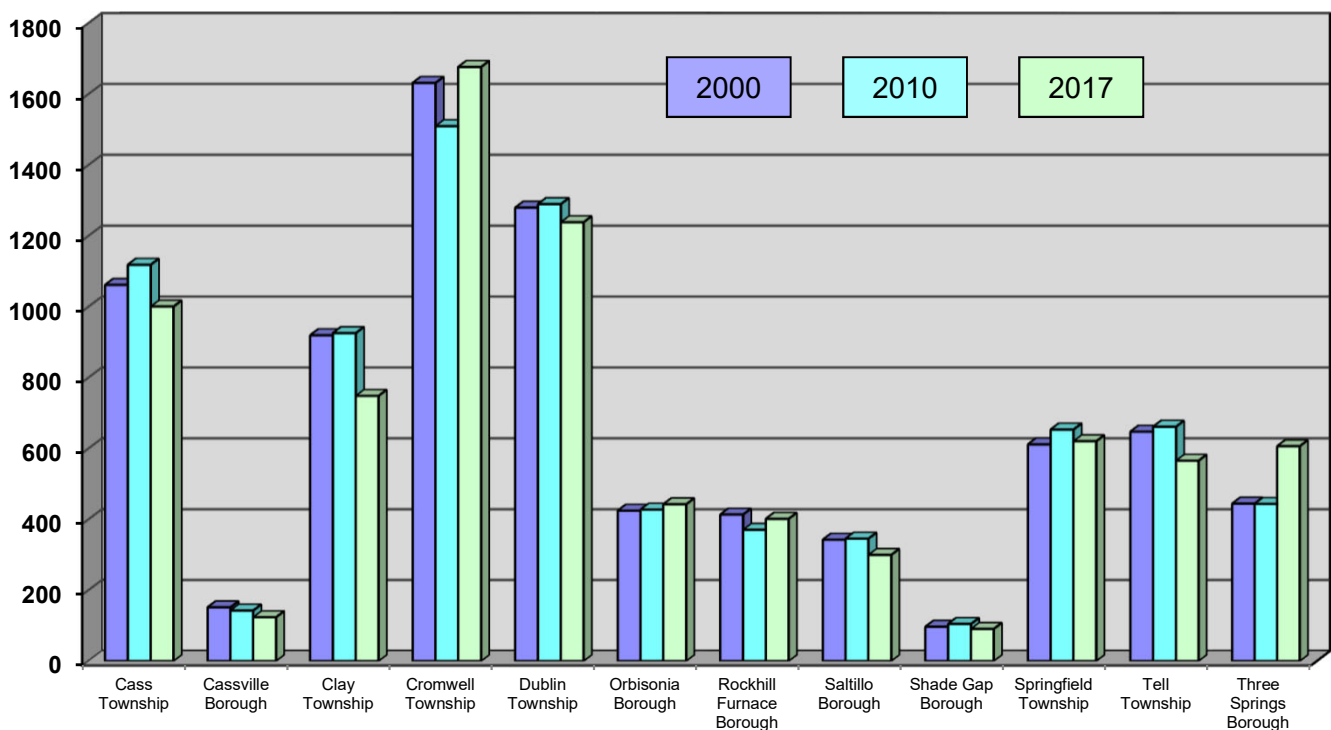
## PART A

### Population Information

**Table 6** profiles the Total population of each municipality for the Census years 2000 and 2010 as well as 2016 estimated data. (Data Source: U.S. Census) **The overall Total Population shows a decrease of 46 persons or -0.6% from 2000 to 2010; and an estimated decrease of 164 persons or 2.1% from 2010 to 2017.**

<b>TABLE 6 Total Population</b>	2000 Actual Total Popul.	2010 Actual Total Popul.	Value Change 2000 to 2010	% Change 2000 to 2010	2017 Estimated Total Popul.	Value Change 2010 to 2017	% Change 2010 to 2017
Cass Township	1,062	1,119	57	5.4%	1,001	-118	-10.5%
Cassville Borough	152	143	-9	-5.9%	124	-19	-13.3%
Clay Township	920	926	6	0.7%	749	-177	-19.1%
Cromwell Township	1,632	1,510	-122	-7.5%	1,677	167	11.1%
Dublin Township	1,280	1,290	10	0.8%	1,239	-51	-4.0%
Orbisonia Borough	425	428	3	0.7%	443	15	3.5%
Rockhill Furnace Borough	414	371	-43	-10.4%	402	31	8.4%
Saltillo Borough	343	346	3	0.9%	300	-46	-13.3%
Shade Gap Borough	97	105	8	8.2%	91	-14	-13.3%
Springfield Township	612	654	42	6.9%	621	-33	-5.0%
Tell Township	648	662	14	2.2%	566	-96	-14.5%
Three Springs Borough	445	444	-1	-0.2%	607	163	36.7%
<b>School Dist.Total</b>	<b>8,030</b>	<b>7,984</b>	<b>-46</b>	<b>-0.6%</b>	<b>7,820</b>	<b>-164</b>	<b>-2.1%</b>

**TABLE 6 - CHART A**



## DEMOGRAPHIC EXPLORATION

## PART A

### Household Information

**Tables 7-9** profile the Household data of each Municipality that comprise the Southern Huntingdon County School District. The Data is based on the U.S. Census. **The Tables illustrate a net increase in the Total Housing Units as well as Occupied Housing Units, Owner Occupied Units, and Renter Occupied Units. The Tables illustrate a net decrease in Vacant Housing Units and Persons Per Household.**

**Table 7** profiles data from the 2000 Census and **Table 8** profiles data from the 2010 Census. The Tables profile the Total Housing Units and Occupied Housing Units, as well as Owner Occupied Units, Renter Occupied Units, Vacant Housing Units and Persons Per Household.

<b>TABLE 7 Housing Units 2000 U.S. Census</b>	Total Housing Units	Occupied Housing Units	Owner Occupied Units	Renter Occupied Units	Vacant Housing Units	Persons Per Household
Cass Township	622	404	361	43	218	2.63
Cassville Borough	69	65	51	14	4	2.34
Clay Township	494	370	324	46	124	2.49
Cromwell Township	873	580	506	74	293	2.57
Dublin Township	607	478	415	63	129	2.67
Orbisonia Borough	217	198	123	75	19	2.15
Rockhill Furnace Borough	186	173	144	29	13	2.39
Saltillo Borough	152	135	112	23	17	2.54
Shade Gap Borough	43	38	30	8	5	2.55
Springfield Township	413	241	212	29	172	2.54
Tell Township	343	238	210	28	105	2.70
Three Springs Borough	217	200	134	66	17	2.23
<b>School District Total</b>	<b>4,236</b>	<b>3,120</b>	<b>2,622</b>	<b>498</b>	<b>1,116</b>	<b>2.48</b>

<b>TABLE 8 Housing Units 2010 U.S. Census</b>	Total Housing Units	Occupied Housing Units	Owner Occupied Units	Renter Occupied Units	Vacant Housing Units	Persons Per Household
Cass Township	653	432	375	57	221	2.59
Cassville Borough	67	60	49	11	7	2.38
Clay Township	511	379	312	67	132	2.44
Cromwell Township	849	595	509	86	254	2.54
Dublin Township	652	515	444	71	137	2.50
Orbisonia Borough	242	205	121	84	37	2.09
Rockhill Furnace Borough	168	160	141	19	8	2.32
Saltillo Borough	143	129	109	20	14	2.68
Shade Gap Borough	48	44	35	9	4	2.39
Springfield Township	423	267	233	34	156	2.45
Tell Township	374	256	218	38	118	2.56
Three Springs Borough	218	197	132	65	21	2.25
<b>School District Total</b>	<b>4,328</b>	<b>3,230</b>	<b>2,670</b>	<b>560</b>	<b>1,098</b>	<b>2.47</b>

## DEMOGRAPHIC EXPLORATION

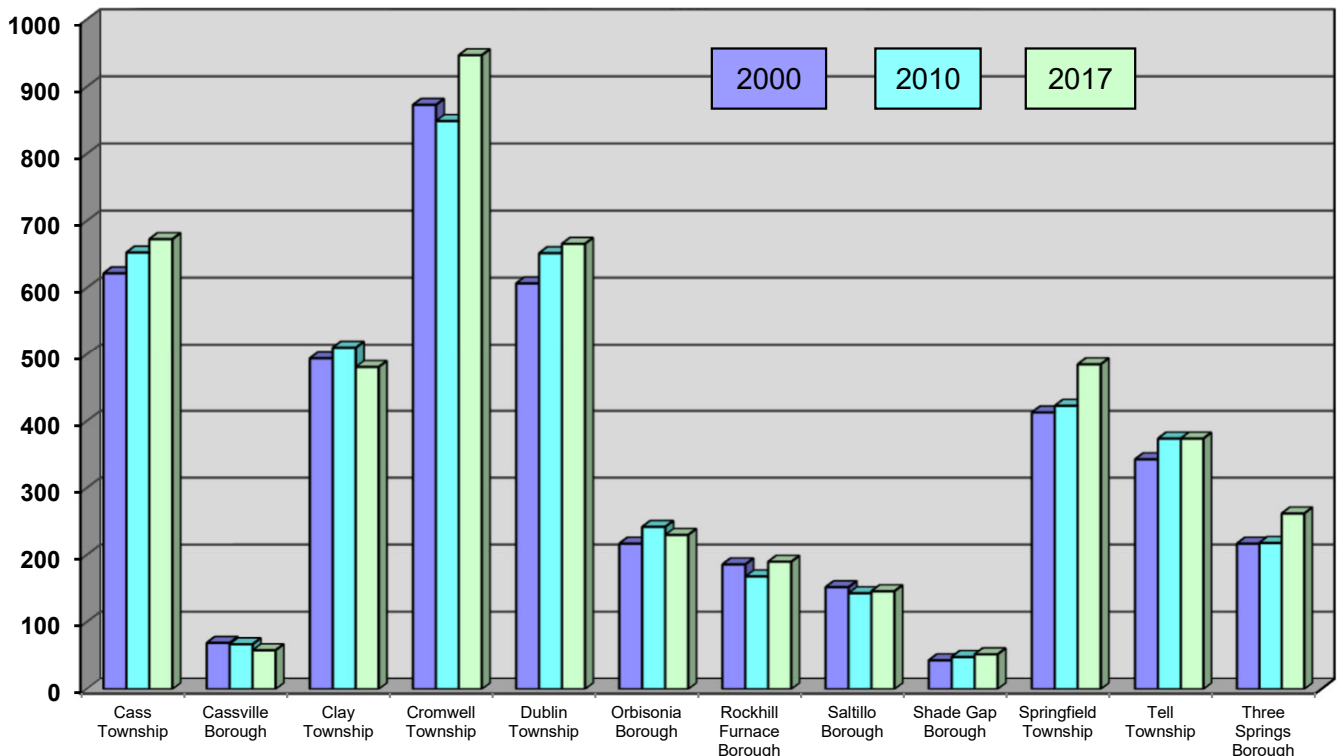
## PART A

### Household Information

**Table 9** profiles the Total Housing Units of each municipality for the Census years 2000 and 2010 as well as 2015 estimated data. **The overall Total Housing Units shows an increase of 112 units or 2.64% from 2000 to 2010; and an estimated increase of 236 units or 5.45% from 2010 to 2017.**

<b>TABLE 9</b>	2000	2010	Value	%	2017	Value	%
<b>Total Housing Units</b>	Total	Total	Change	Change	Estimated	Change	Change
	Housing	Housing	2000 to	2000 to	Housing	2010 to	2010 to
	Units	Units	2010	2010	Units	2017	2017
Cass Township	622	653	31	4.98%	673	20	3.06%
Cassville Borough	69	67	-2	-2.90%	58	-9	-13.43%
Clay Township	494	511	17	3.44%	481	-30	-5.87%
Cromwell Township	873	849	-24	-2.75%	947	98	11.54%
Dublin Township	607	652	45	7.41%	666	14	2.15%
Orbisonia Borough	217	242	25	11.52%	230	-12	-4.96%
Rockhill Furnace Borough	186	168	-18	-9.68%	190	22	13.10%
Saltillo Borough	152	143	-9	-5.92%	146	3	2.10%
Shade Gap Borough	43	48	5	11.63%	52	4	8.33%
Springfield Township	413	423	10	2.42%	485	62	14.66%
Tell Township	343	374	31	9.04%	374	0	0.00%
Three Springs Borough	217	218	1	0.46%	262	44	20.18%
<b>School District Total</b>	<b>4,236</b>	<b>4,328</b>	<b>112</b>	<b>2.64%</b>	<b>4,564</b>	<b>236</b>	<b>5.45%</b>

**TABLE 9 - CHART A**



## Live Birth Data

Tables 10-12 profile Live Birth data for the Southern Huntingdon County School District. The Data is based on information from the Pennsylvania Department of Education. The Tables illustrate an overall net increase in the number of children entering Kindergarten and in the number of children entering First Grade compared to the number of Births.

**Table 10** profiles the number of Births from the years 2006 through the years 2020. The Live Birth data from years 2015-2020 are based on projections. The overall live birth data shows a projected increase in the number of live births.

**Table 11** profiles the number of children entering Kindergarten from the year 2011 through the year 2025. Birth data is known for students entering Kindergarten in 2019, however, the student enrollment data from years 2016-2025 are based on PDE projections. (The assumption is made that the respective children born in 2006 will enter Kindergarten in the year 2011)

**Table 12** profiles the number of children entering First Grade from the year 2012 through the year 2025. Birth data is known for students entering First Grade in 2020, however, the student enrollment data from years 2016-2025 are based on PDE projections. (The assumption is made that the respective children born in 2006 will enter First Grade in the year 2012)

TABLE 10	
Year of Birth	Number of Births
2006	88
2007	75
2008	81
2009	77
2010	77
2011	79
2012	83
2013	85
2014	92
2015	93
2016	94
2017	95
2018	96
2019	97
2020	98

TABLE 11		
Year Entering K	Number Entering K	% Birth to K
2011	90	102.27%
2012	119	158.67%
2013	96	118.52%
2014	92	119.48%
2015	84	109.09%
2016	91	115.19%
2017	96	115.66%
2018	98	115.29%
2019	106	115.22%
2020	108	116.13%
2021	109	115.96%
2022	110	115.79%
2023	111	115.63%
2024	112	115.46%
2025	113	115.31%

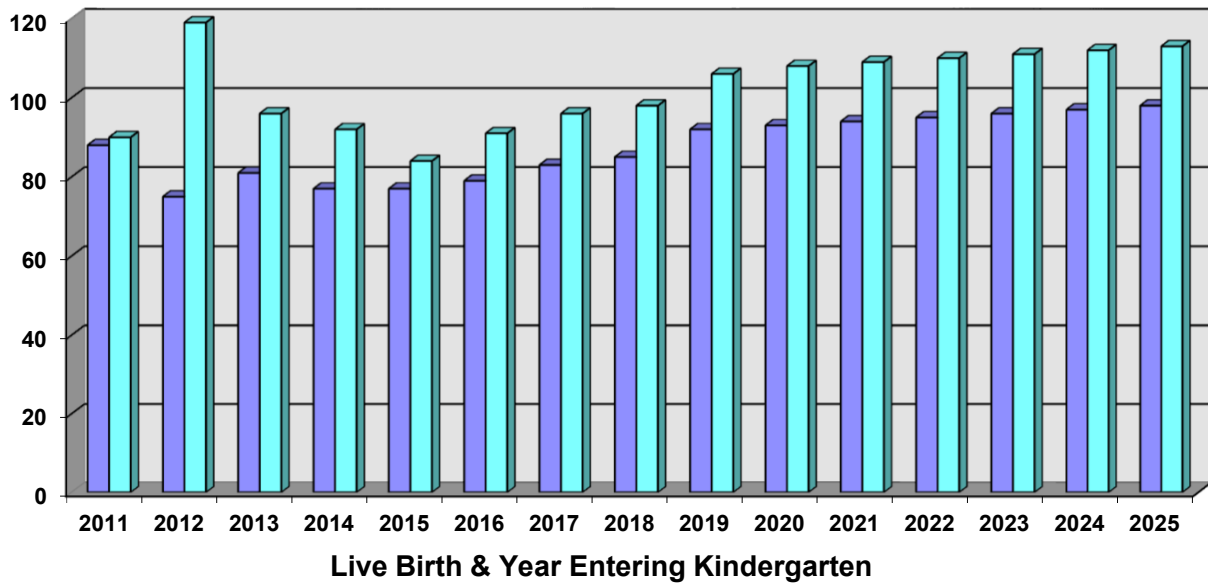
TABLE 12		
Year Entering 1st	Number Entering 1st	% Birth to 1st
2012	83	94.32%
2013	110	146.67%
2014	94	116.05%
2015	96	124.68%
2016	99	128.57%
2017	102	129.11%
2018	107	128.92%
2019	110	129.41%
2020	119	129.35%
2021	120	129.03%
2022	121	128.72%
2023	123	129.47%
2024	124	129.17%
2025	125	128.87%



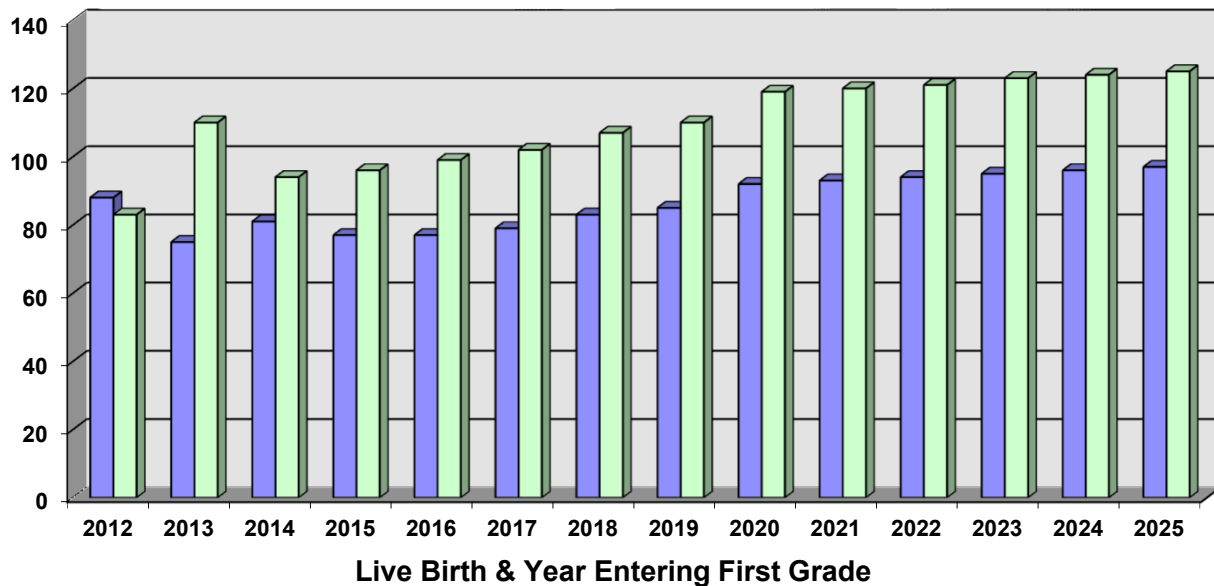
**Live Birth Data**

The following Charts compares the Live Birth data from the preceding Tables with the Year Entering Kindergarten and the Year Entering First Grade

**TABLE 10 & TABLE 11 - CHART A**



**TABLE 10 & TABLE 12 - CHART B**



## **Student Population**

### **Existing Educational Program**

A summary of the School District's existing conditions is profiled by the Existing Educational Program data and graphic illustrations. The information includes: Existing Grade Alignment; 2018-19 Student Enrollment; District and PDE Functional Capacity; and the Highest Projected Enrollment for each grade grouping.

### **2004-2018 Student Enrollment**

**K-12 Student Enrollment - Actual:** 2004 - 2018 Historical Student Enrollments. The data shows the highest enrollment for each grade structure over the past 15-years. The K-5 and 6-12 student enrollment has experienced steady decreases over the past 15-years.

### **Projected Student Enrollment**

**Method I (District-wide Projections - PDE):** Student Enrollment projections supplied by the Pennsylvania Department of Education (PDE). The data shows a projected increase in the overall School District K-12 student population between 2015-16 and 2025-26.

- Projections are based on Live birth data.
- Projections may not account for in-migration trends of students moving into and out of the School District, as well as students within the School District that might not attend District schools.
- The current 2018-19 actual enrollment for grades K-5 and the overall K-12 grades is lower than the enrollment projections for 2018-19. This may indicate a trend for the enrollment projections to follow an alternate projected path.

**Method II (District-wide Projections - First Grade):** Student Enrollment projections based upon the average of historical increase for First Grade students of the past five years. The data shows a projected slight increase for grades K-5, however, the data also indicates a projected slight decrease in the grades 6-12 and overall School District K-12 student population between 2018-19 and 2028-29.

- Projections are based on the Kindergarten Historical Trend of the past 5 years
- Historical trends should be evaluated in addition to available and future housing data.

**Methods I & II:** Method I - 2015 Student Enrollment projections indicate an increase for grades K-5 that would result in a respective increase for grades 6-12. The actual enrollment for the 2017-18 and 2018-19 school years are significantly lower than the projections. This may indicate a trend for the enrollment projections to follow an alternate projected path.

Method II - 2018 Student Enrollment projections follow the recent path of declining enrollment throughout all grade levels. This path should be reviewed each year based upon the current year's student enrollment.

**Student Population****Student Enrollment / Capacity Evaluation**

The Tables graphically illustrate the Projected Student Enrollment for each of the existing grade groupings vs. the current building capacity of the respective grade grouping.

Methods I and II profile the District Schools for the following grade groupings: K-5 which includes the Elementary Schools; Grades 6-12 which includes the High School / Middle School; also K-12 which includes all the Schools.

Based on the existing capacity of the Schools, the Schools appear to have sufficient capacity. The Elementary Schools, however, are lacking support educational spaces such as dedicated Music, Art, Media Center or STEM / Maker-Space areas, as well as small group instruction spaces. Therefore an Elementary adjusted capacity is provided in comparison to the existing capacities. This adjusted capacity nominally re-allocates two graded classrooms per school for support spaces as indicated above.

**Existing Building Capacity**

Room schedules for the Elementary and Secondary Schools provide data for the Existing and Adjusted Building Capacity. Spaces that receive capacity are shown as well as each Building's District Capacity and PDE Total Capacity. An Elementary adjusted capacity also is provided in comparison to the existing capacities.

Proposed Room schedules for the Elementary Options in Part IV of the Study will indicate and allocate additional educational program spaces as needed per school based upon the Elementary educational program needs.

**Building Capacity Overview**

The Building Capacity Overview provides an explanation of Building Capacity and adjustments; including District Capacity and PDE Total Capacity as defined for the purpose of this study.

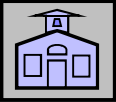

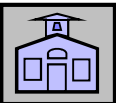

**Educational Program Requirements**

The Educational Program Requirements provide an overview of the Southern Huntingdon County School District's Educational Program. The information was generated by the Southern Huntingdon County School District.

The Educational Program must be analyzed, as well as, the resulting effects of the existing facilities ability to meet the current and future needs of the educational program.

## EXISTING EDUCATIONAL PROGRAM

### Adjusted Building Capacity for Grades K-5, 6-12, K-12

Building	Existing Grade Alignment	2018-19 Enrollment	** Capacity		PDE Total	Highest Projected Enrollment for Reimbursement	
			Adjusted Elem.	District Functional		Methods I & II	Current + 15% *
	Rockhill Elementary School	K-5	167	168	212	250	
	Shade Gap Elementary School	K-5	133	128	170	200	
	Spring Farms Elementary School	K-5	216	190	234	275	
K-5 TOTAL		516	486	616	725	698 Method I	634 2015
	High School / Middle School	6-12	627	N/A	772	926	
6-12 TOTAL		627	N/A	772	926	683 Method I	735 2015
K-12 TOTAL		1,143	1,258	1,388	1,651	1,381 Method I	1,369 2015

\* PDE allows Current Enrollment + 15% to be used as Highest Projected Enrollment for Project Grades.

\*\* Elementary *Functional Capacity* are Graded Classrooms K-5; *Special Education Capacity* is not included in the Functional Capacity or Total Capacity.

\*\* Elementary *Adjusted Capacity* is included to represent the adjusted use of space. This adjusted capacity nominally re-allocates two graded classrooms per school for support spaces such as Art, Music, Media Center or STEM / Maker-Space areas, as well as small group instruction spaces for purpose of comparison for this study.

**STUDENT ENROLLMENT****2004-2018****Table 13 -- 2004-2018 Historical Student Enrollment**

	K	1	2	3	4	5	K - 5	6	7	8	9	10	11	12	6 - 12	K - 12
<b>2004-05</b>	120	108	94	95	117	102	636	108	113	115	120	101	91	97	745	1381
<b>2005-06</b>	109	122	104	95	95	115	640	96	106	114	126	97	96	98	733	1373
<b>2006-07</b>	100	99	121	102	97	92	611	108	95	107	125	114	108	95	752	1363
<b>2007-08</b>	98	102	100	116	104	89	609	93	109	98	110	114	108	112	744	1353
<b>2008-09</b>	100	95	97	105	120	104	621	91	98	108	98	107	116	106	724	1345
<b>2009-10</b>	82	95	104	100	98	118	597	106	89	94	100	98	101	104	692	1289
<b>2010-11</b>	104	79	95	104	100	96	578	120	102	89	98	106	95	103	713	1291
<b>2011-12</b>	90	102	76	98	97	90	553	95	120	100	88	98	96	90	687	1240
<b>2012-13</b>	119	83	95	73	101	98	569	99	102	120	95	81	93	96	686	1255
<b>2013-14</b>	96	110	88	94	75	95	558	98	110	106	123	91	85	91	704	1262
<b>2014-15</b>	92	94	95	91	94	78	544	88	90	106	98	111	82	86	661	1205
<b>2015-16</b>	84	96	89	99	91	92	551	83	89	89	102	92	107	77	639	1190
<b>2016-17</b>	92	75	96	99	98	93	553	95	77	85	91	102	84	104	638	1191
<b>2017-18</b>	88	88	80	88	95	93	532	94	97	71	94	76	85	90	607	1139
<b>2018-19</b>	81	88	84	79	88	96	516	98	98	90	82	95	76	88	627	1143

**2004-2018:** The red-highlighted data shows the the highest enrollment for each grade structure over the past 15-years. The K-5 and 6-12 student enrollment has experienced steady decreases over the past 15-years. The 2018-19 Kindergarten and K-5 enrollment is highlighted in blue.

# PROJECTED STUDENT ENROLLMENT

# METHOD I

**Table 14 -- Method I - PDE Projected Student Enrollment**

	K	1	2	3	4	5	K - 5	6	7	8	9	10	11	12	6 - 12	K - 12
2011-12	90	102	76	98	97	90	553	95	120	100	88	98	96	90	687	1240
2012-13	119	83	95	73	101	98	569	99	102	120	95	81	93	96	686	1255
2013-14	96	110	88	94	75	95	558	98	110	106	123	91	85	91	704	1262
2014-15	92	94	95	91	94	78	544	88	90	106	98	111	82	86	661	1205
2015-16	84	96	89	99	91	92	551	83	89	89	102	92	107	77	639	1190
RATIOS	1.157	1.291	0.914	1.042	1.000	0.992		1.023	1.029	0.998	0.965	0.930	0.966	0.982		
2016-17	91	99	88	93	99	90	560	94	85	89	86	95	89	105	643	1203
2017-18	96	102	90	92	93	98	571	92	97	85	86	80	92	87	619	1190
2018-19	98	107	93	94	92	92	576	100	95	97	82	80	77	90	621	1197
2019-20	106	110	98	97	94	91	596	94	103	95	94	76	77	76	615	1211
2020-21	108	119	101	102	97	93	620	93	97	103	92	87	73	76	621	1241
2021-22	109	120	109	105	102	96	641	95	96	97	99	86	84	72	629	1270
2022-23	110	121	110	114	105	101	661	98	98	96	94	92	83	83	644	1305
2023-24	111	123	111	115	114	104	678	103	101	98	93	87	89	82	653	1331
2024-25	112	124	112	116	115	113	692	106	106	101	95	86	84	87	665	1357
2025-26	113	125	113	117	116	114	698	116	109	106	98	88	83	83	683	1381

**METHOD I:** The PDE model uses Enrollment Data reported annually by all local education agencies to the Division of Data Services on the Public School Enrollment Report. Resident Live Birth Data is provided by the Pennsylvania Department of Health. Grade progression is determined by calculating retention rates for grades 2 to 12 using the most recent five years of Enrollment Data. Retention rates for Kindergarten are determined by births five years earlier and for first grade from births six years earlier. These rates are evaluated to determine if a pattern is discernible, or if any retention rates are unusual. If a pattern is found, the pattern is continued in making the projections. Unusual retention rates are discarded and the average of the remaining rates is used in making the projections. Nongraded elementary and secondary students are prorated across grades before retention rates are calculated.

**Table 14A** compares the PDE Total Capacity for each school with the Method I, 2015-16 PDE projected enrollment information.

<b>TABLE 14A</b> School	District Functional Capacity	PDE Total Capacity	Student Enrollment 2015-16	5 Year Growth	Projected Student Enrollment 2020-21	10 Year Growth	Projected Student Enrollment 2025-26
Rockhill E.S.	212	250	187				
Shade Gap E.S.	170	200	136				
Spring Farms E.S.	234	275	228				
<b>K-5 Total</b>	<b>616</b>	<b>725</b>	<b>551</b>	<b>69</b>	<b>620</b>	<b>147</b>	<b>698</b>
H.S. / M.S.	772	926	639				
<b>6-12 Total</b>	<b>772</b>	<b>926</b>	<b>639</b>	<b>-18</b>	<b>621</b>	<b>44</b>	<b>683</b>
<b>K-12 Total</b>	<b>1,388</b>	<b>1,651</b>	<b>1,190</b>	<b>51</b>	<b>1,241</b>	<b>191</b>	<b>1,381</b>

# PROJECTED STUDENT ENROLLMENT

# METHOD II

**Table 15 -- Method II - Projected Student Enrollment Based on Historical Data**

	K	1	2	3	4	5	K - 5	6	7	8	9	10	11	12	6 - 12	K - 12
2014-15	92	94	95	91	94	78	544	88	90	106	98	111	82	86	661	1205
2015-16	84	96	89	99	91	92	551	83	89	89	102	92	107	77	639	1190
2016-17	92	75	96	99	98	93	553	95	77	85	91	102	84	104	638	1191
2017-18	88	88	80	88	95	93	532	94	97	71	94	76	85	90	607	1139
2018-19	81	88	84	79	88	96	516	98	98	90	82	95	76	88	627	1143
RATIOS		0.975	0.989	1.014	0.987	0.989		1.039	1.003	0.949	1.051	0.948	0.924	1.003		
2019-20	90	88	87	85	78	87	515	100	98	93	95	78	88	76	627	1143
2020-21	90	88	87	88	84	77	515	90	100	93	98	90	72	88	631	1146
2021-22	90	88	87	88	87	83	524	80	91	95	98	93	83	72	611	1135
2022-23	90	88	87	88	87	86	527	86	80	86	100	93	86	83	614	1141
2023-24	90	88	87	88	87	86	527	90	87	76	91	95	86	86	609	1136
2024-25	90	88	87	88	87	86	527	90	90	82	80	86	87	86	601	1128
2025-26	90	88	87	88	87	86	527	90	90	85	86	76	79	88	594	1121
2026-27	90	88	87	88	87	86	527	90	90	85	90	82	70	80	586	1112
2027-28	90	88	87	88	87	86	527	90	90	85	90	85	76	70	585	1112
2028-29	90	88	87	88	87	86	527	90	90	85	90	85	78	76	593	1120

**METHOD II:** First Grade enrollment decreased by 1 students, this value was adjusted to an average decrease of 0 students using the average First grade enrollment over the past five years. This is based upon the average of historical increase of the past five years.

**Table 15A** compares the PDE Total Capacity for each school with the Method II, 2018-19 projected enrollment information.

<b>TABLE 15A</b> School	District Functional Capacity	PDE Total Capacity	Student Enrollment 2018-19	5 Year Growth	Projected Student Enrollment 2023-24	10 Year Growth	Projected Student Enrollment 2028-29
Rockhill E.S.	212	250	167				
Shade Gap E.S.	170	200	133				
Spring Farms E.S.	234	275	216				
<b>K-5 Total</b>	<b>616</b>	<b>725</b>	<b>516</b>	<b>11</b>	<b>527</b>	<b>11</b>	<b>527</b>
H.S. / M.S.	772	926	627				
<b>6-12 Total</b>	<b>772</b>	<b>926</b>	<b>627</b>	<b>-18</b>	<b>609</b>	<b>-34</b>	<b>593</b>
<b>K-12 Total</b>	<b>1,388</b>	<b>1,651</b>	<b>1,143</b>	<b>-7</b>	<b>1,136</b>	<b>-23</b>	<b>1,120</b>

TABLE 16 - Projected Student Enrollment (K-5) vs. Current Building Capacity

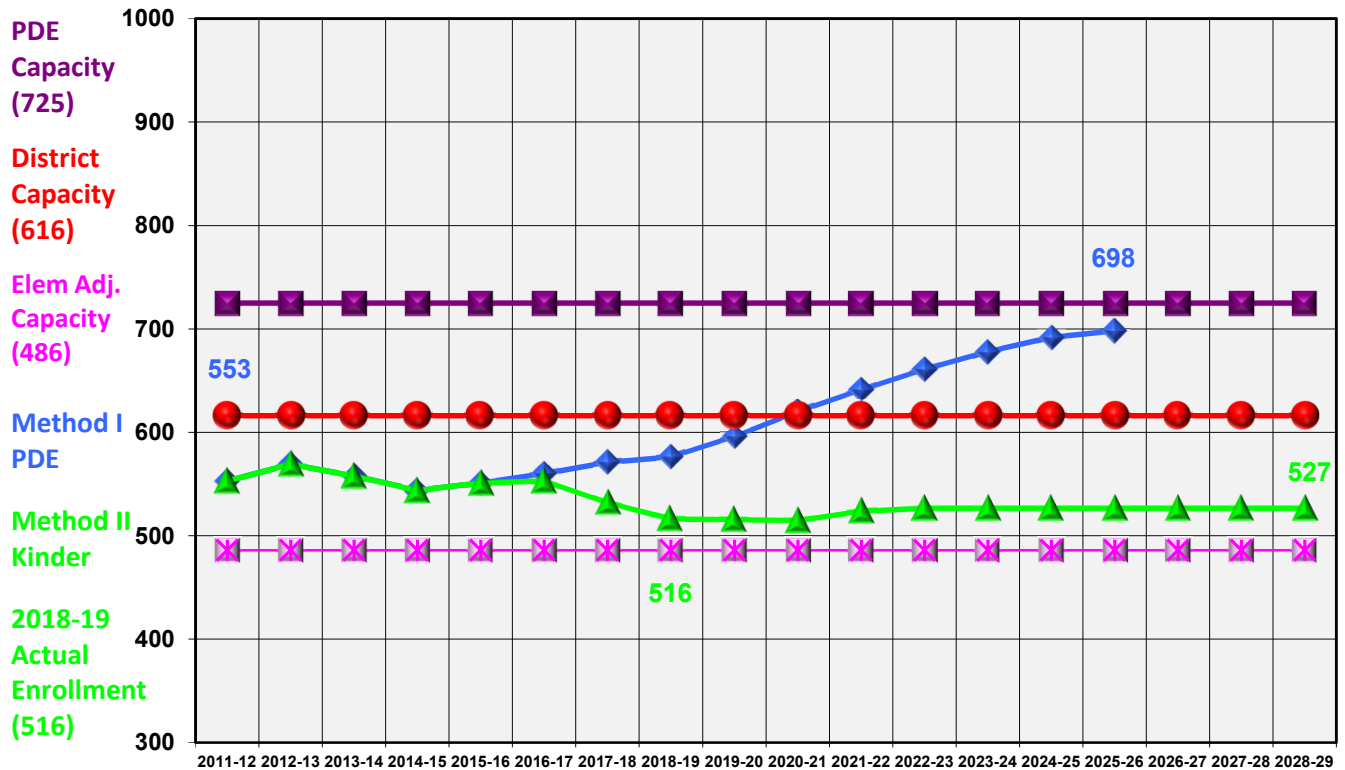


TABLE 17 - Projected Student Enrollment (6-12) vs. Adjusted Building Capacity

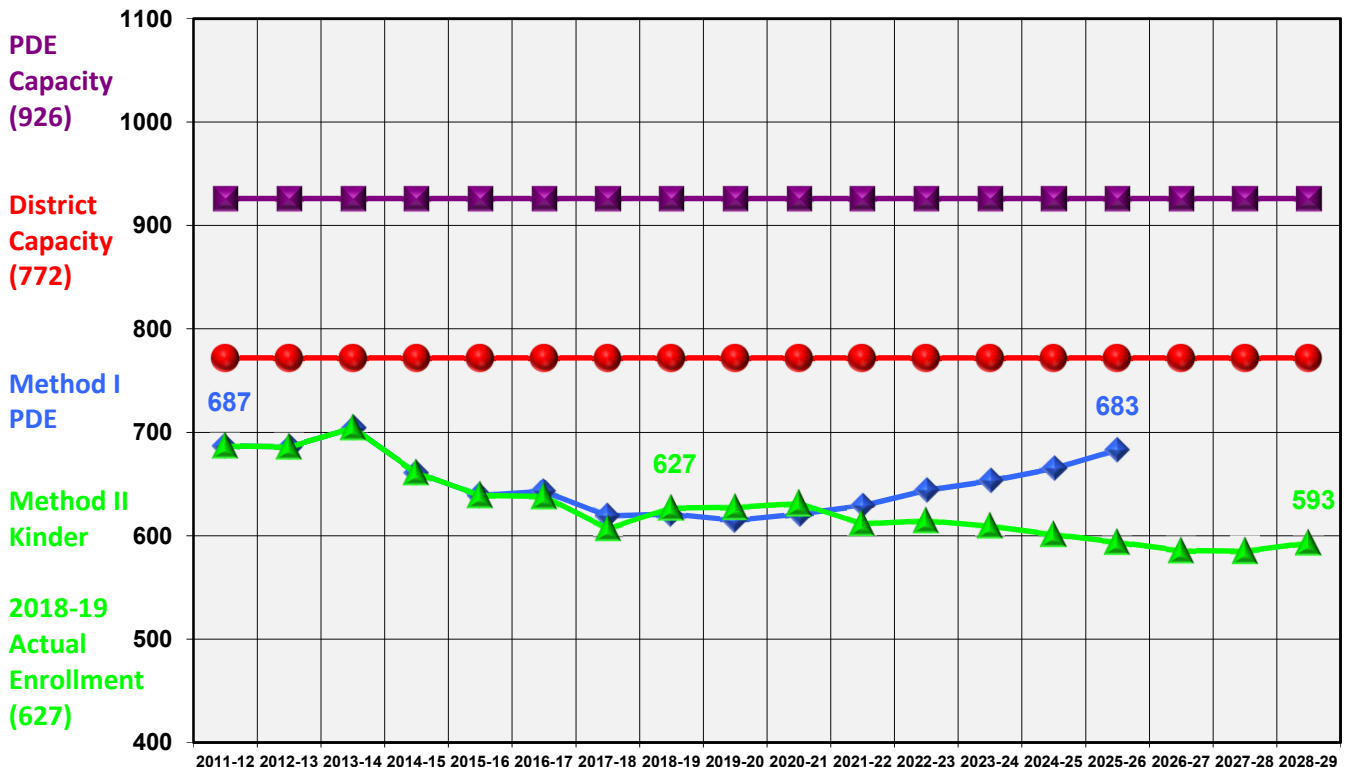
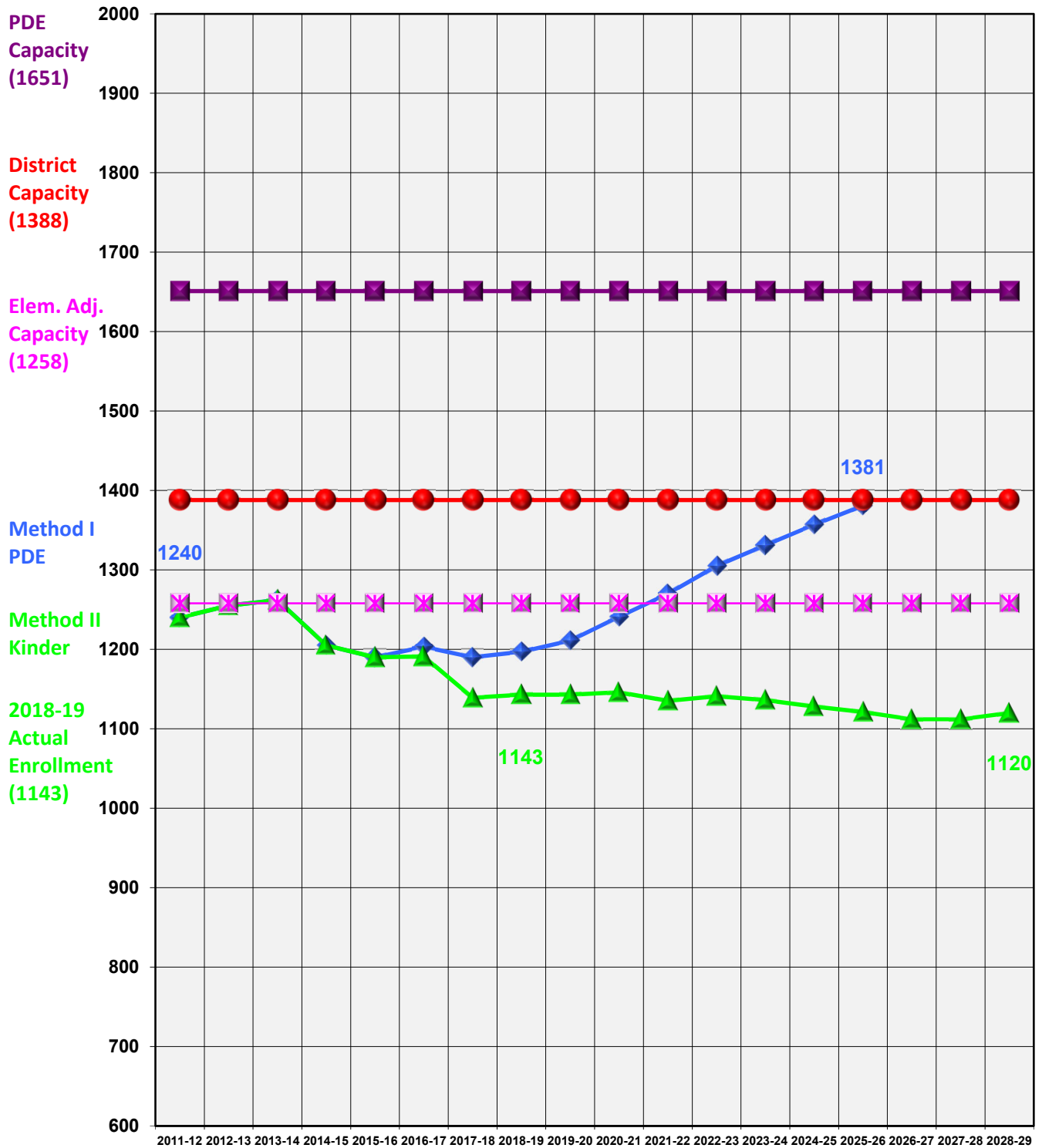




TABLE 18 - Projected Student Enrollment (K-12) vs. Current Building Capacity



## EXISTING BUILDING CAPACITY

## K-5 ELEMENTARY

		K-5 Existing									
		Rockhill Elementary			Shade Gap Elementary			Spring Farms Elementary			
		No.	Dist.	PDE	No.	Dist.	PDE	No.	Dist.	PDE	
CLSRMS	Kindergarten Full-day	2	40	50	1	20	25	2	40	50	CLSRMS
	First Grade Clsrm	2	40	50	2	40	50	2	40	50	
	Second Grade Clsrm	1	22	25	2	44	50	2	44	50	
	Third Grade Clsrm	1	22	25	1	22	25	2	44	50	
	Fourth Grade Clsrm	2	44	50	1	22	25	1	22	25	
	Fifth Grade Clsrm	2	44	50	1	22	25	2	44	50	
SUPPORT	Support Clsrm / Other Use										SUPPORT
	Pre-Kindergarten Clsrm										
	Spec Educ Classroom	2			1			1			
	S.E. S.G.I. - Title 1	1			1			1			
	Modular / Clsrm<660 s.f.							1	4th grade		
	Seminar / S.G.I.	1			1						
	Art Classroom										
ANCILLARY / CORE AREAS	Media Center / Library	1			1			1			ANCILLARY / CORE AREAS
	Gymnasium (Multi-Purpose)	1			1			1			
	Locker Room										
	Stage / Platform	1			1			1			
	Student Dining										
	Kitchen Areas	1			1			1			
	Administration / Guidance	1			1			1			
	Health Suite	1			1			1			
	Faculty Dining / Workroom	1			1			1			
	<b>District Capacity</b>	<b>212</b>			<b>170</b>			<b>234</b>			
	<b>PDE Total Capacity</b>	<b>250</b>			<b>200</b>			<b>275</b>			
	<b>2018-19 Enrollment</b>	<b>167</b>			<b>133</b>			<b>216</b>			
	<b>Adjusted Elem. Capacity *</b>	<b>168</b>			<b>128</b>			<b>190</b>			

P.D.E. Capacity: 25 students per classroom. District Capacity: Grades K-1= 20 students per classroom; Grades 2-5 = 22 students per classroom

Elementary Functional Capacity includes Graded Classrooms, while the Total Capacity also includes Support Classrooms that are needed to support the educational program such as Math and Reading. Special Education and Pre-Kindergarten Capacity are not included in the Functional Capacity or Total Capacity.

\* The existing adjusted Elem. building capacity may have been adjusted to represent the intended or adjusted use of space. This adjusted capacity nominally re-allocates two graded classrooms per school for support spaces such as Art, Music, Media Center or STEM / Maker-Space areas, as well as small group instruction spaces.

# EXISTING BUILDING CAPACITY

# HIGH SCHOOL / MIDDLE SCHOOL

		6-12 Existing			
	EDUCATIONAL SPACE	High School / Middle School			
		No.	Dist	PDE	
MS CLSRMS	MS Typical Classrooms	11	275	275	MS CLSRMS
	MS Science Labs	3	60	60	
	MS S.E. Classroom	3			
	MS S.E. Seminar / S.G.I.	1			
	MS Seminar / S.G.I.	1			
	MS Computer Lab	1	20	20	
HS CLSRMS	HS Typical Classrooms	11	275	275	HS CLSRMS
	HS Science Labs	3	60	60	
	HS Classrooms (Health / FL / Support)	2	50	50	
	HS S.E. Classroom	4			
	HS S.E. Seminar / S.G.I. (Speech)	1			
	HS Seminar / S.G.I.	2			
	HS Computer Lab / Business Lab	2	40	40	
SUPPORT / SHARED	Pre-K Classrooms (F.C.S.)	2			SUPPORT / SHARED
	HS S.G.I. - Alternative Ed. / I.S.S.	3			
	Choral / Vocal Classroom	1	25	25	
	Music / Band Room	1	25	25	
	Art Classroom	1	20	20	
	Family & Consumer Science	1	20	20	
	T.E. Wood Shop / Lecture	1	20	20	
	T.E. Metal Shop / Lecture	1	20	20	
	T.E. Vo-Ag Shop / Lecture	1	20	20	
ANCILLARY / CORE AREAS	Media Center	1			ANCILLARY / CORE AREAS
	Gymnasium	1	66	66	
	Gymnasium (New)				
	Auxiliary Gymnasium	1	33	33	
	Weight Room	1			
	Training	1			
	Wrestling Room	1			
	Locker Room	2			
	Locker Room (New)				
	Team Room (Locker Rooms)	2			
	Officials / P.E. Office / Coach	6			
	Auditorium	1			
	Stage / Platform	1			
	Student Dining	1			
	Kitchen Areas	1			
	Student Activity (Year Book / Store)	3			
	Administration / Guidance Suite	1			
	Health Suite	1			
	Faculty Dining / Workroom	5			
	District Administration Offices	1			
	District Capacity	772			
	PDE Total Capacity	926			
	2018-19 Enrollment	627			

P.D.E.: 20-25 students per classroom; 90% P.D.E. Utilization Factor. District: 75% Utilization Factor

Secondary District Capacity includes all spaces that receive capacity except a Natatorium or District Administration. Special Education Capacity is not included in the Functional Capacity or Total Capacity.

The existing adjusted building capacity may have been adjusted to represent the intended or adjusted use of space. The area of existing spaces may be an average of the respective spaces.

## **BUILDING CAPACITY OVERVIEW**

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### **Explanation of Building Capacity and Adjustments**

To properly analyze the impact of students on the Southern Huntingdon County School District and its facilities, one must look at the functional capacity of the existing schools. The Pennsylvania Department of Education had established State standards and guidelines which, coupled with the District's program, can produce a rather straight forward calculation. The current use and State standards have been used to determine the building capacity. These capacities are then compared to the enrollment projections provided in this section of the Study.

The comparison between student projections and building capacities is shown in graphic illustration for the K-5, 6-12; and K-12 grade alignments.

#### **The current building capacities have been evaluated and adjusted by the following:**

1. Capacity evaluation of current educational spaces against the Pennsylvania Department of Education (P.D.E.) guidelines for room size:
  - a. Classrooms under 660 s.f. receive no capacity.
  - b. Secondary spaces under 1,800 s.f. for Technology Education receive no capacity.
  - c. Spaces must meet respective P.D.E. minimum size requirements to receive capacity.
2. Present use of space for activities other than original intent:
  - a. Areas far too small to permit functional efficiency.
  - b. Media Centers or other core facilities much smaller than recommended by guidelines.
  - c. Absence of space recommended for some functions.
  - d. Use of certain functional areas for general storage.
  - e. Use storage spaces for instructional areas.
3. Evaluation of building on Code requirements of physical facilities (i.e., toilet rooms).
4. Evaluation of specialized instruction beyond basic curriculum (i.e., music, art, learning support, speech and language, Chapter 1, gifted and talented, and ancillary facilities for staff).

Future needs must look beyond merely a comparison between population and capacity projections. There is a need to look at curriculum, special programs, classroom size for all programs, and use of space not designed for current use.

## **BUILDING CAPACITY OVERVIEW**

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### **Explanation of Building Capacity and Adjustments**

#### **Elementary Level**

The Pennsylvania Department of Education (P.D.E.) assigns 25 students per regular classroom greater than 660 s.f. for the purposes of formulating State reimbursement.

There is a tendency at the Elementary Level within School Districts that have multiple buildings to assign students from various regions or neighborhoods. The K-5 Elementary students are housed in three elementary facilities for the Southern Huntingdon County School District. The number of students, however, do not always come in even increments of 25 students per grade, per classroom; therefore, the student efficiency of classrooms is not always 100%. In addition to this phenomenon, most School Districts prefer smaller classroom sizes at the Elementary Level.

District capacities, therefore, are also provided for comparison with enrollment projections. In the case of the Southern Huntingdon County School District, the District guidelines suggest 20 students per classroom for grades K-1, and 22 students per classroom for grades 2-5.

For the purpose of this Study, Elementary *District Capacity* includes Graded Classrooms, while the *PDE Total Capacity* also includes Regular Support Classrooms that are needed to support the educational program including Math and Reading. These Regular Support Classrooms could temporarily serve as enrollment "bubble" classrooms. Elementary Schools typically do not receive capacity for other support spaces such as Art, Music and Computer Labs because when students are using these spaces their respective classrooms are unoccupied. While Special Education Capacity and Pre-Kindergarten Capacity is listed separately and not included in the District Capacity or PDE Total Capacity, they are included in reimbursement calculations.

#### **Secondary Grades**

Students typically move between classes at the Secondary Level. Therefore, P.D.E. assigns capacity to specific instructional spaces that meet minimum size requirements. Regular classrooms greater than 660 s.f. receive a capacity of 25 while Laboratory spaces receive a capacity of 20. Since scheduling the facility at 100% is unlikely, a capacity utilization factor is then applied to the total. P.D.E. uses a capacity utilization factor of 90%, a capacity utilization factor of 75% has been used for the District Capacity for the High School / Middle School.

For the purposes of this study, Secondary *District Capacity* includes all spaces that receive capacity with a 75% utilization factor, while the *PDE Total Capacity* includes all spaces that receive capacity with a 90% utilization factor. While Special Education Capacity is listed separately and not included in the District Capacity or PDE Total Capacity, it is included in reimbursement calculations.

# EDUCATIONAL PROGRAM REQUIREMENTS

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## **Mission Statement:**

Rocketing our students into their future.

## **Vision Statement:**

We are committed to our students becoming leaders in the 21st Century, using critical thinking and interpersonal skills to succeed in a global society.

## **Shared Values:**

We believe in placing students first by:

- Striving to provide a safe, supportive and positive environment for students.
- Challenging each student equally to achieve college and career readiness skills.
- Valuing that each student can learn and contribute to society.

## **Educational Community:**

Southern Huntingdon County School District is located in a rural area of southcentral Pennsylvania. The school district includes 12 boroughs and townships. The districts' communities include an approximate population of 8,000 people, and the schools educate about 1,150 students per school year. Southern Huntingdon County School District offers a kindergarten to 12th grade program for students of ages 5 to 21. In that program, students have opportunities in traditional academic content areas, online courses, career technical programs, cyber/charter programs, and extra-curricular activities. The student/teacher ratio is 13.6:1.

## **Educational Program:**

Southern Huntingdon County School District operates four educational facilities organized on a K-5 plan at three elementary schools; Rockhill Elementary, Shade Gap Elementary, and Spring Farms Elementary; and 6-12 plan at Southern Huntingdon County High School / Middle School. The following information is a result of the Educational Programs that were developed by the School District.

- **Elementary School (Existing)**
  1. Current-use of Spaces and program information
    - a. Elementary Grade classrooms
      - i. Rockhill: 10 Classrooms
      - ii. Shade Gap: 8 Classrooms
      - iii. Spring Farms: 12 Classrooms

## EDUCATIONAL PROGRAM REQUIREMENTS

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- b. Special Education & I.U. classrooms; full-size classrooms or small group areas
    - i. Rockhill: 2 Classrooms + One small group room
    - ii. Shade Gap: 1 Classroom + One small group room
    - iii. Spring Farms: 1 Classroom (2 Instructors sharing a space)
  - c. Support full-size classrooms such as Reading, Math, Health, etc. that are not special education spaces
    - i. No Full Sized Non-Special Education Classrooms
  - d. Support divided classrooms / small group areas such as Reading, Math, Gifted, Health, etc. that are not special education spaces
    - i. One Title One Room in each building (-3-Half-Classrooms)
      - 1) Gifted (Shares a Space with other Itinerant Instructors in Each Building)
  - e. Special program spaces such as Art, Music, Gym, Library, Computer, Maker Spaces, etc.
    - i. None
  - f. Special program spaces such as Art, Music, Gym, Library, Computer, Maker Spaces, etc.
    - i. Art meets in the classrooms in most instances
    - ii. Music meets in the gymnasium/cafeteria/etc.
    - iii. Gym meets in the gymnasium/cafeteria/etc.
    - iv. Computer: Currently not available
    - v. Maker Spaces, etc.: Currently not available
- **Elementary School (Proposed)**
    - 2. Maximum number of students planned per classroom
      - a. Pre-K – No Pre-K at the Elem. Schools at this time, it is held at the HS/MS
      - b. Kindergarten – 4yr & 5yr – 15-20 Students
      - c. First Grade – 15-20 Students
      - d. Second Grade – 20-25 Students
      - e. Third Grade – 20-25 Students
      - f. Fourth Grade – 20-25 Students
      - g. Fifth Grade – 20-25 Students
      - h. Special Education – 28 Square Feet per Student
        - i. Support classrooms such as Reading, Math, Gifted, Health, etc.
          - 1) Shade Gap: 1 half (1/2) class for reading/math intervention
          - 2) Gifted: Gifted instructor shares (1/2 a room) with other itinerant teachers
    - 3. Planned half-day or full-day Pre-K – No Pre-K located at Elementary schools (Pre-K is located in two classrooms at High School / Middle School)
    - 4. Planned half-day or full-day Kindergarten – 4yr & 5yr – Full day Kindergarten

## EDUCATIONAL PROGRAM REQUIREMENTS

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### 5. Planned-use of Spaces (number / size of spaces / full-time or periodic use of spaces)

#### a. Elementary Graded classrooms; Special Education & I.U. classrooms; full-size classrooms or small group areas

- i. Graded Classrooms: At least 28 square ft. per student, in a one building set up, we would need at least 4 classrooms per grade level.
- ii. Kindergarten: Full-Time, Sizes provided upon walkthrough
- iii. First: Full-Time, Sizes provided upon walkthrough
- iv. Second: Full-Time, Sizes provided upon walkthrough
- v. Third: Full-Time, Sizes provided upon walkthrough
- vi. Fourth: Full-Time, Sizes provided upon walkthrough
- vii. Fifth: Full-Time, Sizes provided upon walkthrough
- viii. Periodic Classrooms: Need 4 Periodic per Building
- ix. Special Education Classrooms: Full-Time, Sizes provided upon walkthrough, at least 28 square ft. per student, we would like 5 classrooms.
- x. Life Skills Classroom: Full-Time, Sizes provided upon walkthrough, at least 28 square ft. per student, we would like 1 classroom.
- xi. Pre-K: Full-Time, Sizes provided upon walkthrough, at least 28 sq. ft. per student, we would like 2 classrooms.

#### b. Support full-size classrooms such as Reading, Math, Gifted, Health, etc. that are not special education spaces

- i. One full sized classroom to be used for reading, math instruction
- ii. One full sized classroom to be used for guidance instruction
- iii. One full sized classroom to be used for gifted/health

#### c. Support divided classrooms / small group areas such as Reading, Math, Health, etc. that are not special education spaces

- i. Title One Reading: 2 half classrooms
- ii. Title One Math: 1 half classroom
- iii. Small Group Area: Speech and Language Teacher
- iv. Small Group Area: Emotional Support Teacher
- v. Small Group Area: Gifted Teacher

#### d. Support large group areas that are not special education spaces

- i. Multi-Purpose room with a stage

#### e. Special program spaces such as Art, Music, Band, Gym, Library, Science / Technology, Computer, Stage, etc.

- i. Art Classroom – 1 room
- ii. Music Classroom – 1 room (Support doing choral)
- iii. Gymnasium – 1 room
- iv. Library – 1 room
- v. Computer – 1 room
- vi. Band Room – 1 room



## EDUCATIONAL PROGRAM REQUIREMENTS

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- f. Size of core spaces such as Gym, Student Dining, Library, Kitchen, etc.
  - i. Gym: 70' X 110' (Full sized gym with Bleachers on both sides of the court)
  - ii. Student Dining: (Full sized dining area for the amount of students we have)
  - iii. Library: 40' X 65' (This is a library with a small class area included in the measurement)
  - iv. Kitchen: 25' X 75'
    - 1) With Bathrooms and Storage Area
    - 2) Walk in Cooler/Freezer
    - 3) Small Office for head cook
    - 4) Ice Machine (2)
- g. Administration / Guidance / Nurse spaces needed
  - i. Administration – 2 Offices
    - 1. Head Principal (Room for a conference area in the office)
  - ii. Guidance – 1 Suite (Similar to HS/MS Guidance Office)
  - iii. Nurses Space – 1 Office (w/ room to see students) (w/bathrooms) (Separate from the office area)
  - iv. Receptionist Area – 2 areas for 2 separate secretaries
  - v. Office for Special Education Director and School Psychologist
  - vi. Office for Technology w/ storage space
  - vii. Conference Room in the Office Area
- h. Faculty and other office spaces needed
  - i. Faculty Room (2 rooms for faculty dining w/ bathrooms)
  - ii. Work Rooms (3 work rooms)
  - iii. Conference Room
- i. Storage areas – existing and needed
  - i. Existing
    - 1) Shade Gap – 2 small areas
    - 2) Rockhill – 2 small areas
    - 3) Spring Farms – 2 small areas
  - ii. Needed
    - 1) Art Storage Room built onto the art room
    - 2) Gym Storage Room build onto or around the gym
      - a) Office area for Gym Teacher
      - b) Large Bathroom Area (or locker room) (with room for teams to change in)
      - c) Officials Changing Room
    - 3) Guided Reading Book Room
    - 4) Maintenance Area: To be Determined
      - a) 2 slop sinks per floor
      - b) Maintenance Closets: 6 maintenance closets
      - c) Maintenance Receiving and docking area for supply delivery
      - d) Boiler Rooms
    - 5) Various/Miscellaneous Materials Storage Room (Copier Paper, Instructional Materials, etc)
    - 6) Band Storage Area: Built onto the Band Room

## EDUCATIONAL PROGRAM REQUIREMENTS

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6. Rooms utilized only 1 or 2 periods per day? – None Currently
7. Computer Rooms/Labs used vs. Wi-Fi – None Currently (Please see question 8)
8. Wi-Fi vs. hard-cabling? – All classrooms to be hard wired, with at least one dual drop, and Wi-Fi coverage in each classroom. (Currently have and recommended)
9. Food Service:
  - a. Lunch period(s) or continuous lunch (Lunch Periods)
    - i. +/- number of students / lunch = ?  
1) Number of Students = 520, Average number eating = 350
  - b. Breakfast (subsidized)
    - i. +/- number of students / breakfast = ?  
1) Number of Students = 520, Average number eating = 210
  - c. Full-Service Kitchen vs. Serving Kitchen?
    - i. Central Kitchen vs. Satellite Kitchen  
1) Full Service Kitchen
10. Physical Education:
  - a. Gym periods / day?
    - i. 6 periods on a 6 day cycle
  - b. Students / period?
    - i. 15-30 students per period (30 would be if we had to combine two classes)
11. Teachers “own” their rooms or itinerant use; Faculty or I.P.C. spaces needed?
  - a. 1 room for this possibly
12. If grades are consolidated, will there be a need for additional support & special education classrooms / small group rooms, or will fewer spaces be required?
  - a. Additional spaces required for itinerant teachers to have their own work spaces.
  - b. We are requesting a life-skills classroom (with a handicapped accessible bathroom)/(mimic the one in the HS/MS) and an emotional support classroom (both full classrooms). With the emotional support (have a safe area for students to go).
13. If grades are consolidated, will there be a need for additional core spaces?
  - a. No, but we would like to have an area for STEM/STEAM and/or Maker Spaces.
14. Security Issues: Main School Entrance(s);
  - a. Mimic the HS/MS entrance
15. Site:
  - a. Parking Count Each Facility – To be determined by numbers of teachers and support faculty
  - b. Buses
    - i. Elem / Middle / HS Route(s)?  
1) Currently 21 buses in the District, 3 do not currently come to the high school that go to Shade Gap

## EDUCATIONAL PROGRAM REQUIREMENTS

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- **High School / Middle School**

Southern Huntingdon County School District is taking measures to ensure students are exposed to experiences that connect academic and technical education through emphasizing existing workforce demands. Our career awareness efforts consist of providing students with work-based learning experiences, access to the Huntingdon County Career and Technical Center, and providing course offerings that enhance career awareness, skill and abilities in preparation for pursuing post-secondary careers. All of Southern Huntingdon County School District's efforts are aligned with Pennsylvania's Career Education and Work Standards.

### **Educational Philosophy:**

The efficient operation of the school depends on how well you understand the policies and regulations and how willing and capable you are in carrying them out. Team spirit is essential in developing a superior school. That a school system may pursue its important function, it is necessary that it be guided by a statement embodying the purpose of its program and principles.

### General Objectives:

1. Provide opportunities for each student to develop their capacities to the fullest for self-realization.
2. Provide each student with a fundamental core of knowledge, concepts, ideas, and skills in a changing world to prepare them for life's work.
3. Develop in each student a keen respect for human dignity.
4. Develop deep worth, lasting values and attitudes in each student enabling them to have the highest ethical and moral character.
5. Promote the health and physical well-being of each student.
6. Provide experiences for rational thinking.
7. Develop the skills for originality, creativeness, and worthwhile use of leisure time.
8. Provide adequate guidance, personal and career & technical education for each student.

### Specific Objectives:

More specifically, the following should be the essential provision of education:

1. School is a realistic segment of life.
2. Education must be functional.
3. Learning is a continuous life process.
4. School is for the students; students are the most important people in the school.
5. The curriculum is the sum total of experiences provided for each student.
6. Self-discipline is more desirable than forced discipline.
7. The entire educational community should:
  - A. Inspire and stimulate intellectual curiosity.
  - B. Education must be functional.
  - C. Adjust the curriculum to fit individual abilities and aptitudes.
  - D. Provide training for useful citizenship by example and practice through social, civic, and economic activities.
  - E. Provide for appreciation and enjoyment of the Arts.

## **EDUCATIONAL PROGRAM REQUIREMENTS**

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### **Student Assistance Program (SAP)**

The Student Assistance Program is a team organized to assist students and parents in developing alternative strategies for modifying the instruction or learning environment for students who are experiencing academic or behavior problems in the classroom.

SAP is a systemic process using techniques to mobilize school resources to remove barriers to learning. The core of the program is a professionally trained team, including school staff and liaisons from community alcohol and drug and mental health agencies. SAP team members are trained to identify problems, determine whether or not the presenting problem lies within the responsibility of the school and to make recommendations to assist the student and the parent/guardian. When the problem lies beyond the scope of the school, the SAP team will assist the parent/guardian and student so they may access services within the community. The student assistance team members do not diagnose, treat or refer to treatment; but they may refer for a screening or an assessment for treatment.

### **Behavior Support**

Nittany Learning Services will be providing a Behavior Support Classroom for the Southern Huntingdon County School District, called the Rocket Re-Start Program. This program is designed for students who are experiencing challenges within the regular classroom setting, disciplinary problems or to assist with transitions back into the school district from an outside placement. The Southern Huntingdon County School District may also use the Rocket Re-Start program for students that are experiencing difficulties within the lunch room.

Each identified student within the Rocket Re-Start Program will have a Customized Learning Plan that identifies behavior goals, academic goals, strengths/interests and goals for the future. The students will be supported academically and behaviorally, through a blended learning curriculum that matches their individual needs.





## **FACILITIES INTRODUCTION**

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This section of the Feasibility Study is a review of the existing Southern Huntingdon County School District Facilities including: Rockhill Elementary School, Shade Gap Elementary School, Spring Farms Elementary School, and Southern Huntingdon County High School / Middle School. All facilities include general data, plans, spatial evaluation, and a general investigation.

Following each building's floor plans, which show existing space utilization, is a general investigation identifying deficiencies, recommending solutions, and furnishing estimates of probable construction costs.

This analysis is based upon visits to the buildings and interviews with District personnel, current building codes, Department of Education standards, energy conservation measures, and the American Disability Act Accessibility Standards (ADA). The analysis is divided into six major facility components: Site, Exterior, Interior, Mechanical / Electrical / Plumbing (MEP), Code Deficiencies, and Miscellaneous upgrades per building. The Facility Evaluation Criteria is outlined on the following pages.

## **FACILITIES SUMMARY**

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### **Southern Huntingdon County School District Existing Facilities**

The following information is included for each existing Facility: General Data, Exterior and Interior Building Photos, Aerial Site Views, Site Plan and Floor Plans, Room Schedule, Summary of Costs, and Building Improvements and Construction Costs Data.

#### **Rockhill Elementary School**



<b>Built:</b>	1955(B)
<b>Eligible for State Reimb:</b>	Yes
<b>Site Size:</b>	5.64 acres
<b>Architectural Area:</b>	23,375 s.f.
<b>PDE Total Capacity:</b>	250
<b>PDE Replacement Value:</b>	\$4,002,000
<b>20% Rule:</b>	\$800,400

#### **Building Improvements and Construction Costs**

<b>Total Building:</b>	\$3,830,700
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#### **Shade Gap Elementary School**



<b>Built:</b>	1955(B)
<b>Eligible for State Reimb:</b>	Yes
<b>Site Size:</b>	10 acres
<b>Architectural Area:</b>	18,490 s.f.
<b>PDE Total Capacity:</b>	200
<b>PDE Replacement Value:</b>	\$3,201,600
<b>20% Rule:</b>	\$640,320

#### **Building Improvements and Construction Costs**

<b>Total Building:</b>	\$3,294,800
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## FACILITIES SUMMARY

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### Southern Huntingdon County School District Existing Facilities

#### Spring Farms Elementary School



<b>Built:</b>	1960(B)
<b>Eligible for State Reimb:</b>	Yes
<b>Site Size:</b>	16.55 acres
<b>Architectural Area:</b>	22,005 s.f.
<b>PDE Total Capacity:</b>	275
<b>PDE Replacement Value:</b>	\$4,402,200
<b>20% Rule:</b>	\$880,440

#### Building Improvements and Construction Costs

<b>Total Building:</b>	\$4,116,000
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#### High School / Middle School



<b>Built:</b>	1960(B), 2004(A&A)
<b>Eligible for State Reimb:</b>	2024
<b>Site Size:</b>	45.13 acres
<b>Architectural Area:</b>	148,100* s.f.
<b>PDE Total Capacity:</b>	926
<b>PDE Replacement Value:</b>	\$19,818,252
<b>20% Rule:</b>	\$3,963,650

#### Building Improvements and Construction Costs

<b>Total Building:</b>	N/A
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\* Includes District Administration Office (9,400 s.f.)

The evaluation of the existing facilities are based upon visits to the buildings, interviews with District personnel, and our own experience with educational projects.

The following current, applicable codes and standards are used in the evaluation of the building and its systems / components:

- 2015 International Building Code Categories
- ASHRAE
- NFPA
- Americans with Disability Act (ADAAG 2010)
- Municipal Zoning Ordinance
- Other Codes used in the evaluation for compliance are the National Plumbing and Electrical Codes

The evaluation criteria are based upon the following categories: Accessibility / ADA, Building codes / Safety, Aesthetics / Environment, Performance / Energy, and Program and Facility requirements.

## ■ ACCESSIBILITY / ADA STANDARDS / COMPLIANCE

Facilities should provide access to all program areas and activities for all individuals, per the Americans with Disabilities Act Accessibility Guidelines, 1990 (ADA/ADAAG), as revised 2010. The Americans with Disabilities Act (ADA) is a civil rights act, effective 26 January 1992, enforced by the United States Justice Department and Civil Law, not a building code. It is comprised of five major sections (Titles I – V) as follows:

- TITLE I – Equal Employment Provisions (hiring)
- TITLE II – Nondiscrimination in State and Local Government Services (public buildings)
- TITLE III – Nondiscrimination by Public Accommodations (privately funded facilities)
- TITLE IV – Telecommunications Relay Services
- TITLE V – Miscellaneous Provisions

Public schools are State agencies/local governmental units and would fall under TITLE II. A public entity must ensure that individuals with disabilities are not excluded from services, programs, and activities because existing buildings are inaccessible. Public entities do not necessarily have to make each of their existing facilities accessible. They may provide program accessibility by a number of methods including alteration of existing facilities, construction of additional facilities, relocation of a service or program to an accessible facility, or provision of services at alternate accessible sites. Structural changes needed for program accessibility must be made as expeditiously as possible, but no later than 26 January 1995. Barrier removal needs to be accomplished only when it is “readily achievable” to do so and technically feasible. Readily achievable means easily accomplishable and able to be carried out without much difficulty or expense. Alternatives may be considered to overcome such barrier or non-compliance.

**■ ACCESSIBILITY / ADA STANDARDS / COMPLIANCE (Con't)**

Alterations when made should be done in a manner that require compliance with the standards to the maximum extent feasible. An alteration is a change, which affects, or could affect, the usability of the building or facility. It also includes “elements,” such as door handles and faucet controls. If alterations are made to an area that contains a primary function, a path of travel to that area should be made accessible. The ADA addresses the issue of accessible design for large assembly areas, with the intent of integrating wheelchair seating with regular seating. That is, individuals in wheelchairs should have a line of sight compatible to the general body. Too often, wheelchair areas are confined to the back or to the front.

As part of the upgrading and alteration of District facilities, the District’s requirements for ADA compliance should reflect the overall integration of people who may wish to participate in activities within these facilities, and who may be on staff serving these facilities. The District may wish to review its policy, procedure, and practice, with regard to use at these facilities. The physically challenged person should have the ability to gain entry and be routed to seating easily. The required number of seats for the disabled should be located to allow for a maximum of seating location choices. The following areas are reviewed:

- (1) Provide the appropriate number of accessible parking spaces near entrance to all facilities.
- (2) Provide an accessible route from parking spaces to building entrances.
- (3) Provide accessible entrance at all facilities.
- (4) Provide proper signage both on the exterior, as well as on the interior, designed to guide, direct, and inform individuals with disabilities.
- (5) Provide accessible interior route to all primary activities and program areas.
- (6) Provide building elements (i.e. railings, doors, hardware, restrooms, drinking fountains, elevators, public telephone, seating, work stations, etc.) to allow same opportunities for individuals with disabilities.
- (7) Provide alternate solutions to move activities and program areas to accessible areas.

**■ BUILDING CODES / SAFETY**

Buildings must meet the codes that are applicable at the time of construction. Existing buildings may not meet the requirements of the most recently adopted codes, but are in compliance with the codes that were in effect at the time of construction or renovation.

Existing buildings as they stand are not required to meet current code simply due to the adoption of newer codes. Any new construction or renovations would be required to comply with the current applicable code.

The type, limit of area of work, and nature of work will be the determining factor as to the required level of compliance with the most recently adopted codes and be categorized under the following levels.

**IEBC-SECTION 502 REPAIRS**

502.1 **Scope.** *Repairs*, as defined in Chapter 2, include the patching or restoration or replacement of damaged materials, elements, *equipment or fixtures* for the purpose of maintaining such components in good or sound condition with respect to existing loads or performance requirements.

502.2 **Application.** *Repairs*, shall comply with the provisions of Chapter 6.

502.3 **Related work.** Work on nondamaged components that is necessary for the required *repair* of damaged components shall be considered part of the *repair* and shall not be subject to the provisions of Chapter 7, 8, 9, 10 or 11.

**IEBC-SECTION 503 ALTERATION-LEVEL 1**

503.1 **Scope.** Level 1 alterations include the removal and replacement, or the covering, of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose.

503.2 **Application.** Level 1 alterations shall comply with the provisions of Chapter 7.

**IEBC-SECTION 504 ALTERATION-LEVEL 2**

504.1 **Scope.** Level 2 alterations include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.

504.2 **Application.** Level 2 alterations shall comply with the provisions of Chapter 7 for Level 1 alterations, as well as the provisions of Chapter 8.

**IEBC-SECTION 505 ALTERATION-LEVEL 3**

505.1 **Scope.** Level 3 alterations apply where the work area exceeds 50 percent of the aggregate area of the building.

505.2 **Application.** Level 3 alterations shall comply with the provisions of Chapters 7 and 8 for Level 1 and 2 alterations, respectively, as well as the provisions of Chapter 9.

Facilities should meet the following health and safety issues:

- (1) Pedestrian and vehicular circulation paths should be well lighted and provide clear site lines and field of views.
- (2) Safe drop-off and pick-up areas should be provided with good separation from other functions.
- (3) Fences should be located at appropriate points to separate pedestrian activities from hazardous elements, and to protect individuals or property from attack.
- (4) Design of site elements should provide good drainage to prevent ponding or icy conditions.
- (5) Entrances and exterior doors should meet appropriate level of security to control unwanted visitors, and reduce risk of threats (key consideration where children are located.)
- (6) Correct any issues driven by user welfare or recognized health hazards.

**■ AESTHETIC / ENVIRONMENT UPGRADES**

All facilities require on-going maintenance attention at the current level or better. Preventative maintenance and repair will have a major effect on the appearance, while protecting the physical soundness of the facilities.

The facility should be enhanced by finishes and designs that exemplify the “state-of-the-art” in public accommodations. Finishes of walls should reduce reverberation and echo in event areas, and should add to the focal points. Carpet should support comfortable mobility, without creating resistance to equipment supports (i.e., crutches, canes, wheelchairs, moving AV equipment). Hard floor surfaces should be slip-resistant (0.6 coefficient wet/dry). Ceilings should maximize reflectance. Color contrasts between different surfaces should be distinct between floors, walls, and ceilings. Color should guide the eye from dark to light, to the focal points of events. The lightest areas in the lecture hall should be where speakers, presentations, projected images, and events are positioned. Material selection should also consider durability and maintenance.

The facilities should present an environment that is clean, pleasant, and enhances the activities within the space. Facilities should consider the following conditions:

- (1) Well balanced and flexible lighting.
- (2) Appropriate color selection and finish materials.
- (3) Interior finishes and products adequately installed and maintained. Replace worn, torn, or broken products.

**■ PERFORMANCE / ENERGY UPGRADES**

Beyond Code compliance, aesthetic quality, and nature of the environment, is the performance of the facilities and building systems. Since the installation of many of the building component systems, there have been significant advancements in technology. The design requirements for facilities are at a different standard today, and there is a need to improve the efficiency, where possible, and correct any outdated and obsolete items.

The facilities should operate at an energy efficient level and provide comfortable environment for all users.

An increase in the performance characteristics of several of the buildings’ component systems, due to age and condition of existing system or a need to improve efficiency, causes the following upgrades:

- (1) Correct deficiencies with regard to extending the life of building systems and components.
- (2) Building envelope, lighting, mechanical, and other issues, related to energy conservation, should meet current standards and future concerns.

**■ PROGRAM REQUIREMENTS AND UPGRADES**

As the School District's student population changes and while facilities become older, the adequacy of building organization and spaces become more critical to meeting the current educational program.

The intent of the educational review is to help support the role of the District in determining the scope of any potential changes, improvements, or enhancements to meet both current standards as well as future visions. The following issues are reviewed that will be supportive of the District's Educational Program for the next 20 years:

- Classrooms that meet State standards for size and functions (provide instructional space that allows several types of teaching and learning activities.
- Current instructional practices require greater hands-on and group activities integrated with technology requiring greater space per school.
- A growing special educational population, coupled with the need for inclusion, requires more space for instruction and support positions.
- The number of meeting spaces for a range of size for conferences, teacher-parent, staff, and other interactions, which are properly located and have privacy.
- Use of technology and presentation space for staff and students (wireless laptops, projection systems, etc.)
- Are there current programs or activities that are located in appropriate rooms or areas due to size, location, or environment?
- Are required features of the learning environment missing, outdated, or not operational?
- Are community needs addressed?
- Review emerging educational offerings and trends.
- Review specialized facilities for Athletics, Performing Arts, or Fine Arts.
- Cafeteria and Food Service functions that meet current standards or desired accommodations.
- Administration and office areas that are adequate for modern educational facilities and provide supportive environment critical for today's population and needs.
- Address student needs that provide opportunities to perform and achieve adequate progress in learning and social development.







# PRELIMINARY INVESTIGATION

## Southern Huntingdon County School District

### LOCATION

Rockhill Borough, Huntingdon County, Pennsylvania  
Dublin Township, Huntingdon County, Pennsylvania  
Clay Township, Huntingdon County, Pennsylvania  
Cromwell Township, Huntingdon County, Pennsylvania

### PREPARED FOR:

El Associates  
2001 North Front Street, Building #3  
Harrisburg, PA 17102

May 1, 2019

Revised May 16, 2019

K&W Project Number 2012.011

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<b>APPENDIX D.....</b>	<b>SOUTHERN HUNTINGDON COUNTY HIGH SCHOOL &amp; MIDDLE SCHOOL SITE PHOTOS</b>

**Introduction & Purpose**

EI Associates is in the process of completing a district wide feasibility study for Southern Huntingdon County School District (SHCSD), which includes the analysis of their buildings and associated exterior site challenges. The individual schools are Rockhill Elementary School, Shade Gap Elementary School, Spring Farms Elementary School, and Southern Huntingdon County Middle and High School. These parcels are located in Rockhill Borough, Dublin Township, Clay Township, and Cromwell Township, respectively, all in Huntingdon County, Pennsylvania.

K&W made a visit on February 26, 2019 to review existing site conditions and discuss with District staff related needs and priorities.

The purpose of this evaluation is to investigate the subject properties / proposed project with respect to site related improvements in order to confirm regulatory requirements and identify any areas of significant concern (from a use, design, cost, and schedule perspective).

In working with EI Associates, multiple options are proposed to the District, which range from limited site improvements at all four (4) schools in the district to consolidating the district onto the existing Middle and High School Campus in various layouts. Conceptual sketch plans for the proposed options are included in Appendix E. Approximate and general costs for recommended improvements as well as cost estimates for the respective layouts are found in Appendix F.

A twenty-five-percent (25%) contingency for costs was applied to the subtotal for each school in order to account for current unknowns; this percentage will decrease as further plans are established and more information is compiled.

**Rockhill Elementary School**

*510 Meadow Street, Rockhill, PA 17249*

*Rockhill Borough, Huntingdon County*

**Site Size and Overall Condition**

Rockhill Elementary School is located between two (2) district-owned properties (Tax Parcel ID Nos. 39-02-09 and 39-02-06) that measure 3.79 and 1.85 acres, respectively. The properties include the buildings along with supporting parking areas, access drives, play areas, and a large open area. Refer to Appendix A for site photographs associated with specific discussion items.

The elementary school serves 167 students and 25 faculty and staff members.

**Zoning Ordinance Review**

There is no Zoning Ordinance in Rockhill Borough, however Huntingdon County reviews development plans in lieu of the township.

**Vehicular Circulation**

The site is accessed via two driveways, all from Meadow Street (Pennsylvania SR 0994). Buses use the center entrance and wait for most buses to arrive in order to make a specific queue in front of the building.

Parents dropping students off are required to wait in the asphalt play area for all buses to pass prior to using the bus loop in front of the main building. The school utilizes a crossing guard in the morning and afternoon along Route 994 to monitor student walkers, let all buses leave the queue at a time, and to then monitor parent drop off at the front of the building. In discussing circulation with the morning guard, she indicated that the school used to allow parents to drop students off at the back entrance of the school near the playground, but that impatient parents and the openness of the asphalt area provided less traffic control. As a result, the school moved to utilizing the loop, which is seen as the safest alternative. There are several places within the bus loop where tire marks were observed in the adjacent grass areas, which could indicate that the travel lane is not wide enough.

There are about six standard (6) buses according to the morning crossing guard as well as a smaller bus. Rockhill Elementary shares buses with Shade Gap Elementary as well as the High School and Middle School.

**Pedestrian Circulation**

There is a crosswalk that between ten and fourteen (10 – 14) students use daily to walk to school with the aid of a crossing guard in the morning and afternoon to cross Route 994. The crosswalk is missing a concrete section of sidewalk and acts as a safety hazard for tripping as well as an accessibility concern. While not on school property, the sidewalk on the opposite side of the street does not appear to have an adequate slope into the street, nor does it have a detectable warning surface. There are multiple entrances / exits to the school building that appear to not have adequate ADA access. Specifically, the asphalt ramp coming from the modular unit to the main school building has a one- to two-inch (1 – 2") lip that could make accessibility difficult.

**Parking**

The Elementary School is served by an approximately twenty-one (21) space parking lot located to the west side of the building. Parking capacity does not meet staffing needs, and teachers and staff usually have to park beyond the striped parking area within the asphalt playground. The asphalt playground is used for overflow parking needs.

There are areas within the drive and parking areas that show pavement defects, etc. There are long, deep cracks that extend through the parking area and the asphalt playground with additional cracks forming radially outward. Alligator cracking is also present within the parking lot. Closer to the school building, divets were observed near the picnic table.

### Play and Athletics

The elementary school has a mulched playground for the students, as well as an asphalt playground that contains a soccer field and multiple basketball nets. There is also a Gaga Pit for the popular recess game. The school has a few athletic fields that appear to be shared with the parcel behind the school that is owned by Orbisonia Borough (Tax Parcel ID No. 39-02-09.1).

### Stormwater

The site is located in the Blacklog Creek watershed. According to 25 PA Code Chapter 93, the Blacklog Creek is designated a Cold Water Fishery (CWF) with Migratory Fish (MF). The site does not discharge to waters with a total maximum daily load (TMDL) designation.

The entire site lies within the 100-year floodplain of Blacklog Creek, which is a FEMA studied reach. Stanley Hall indicated that the playground usually retains water with just about every storm event, which prevents students from using the playground. The playground area was observed to be very saturated with pools.

There were several culverts at the front of the school, one of which appeared to be rusty and deteriorated. This culvert pipe crosses the exit lane from the school. The trash rack on the culvert (coming from the direction of the school building) was also deteriorated and rusted out completely at the bottom. These pipes, trash racks, and several inlets in the parking lot should be replaced.

### Utilities

#### Water

The site is served by public water.

#### Sanitary Sewer

The elementary school is served by public sewer. An exemption from PADEP Sewage Facilities Planning Module requirements may be possible under the current conditions of the sewer system. Systems will need to be evaluated at such time that proposed future development uses / design are advanced in order to determine if any improvements are required.

### Site Recommendations

- Parking areas have cracking and could use sealant or an overlay. An overlay may be required in areas that exhibit deep cracking and “alligator cracks”. Parking areas requiring new paving will also require new striping.
- Places with significant “alligator cracking” should undergo a full depth replacement of pavement.
- An ADA accessible route should be considered between the opposite side of Route 994 and the school property. ADA-compliant ramps should be considered where they are not compliant.
- Significantly damaged concrete slabs should be replaced, in addition to asphalt areas that have sunk, resulting in a tripping hazard.
- The inlet at the front of the parking lot and the circular inlet within the asphalt playground should be replaced. The culverts at the front of the school should be replaced as they are rusting and falling apart.
- Stormwater conveyance facilities should undergo routine maintenance to remove leaves and debris.

## **Shade Gap Elementary School**

*22251 Shade Valley road, Shade Gap, PA 17255*

*Dublin Township, Huntingdon County*

### **Site Size and Overall Condition**

Shade Gap Elementary School is located on a 9.90-acre plot of land (Tax Parcel ID No. 12-03-29) at the junction of Neelyton Road (PA SR 0641) and Shade Valley Road (PA SR 0035). The western side of the site also abuts Croghan Pike (US Route 522). The property includes the school building, associated parking areas, access drives, play areas, and athletic fields. The undeveloped areas of the site are mainly open space. Refer to Appendix B for site photographs associated with specific discussion items.

Shade Gap serves 133 students and 15 faculty and staff members.

### **Zoning Ordinance Review**

There is no Zoning Ordinance in Dublin Township, however Huntingdon County reviews development plans in lieu of the township.

### **Vehicular Circulation**

There are three entrances / exits to the school, and there were no circulation problems reported. The main bus and visitor entrance is located off of Shade Valley Road that loops in front of the building. The other two entrances are located off of Neelyton Road. Some of the buses used by Shade Gap students are also shared with Rockhill Elementary School and the Middle and High School campus.

### **Pedestrian Circulation**

There are asphalt sidewalk areas along the front of the building as well as a paved pathway to the asphalt court near the parking lot. The path leading to the play courts leads into the school building via ramp. The ramp does not appear to be ADA compliant in terms of slope.

### **Parking**

Shade Gap is served by approximately seventeen (17) parking spaces, including one ADA accessible spot. During the site visit, the parking lot was rather full, in addition to the fact that other building staff were parked on the opposite side of the school where there are no spaces delineated. It is assumed that parking capacity is a large issue on special event days considering the existing capacity does not meet the demand for spaces; however, it is assumed that some of the play court areas would be used for overflow parking.

There are areas within the drive and parking areas that show pavement defects, etc., such as severe alligator cracking and deep cracks that have propagated and have branched off.

### **Play and Athletics**

There are three play areas located at this site—there is a playground and pavilion at the back of the school and an asphalt play area on both the western and eastern sides of the school building.

### **Stormwater**

The site is located in the Shade Creek watershed. According to 25 PA Code Chapter 93, Shade Creek is designated a Trout Stocking Fishery (TSF) with Migratory Fish (MF). The site does not discharge to waters with a TMDL designation.

No stormwater inlets were observed during the site visit due to snow cover; however, it is likely there is an inlet or two behind the school building to capture stormwater from the hill. In addition, there appears to be



a swale between the playground and the school that could be used for conveying stormwater away from the building.

Otherwise, stormwater sheetflows from the site as Mr. Hall indicated that there are no subsurface detention facilities on the site. It appears that there is a pipe outlet from the school at the junction of Route 35 and Route 641 that could discharge roof drainage based on Google Street view.

## Utilities

### Water

The site is served by a private well, located next to the school by the cafeteria. The well is one-hundred twenty 120 feet deep, has a pump rated at three-quarters of a horsepower (3/4 hp) that provides eight gallons per minute (8 gpm). All wells in the school are serviced / replaced every five (5) years, which is coming up in 2022. The water is treated by UV light, which is a concern to PADEP. An updated UV system or adequate alternative is suggested in order to satisfy the PADEP; however, chlorination is not ideal due to the heavy reporting demand required by the state.

### Sanitary Sewer

Shade Gap is served by public sewer. Systems will need to be evaluated at such time that proposed future development uses / design are advanced in order to determine if any improvements are required. An exemption from PADEP Sewage Facilities Planning Module requirements may be possible under the current conditions of the sewer system.

Shade gap has a grease trap located at the front of the school near the flagpole. It was observed that the paved area on top of what appears to be the pipe connection to the school is sinking which could indicate a problem with the pipe itself. In addition, this area was very pungent.

## Site Recommendations

- Drive and parking areas have cracking and could use sealant or an overlay. An overlay may be required in areas that exhibit deep cracking and "alligator cracks". Parking areas requiring new paving will also require new striping. Areas with severe alligator cracking require a full-depth replacement of pavement.
- Any stormwater conveyance facilities should undergo routine maintenance to remove leaves and debris.
- The ramp at the back of the school should be replaced to meet current ADA standards.
- There are several areas within the parking lot / drive that should be restriped.
- Pavement should be widened in areas where tires have formed ruts along the side of the drive once the runoff and conveyance along the road is fixed.

## **Spring Farms Elementary School**

*12075 Old Plank Road, Three Springs, PA 17264*

*Clay Township, Huntingdon County*

### Site Summary

Spring Farms Elementary School is located along the southern property boundary of the approximately 16.55-acre plot of land (Tax Parcel ID No. 09-07-05). The property includes the buildings along with supporting parking areas, access drives, play areas, and wastewater treatment facility. The undeveloped areas of the site are predominantly agricultural land with a large wooded area to the northwest corner of the property. Refer to Appendix C for site photographs associated with specific discussion items.

Spring Farms serves 217 students and 22 faculty and staff members.

### Zoning Ordinance Review

There is no Zoning Ordinance in Clay Township, however Huntingdon County reviews development plans in lieu of the township.

### Vehicular Circulation

The site is accessed via two driveways, all from Old Plank Road (PA State Route 0994). Morning traffic was not observed at Spring Farms, but reportedly results in traffic backing up onto Route 994. Afternoon traffic was observed, however, and seemed to move rather efficiently. Parents started queueing in front of the school at approximately 2:30 pm, and those students appeared to be dismissed early (between 2:45 – 2:55 pm). Due to the queue, some parents had to loop around the asphalt playground area to wait for their children. Buses arrived around 3:05 pm and left by 3:10 pm. The buses appeared to have students on them already, so it is assumed that the delay could have been the result of other schools dismissing at the same time. There are tire ruts along the entrance sides, which could indicate that the radii are not large enough.

### Pedestrian Circulation

There are sidewalks around the front of the school and between the main building and the modular unit. There are also areas of sidewalk near the asphalt playground where the sidewalk is significantly higher than the surrounding pavement, which could be a safety hazard. There is also a concrete ramp at the front corner of the building that is very high as well and could pose a safety hazard. Pavers leading to the modular unit are not level and could potentially pose problems related to ADA accessibility. The ramp leading to the playground appears to not be ADA accessible in terms of slope.

### Parking

Spring Farms is served by an approximately 22-space parking lot located at the side of the school, as well as four spaces near the wastewater treatment plant. The asphalt playground on the opposite side of the school is used for overflow parking, as several cars were observed parking in areas not delineated for parking stalls. Due to this overflow being used on a typical school day, parking capacity is an issue at Spring Farms.

There are areas within the drive and parking areas that show pavement defects, etc. There are large and deep cracks within the parking area, as well as significant alligator cracks in the asphalt playground.

### Play and Athletics

Spring Farms has a playground located in the back of the school, as well as a large asphalt playground area for student use. The playground appeared to be in decent shape.

### Stormwater

The site is located in the Three Springs Creek watershed, and discharge from the site goes to Tributary 12882 to Spring Creek. According to 25 PA Code Chapter 93, the segment of the stream into which the site discharges is designated a Cold Water Fishery (CWF) with Migratory Fish (MF). The site does not discharge to waters with a TMDL designation, but the segment is listed as impaired due to siltation and nutrients from crop related agriculture.

Mr. Hall did not indicate that there are any significant drainage problems at Spring Farms; however, Tributary 12882 to Spring Creek runs through the site. This stream has very high banks, and while not listed as an area likely to flood via FEMA, it is assumed that it has a fifty-foot (50') floodway offset from the top of banks. A few of the culvert wingwalls appeared to exhibit erosion.

There is an inlet near the front of the building that was full of leaves and debris. All inlets should undergo routine maintenance.

### Utilities

#### Water

The site is served by a private well, located behind the high school at the asphalt playground. The well is one-hundred eighty-nine feet (189') deep and has a pump rated at five horsepower (5 hp) that provides water at twenty-five gallons per minute (25 gpm). The water is treated by chlorine. There is no water provided to the modular unit on the western side of the school – electricity and telecommunication are the only utilities provided to this building.

#### Sanitary Sewer

Spring Farms is served by a private activated sludge wastewater treatment plant located on site that discharges into the creek. According to Stanley Hall, the treatment plant was built in 1960, and has only undergone routine maintenance. Stanley indicated that major renovations should be done to the treatment plant. There is no sewer provided to the modular unit on the western side of the school – electricity and telecommunication are the only utilities provided to this building.

### Site Recommendations

- Parking areas have cracking and could use sealant or an overlay. An overlay may be required in areas that exhibit deep cracking and “alligator cracks”. Parking areas requiring new paving will also require new striping.
- Areas with significant alligator cracks should receive a full-depth pavement replacement.
- An overlay should be applied near sidewalk areas that are significantly higher than the surrounding paved areas.
- Stormwater conveyance facilities should undergo routine maintenance to remove leaves and debris.
- The wastewater treatment plant should be updated.

## **Southern Huntingdon County High School & Middle School**

*10339 Pogue Road, Three Springs, PA 17264*

*Cromwell Township, Huntingdon County*

### Site Summary

The SHCSD Middle and High School buildings are all located along the southern property boundary of the approximately 45.13-acre campus. The property includes the school building and district administration office along with supporting parking areas, access drives, play areas, and athletic fields. The undeveloped areas of the site are predominantly wooded and open space. Refer to Appendix D for site photographs associated with specific discussion items.

There is an old railroad bed that runs in front of the school, which has a sixty foot (60') right of way, extending on either side of the center thirty feet (30').

Located near the student parking lot and tennis courts is a one-room schoolhouse named "The Coulter School". According to information found on the Southern Huntingdon County School District Website, this building was dedicated in 2006 as a result of community efforts. This schoolhouse is utilized for classroom visits and community events.

The middle and high school serves 648 students and 128 faculty and staff members.

### Zoning Ordinance Review

There is no Zoning Ordinance in Cromwell Township, however Huntingdon County reviews development plans in lieu of the township.

### Vehicular Circulation

The site is accessed via one driveway, from Pogue Road (SR 0994). There are signs that guide visitors through the student parking lot around to the back of the school where the District Administration Office is located. The exit from the campus is also located along Pogue Road. Vehicle circulation is confusing at this spot because there is a yellow painted strip at the front of the school near the bus queueing area, which would seemingly make it a two-way drive aisle even though traffic can only go in one direction.

Some of the buses used by Middle and High School students are also shared with the elementary schools.

There are concrete areas within the loading dock that are damaged, probably due to trucks backing into this spot.

### Pedestrian Circulation

Existing sidewalks with handicap accessible ramps and crosswalks are located around the middle and high school near parking lots and the bus queueing area. There is no crosswalk from the high school to the football stadium or other athletic facilities. Some of the sidewalk areas are cracked and could be replaced. Neither the ramp leading from the ticket booth to the stadium nor one of the building entrances appear to be ADA-compliant. There are bollards along the access drive and near the queueing area for the football stadium that appear to just be metal pipe with no covering. Specifically for those bollards along the entrance drive, this could pose a safety risk as many are rusty at the top.

### Parking

The High School is served by an approximately one-hundred fifteen (115) space parking lot located to the east side of the building used for students. There are additional lots at the rear of the building for teachers and staff, as well as for the District Administration Office, totaling ninety (90) spaces. K&W counted spaces based on aerial imagery from Google. Parking capacity is not a concern on normal school days since student drivers are limited to students who cannot take the bus due to sports and other extra-curricular activities.

There are areas within the drive and parking areas that show pavement defects, etc. There is cracking in the pavement all over the site, some areas worse than others. Compared to the other schools in the district, however, the pavement at the high school and middle school is in excellent shape. The cracks could use sealant or an overlay in areas where the cracks have propagated and more cracks have formed.

### Play and Athletics

The high school has a football, baseball, and softball fields, as well as three (3) tennis courts, two (2) soccer fields, and practice fields along the north edge of the property. Some of the athletic fields are located within the 100-year floodplain of Aughwick Creek and are likely to be inundated with stormwater.

The district reportedly has problems with the grade differential across the football field / track.

### Stormwater

The site is located in the Aughwick Creek watershed. According to 25 PA Code Chapter 93, Stone Creek is designated a Trout Stocking Fishery (TSF) with Migratory Fish (MF). The site does not discharge to waters with a TMDL designation. The site is located within the 100-year floodplain of Aughwick Creek, though the affected areas are within the athletic fields near the creek.

There is an HDPE pipe outlet and flared end section located near the administration office and one of the softball fields that is exposed to the elements due to lack of cover. Part of this pipe was observed to be crushed. In addition, it appears as though part of the riprap apron at the outlet has washed away, resulting in a pool at the bottom of the flared end section. This could be a concern for erosion.

There are trench drains located near the loading dock, where the surrounding concrete is cracked and damaged, potentially due to water and freeze/thaw.

There was a section roped off with orange construction tape observed within the football stadium. In conversation with Mr. Hall, this fencing was put up to block pedestrians at football games from getting into the junction area of multiple metal pipes. He indicated that runoff during the past year from the bleachers and tennis courts caused the washout of this area. He intends to put a junction box at this location with a grate on top in the summer of 2019. Throughout the site, it appeared that there are numerous metal pipes that have degraded over time and should be replaced. There are also low spots and channels around the campus that were observed to hold water; however, the site visit was made on a day of significant snow melting. It was noted that the school district does not have a maintenance program in place to clean the stormwater conveyance facilities.

### Utilities

#### Water

The site is served by a private well, located beside the school between the building and the football stadium. The well is three-hundred feet (300') deep, has a pump rated at five horsepower (5 hp) that

can provide thirty-five gallons per minute (35 gpm), and is treated with chlorine. All wells in the school are serviced / replaced every five (5) years, which is coming up in 2022.

### Sanitary Sewer

The high school is served by public sewer and has ample capacity according to Stanley Hall as the district has never had problems. A pump station is located between the tennis courts and the football stadium, which follows the fence line around the football field, past the fields and connects to the force main at a cleanout located near the District Administration Office. Systems will need to be evaluated at such time that proposed future development uses / design are advanced in order to determine if any improvements are required. However, preliminary discussion with the Orbisonia / Rockhill Joint Municipal Authority indicates that capacity is not an issue for any proposed expansion; however, their pumps may need replaced at the time of a new connection to the force main. An exemption from PADEP Sewage Facilities Planning Module requirements may be possible under the current conditions of the sewer system.

### Site Recommendations

- Signage near the painted yellow divider at the campus exit could be made clearer to indicate how vehicles are supposed to use the second lane.
- Areas of concrete sidewalk that show signs of cracking and deterioration should be replaced or repaired.
- The wooden ramp should be replaced at the entrance to the school, and an ADA-compliant ramp should replace the existing ramp at the stadium entrance.
- Pipe bollards should be replaced or have a cap added to them that would prevent cuts in heavily-trafficked pedestrian areas.
- Parking capacity should be evaluated if and when any additions are proposed to the high school and middle school campus.
- Parking areas have cracking and could use sealant or an overlay. An overlay may be required in areas that exhibit deep cracking. Parking areas requiring new paving will also require new striping.
- The grade problem at the track and field should be addressed. One possibility includes filling the lower areas in order to raise the grade to match the surrounding areas.
- Culvert and storm pipes should be converted from corrugated metal to HDPE, and adequate cover over storm pipes should be maintained.
- Stormwater conveyance facilities should undergo routine maintenance to remove leaves and debris.

## Appendix A

### Rockhill Elementary School





**Figure A1:** Buses wait for other buses to arrive in a certain order before queueing in front of the school.



**Figure A2:** The buses queue in the loop at the front of the building.





**Figure A3:** The entrance drive does not appear to be wide enough, as shown by tire marks in the grass.



**Figure A4:** The crosswalk does not appear to be ADA-compliant on either side of the road.

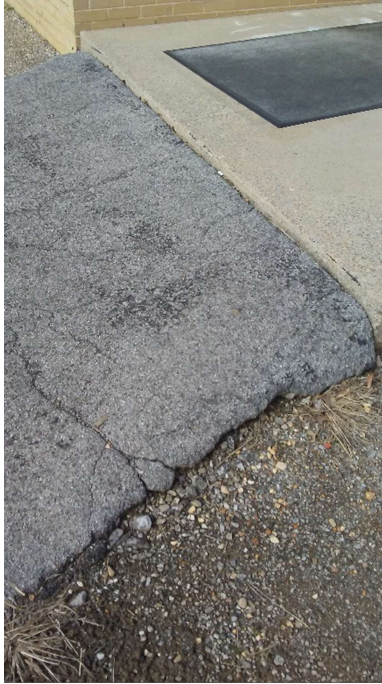




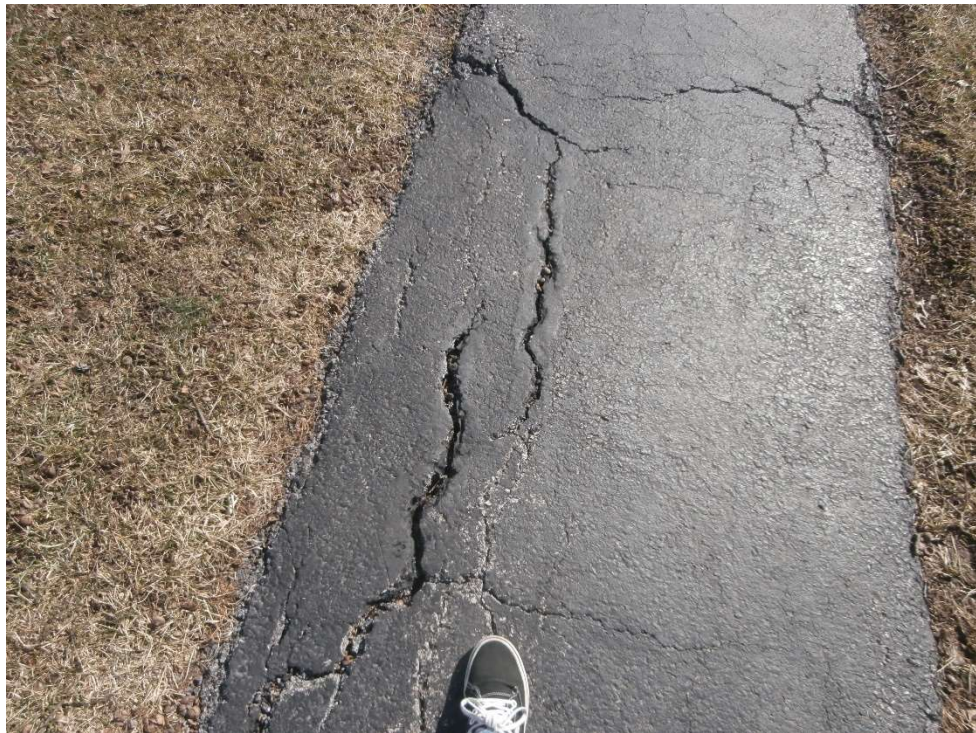
**Figure A5:** A crossing guard assists 10-14 students crossing PA SR 0994 in the morning and afternoon.



**Figure A6:** This exit from the school does not appear to be ADA-compliant.



**Figure A7:** The pavement that abuts the concrete landing at the rear of the school that provides access to and from the modular unit appears to have sunk, leaving a lip that poses a safety hazard.



**Figure A8:** The asphalt walk on the side of the building has large cracks.





**Figure A9:** The pavement near the picnic tables shows defects consisting of divets.



**Figure A10:** The paved play area shows many cracks.



**Figure A11:** The paved play area shows many cracks.



**Figure A12:** In some areas of the asphalt playground, cracks are very deep and wide. This portion of the crack has been sealed before.





**Figure A13:** The parking area exhibits alligator cracking.



**Figure A14:** The play area at the side of the school appears to be subsiding at what could be the location of piping.



**Figure A15:** The playground is located in a generally swampy area that renders the space useless when it rains.



**Figure A16:** A Gaga Pit is located close to the recess entrance to the school.





**Figure A17:** The playground is located in a generally swampy area that renders the space useless when it rains.



**Figure A18:** The culvert (straight ahead) appears to be deteriorating as shown by corrugated metal hanging from what should be the top of the pipe. The trash rack on the other pipe opening (right) is deteriorated and detached from the endwall structure.





**Figure A19:** An inlet in the parking lot is surrounded by deteriorated paving.



**Figure A20:** The structure in the middle of the asphalt play area appears to have caused cracking in the pavement that extends radially outward from the structure.



## Appendix B

Shade Gap Elementary School



**Figure B1:** There are cars parked in areas that are not striped. With the nearly full lot at the front of the building, it appears that there may not be sufficient parking capacity provided.



**Figure B2:** The ramp on the western side of the school building (both leading to the building and to the asphalt path) do not appear to be ADA compliant in terms of slope.





**Figure B3:** Deep cracks exist throughout the parking lot.



**Figure B4:** Deep cracks exist throughout the asphalt play area on the western side of the school.



**Figure B5:** Typical alligator cracking on the eastern side of the school.



**Figure B6:** Pavement appears to be subsiding above a pipe leading to the grease trap on site.





**Figure B7:** Swings at the playground.



**Figure B8:** The playground appears to be in good shape.



**Figure B9:** The pipe at the intersection of PA Route 35 and PA Route 641 appears as though it could have a drainage problem at this pipe discharge. This was not observed while on site, but rather on Google Street View.



## Appendix C

### Spring Farms Elementary School



**Figure C1:** Parents start to arrive and park in the bus queuing area around 2:30 pm.



**Figure C2:** Buses queue after parents pick their children up.



**Figure C3:** There were various cars parked in the asphalt playground area with no striping, which could indicate insufficient parking capacity.



**Figure C4:** The ramp leading to the playground does not appear to be ADA compliant in terms of slope.

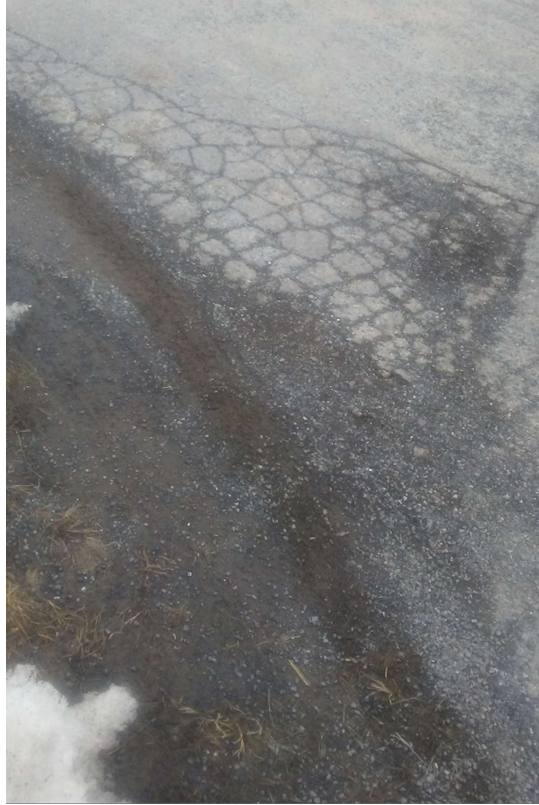


**Figure C5:** Pavement at the play area appears to have sunk, creating a tripping hazard with the connection to the sidewalk.



**Figure C6:** Pavers leading to the modular unit are not level, and create a tripping hazard..





**Figure C7:** Pavement shows alligator cracking at the entrance (observed elsewhere on the site as well), as well as tire ruts along the sides. The ruts could indicate that the radii of the drive are not large enough.



**Figure C8:** The concrete slab has been damaged.



**Figure C9:** The asphalt play area shows a lot of cracks propagating into other cracks.



**Figure C10:** The playground appears to be in good shape.



**Figure C11:** The inlet appears to be full of debris and should be cleaned.

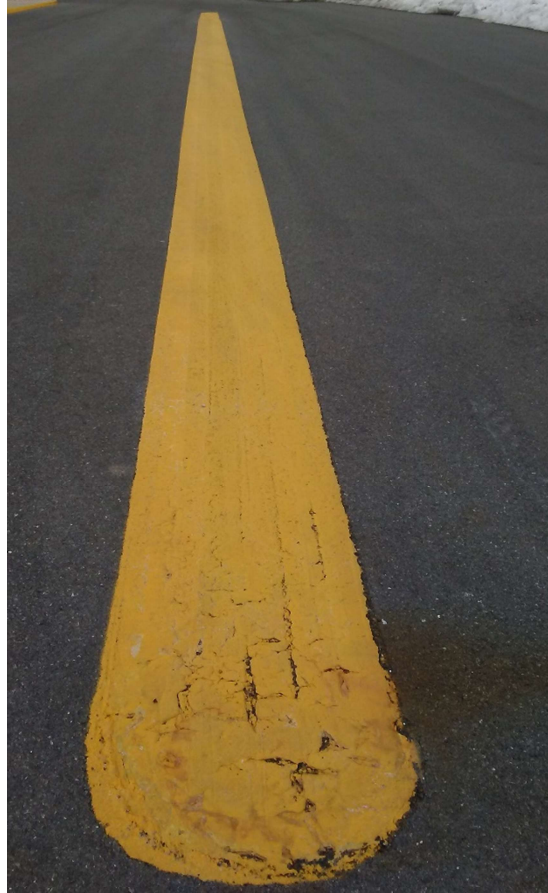


**Figure C12:** A stream runs through the site and has high banks throughout, which could lead to accelerated erosion.

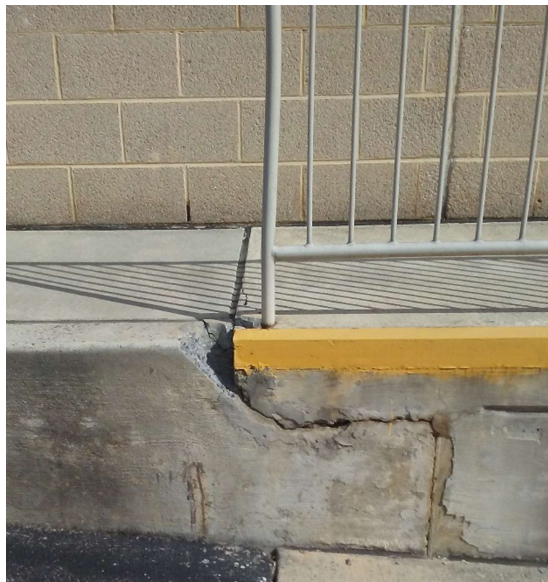


## Appendix D

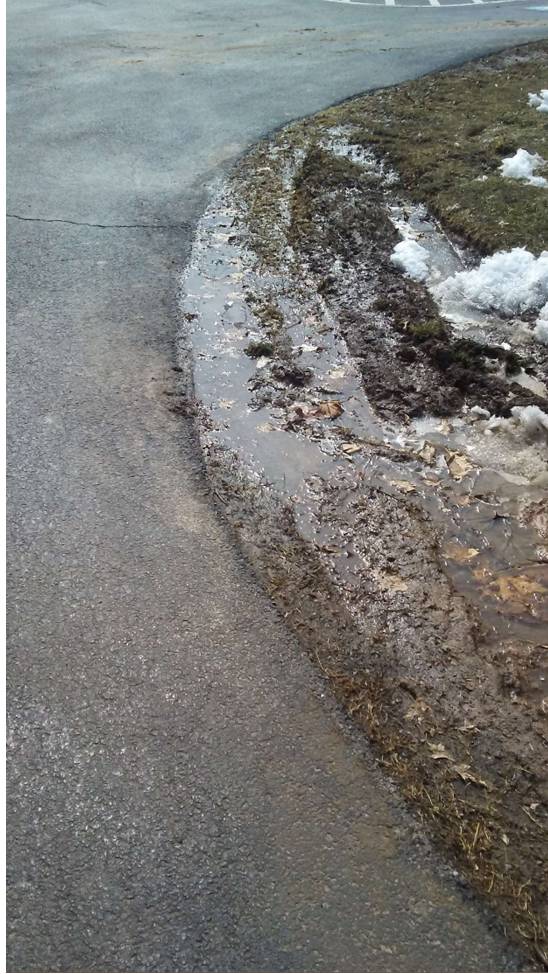
Southern Huntingdon County High  
School & Middle School



**Figure D1:** The painted partition in front of the school makes traffic circulation confusing, especially considering this is a one-way area.



**Figure D2:** Concrete at the loading dock is damaged in multiple places – this is just an example.



**Figure D3:** There are spots near the district administration office that show tire ruts through the grass, which could indicate that these radii are not sufficiently sized for the trucks, etc.



**Figure D4:** A ramp leading to the front entrance of the building has a plywood ramp.

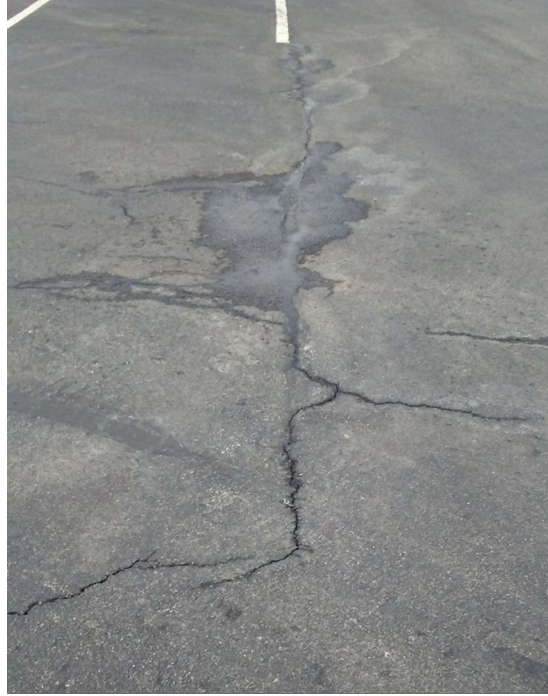




**Figure D5:** Typical bollards on the site are open pipes at the top, which could be a safety hazard. These are located at the stadium ticket stand, but there are more along the access drive.



**Figure D6:** There are areas of damaged concrete along the front of the school.



**Figure D7:** Overall, pavement is in good shape; however, the student parking lot has some long cracks as shown above for these typical cracks.



**Figure D8:** The fence and pole are damaged near the entrance to the football stadium.



**Figure D9:** The tennis courts are located next to the Coulter School (right).



**Figure D10:** The stadium seating appears to be in good shape.





**Figure D11:** There is a low channel that runs the length of the property in front of the school. It appears that it could be associated with the former railroad track berm.



**Figure D12:** There is ponding observed within this low channel.





**Figure D13:** A culvert pipe near the Coulter School is deteriorated and damaged.



**Figure D14:** There is a drainage swale that runs through the stadium area.



**Figure D15:** The area behind the football stadium appears to be very swampy.



**Figure D16:** The northeast end of the football field and track appears to have significant ponding, probably due to the grading issue throughout the stadium.



**Figure D17:** It appears as though this drainage channel was formed as a result of a erosion, which is consistent with conversations with Stanley Hall about the picture below.



**Figure D18:** According to Stanley Hall, this fencing was erected at the end of the 2018 football season as a result of a washout. Hall indicated that he intends to make this a junction point with a grate over top.





**Figure D19:** The outlet pipe located near the baseball field is uncovered at the top, and is damaged (see center of pipe).



**Figure D20:** The outlet pipe located near the baseball field is uncovered at the top, and is damaged.



**Figure D21:** The flared end section drains to a riprap apron that has appeared to wash out, which would result in ponding at this location.









# Southern Huntingdon County School District

## PRELIMINARY ANALYSIS REPORT



3300 North 3<sup>rd</sup> Street.  
Harrisburg, PA 17110  
[www.reynoldssolutions.com](http://www.reynoldssolutions.com)



## FACILITY PHYSICAL NEEDS ASSESSMENT

# Southern Huntingdon County School District

## General Current Physical Condition Summary by Facility

### **BUILDING 1: ROCKHILL ELEMENTARY**

Address: 510 Meadow St. Rockhill Furnace, PA.

Year constructed: 1956 Most recent major renovation: Roof in 2009

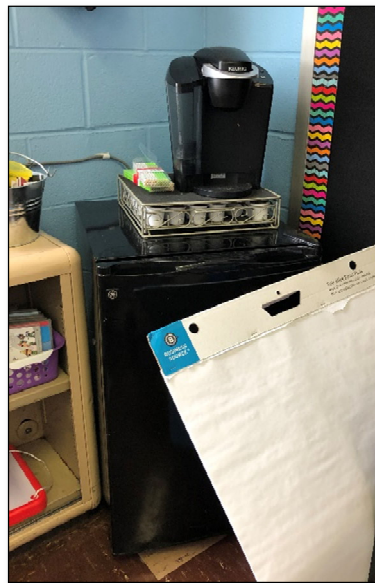
Square footage: 23,375 Floors 1.

Utilities: Electric, fuel oil, city water and sewer.

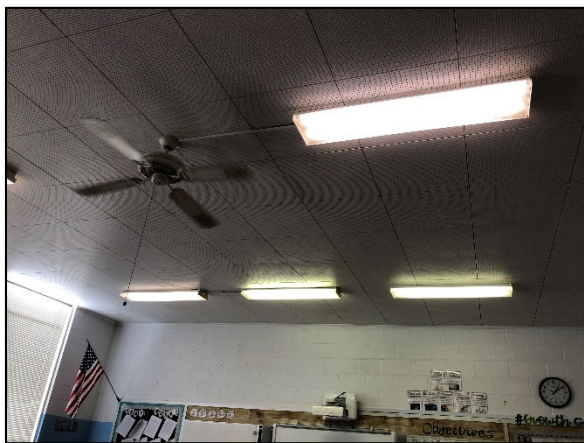
### Electrical



Water Heater, Boiler and Light electric disconnect switches.



It is not uncommon to see individual refrigerators and coffee makers in classrooms, increasing the building plug load.



Most school lighting is provided by surfaced mounted 1'x4' fixtures with 2 T8-32W lamps.



Exterior lighting consist of HID bulbs.

# Southern Huntingdon County School District

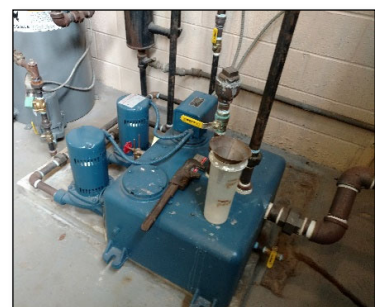


Exit signs are not illuminated but fluorescent stickers.



Security panels installed in the office area.

## Mechanical and Automated Controls



Single low-pressure steam boiler. Peerless Boilers: LC-12-W/S. Serial No 577122-200707, 15.6 Gal/Hr Oil. IBR 1,420 MBtuh. Manufactured in 2007. Burner: Beckett, model CF2300A.

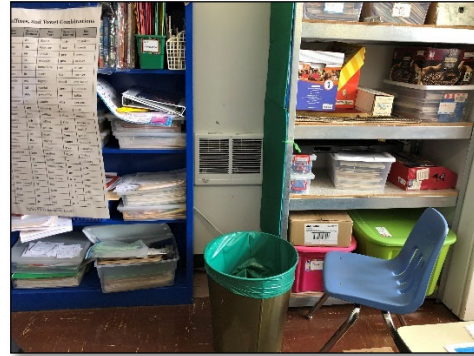
Condensate receiver and pump are in good conditions.



# Southern Huntingdon County School District



Classrooms are equipped with unit ventilators with fin tube elements.



An original classroom was converted into a Title 1 room and a Library, leading to unexpected HVAC equipment.



Unit ventilators in multipurpose room are operated with fans off, except during extreme winter weater.



Radiant heat in the multipurpose room bring in enough heat for comfort.



Classroom Thermostats.



Air compressor for Pneumatic HVAC controls.

# Southern Huntingdon County School District



Ceiling fans are use to improve comfort conditions during the summer.



Designated areas are provided with window AC units.



Bathroom exhaust fan.



# Southern Huntingdon County School District

## Plumbing



DHW Heater: Burnham Corporation. Model RSA135TH-TB, 156 MBH (2002). Coupled with Weil McLain hot water tank; model PLUS 120, 120 Gal.



Toilets are high flow fixtures (3.5 GPF).



Floor mounted urinals, china is in good condition, however these are high flow fixtures.



Classrooms are equipped with sinks; these are not ADA compliant.

# Southern Huntingdon County School District

## Specialties



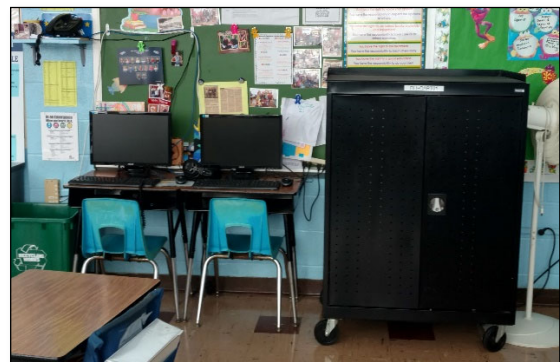
Ceramic water fountains are in pristine condition; however, these are not ADA compliant.



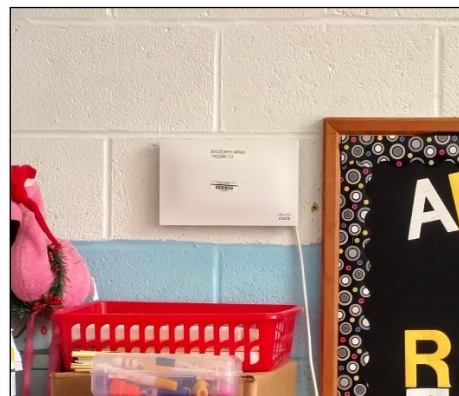
Additional ADA compliant have been installed in a second location.



10,000 gal fuel oil tank above ground.  
25 years old.



Most classrooms are equipped with computer stations plus a laptop cart.



Server is located inside a storage area. Internet connections in classrooms. Internet router on the wall.



# Southern Huntingdon County School District

## BUILDING 2: SHADE GAP ELEMENTARY

Address: 22251 Shade Gap Valley Rd. Shade Gap, PA.

Year constructed: 1955 Most recent major renovation: Roof in 2009

Square footage: 18,490 Floors 1.

Utilities: Electric, fuel oil, well water and city sewer.

### Electrical



UV light purification system for domestic water.



Electrical panels are old and in need of replacement.



Fire alarm panel and fuses.



Electric generator.



Classroom lighting consist of 1'x4', ceiling mounted, 2-lamp 32-Watt T8 lamps, fixtures.



Multipurpose room lighting consists of HID recessed cans.

# Southern Huntingdon County School District



Security panels installed in the office area.

## Mechanical and Automated Controls



Steam boiler  
Peerless Boilers: LC-12-W/S.  
15.6 Gal/Hr Oil; serial No. 630047-200911; IBR  
1,593,000 Btuh Steam (2010).  
Burner: Beckett Model CF2300A.



Boiler controls setpoints: Difference pressure 3 PSI;  
main at 5 and 7.5 PSI.



# Southern Huntingdon County School District



Steam radiators in the multipurpose room.



Unit ventilators at the multipurpose room, operate with fans off, except for inclement winter weather.



Classroom thermostats and light switches.



Pneumatic compressor serving HVAC controls.

# Southern Huntingdon County School District

## Plumbing



Domestic water heater: Bock, model 72E, installed in April 2017. Capacity: 199 MBtuh, 68 gallons.



Ceramic tile and china are in good conditions.  
Faucets are high flow.



Urinals are in good and serviceable condition;  
however these are high flow fixtures (3 GPF).



Classrooms are equipped with sinks; these are not  
ADA compliant.



# Southern Huntingdon County School District

## Specialties



Server is located inside the MDF book room.  
Thermal Edge Inc, model NE08012612, R422d.



Teacher's lounge is provided with refrigerator, and  
coffee maker microwave.



5 Chest freezers in the storage area next to the  
multipurpose room.



Kitchen has electric cooking equipment, hoods,  
dishware with booster heaters, reach in  
refrigerators, reach in ovens, etc.

# Southern Huntingdon County School District

## **BUILDING 3: SPRING FARMS ELEMENTARY**

Address: 12075 Plank Rd. Three Springs, PA.

Year constructed: 1960 Most recent major renovation:

Square footage: 22,005 Floors 1.

Utilities: Electric, fuel oil, well water and own WWTP.

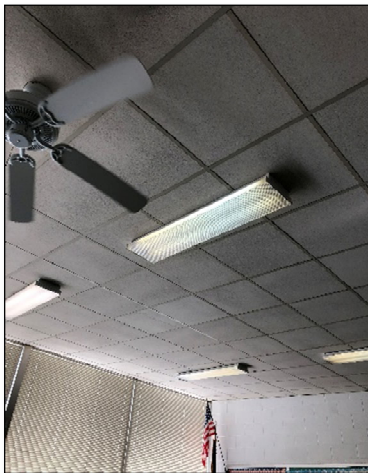
### Electrical



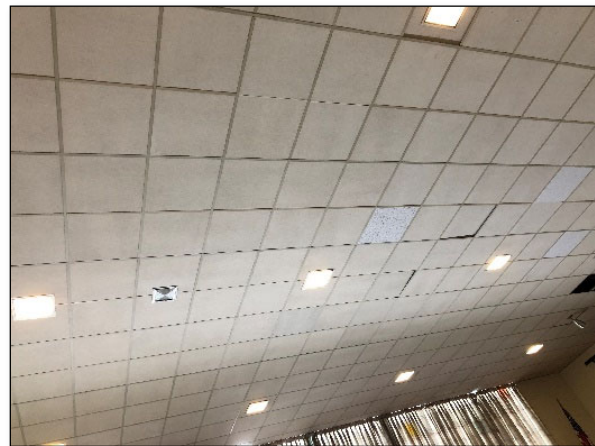
Main electrical panel, original to the building.



Veeder-Root TLS-350 automatic tank gauge.



Classroom lighting consist of surface mounted 1'x4', 2-lamps, T8 32-Watt lamps fixtures.



Multipurpose room has recessed HID fixtures.



# Southern Huntingdon County School District



Exterior lighting is HID.

## Mechanical and Automated Controls



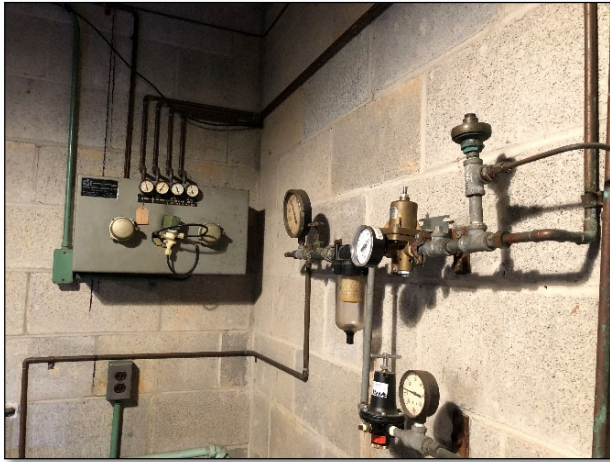
Boiler: Peerless Boilers, model LCE-13 W/S.  
Capacity 2,464 MBH. Gross output 1,966 MBH steam.  
Burner R. W. Beckett Corp., model CF2300A.  
Firing range: 7-19.9 GPH.



Condensate receiver.



# Southern Huntingdon County School District



Pneumatic HVAC controls panel.



Pneumatic compressors for HVAC controls and drinking fountains.

## Plumbing



DWH A. O. Smith Water Products Co., model COF 199 940, serial number 1410M000289, capacity 199,000 BTUH, fuel oil, coupled with a HW storage tank w/ water treatment.



Toilet's china is in good condition but are high flow fixtures.

# Southern Huntingdon County School District



Floor mounted urinals have on/off fixtures.



Classroom have individual sinks. Door cabinets failed and replaced with curtains.

## Specialties



Water well, located in mechanical room.



Fire alarm and fuses.

# Southern Huntingdon County School District

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ADA complaint water fountains.



Computer carts.



# Southern Huntingdon County School District

## BUILDING 3: HIGH SCHOOL/MIDDLE SCHOOL

Address: 10339 Pogue Rd. Three Springs, PA. 17264

Year constructed: 1960      Most recent major renovation: 2004

Square footage: 148,100      Floors: 2 (district offices).

Utilities: Electric, fuel oil, well water, city sewer.

### Electrical



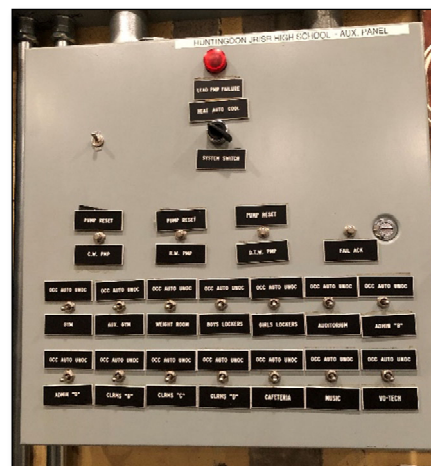
Main electrical panels are in good condition.



Main power transformer sits outside the school; it is in good condition.



Back-up power generator for emergency loads.  
Cummins Power Generation, model DGFC-5618999  
60Hz/ 13kW @ 1PH, 200 kW@ 3PH.



Auxiliary electric panel in mechanical room.

# Southern Huntingdon County School District



Classroom lighting consist of recessed 2'x4' – 4 lamp T8-32Watt fixtures. Lighting is generally in good condition.



Gym lighting consist of 30 metal halide fixtures. Auxiliary gym also has 20 metal halide fixtures. Lighting is generally in good condition but given the technology and increased hours of operation of these areas for community use, LED technology should have a good payback.

## Mechanical and Automated Controls



2 Boilers provide heating hot water to the site. Manufacturer: Ryan Boilers. Model RV400 W FDO, built in 2003. No need for improvements.



### Pumps

CHWP-1: 20 HP, Nema Eff: 91. 230V/3Ph. VFD.  
CHWP-2: 40 HP, Nema Eff: 93, 230 V/3Ph. VFD.  
1018 GPM, 115 Ft.  
HWP-1: 10 HP, Nema Eff: 89.5, 230V/3Ph. VFD.  
265 GPM, 60 ft.



# Southern Huntingdon County School District



The school has a 2-pipe HVAC system. Most classrooms have a CHW/HW unit ventilator. The system operates in either heating mode or cooling mode.



2 Carrier air cooled chillers provide chilled water to the site.

## Plumbing



Domestic hot water is produced and stored in a PVI heater.



Wall mounted toilets with automatic flush valves.

# Southern Huntingdon County School District



Automatic valves on faucets.



Locker room shower are in good condition.

## Specialties



Windows are double pane, with an operable panel.  
They are in good conditions.



Classroom case work is good condition. No need  
for improvements.

# Southern Huntingdon County School District



Main entrance vestibule is not secure. However, general public is directed to enter through the district's office in the basement.



High humidity is causing issues on the floors.



Fire alarm panels are next to the mechanical room.



Humidity in locker room has rusted the lockers. They need to be re-painted.



## Southern Huntingdon County School District



Main IT server on office area. IT infrastructure is up to date.



There are several IT closets throughout the campus. IT infrastructure is up to date.

# Southern Huntingdon County School District

## Operational/Energy Cost Assessment

The following tables and figures illustrate the total baseline energy use and cost of the elementary schools. We assessed the annual energy use of each elementary school by examining and analyzing 12 months of recent utility bills.

### Energy Use and Cost Summary

The following tables and figures illustrate the total baseline energy use and cost for Southern Huntingdon County Elementary schools assessed.

Table 1: Annual Utility Summary by Building

Building Name	Electric			Fuels			TOTAL	
	kWh	kW	\$	gals-oil	gals-oil	\$	\$	\$/sf-yr
Rockhill ES	109,723	52	\$ 11,477	13,850	13,850	\$ 25,719	\$ 37,196	\$ 1.73
Shade Gap ES	79,920	57	\$ 10,122	13,500	13,500	\$ 23,801	\$ 33,922	\$ 1.87
Spring Farms ES	116,200	59	\$ 12,619	13,000	13,000	\$ 22,906	\$ 35,525	\$ 1.64
High School/ Middle School	1,438,560	591	\$ 137,300	47,000	47,000	\$ 89,584	\$ 226,884	\$ 1.58
<b>TOTAL</b>	<b>1,744,403</b>		<b>\$ 171,518</b>	<b>87,350</b>	<b>87,350</b>	<b>\$ 162,010</b>	<b>\$ 333,528</b>	<b>\$ 1.63</b>

Overall, the District spent about \$333,528 or \$1.63, per square foot in the previous year on major utilities, not including water and sewer for all schools. The following figures show the monthly use and cost profile of the same data aggregated for all buildings.

Figure 1: Monthly Energy Use Profile in MMBTU

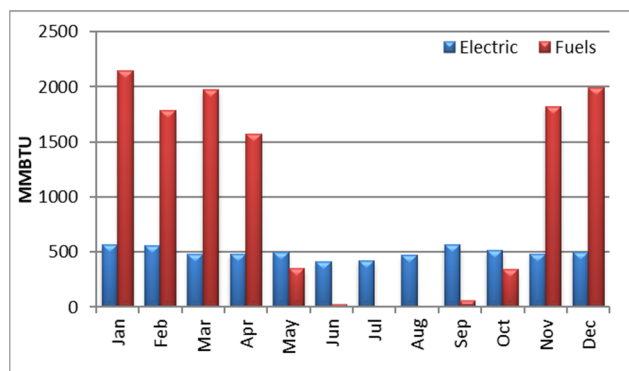


Figure 2: Monthly Utility Cost Profile

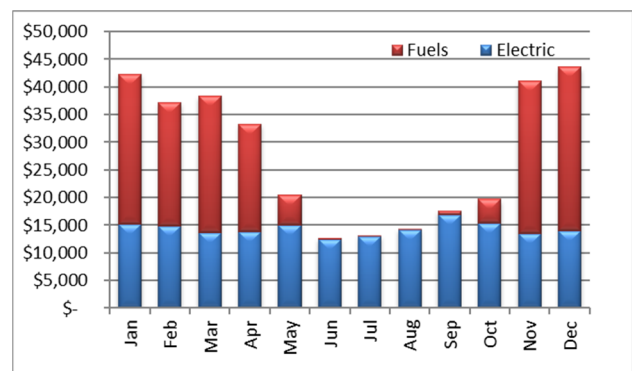
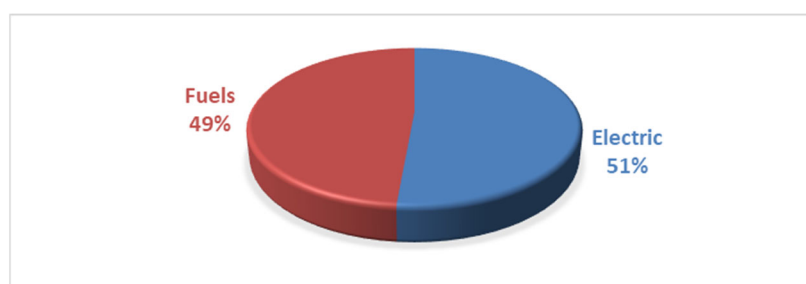


Figure 3: Utility Expenditure





# Southern Huntingdon County School District

As shown in the graphic, fuel oil expenses represent 49% of the county utility expenses on major utilities. When analyzing elementary schools only, fuel oil expenses represents on average 68% of major utility cost.

## Benchmark Analysis

The energy use intensity (EUI) normalizes building energy use in units of kBtUs (equal to 1,000 BTU) per square foot for electric and fuel oil. This allows the comparison of buildings to the expected average use of peer buildings as well as to one another. Peer buildings are education buildings included in Reynold's database of hundreds of Pennsylvania school buildings. The following table summarizes the energy and cost indices for the elementary schools.

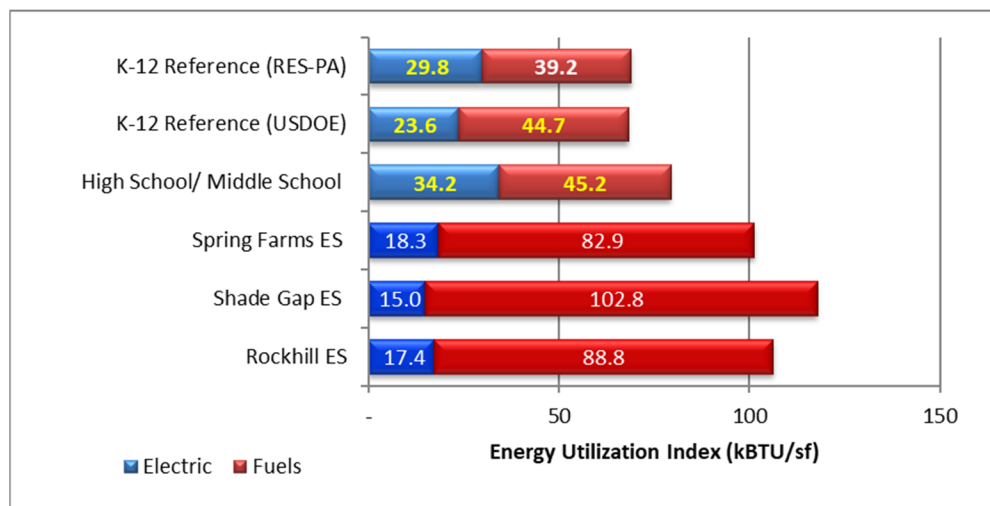
Table 2: Resource and Cost Indices by Building

Building Name	RESOURCES				COSTS
	Electric kBTU/sf-yr	Fuels kBTU/sf-yr	Total Energy kBTU/sf-yr	Water kgal/sf-yr	Energy \$/sf-yr
Rockhill ES	17.4	88.8	106.2	-	\$ 1.73
Shade Gap ES	15.0	102.8	117.8	-	\$ 1.87
Spring Farms ES	18.3	82.9	101.2	-	\$ 1.64
High School/ Middle School	34.2	45.2	79.4	-	\$ 1.58
<i>K-12 Reference (USDOE)</i>	<i>23.6</i>	<i>44.7</i>	<i>68.3</i>	<i>na</i>	<i>na</i>
<i>K-12 Reference (RES-PA)</i>	<i>29.8</i>	<i>39.2</i>	<i>69.0</i>	<i>na</i>	<i>na</i>
<b>ALL BUILDINGS</b>	<b>29.1</b>	<b>58.8</b>	<b>87.9</b>		<b>\$ 1.63</b>

The data shows that the High School/ Middle schools, operated 20 points lower in EUI than the best performing elementary school. The worst performing school is Shade Gap ES with an EUI of 118.

The following figure shows the energy intensity of the building as compared to the reference indices (U.S. Department of Energy 2012 CBECS data and Reynolds' Pennsylvania K-12 database).

Figure 4: Energy Indices by Building



# Southern Huntingdon County School District

All three elementary schools are operating above 100kBTU/Sq. Ft, and considerable above the overall index. From these benchmarks we can determine where the most potential exists to improve energy performance and where to focus attention for energy conservation measures. There is likely potential for energy performance improvements in all three elementary schools. Target indices for well performing buildings range from 45 to 55 kBTU/sq.ft. Savings of up to 40% may be achievable for the elementary schools through an energy conservation program.

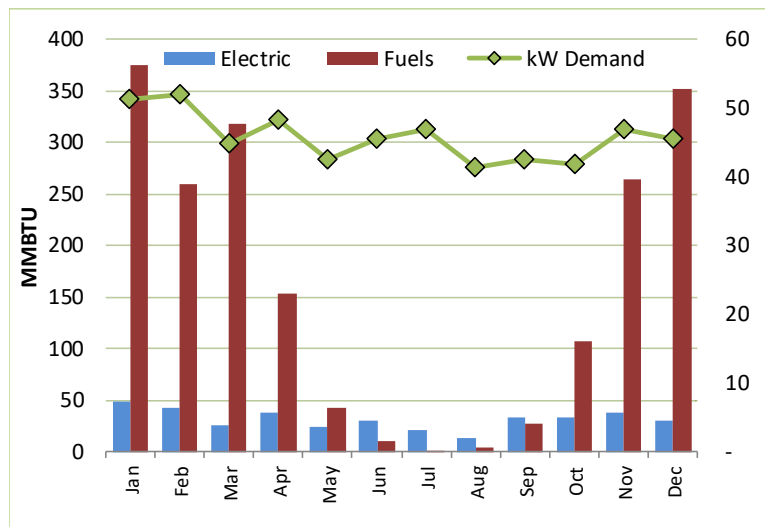
There are several potential conditions that contribute to the current energy use:

- Inefficiencies of the heating plant equipment (the use of steam vs hot water).
- Operation of building's system during un-occupied period (lack of equipment scheduling).
- Not utilizing temperature set points based on occupancy schedules.
- Excess ancillary plug load (e.g., personal refrigerators, coffee makers, microwaves, etc.).

During the study, an increase of CO2 level in classroom spaces was also observed during occupied periods. While fresh air uses a lot more energy to get conditioned, it is a key factor for indoor air quality. More details are shown in the following section.

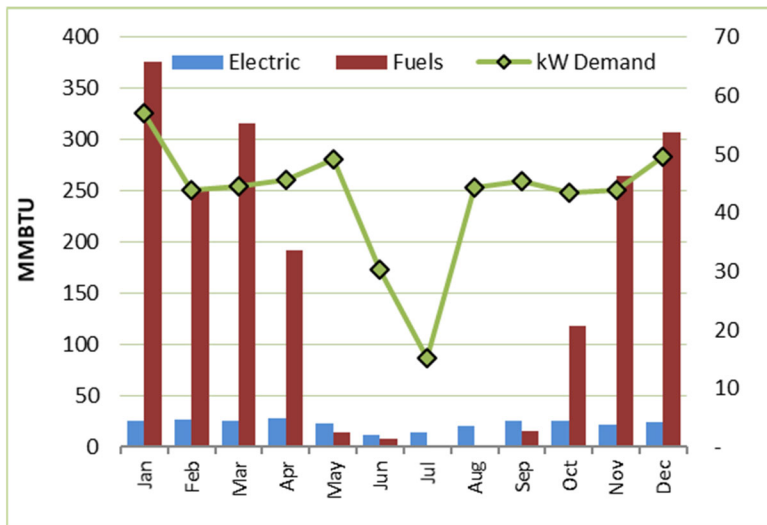
## Individual Building Energy Use Profile

### Rockhill Elementary

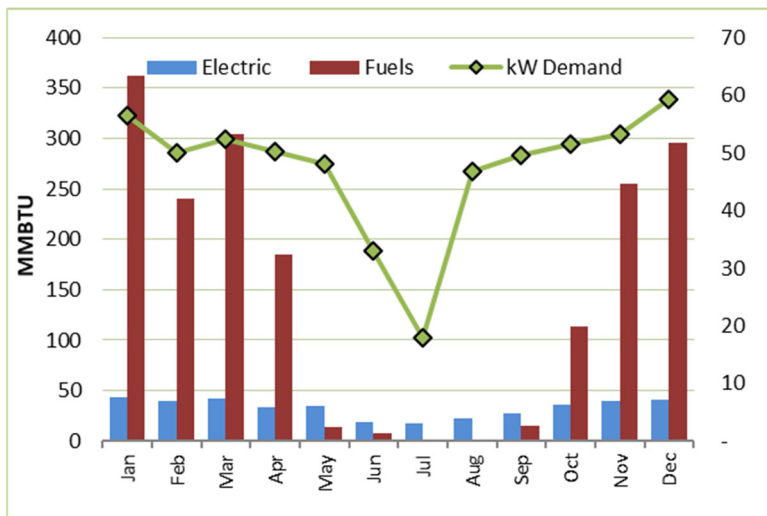


# Southern Huntingdon County School District

## Shade Gap Elementary

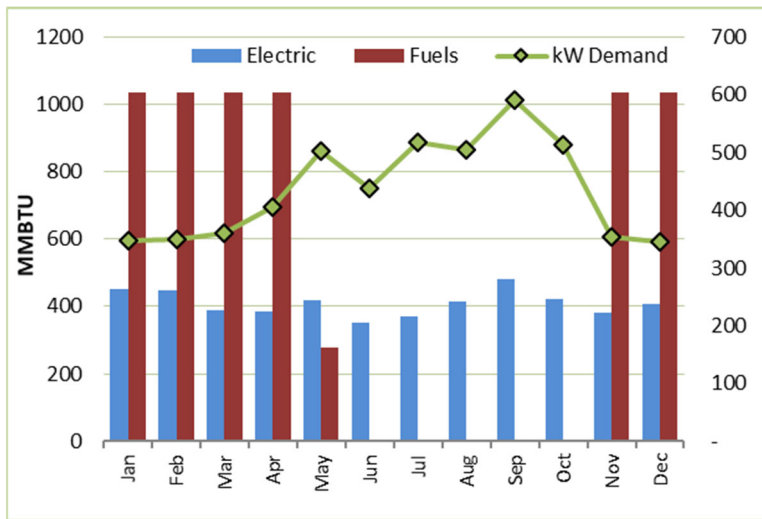


## Spring Farms Elementary



# Southern Huntingdon County School District

## High School/ Middle School



## Indoor Learning Environment Assessments/Diagrams

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We are all aware that air pollution has a negative impact on human health. Since most people spend about 90 percent of their time indoors, assuring indoor air quality has become a concern. The indoor environment is impacted by several factors, both inside and outside the building. Among these are how a space is used, the number of people, the type of activity being performed, how the building is operated and outdoor environmental conditions, to name a few. The ultimate goal is to make the indoor environment as safe and as comfortable as possible for the occupant.

Making the environment safe means providing good indoor air quality (IAQ) through the introduction and distribution of adequate fresh air, filtration and removal of odor, airborne pollutants and allergens (from inside or outside). It also means maintenance of acceptable temperatures and control of moisture and eliminating opportunities for mold growth. Other factors not related to air quality are lighting, noise and stress.

Reynolds developed a plan to measure and report the key parameters of indoor air quality in Southern Huntingdon Co School District, as outlined in this section of the report.

### Building Measurements

Reynolds performed site audits to all elementary schools in Southern Huntingdon County SD. During those visits, different measures took place to quantify the indoor learning environment conditions. Data loggers were deployed in a sample of spaces during the latter part of the winter. The loggers measured space temperature and relative humidity. Additionally, carbon dioxide (CO<sub>2</sub>) concentrations were also measured in a randomly selected area. These sets of data are important to measure together and over time to help us understand current controls parameters and strategies and how the buildings are responding to outdoor conditions as well as building use and occupancy.

### TEMPERATURE AND RELATIVE HUMIDITY

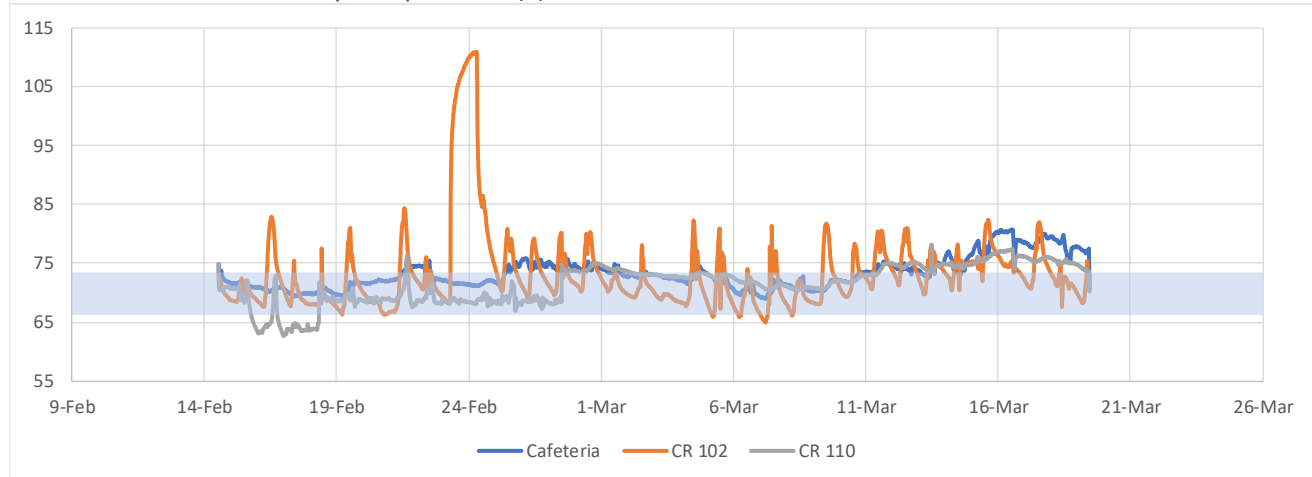
Temperature comfort is very subjective. What feels comfortable to one person may not feel comfortable for another. For this reason, there is not one defined set of values for space temperature or relative humidity that will work for everyone. Rather, a range of values is normally established with the goal of satisfying a majority (80%) of building occupants.

ASHRAE Standard 55 establishes criteria that take multiple factors into consideration to define thermal comfort. Besides temperature and relative humidity, factors such as air velocity, clothing, and activity level play a role. For purposes of this study, and based on our experience in Pennsylvania schools, the target range of space temperature is 68-72°F in heating mode and 74-78°F in cooling mode. The relative humidity target is 35-45% during winter conditions and 50-60% or lower during summer months. Operating buildings outside of these ranges not only impacts comfort, but also results in excessive energy use and can have unintended consequences. For instance, operating with space temperatures that are too cold can promote condensation which can lead to mold growth.



# Southern Huntingdon County School District

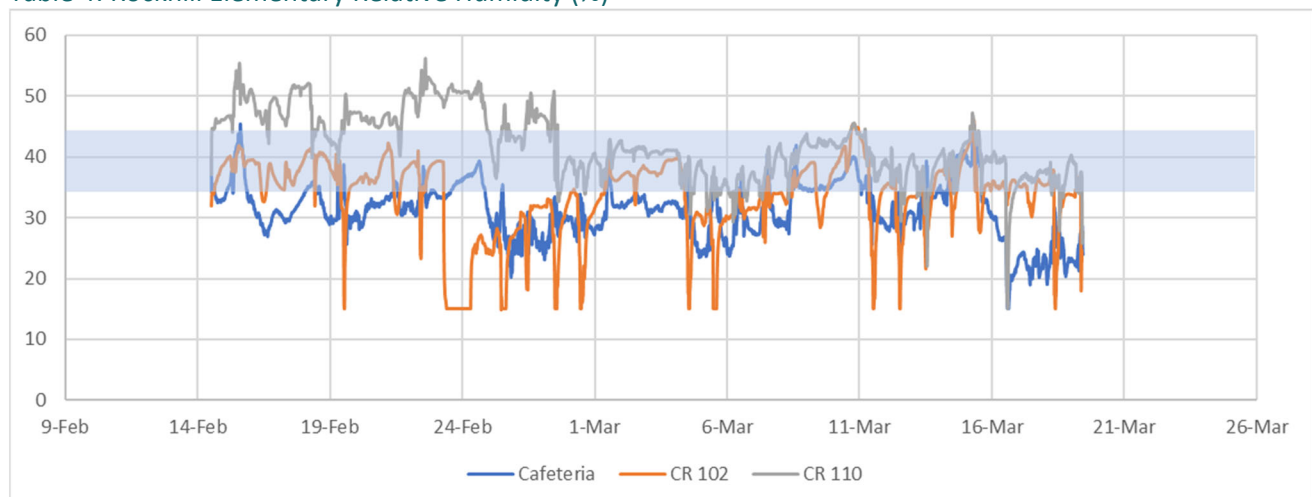
Table 3: Rockhill Elementary Temperature (F)



Temperature in sampled spaces at Rockhill fluctuates from 62°F to 85°F, with an average of 72.7°F. Noticed that classroom 102 lost control over a couple of days, and temperature crept until 110°F. Reynolds did not consider this as normal operation. A deeper analysis in frequency of temperature reveals that most of the time the space temperature is above recommended conditions. The following table shows the frequency zones stays under, at or above recommended temperatures for the season:

Temperature	CR102	Cafeteria	CR110
<68 F	8%	0%	9%
68 – 72 F	44%	37%	42%
>72F	47%	63%	49%

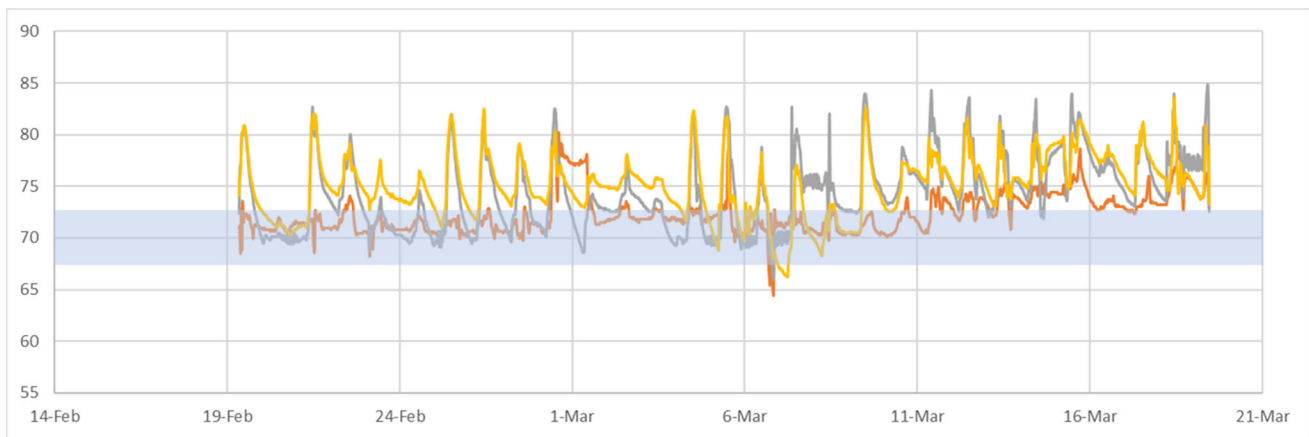
Table 4: Rockhill Elementary Relative Humidity (%)



Relative Humidity (measured in %) in sampled spaces at Rockhill fluctuates from 15% to 56%, with an average of 36%. It is important to notice that RH was measured during the naturally dry winter. Only a few times, classroom 110 performed in the recommended range between 50% and 60%.

# Southern Huntingdon County School District

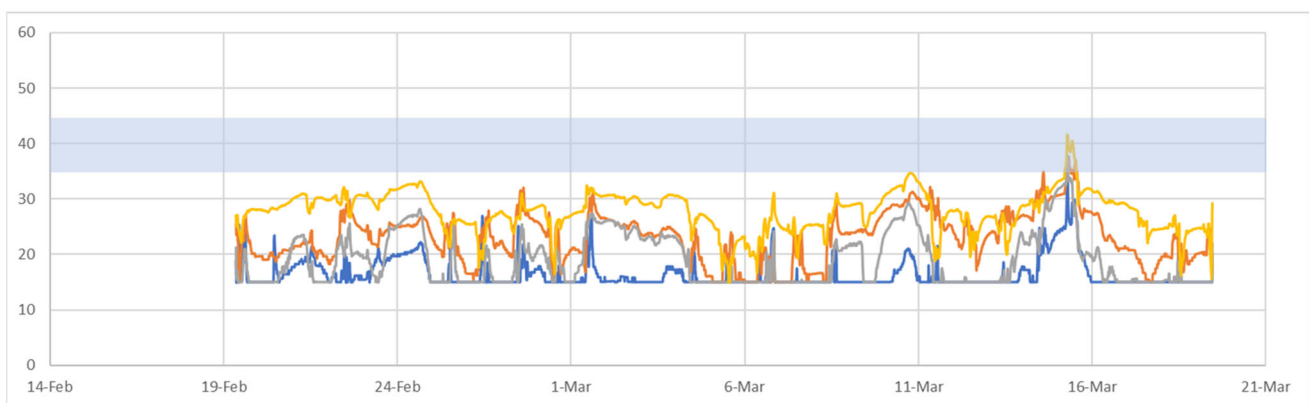
Table 5: Shade Gap Elementary Temperature (F)



Temperature in sampled spaces at Shade Gap fluctuates from 66°F to 87°F, with an average of 76.2°F. A deeper analysis in the frequency of temperature reveals that most of the time the space temperature is above recommended conditions. The following table shows the frequency zones stay under, at or above recommended temperatures for the season:

Temperature	Zn1	Zn2	Zn3
<68°F	0%	0%	1%
68 – 72°F	52%	27%	14%
>72°F	47%	73%	85%

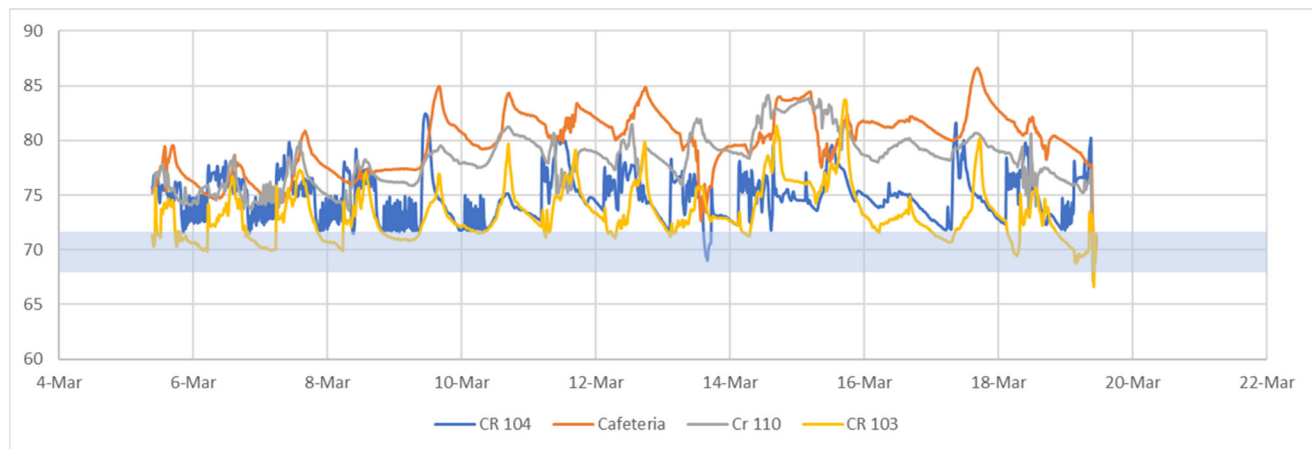
Table 6: Shade Gap Elementary Relative Humidity (%)



Relative Humidity (measured in %) in sampled spaces at Shade Gap fluctuates from 15% to 42%, with an average of 21%. It is important to notice that RH was measured during the naturally dry winter.

# Southern Huntingdon County School District

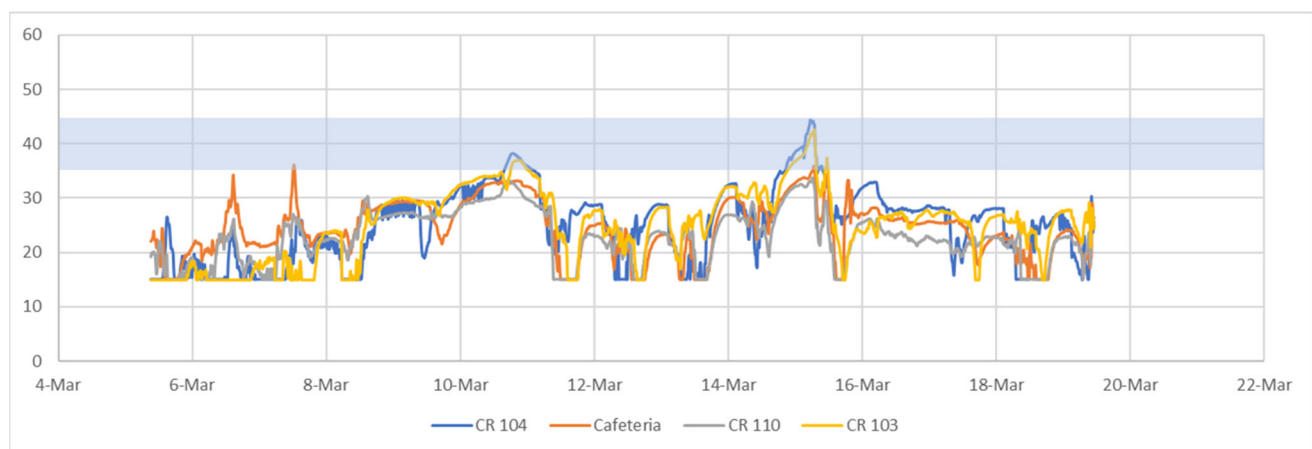
Table 7: Spring Farm Temperatures (F)



Temperature in sampled spaces at Spring Farm fluctuates from 66°F to 86°F, with an average of 76.5°F. A deeper analysis in the frequency of temperature reveals that most of the time the space temperature is above recommended conditions. The following table shows the frequency zones stay under, at or above recommended temperatures for the season:

Temperature	CR104	Cafeteria	CR110	CR103
<68°F	0%	0%	0%	0%
68 – 72°F	6%	0%	0%	31%
>72°F	94%	100%	100%	69%

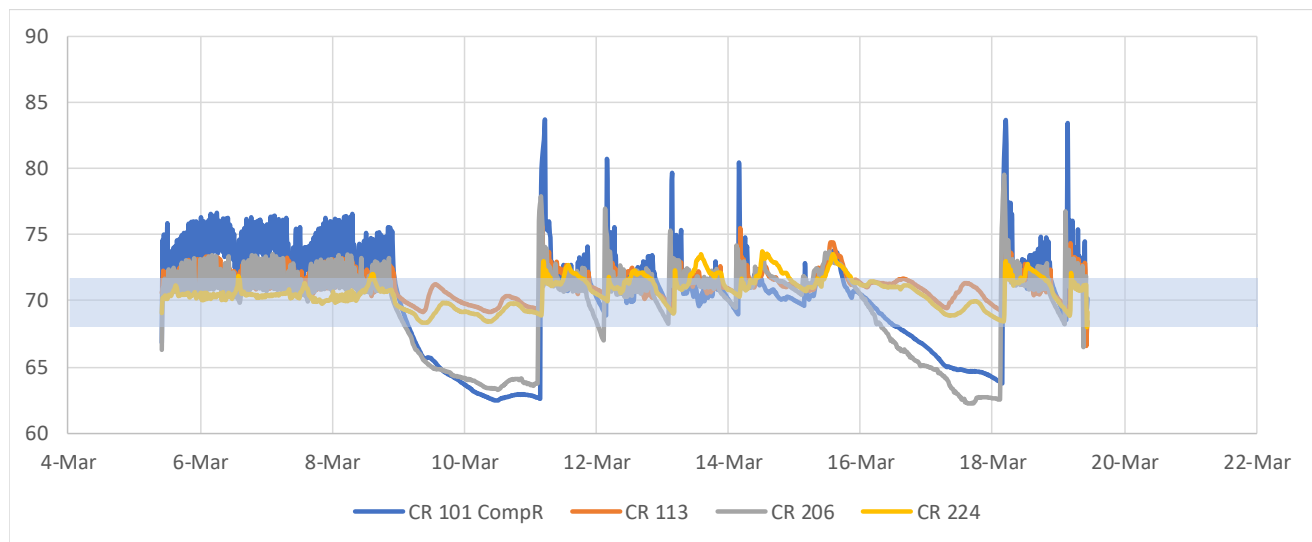
Table 8: Spring Farm Relative Humidity (%)



Relative Humidity (measured in %) in sampled spaces at Spring Farm fluctuates from 15% to 44%, with an average of 24%. It is important to notice that RH was measured during the naturally dry winter.

# Southern Huntingdon County School District

Table 9: High School/ Middle School Temperatures (F)



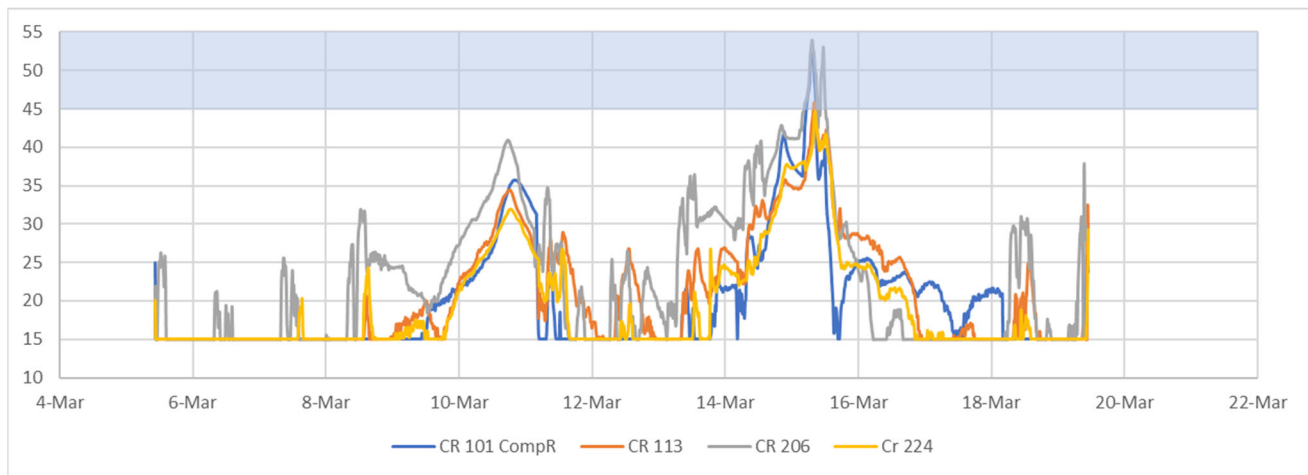
Temperature in sampled spaces at the High School/ Middle School fluctuates from 62°F to 83°F, with an average of 70.4°F. Notice that the warmest room is the computer lab, which is expected given the computers’ heat rejection. The compute lab and CR206 seems to have weekend schedules, since they allow the temperature to drop over the weekend. This is a good practice and should be applied throughout the school. If this strategy is already being implemented in other areas, it is recommended to be more aggressive in the set-back temperature, allowing the temperature to drop at least to 65F.

A deeper analysis in the frequency of temperature reveals that most of the time the space temperature is above recommended conditions. The following table shows the frequency zones stay under, at or above recommended temperatures for the season:

Temperature	CR101 Computer Room	CR113	CR206	CR224
<68°F	26%	0%	28%	0%
68 – 72°F	35%	77%	52%	86%
>72°F	39%	23%	20%	14%

Table 10: High School/ Middle School Relative Humidity (RH%)

# Southern Huntingdon County School District



Relative Humidity (measured in %) in sampled spaces at the High School/Middle School fluctuates from 15% to 54%, with an average of 21. Classroom 206, which faces the north-west side of the building shows consistent higher levels of relative humidity than the other classrooms sampled. %. It is important to notice that RH was measured during the naturally dry winter.



# Southern Huntingdon County School District

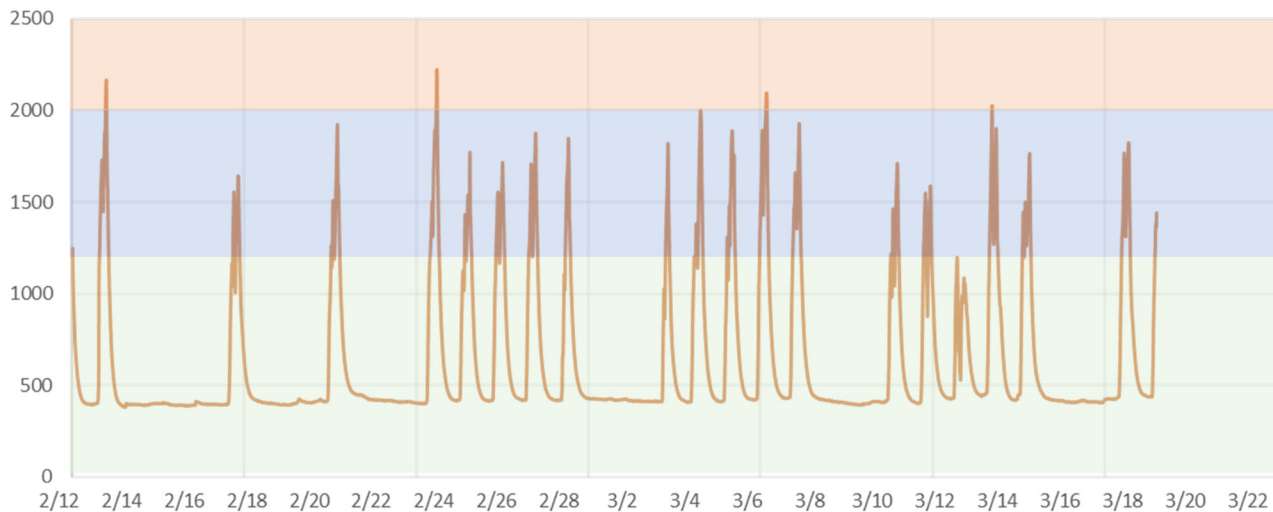
## INDOOR AIR QUALITY (IAQ)

Buildings need outdoor air for ventilation. During hot, humid or cold weather, it takes energy to cool, dehumidify or heat the air stream of outdoor air introduced to the building. Therefore, the goal of every building operator is to guarantee bringing the right amount of fresh air when needed.

CO<sub>2</sub> is used a proxy for measuring ventilation as a key parameter for IAQ; it is measured in parts per million (ppm). ASHRAE 62.2 recommends for indoors a maximum CO<sub>2</sub> level of 700 ppm above base outdoor environmental level, which is usually around 400 to 500 ppm. This would make the target maximum in the 1100-1200 ppm range.

Reynolds installed, in a randomly selected classroom, a sensor to track CO<sub>2</sub> over the course of several weeks. Results are shown in the following graphic.

Figure 5: Rockhill Elementary CO<sub>2</sub> Level



This classroom exceeds the recommended 1100 ppm each day consistently. Each valley on the graphics matches with weekends of the recorded period. In a couple of instances, CO<sub>2</sub> levels even exceed the 2000 ppm threshold.

# Southern Huntingdon County School District



## LIGHTING LEVEL ASSESSMENT

Lighting is an important component of the learning environment. Levels that are too low can impact performance by making desktop or tabletop tasks difficult to see. Conversely, levels that are too high can cause eye strain and eye fatigue; additionally, wastes energy by providing more light than necessary.

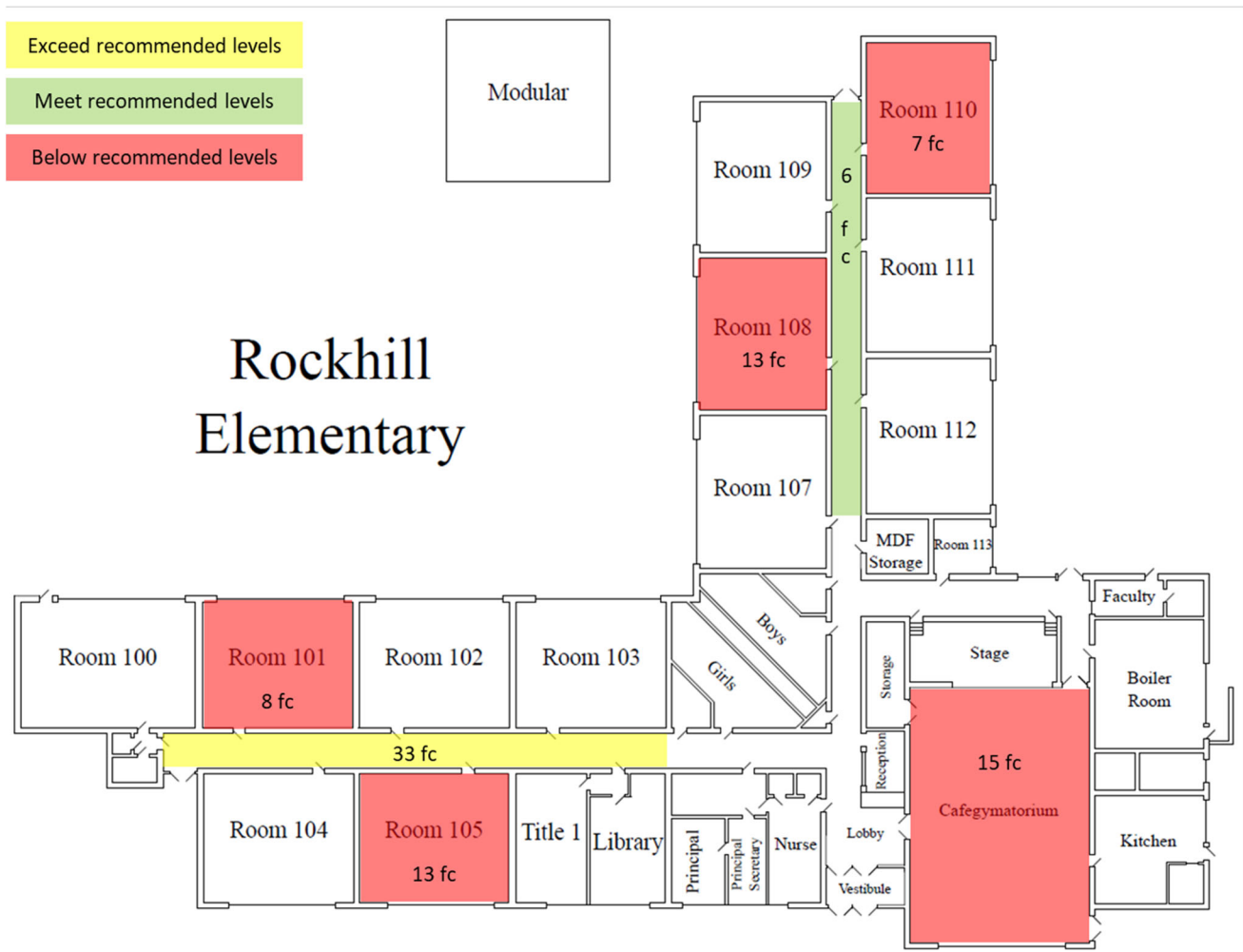
The Illuminating Engineering Society (IES) has established well-recognized recommendations for proper lighting levels for a variety of everyday tasks. Lighting levels are measured in units of foot-candles (fc). 1 fc is equivalent to one lumen of illuminance from a uniform source received on one square foot of surface area. The recommended levels for activities performed in schools is as follows:

- Cafeteria 20-30 fc
- Classroom 35-50 fc
- Corridors 5-10 fc
- Gymnasium – general exercise 20-30 fc
- Gymnasium – Sports competition 30-50 fc
- Classroom – laboratory 50-75 fc
- Library – reading/studying 30-50 fc
- Locker room 10-30 fc
- Office 30-50 fc
- Workshop 30-75 fc

Reynolds measured lighting levels in randomly selected areas of the schools. Measurements were generally taken in the center of the room. In larger spaces, measurements were taken in multiple locations and then averaged. In spaces where tasks are performed at desks or tables, readings were taken at the desk/table level. In areas such as gymnasiums, readings are taken at the floor level. In areas where daylight was present and measurable, daylight contributions were subtracted from the final reading. The light level measurements taken in each building are shown on the following floorplans:

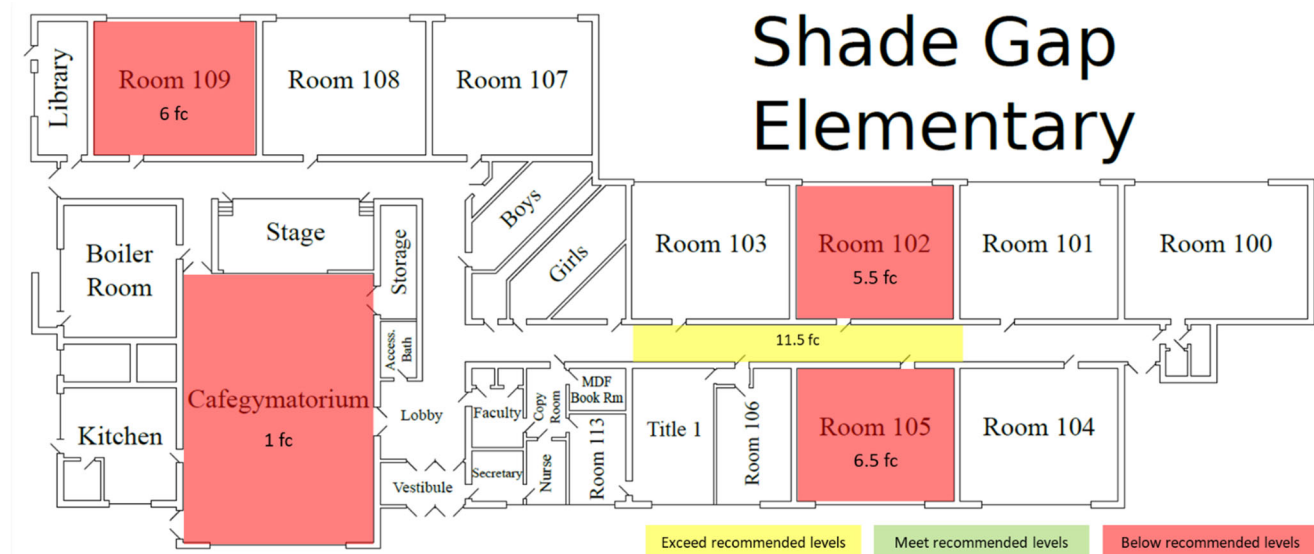
# Southern Huntingdon County School District

Figure 6: Rockhill Lighting Levels (fc)



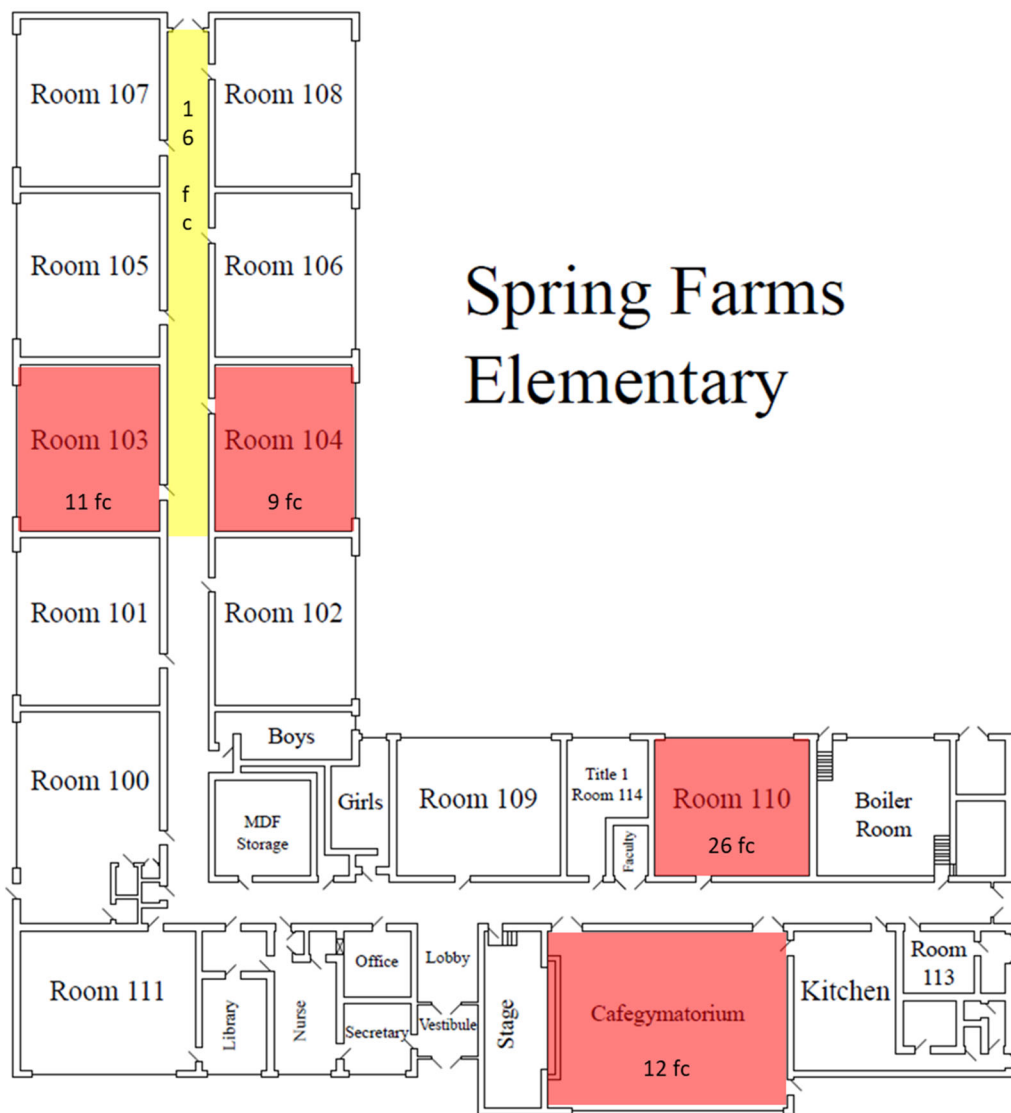
# Southern Huntingdon County School District

Figure 7: Shade Gap Lighting Levels (fc)



# Southern Huntingdon County School District

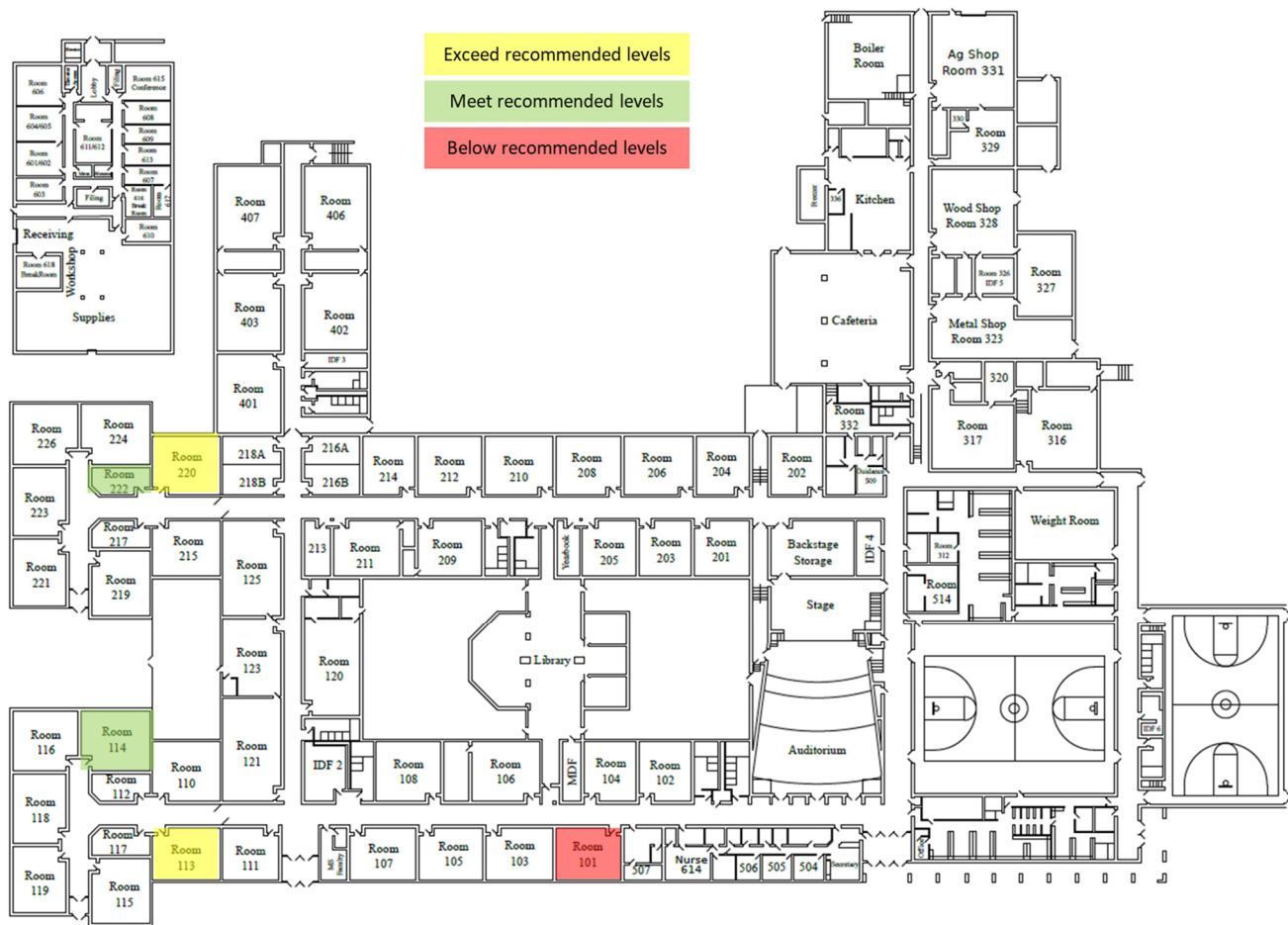
Figure 8: Spring Farm Lighting Levels (fc)





# Southern Huntingdon County School District

Figure 9: High School/ Middle School Lighting Levels (fc)



# Southern Huntingdon County School District







## GENERAL DATA

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### Rockhill Elementary School

<b>Built:</b>	1955 (B) Eligible for 20-year State Reimbursement
<b>Site:</b>	510 Meadow Street, Rockhill, PA 17249 Approximately 5.64 acres, located in a town along Rt. 994 with paved drives and parking; soft and hard surface play areas with play equipment and basketball court. The Boro's playfields are located behind the School. Water & sanitary sewer are connected to public systems.
<b>Structure:</b>	This school consisted of one-story with crawl spaces below floors; gypsum roof deck on sloped stl joists; load-bearing masonry walls. Construction type is non-combustible, unprotected in accordance with the International Building Code.
<b>HVAC System:</b>	Steam heating system via single oil-fired boiler and classroom unit ventilators. Classrooms are not cooled -- several window units in building to provide cooling to select spaces. Pneumatic controls.
<b>Plumbing Service:</b>	Municipal water and sanitary sewer. Oil-fired domestic hot water.
<b>Electrical Service:</b>	120/208V, 3-phase service. Main and branch panels were manufactured by Federal Pacific
<b>Systems:</b>	Lighting is a mix of T8 fluorescent and recessed incandescent. Propane emergency generator serves some lighting and exit signs. MDF is located in storage room, and ethernet and WiFi are available throughout the building. Telephone system is VOIP. Fire alarm system is original to the building. Cameras are present in corridors and entries. Building does not have a public address system. Clock system is not functioning.
<b>Comments:</b>	Roof replacement: 2009; Boiler replacement: 2007; Water heater replacement: 2002
<b>Architectural Area:</b>	23,375 s.f.
<b>PDE Replacement Value:</b>	\$4,002,000 ( 250 FTE x 92 sf = 23,000 x \$174 / sf = replacement cost ) \$800,400 ( 20% Rule )
<b>PDE Total Capacity:</b>	250



## PHOTOGRAPHS

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### Rockhill Elementary School





## PHOTOGRAPHS

### Rockhill Elementary School





## AERIAL VIEW

### Rockhill Elementary School



# EXISTING FIRST FLOOR PLAN

Rockhill Elementary School



## EXISTING K-5 ROOM SCHEDULE

### Rockhill Elementary School

		K-5 EXISTING					
		ELEMENTARY					
CLSRMS		No.	Area	Total	Dist.	PDE	CLSRMS
	Kindergarten Full-day	2	895	1790	40	50	
	First Grade Clsrm	2	820	1640	40	50	
	Second Grade Clsrm	1	820	820	22	25	
	Third Grade Clsrm	1	820	820	22	25	
	Fourth Grade Clsrm	2	820	1640	44	50	
	Fifth Grade Clsrm	2	820	1640	44	50	
SUPPORT							SUPPORT
	Support Clsrm / Other Use			0			
	Spec Educ Classroom	2	820	1640			
	S.E. S.G.I. - Title 1	1	415	415			
	Modular / Clsrm<660 s.f.			0			
	Seminar / S.G.I.	1	150	150			
	Art Classroom			0			
	Music / Band / Choral			0			
	Music Seminar / Ensemble			0			
ANCILLARY / CORE AREAS							ANCILLARY / CORE AREAS
	Media Center / Library	1	360	360			
	Gymnasium (Multi-Purpose)	1	2390	2390			
	Stage / Platform	1	500	500			
	Student Dining			0			
	Kitchen Areas	1	790	790			
	Administration / Guidance	1	625	625			
	Health Suite	1	290	290			
	Faculty Dining / Workroom	1	160	160			
	<b>District Capacity</b>			<b>212</b>			
	<b>PDE Total Capacity</b>					<b>250</b>	
	<b>SCHEDULED AREA</b>			<b>15,670 SF</b>			
	<b>ARCHITECTURAL AREA</b>			<b>23,375 SF</b>			
	<b>2018-19 ENROLLMENT</b>					<b>167</b>	
	<b>Adjusted Elem. Capacity *</b>					<b>168</b>	

P.D.E. Capacity: 25 students per classroom. District Capacity: Grades K-1= 20 students per classroom; Grades 2-5 = 22 students per classroom

Elementary Functional Capacity includes Graded Classrooms, while the Total Capacity also includes Support Classrooms that are needed to support the educational program such as Math and Reading. Special Education and Pre-Kindergarten Capacity are not included in the Functional Capacity or Total Capacity.

\* The existing adjusted Elem. building capacity may have been adjusted to represent the intended or adjusted use of space. This adjusted capacity nominally re-allocates two graded classrooms per school for support spaces such as Art, Music, Media Center or STEM / Maker-Space areas, as well as small group instruction spaces.



## **SUMMARY      BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS**

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### **Rockhill Elementary School**

		<b>Cost per SF</b>
<b>SITE EVALUATION</b>	<b>\$184,800.00</b>	<b>\$7.91 / SF</b>
<b>EXTERIOR EVALUATION</b>	<b>\$393,300.00</b>	<b>\$16.83 / SF</b>
<b>INTERIOR EVALUATION</b>	<b>\$1,226,500.00</b>	<b>\$52.47 / SF</b>
<b>MEP EVALUATION</b>	<b>\$1,589,500.00</b>	<b>\$68.00 / SF</b>
<hr/>		
<b>SUB-TOTAL*</b>	<b>\$3,394,100.00</b>	<b>\$145.20 / SF</b>
<hr/>		
<b>CODE EVALUATION</b>	<b>\$316,600.00</b>	<b>\$13.54 / SF</b>
<b>MISCELLANEOUS UPGRADES</b>	<b>\$120,000.00</b>	<b>\$5.13 / SF</b>
<hr/>		
<b>TOTAL*</b>	<b>\$3,830,700.00</b>	<b>\$163.88 / SF</b>

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\* For the purpose of this Study, a baseline has been established and no design contingency has been utilized. More precise costs can be developed as the District develops specific educational specifications and chooses a desired option. Total Project Cost includes soft costs.

## **BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS**

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### **Rockhill Elementary School**

#### **ARCHITECTURAL SURVEY**

**Cost**

##### **A. Site Evaluation:**

Refer to the existing site conditions Preliminary Investigation as prepared by K&W.

1	Remove existing unused septic system & stormwater line. Regrade & reseed.	\$10,300
2	Repair existing pavement by remove top 2 inches, repave and reseal. Repaint parking spaces.	\$77,700
3	Upgrades to existing to stormwater management system.	\$15,000
4	Install security bollards at exterior entrances, gas & oil storage tanks.	\$12,000
5	Install fences & gates at play areas.	\$8,400
6	Replace railings at exterior boiler room stair.	\$2,700
7	Site Lighting Improvements	\$16,500
8	Allowances for landscaping repairs (patching, reseeding, mulching).	\$6,300
9	Allowances for miscellaneous site conditions	\$35,900

##### **Site Evaluation Sub-Total:**

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**\$184,800**

##### **B. Exterior of Building Evaluation:**

1	Exterior masonry restoration (repair, repoint, replace joints & masonry cleaning).	\$60,000
2	Replace HVAC grilles (including crawl space venting).	\$9,600
3	Replace exterior doors & storefront frame system and door hardware.	\$45,000
4	Replace exterior windows with energy efficient windows.	\$192,200
5	Replace existing glass blocks and storefront with energy efficient storefront system.	\$49,400
6	Replace deteriorating concrete pavement under canopies.	\$6,500
7	Repair existing canopies (replace soffits, repaint exposed steel).	\$8,400
8	Install new frost slab at selected entrance/exit door.	\$14,400
9	Exterior painting.	\$6,000
10	Exterior signage.	\$1,800

##### **Exterior of Building Evaluation Sub-Total:**

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**\$393,300**

## BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS

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### Rockhill Elementary School

#### ARCHITECTURAL SURVEY

Cost

#### C. Interior of Building Evaluation:

1	Asbestos abatement of existing VAT ( <i>Vinyl Asbestos Tile</i> ) floor tiles & pipe elbows in crawl spaces.	\$80,900
2	Install directional signage in hallways.	\$700
3	New VCT floor & wall bases in hallways & storage rooms to replace VAT.	\$23,500
4	New VCT floor & wall bases in classrooms to replace VAT.	\$47,800
5	New sport floor & vinyl wall bases in multi-purpose room to replace VAT.	\$34,600
6	New carpet floor & vinyl wall bases in offices, faculty, & media center to replace VAT.	\$11,000
7	Sand and refinish existing wood stage floor, install vinyl wall bases.	\$2,300
8	Re-stain existing wall paneling in existing multi-purpose room.	\$2,400
9	New stage curtain & rigging system.	\$65,000
10	Replace existing ceiling with new suspended ACT ceiling system.	\$105,700
11	Replace existing ceiling tiles in multi-purpose room with acoustic metal tiles.	\$28,800
12	Allowance for repairing/replacing of existing structural glazed tile wall wainscot.	\$12,600
13	Replace casework in classrooms and library.	\$252,000
14	Replace casework in the administration, health, and faculty suites.	\$63,000
15	Replace chalk/marker boards, tackboards, and projection screens.	\$43,200
16	Allowance for architectural repairs to accommodate MEP work.	\$30,000
17	Remove existing non-functioning folding dining tables in multi-purpose room walls and replace with acoustic wall panels.	\$12,500
18	Install additional acoustic wall panels in multi-purpose room.	\$1,400
19	Replace selected interior window sills.	\$22,900
20	Alteration of existing office space to accommodate security foyer.	\$25,000
21	Replace existing window shades.	\$29,000

## BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS

### Rockhill Elementary School

#### ARCHITECTURAL SURVEY

Cost

#### C. Interior of Building Evaluation (con't):

22	Renovation of existing gang toilet rooms (replace toilet partitions, toilet fixtures accessories, floor/wall/ceiling finishes).	\$11,000
23	Renovation of existing single toilet rooms (toilet fixtures & accessories, and finishes).	\$18,000
24	Repair cracks in existing walls.	\$2,700
25	Interior painting.	\$40,000
26	New quarry tile flooring in kitchen area to replace VAT.	\$10,500
27	New Kitchen equip (New hot holding cabinet, additional oven, serving line modifications, additional cold wells, additional freezer space, additional cooler space, new tables, new sinks, and additional dry storage space).	\$250,000

#### **Interior of Building Evaluation Sub-Total:**

**\$1,226,500**

#### D. Mechanical, Electrical & Plumbing (MEP) Evaluation:

Refer to the following items on the Preliminary Asset Condition Assessment matrix as prepared by Reynolds.

\*\* Refer to the *MEP Sub-Total* for cost of the following items:

1	Steam unit ventilators are utilized throughout the building. The equipment has exceeded its useful life and should be replaced.	**
2	The building is conditioned by Pneumatic controls. The equipment has exceeded its useful life and should be replaced.	**
3	The building is heated via an oil fired boiler. The unit is manufactured by Peerless, model number LC-12-W/S, BR 1,420, Mbtuh Steam (2007). The unit is in functional condition.	**
4	The building is provided with domestic hot water via an oil fired boiler. The unit is manufactured by Burnham Corporation, model number RSA135TH-TB, 156 MBH (2002). The unit is in good working condition.	**
5	The gang toilets are equipped with water closets, urinals, and sinks. All fixtures are not low-flow fixtures. The units should be replaced with new low-flow models.	**
6	The classrooms are equipped with sinks and faucets. The fixtures are not low-flow. The units should be replaced with new low-flow models.	**

## BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS

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### Rockhill Elementary School

#### ARCHITECTURAL SURVEY

Cost

#### D. Mechanical, Electrical & Plumbing (MEP) Evaluation (con't):

- |    |  |    |
|----|--|----|
| 7  | The drinking fountains are generally in good condition.  | ** |
| 8  | The electric service is a General Electric Safety Switch. The service has exceeded its useful life and should be replaced. Replacement is required for installation of A/C.                            | ** |
| 9  | There are secondary electric panels located throughout the building. The equipment is past has exceeded its useful life and should be replaced. Replacement is required for installation of A/C.       | ** |
| 10 | There is an on-site propane generator. This provides emergency power for the lighting, exit signs, and select equipment. The unit is undersized for the current load and should be replaced.           | ** |
| 11 | Interior lighting throughout the facility has compact fluorescent T8-32W lamps. The units are in good condition but should be considered for replacement with LED lighting.                            | ** |
| 12 | The multipurpose room is under lit and new lighting should be installed.   | ** |
| 13 | Exterior lighting throughout the facility has wall packs and canopies which utilize HID lamps. These units are generally in good condition but should be considered for replacement with LED lighting. | ** |
| 14 | The building is equipped with a master clock and intercom system. The equipment has exceeded its useful life and should be replaced.   | ** |
| 15 | The building is equipped with an access control system. The system has limited functionality and should be replaced.   | ** |
| 16 | The building is equipped with a fire alarm system. The equipment has exceeded its useful life and should be replaced.  | ** |
| 17 | The building is equipped with a security system. The system has limited functionality and should be replaced.  | ** |
| 18 | The school has a VOIP telephone system. The classrooms have limited jacks, and MDF is located in an un-cooled space. It is recommended to upgrade to a CAT6 system.                                    | ** |

***Mechanical, Electrical & Plumbing (MEP) Evaluation Sub-Total:***

***\$1,589,500***



## BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS

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### Rockhill Elementary School

#### ARCHITECTURAL SURVEY

Cost

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#### E. Code Evaluation:

The IBC, Americans with Disabilities Act, and recommendations by the Department of Education require all buildings during the renovation process to be updated to meet current standards and codes. The following building systems will need to be updated during the renovation process in order to meet current standards and codes.

The following items may be required depending on the level of work completed.

1	Install truncated domes at depressed curbs.	\$800
2	Assign and mark required number of accessible car and van parking spaces.	\$200
3	Provide accessible pavement/sidewalks to accessible exterior doors & play areas.	\$2,500
4	Replace exterior railings to meet current building codes.	\$3,200
5	Replace the remaining door hardware to meet ADA requirement.	\$11,100
6	Replace hallway doors, door hardware & sidelight (currently are not rated) with required labeled products.	\$67,200
7	Allowance to repair fire-rated walls & fireproofing.	\$30,000
8	Install push open door opener at classroom doors alcoves that do not meet ADA clearance requirement.	\$12,500
9	Install interior railings to meet current building codes.	\$6,800
10	Replace single drinking fountains with ADA hi-lo fountain units.	\$16,200
11	Renovate existing toilet rooms to accommodate required handicapped toilet rooms/stalls.	\$13,500
12	Install chairlifts to access existing stage (vertical).	\$15,000
13	Install accessible sinks in classrooms.	\$45,600
14	Replace existing hallway fire extinguishers & cabinets.	\$1,500
15	ADA room signage.	\$4,000
16	Install fire suppression system throughout the entire building.	\$86,500
<b>Code Evaluation Sub-Total:</b>		<b>\$316,600</b>

## **BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS**

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### **Rockhill Elementary School**

#### **ARCHITECTURAL SURVEY**

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**Cost**

#### **F. Miscellaneous Upgrades:**

1	Miscellaneous Upgrades	\$120,000
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<i>Miscellaneous Upgrades Sub-Total:</i>		<u>\$120,000</u>
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<i>Building Evaluation Total:</i>		<u>\$3,830,700</u>
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Rockhill		Preliminary Asset Condition Assessment		Current Concerns / Problems								
System	System Detail	Asset Condition	Asset Condition Description	Energy Efficiency	Ventilation/ IAQ	Temp. Level/Controls	Humidity Control	Light Level	Recent/Impending Failure	Code Compliance	Difficult to Maintain	Additional Notes
Steam Heating System	Peerless Boilers model LC-12-W/S, oil, BR 1,420 MBtuh Steam (2007).	Acceptable	Equipment functional	x								
Unit ventilators	Steam unit ventilators	Alert	Equipment past useful life and due for replacement	x	x	x	x		x		x	
Temperature controls	Pneumatic controls	Alert	Equipment past useful life and due for replacement	x		x	x		x		x	
Domestic plumbing fixtures	Toilet, urinals, sinks	Alert	Older china, high flow fixtures.								x	
	Water fountains	Alert	Equipment generally in good condition								x	
	Classroom sinks	Alert	Older china, high flow fixtures								x	
Domestic water heating	Burnham Corporation. Model RSA135TH-TB; 156 MBH (2002).	Acceptable	Good working condition									
Electric service	General Electric Safety Switch	Alert	Equipment past useful life and due for replacement									Upgrade needed for A/C
Electric distribution	Secondary electric panels	Alert	Generally past useful file, in need of replacement									Upgrade needed for A/C
Emergency power	Propane generator	Caution	Undersized for current load									
Lighting - interior	Compact fluorescent & T8-32W	Caution	Generally in good condition, opportunity for upgrade	x				x				
	Multipurpose room	Alert	Very low lighting levels	x				x				
Lighting - exterior	Wall packs, canopies - HID	Caution	Generally in good condition, opportunity for upgrade	x				x				
Low voltage systems	Clock, intercom system	Alert	Equipment past useful life and due for replacement						x		x	
	Fire alarm system	Alert	Equipment past useful life and due for replacement							x		
	Security system	Caution	Limited functionality									
	Access control system	Caution	Limited functionality									
	Network/VOIP	Caution	Limited jacks in CR, MDF in un-cooled space									Upgrade to CAT6









## GENERAL DATA

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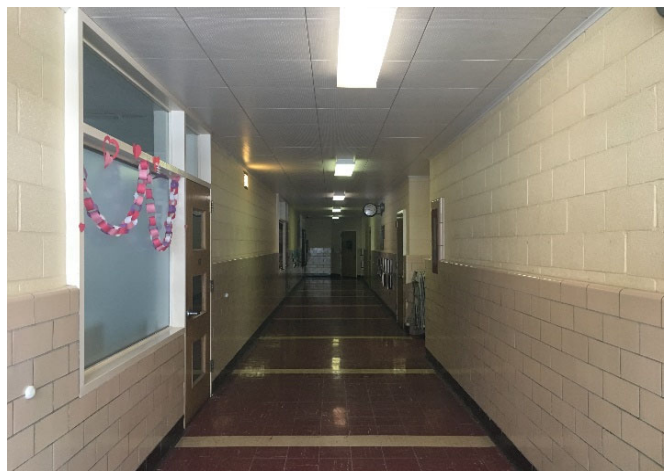
### Shade Gap Elementary School

<b>Built:</b>	1955 (B) Eligible for 20-year State Reimbursement
<b>Site:</b>	22251 Shade Valley Rd, Shade Gap, PA 17255 Approximately 10.0 acres, located in a rural town with paved drives & parking; a ball field; soft and hard surface play areas with play equipment and basketball courts. The existing utilities are on-site well water, sanitary sewer is connected to a public system.
<b>Structure:</b>	This school consisted of one-story with crawl spaces below floors; gypsum roof deck on sloped stl joists; load-bearing masonry walls. Construction type is non-combustible, unprotected in accordance with the International Building Code.
<b>HVAC System:</b>	Steam heating system via single oil-fired boiler and classroom unit ventilators. Classrooms are not cooled -- several window units in building to provide cooling to select spaces. Pneumatic controls.
<b>Plumbing Service:</b>	On-site well. Municipal sanitary sewer. Oil-fired dom. hot water.
<b>Electrical Service:</b>	120/208V, 3-phase service. Main and some branch panels were manufactured by Federal Pacific. Some panels by Square D.
<b>Systems:</b>	Lighting is a mix of T8 fluorescent and recessed incandescent. Propane emergency generator serves some lighting and exit signs. MDF is located in storage room, and ethernet and WiFi are available throughout the building. Telephone system is VOIP. Fire alarm system is original to the building. Cameras are present in corridors and entries. Building does not have a public address system. Clock system is not functioning.
<b>Comments:</b>	Roof replacement: 2009; Boiler replacement: 2010; Water heater replacement: 2016
<b>Architectural Area:</b>	18,490 s.f.
<b>PDE Replacement Value:</b>	\$3,201,600 ( 200 FTE x 92 sf = 18,400 x \$174 / sf = replacement cost ) \$640,320 ( 20% Rule )
<b>PDE Total Capacity:</b>	200

## PHOTOGRAPHS

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### Shade Gap Elementary School





## PHOTOGRAPHS

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### Shade Gap Elementary School





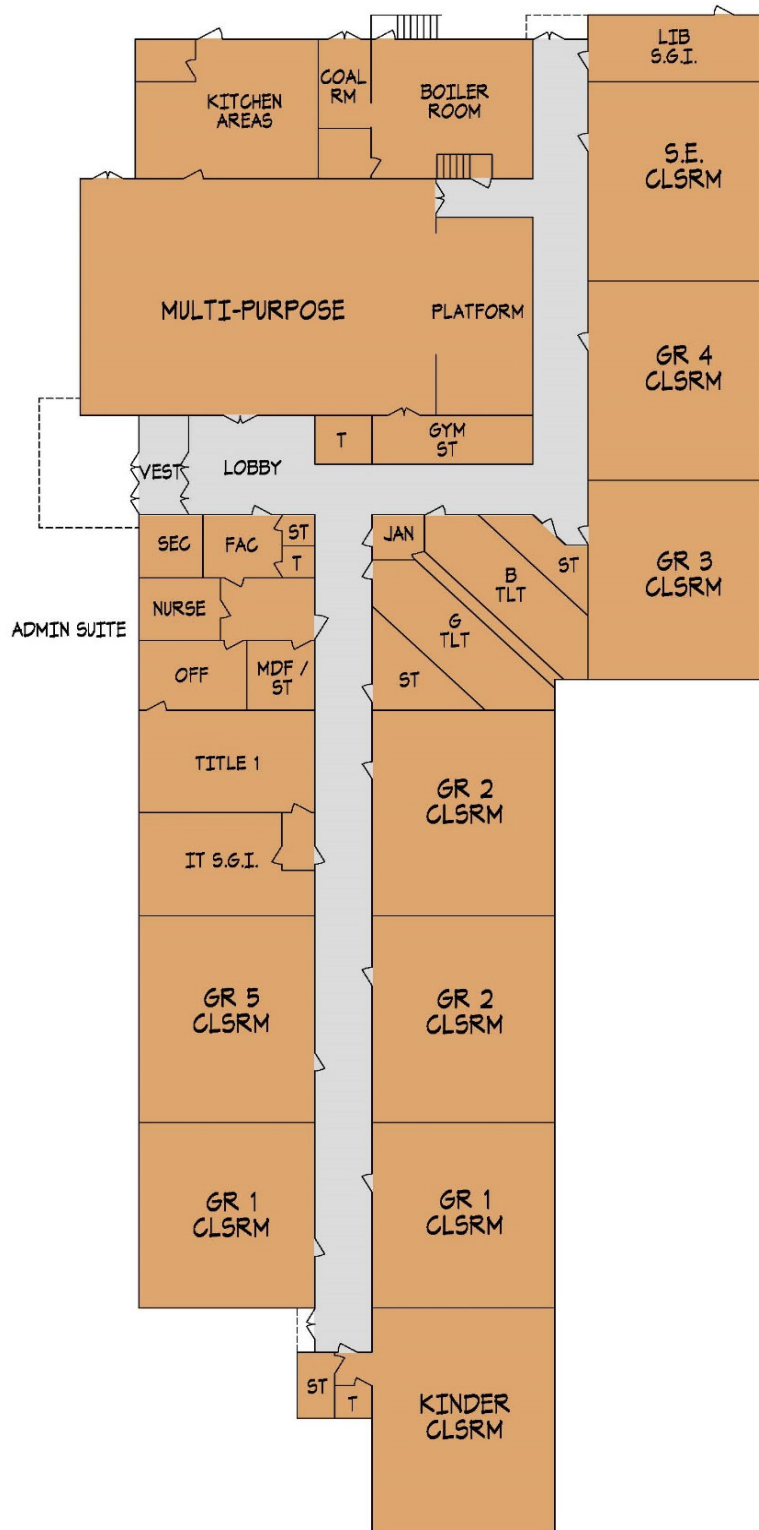
## AERIAL VIEW

### Shade Gap Elementary School



## EXISTING FIRST FLOOR PLAN

Shade Gap Elementary School



## EXISTING K-5 ROOM SCHEDULE

### Shade Gap Elementary School

		K-5 EXISTING					
		ELEMENTARY					
CLSRMS	Kindergarten Full-day	No. 1	Area 1010	Total 1010	Dist. 20	PDE 25	CLSRMS
	First Grade Clsrm	2	790	1580	40	50	
	Second Grade Clsrm	2	890	1780	44	50	
	Third Grade Clsrm	1	850	850	22	25	
	Fourth Grade Clsrm	1	850	850	22	25	
	Fifth Grade Clsrm	1	860	860	22	25	
SUPPORT	Support Clsrm / Other Use			0			SUPPORT
	Spec Educ Classroom	1	850	850			
	S.E. S.G.I. - Title 1	1	440	440			
	Modular / Clsrm<660 s.f.			0			
	Seminar / S.G.I.	1	400	400			
	Art Classroom			0			
	Music / Band / Choral			0			
	Music Seminar / Ensemble			0			
ANCILLARY / CORE AREAS	Media Center / Library	1	270	270			ANCILLARY / CORE AREAS
	Gymnasium (Multi-Purpose)	1	1990	1990			
	Stage / Platform	1	450	450			
	Student Dining			0			
	Kitchen Areas	1	640	640			
	Administration / Guidance	1	610	610			
	Health Suite	1	100	100			
	Faculty Dining / Workroom	1	110	110			
	District Capacity	170					
	PDE Total Capacity	200					
	SCHEDULED AREA	12,790 SF					
	ARCHITECTURAL AREA	18,490 SF					
	2018-19 ENROLLMENT	133					
	Adjusted Elem. Capacity *	128					

P.D.E. Capacity: 25 students per classroom. District Capacity: Grades K-1= 20 students per classroom; Grades 2-5 = 22 students per classroom

Elementary Functional Capacity includes Graded Classrooms, while the Total Capacity also includes Support Classrooms that are needed to support the educational program such as Math and Reading. Special Education and Pre-Kindergarten Capacity are not included in the Functional Capacity or Total Capacity.

\* The existing adjusted Elem. building capacity may have been adjusted to represent the intended or adjusted use of space. This adjusted capacity nominally re-allocates two graded classrooms per school for support spaces such as Art, Music, Media Center or STEM / Maker-Space areas, as well as small group instruction spaces.

## **SUMMARY      BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS**

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### **Shade Gap Elementary School**

		<b>Cost per SF</b>
<b>SITE EVALUATION</b>	<b>\$126,700.00</b>	<b>\$6.85 / SF</b>
<b>EXTERIOR EVALUATION</b>	<b>\$394,600.00</b>	<b>\$21.34 / SF</b>
<b>INTERIOR EVALUATION</b>	<b>\$1,136,200.00</b>	<b>\$61.45 / SF</b>
<b>MEP EVALUATION</b>	<b>\$1,257,300.00</b>	<b>\$68.00 / SF</b>
<hr/>		
<b>SUB-TOTAL*</b>	<b>\$2,914,800.00</b>	<b>\$157.64 / SF</b>
<hr/>		
<b>CODE EVALUATION</b>	<b>\$280,000.00</b>	<b>\$15.14 / SF</b>
<b>MISCELLANEOUS UPGRADES</b>	<b>\$100,000.00</b>	<b>\$5.41 / SF</b>
<hr/>		
<b>TOTAL*</b>	<b>\$3,294,800.00</b>	<b>\$178.19 / SF</b>

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\* For the purpose of this Study, a baseline has been established and no design contingency has been utilized. More precise costs can be developed as the District develops specific educational specifications and chooses a desired option. Total Project Cost includes soft costs.

## **BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS**

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### **Shade Gap Elementary School**

#### **ARCHITECTURAL SURVEY**

**Cost**

##### **A. Site Evaluation:**

Refer to the existing site conditions Preliminary Investigation as prepared by K&W.

1	Upgrades to existing well pump / disinfection system.	\$7,500
2	Repair existing pavement by remove top 2 inches, repave and reseal. Repaint parking spaces.	\$87,800
3	Upgrades to existing to stormwater management system.	\$1,000
4	Install security bollards at exterior entrances, gas & oil storage tanks.	\$5,000
5	Site Lighting Improvements	\$5,000
6	Allowances for landscaping repairs (patching, reseeding, mulching).	\$2,200
7	Allowances for miscellaneous site conditions	\$18,200
<b>Site Evaluation Sub-Total:</b>		<b>\$126,700</b>

##### **B. Exterior of Building Evaluation:**

1	Exterior masonry restoration (repair, repoint, replace joints & masonry cleaning).	\$40,000
2	Replace HVAC grilles (including crawl space venting).	\$6,000
3	Replace exterior doors & storefront frame system and door hardware.	\$45,000
4	Replace exterior windows with energy efficient windows.	\$192,200
5	Replace existing exterior window sills.	\$25,500
6	Replace existing glass block and storefront with energy efficient storefront system.	\$49,400
7	Replace deteriorating concrete paving under canopies.	\$7,800
8	Repair existing canopies (replace soffits, repaint exposed steel).	\$10,100
9	Install new frost slab and concrete ramp at selected entrance/exit door.	\$11,200
10	Exterior painting.	\$6,000
11	Exterior wall signage.	\$1,400
<b>Exterior of Building Evaluation Sub-Total:</b>		<b>\$394,600</b>



## **BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS**

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### **Shade Gap Elementary School**

#### **ARCHITECTURAL SURVEY**

**Cost**

#### **C. Interior of Building Evaluation:**

1	Asbestos abatement of existing VAT (Vinyl Asbestos Tile) floor tiles & pipe elbows in crawl spaces.	\$63,700
2	Install directional signage in hallways.	\$600
3	New VCT floor & wall bases in hallways & storage rooms to replace VAT.	\$15,900
4	New VCT floor & wall bases in classrooms to replace VAT.	\$38,900
5	New sport floor & vinyl wall bases in multi-purpose room to replace VAT.	\$30,200
6	New carpet floor & vinyl wall bases in offices, faculty, & media center to replace VAT.	\$6,400
7	Sand and refinish existing wood stage floor, install vinyl wall bases.	\$2,200
8	Re-stain existing wall paneling in existing multi-purpose room.	\$2,400
9	New stage curtain & rigging system.	\$65,000
10	Replace existing ceiling with new suspended ACT ceiling system.	\$75,200
11	Replace existing ceiling tiles in multi-purpose room with acoustic metal tiles.	\$25,200
12	Allowance for repairing/replacing of existing structural glazed tile wall wainscot.	\$12,600
13	Replace casework in classrooms and library.	\$252,000
14	Replace casework in the administration, health, and faculty suites.	\$63,000
15	Replace chalk/markerboards, tackboards, & projection screens.	\$41,400
16	Allowance for architectural repairs to accommodate MEP work.	\$30,000
17	Remove existing non-functioning folding dining tables in multi-purpose room walls and replace with acoustic wall panels.	\$11,000
18	Install additional acoustic wall panels in multi-purpose room.	\$1,400
19	Replace selected interior window sills.	\$22,900
20	Alteration of existing office space to accommodate security foyer.	\$25,000
21	Replace existing window shades.	\$29,000

## BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS

### Shade Gap Elementary School

#### ARCHITECTURAL SURVEY

Cost

#### C. Interior of Building Evaluation (con't):

22	Renovation of existing gang toilet rooms (replace toilet partitions, toilet fixtures accessories, floor/wall/ceiling finishes).	\$11,000
23	Renovation of existing single toilet rooms (toilet fixtures & accessories, and finishes).	\$18,000
24	Repair cracks in existing walls.	\$2,700
25	Interior painting.	\$32,000
26	New quarry tile flooring in kitchen area to replace VAT.	\$8,500
27	New kitchen equip / renovations (New hot holding cabinet, new scullery, new machine and associated tabling, modification of serving lines, additional cold wells, additional freezer space, additional cooler space, new tables, new sinks, storage shelving, and new dry storage space).	\$250,000

#### **Interior of Building Evaluation Sub-Total:**

**\$1,136,200**

#### D. Mechanical, Electrical & Plumbing (MEP) Evaluation:

Refer to the following items on the Preliminary Asset Condition Assessment matrix as prepared by Reynolds.

\*\* Refer to the *MEP Sub-Total* for cost of the following items:

1	Steam unit ventilators are utilized throughout the building. The equipment has exceeded its useful life and should be replaced.	**
2	The building is conditioned by Pneumatic temperature controls. The equipment has exceeded its useful life and should be replaced.	**
3	The building is heated via an oil fired boiler. The unit is manufactured by Peerless, model number LC-12-W/S, BR 1,593, Mbtuh Steam (2010). The unit is in functional condition.	**
4	The building is provided with domestic hot water via an oil fired domestic water heater. The unit is manufactured by Bock, model number 72E, serial number 170-3305, 68 gallons, maximum input of 199,000 bth/hr. The unit is in good condition.	**
5	The gang toilets are equipped with water closets, urinals, and sinks. All fixtures are not low-flow fixtures. There is one ADA compliant building located throughout the building. The units should be replaced with new low-flow models.	**

## BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS

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### Shade Gap Elementary School

#### ARCHITECTURAL SURVEY

Cost

#### D. Mechanical, Electrical & Plumbing (MEP) Evaluation (con't):

- |    |   |    |
|----|---|----|
| 6  | The classrooms are equipped with sinks and faucets. The fixtures are not low-flow. The units should be replaced with new low-flow models.   | ** |
| 7  | The drinking fountain is in good working condition.   | ** |
| 8  | The electric service has exceeded its useful life and should be replaced. Replacement is required for installation of A/C.  | ** |
| 9  | There are secondary electric panels located throughout the building. The equipment has exceeded its useful life and should be replaced. Replacement is required for installation of A/C.                  | ** |
| 10 | There is an on-site propane generator. This provides emergency power for the lighting, exit signs, and select equipment. The unit is in good working condition.   | ** |
| 11 | Interior lighting throughout the facility has T8-32W lamps. High bay areas have incandescent and HID lamps. These units are in good condition but should be considered for replacement with LED lighting. | ** |
| 12 | Exterior lighting throughout the facility has wall packs and canopies which utilize HID lamps. These units are in good condition but should be considered for replacement with LED lighting.              | ** |
| 13 | The building is equipped with a master clock and intercom system. The equipment has exceeded its useful life and should be replaced.  | ** |
| 14 | The building is equipped with an access control system. The system has limited functionality and should be replaced.  | ** |
| 15 | The building is equipped with a fire alarm system. The equipment is past its useful life and should be replaced.  | ** |
| 16 | The building is equipped with a security system. The system has limited functionality and should be replaced.   | ** |
| 17 | The school has a VOIP telephone system. The classrooms have limited jacks, and MDF is located in an un-cooled space. It is recommended to upgrade to a CAT6 system.                                       | ** |

***Mechanical, Electrical & Plumbing (MEP) Evaluation Sub-Total:***

***\$1,257,300***

## **BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS**

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### **Shade Gap Elementary School**

#### **ARCHITECTURAL SURVEY**

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**Cost**

#### **E. Code Evaluation:**

The IBC, Americans with Disabilities Act, and recommendations by the Department of Education require all buildings during the renovation process to be updated to meet current standards and codes. The following building systems will need to be updated during the renovation process in order to meet current standards and codes.

The following items may be required depending on the level of work completed.

1	Install truncated domes at depressed curbed.	\$800
2	Assign and mark required number of accessible car and van parking spaces.	\$200
3	Provide accessible pavement/sidewalks to accessible exterior doors & play areas.	\$2,500
4	Replace exterior railings to meet current building codes.	\$3,200
5	Replace the remaining door hardware to meet ADA requirement.	\$9,800
6	Replace hallway doors, door hardware & sidelight (currently are not rated) with required labeled products.	\$55,200
7	Allowance to repair fire-rated walls & fireproofing.	\$30,000
8	Install push open door opener at classroom doors alcoves that do not meet ADA clearance requirement.	\$2,500
9	Install partitions at objects that are protruding into halls/corridors.	\$400
10	Replace single drinking fountains with ADA hi-lo fountain units.	\$10,800
11	Renovate existing toilet rooms to accommodate required handicapped toilet rooms/stalls.	\$13,500
12	Install chairlifts to access existing stage (vertical).	\$15,000
13	Replace existing handrails at existing steps/stairs.	\$6,800
14	Install accessible sinks in classrooms.	\$34,200
15	Replace existing hallway fire extinguishers & cabinets.	\$1,500
16	ADA room signage.	\$2,600
17	Install fire suppression system in the entire building.	\$91,000
<b>Code Evaluation Sub-Total:</b>		<b>\$280,000</b>

## **BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS**

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### **Shade Gap Elementary School**

#### **ARCHITECTURAL SURVEY**

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**Cost**

#### **F. Miscellaneous Upgrades:**

1	Miscellaneous Upgrades	\$100,000
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	<b><i>Miscellaneous Upgrades Sub-Total:</i></b>	<b>\$100,000</b>
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	<b><i>Building Evaluation Total:</i></b>	<b>\$3,294,800</b>
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Shade Gap		Preliminary Asset Condition Assessment		Current Concerns / Problems								
System	System Detail	Asset Condition	Asset Condition Description	Energy Efficiency	Ventilation/ IAQ	Temp. Level/Controls	Humidity Control	Light Level	Recent/Impending Failure	Code Compliance	Difficult to Maintain	Additional Notes
Steam Heating System	Peerless Boilers model LC-12-W/S, oil, BR 1,593 MBtuh Steam (2010).	Acceptable	Equipment functional	x								
Unit ventilators	Steam unit ventilators	Alert	Equipment past useful life and due for replacement	x	x	x	x		x		x	
Temperature controls	Pneumatic controls	Alert	Equipment past useful life and due for replacement	x		x	x		x		x	
Domestic plumbing fixtures	Toilet, urinals, sinks	Alert	Newer toilets and urinals. Original sinks. High flow fixtures							x		There is one ADA complaint bathroom
	Water fountains	Alert	Equipment generally in good condition							x		
	Classroom sinks	Alert	Older china, high flow fixtures							x		
Domestic water heating	Bock, model 72E, serial 170 3305. 199,000 Btuh, 68 gallons.	Acceptable	Good working condition									
Electric service		Alert	Equipment past useful life and due for replacement								x	Upgrade needed for A/C
Electric distribution	Secondary electric panels	Alert									x	Upgrade needed for A/C
Emergency power	Propane generator	Caution	Good working condition									
Lighting - interior	Compact fluorescent & T8-32W	Caution	Generally in good condition, opportunity for upgrade	x				x				
	High bay areas - incandescents & HID	Alert	Generally in good condition, opportunity for upgrade	x				x				
Lighting - exterior	Wall packs, canopies - HID	Caution	Generally in good condition, opportunity for upgrade	x				x				
Low voltage systems	Clock, intercom system	Alert	Equipment past useful life and due for replacement						x		x	
	Fire alarm system	Alert	Equipment past useful life and due for replacement							x		
	Security system	Caution	Limited functionality									
	Access control system	Caution	Limited functionality									
	Network/VOIP	Caution	Limited jacks in CR, MDF in un-cooled space									Upgrade to CAT6







## GENERAL DATA

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### Spring Farms Elementary School

<b>Built:</b>	1960 (B) Eligible for 20-year State Reimbursement
<b>Site:</b>	12075 Old Plank Rd, Three Springs, PA 17264 Approximately 16.55 acres, located in a rural area with paved drives & parking; soft and hard surface play areas with play equipment, game court markings, and basketball courts. The existing utilities are on-site well water, sanitary sewer is connected to a sewage treatment plant.
<b>Structure:</b>	This school consisted of one-story with crawl spaces below floors; gypsum roof deck on sloped stl joists; load-bearing masonry walls. Construction type is non-combustible, unprotected in accordance with the International Building Code.
<b>HVAC System:</b>	Steam heating system via single oil-fired boiler and classroom unit ventilators. Classrooms are not cooled -- several window units in building to provide cooling to select spaces. Pneumatic controls.
<b>Plumbing Service:</b>	On-site well and sewage treatment plant. Oil-fired dom. hot water.
<b>Electrical Service:</b>	120/208V, 3-phase service. Main and branch panels were manufactured by Square D.
<b>Systems:</b>	Lighting is a mix of T8 fluorescent and recessed incandescent. Propane emergency generator serves some lighting and exit signs. MDF is located in storage room, and ethernet and WiFi are available throughout the building. Telephone system is VOIP. Fire alarm system is original to the building. Cameras are present in corridors and entries. Building does not have a public address system. Clock system is not functioning.
<b>Comments:</b>	Roof replacement: 2009; Boiler replacement: 2011; Water heater replacement: 2016
<b>Architectural Area:</b>	22,005 s.f.
<b>PDE Replacement Value:</b>	\$4,402,200 ( 275 FTE x 92 sf = 25,300 x \$174 / sf = replacement cost ) \$880,440 ( 20% Rule )
<b>PDE Total Capacity:</b>	275



## PHOTOGRAPHS

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### Spring Farms Elementary School





## PHOTOGRAPHS

### Spring Farms Elementary School





## AERIAL VIEW

### Spring Farms Elementary School



# EXISTING FIRST FLOOR PLAN

## Spring Farms Elementary School



## EXISTING K-5 ROOM SCHEDULE

### Spring Farms Elementary School

		K-5 EXISTING					
		ELEMENTARY					
CLSRMS	Kindergarten Full-day	No. 2	Area 990	Total 1980	Dist. 40	PDE 50	CLSRMS
	First Grade Clsrm	2	925	1850	40	50	
	Second Grade Clsrm	2	840	1680	44	50	
	Third Grade Clsrm	2	925	1850	44	50	
	Fourth Grade Clsrm	1	925	925	22	25	
	Fifth Grade Clsrm	2	925	1850	44	50	
SUPPORT	Support Clsrm / Other Use			0			SUPPORT
	Spec Educ Classroom	1	925	925			
	S.E. S.G.I. - Title 1	1	190	190			
	Modular / Clsrm<660 s.f.	1	1090	1090			
	Seminar / S.G.I.			0			
	Art Classroom			0			
	Music / Band / Choral			0			
	Music Seminar / Ensemble			0			
ANCILLARY / CORE AREAS	Media Center / Library	1	240	240			ANCILLARY / CORE AREAS
	Gymnasium (Multi-Purpose)	1	1640	1640			
	Stage / Platform	1	370	370			
	Student Dining			0			
	Kitchen Areas	1	780	780			
	Administration / Guidance	1	500	500			
	Health Suite	1	300	300			
	Faculty Dining / Workroom	1	110	110			
	District Capacity			234			
	PDE Total Capacity			275			
	SCHEDULED AREA			16,280 SF			
	ARCHITECTURAL AREA			22,005 SF			
	2018-19 ENROLLMENT			216			
	Adjusted Elem. Capacity *			190			

P.D.E. Capacity: 25 students per classroom. District Capacity: Grades K-1= 20 students per classroom; Grades 2-5 = 22 students per classroom

Elementary Functional Capacity includes Graded Classrooms, while the Total Capacity also includes Support Classrooms that are needed to support the educational program such as Math and Reading. Special Education and Pre-Kindergarten Capacity are not included in the Functional Capacity or Total Capacity.

\* The existing adjusted Elem. building capacity may have been adjusted to represent the intended or adjusted use of space. This adjusted capacity nominally re-allocates two graded classrooms per school for support spaces such as Art, Music, Media Center or STEM / Maker-Space areas, as well as small group instruction spaces.

## **SUMMARY      BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS**

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### **Spring Farms Elementary School**

		<b>Cost per SF</b>
<b>SITE EVALUATION</b>	<b>\$521,300.00</b>	<b>\$23.69 / SF</b>
<b>EXTERIOR EVALUATION</b>	<b>\$545,200.00</b>	<b>\$24.78 / SF</b>
<b>INTERIOR EVALUATION</b>	<b>\$1,255,600.00</b>	<b>\$57.06 / SF</b>
<b>MEP EVALUATION</b>	<b>\$1,360,300.00</b>	<b>\$61.82 / SF</b>
<hr/>		
<b>SUB-TOTAL*</b>	<b>\$3,682,400.00</b>	<b>\$167.34 / SF</b>
<hr/>		
<b>CODE EVALUATION</b>	<b>\$323,600.00</b>	<b>\$14.71 / SF</b>
<b>MISCELLANEOUS UPGRADES</b>	<b>\$110,000.00</b>	<b>\$5.00 / SF</b>
<hr/>		
<b>TOTAL*</b>	<b>\$4,116,000.00</b>	<b>\$187.05 / SF</b>

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\* For the purpose of this Study, a baseline has been established and no design contingency has been utilized. More precise costs can be developed as the District develops specific educational specifications and chooses a desired option. Total Project Cost includes soft costs.



## **BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS**

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### **Spring Farms Elementary School**

#### **ARCHITECTURAL SURVEY**

**Cost**

##### **A. Site Evaluation:**

Refer to the existing site conditions Preliminary Investigation as prepared by K&W.

1	Update & replace existing wastewater treatment plant as required by DEP.	\$300,000
1B	Update & replace existing wastewater treatment plant - minimal estimate. (Cost not included in Site Evaluation Sub-total).	\$100,000
2	Repair existing pavement by remove top 2 inches, repave and reseal. Repaint parking spaces.	\$126,600
3	Upgrades to existing to stormwater management system.	\$1,000
4	Install security bollards at exterior entrances, gas & oil storage tanks.	\$8,000
5	Site Lighting Improvements	\$5,000
6	Allowances for landscaping repairs (patching, reseeding, mulching).	\$4,000
7	Allowances for miscellaneous site conditions	\$76,700
<b>Site Evaluation Sub-Total:</b>		<b>\$521,300</b>

##### **B. Exterior of Building Evaluation:**

1	Exterior masonry restoration (repair, repoint, replace joints & masonry cleaning).	\$35,500
2	Replace HVAC grilles (including crawl space venting).	\$7,200
3	Replace exterior doors & storefront frame system, and door hardware.	\$42,000
4	Replace exterior windows with energy efficient windows.	\$307,500
5	Replace existing exterior window sills.	\$41,600
6	Replace existing glass block and storefront with energy efficient storefront system.	\$70,200
7	Replace deteriorating concrete paving under canopies.	\$9,100
8	Repair existing canopies (install aluminum soffits, repaint exposed steel)	\$11,900
9	Install new frost slab and concrete ramp at selected entrance/exit door.	\$12,800
10	Exterior painting.	\$6,000
11	Exterior wall signage.	\$1,400
<b>Exterior of Building Evaluation Sub-Total:</b>		<b>\$545,200</b>

## **BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS**

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### **Spring Farms Elementary School**

#### **ARCHITECTURAL SURVEY**

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**Cost**

#### **C. Interior of Building Evaluation:**

1	Asbestos abatement of existing VAT (Vinyl Asbestos Tile) floor tiles & pipe elbows in crawl spaces.	\$86,400
2	Install directional signage in hallways.	\$700
3	New VCT floor & wall bases in hallways & storage rooms to replace VAT.	\$23,200
4	New VCT floor & wall bases in classrooms to replace VAT.	\$52,900
5	New sport floor & vinyl wall bases in multi-purpose room to replace VAT.	\$24,700
6	New carpet floor & vinyl wall bases in offices, faculty, & media center to replace VAT.	\$7,100
7	Sand and refinish existing wood stage floor, install vinyl wall bases.	\$1,800
8	Re-stain existing wall paneling in existing multi-purpose room.	\$2,400
9	New stage curtain & rigging system.	\$65,000
10	Replace existing ceiling with new suspended ACT ceiling system.	\$105,900
11	Replace existing ceiling tiles in multi-purpose room with acoustic metal tiles.	\$20,600
12	Allowance for repairing/replacing of existing structural glazed tile wall wainscot.	\$12,600
13	Replace casework in classrooms and library.	\$273,000
14	Replace casework in the administration, health, and faculty suites.	\$63,000
15	Replace chalk/marker boards, tackboards, & projection screens.	\$34,600
16	Allowance for architectural repairs to accommodate MEP work.	\$30,000
17	Remove existing non-functioning folding dining tables in multi-purpose room walls and replace with acoustic wall panels.	\$11,000
18	Install additional acoustic wall panels in multi-purpose room.	\$1,400
19	Replace selected interior window sills.	\$33,300
20	Alteration of existing office space to accommodate security foyer.	\$25,000
21	Replace existing window shades.	\$48,300

## BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS

### Spring Farms Elementary School

ARCHITECTURAL SURVEY		Cost
<b>C. Interior of Building Evaluation (con't):</b>		
22	Renovation of existing gang toilet rooms (replace toilet partitions, toilet fixtures accessories, floor/wall/ceiling finishes).	\$11,000
23	Renovation of existing single toilet rooms (toilet fixtures & accessories, and finishes).	\$18,000
24	Repair cracks in existing walls.	\$2,700
25	Interior painting.	\$40,000
26	New quarry tile flooring in kitchen area to replace VAT.	\$11,000
27	New kitchen equip (Additional freezer space, additional cooler space, new hot holding equipment, new scullery, new tables, new sinks, new storage shelving, and replace / unclog floor drains in scullery, etc.).	\$250,000
<b>Interior of Building Evaluation Sub-Total:</b>		<b>\$1,255,600</b>
<b>D. Mechanical, Electrical &amp; Plumbing (MEP) Evaluation:</b>		
Refer to the following items on the Preliminary Asset Condition Assessment matrix as prepared by Reynolds.		
** Refer to the <i>MEP Sub-Total</i> for cost of the following items:		
1	Steam unit ventilators are utilized throughout the building. The equipment has exceeded its useful life and should be replaced.	**
2	The building is conditioned by Pneumatic temperature controls as manufactured by Controls Service & Engineering Co Inc. The equipment has exceeded its useful life and should be replaced.	**
3	The building is heated via an oil fired boiler. The unit is manufactured by Peerless, model number LCE-13-W/S, BR 1,966, Mbtuh Steam (2011). The unit is in functional condition.	**
4	The building is provided with domestic hot water via an oil fired domestic water heater. The unit is manufactured by A.O. Smith Water Products Co. Model COF 199-940, capacity 199,000 Btuh. The unit is in good condition.	**
5	The gang toilets are equipped with water closets, urinals, and sinks. All fixtures are high flow fixtures. The units should be replaced with new low-flow models.	**

## BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS

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### Spring Farms Elementary School

#### ARCHITECTURAL SURVEY

Cost

#### D. Mechanical, Electrical & Plumbing (MEP) Evaluation (con't):

- |    |  |    |
|----|--|----|
| 6  | The classrooms are equipped with sinks and faucets. The fixtures are high flow. The units should be replaced with new low-flow models.   | ** |
| 7  | The drinking fountains are generally in good condition.  | ** |
| 8  | The electric service is manufactured by Cleveland Controls Panels. The equipment has exceeded its useful life and should be replaced. Replacement is required for installation of A/C.   | ** |
| 9  | There are secondary electric panels located throughout the building. The equipment has exceeded its useful life and should be replaced. Replacement is required for installation of A/C.                                       | ** |
| 10 | There is an on-site propane generator. This provides emergency power for the lighting, exit signs, and select equipment. The unit is undersized for the current load and should be replaced.                                   | ** |
| 11 | Interior lighting throughout the facility has compact fluorescent T8-32W lamps. High bay areas have incandescent and HID lamps. These units are in good conditions but should be considered for replacement with LED lighting. | ** |
| 12 | Exterior lighting throughout the facility has wall packs and canopies which utilize HID lamps. These units are in good condition but should be considered for replacement with LED lighting.                                   | ** |
| 13 | The building is equipped with a master clock and intercom system. The equipment has exceeded its useful life and should be replaced.   | ** |
| 14 | The building is equipped with a fire alarm system. The equipment is past its useful life and should be replaced.   | ** |
| 15 | The building is equipped with a security system.   | ** |
| 16 | The school has a VOIP telephone system. The classrooms have limited jacks, and MDF is located in an un-cooled space. It is recommended to upgrade to a CAT6 system.  | ** |

***Mechanical, Electrical & Plumbing (MEP) Evaluation Subtotal:***

**\$1,360,300**

## BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS

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### Spring Farms Elementary School

#### ARCHITECTURAL SURVEY

Cost

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#### E. Code Evaluation:

The IBC, Americans with Disabilities Act, and recommendations by the Department of Education require all buildings during the renovation process to be updated to meet current standards and codes. The following building systems will need to be updated during the renovation process in order to meet current standards and codes.

The following items may be required depending on the level of work completed.

1	Install truncated domes at depressed curbed.	\$800
2	Assign and mark required number of accessible car and van parking spaces.	\$200
3	Provide accessible paves/sidewalks to accessible exterior doors & play areas.	\$2,500
4	Replace exterior railings to meet current building codes.	\$4,200
5	Replace the remaining door hardware to meet ADA requirement.	\$7,200
6	Replace hallway doors, door hardware & sidelight (currently are not rated) with required labeled products.	\$64,800
7	Allowance to repair fire-rated walls & fireproofing.	\$30,000
8	Install push open door opener at classroom doors alcoves that do not meet ADA clearance requirement.	\$5,000
9	Replace single drinking fountains with hi-lo fountain units.	\$16,200
10	Renovate existing toilet rooms to accommodate required handicapped toilet rooms/stalls.	\$13,500
11	Install chairlifts to access existing stage (vertical).	\$15,000
12	Replace existing handrails at existing steps/stairs.	\$8,600
13	Install accessible sinks in classrooms.	\$45,600
14	Replace existing hallway fire extinguishers & cabinets.	\$1,500
15	ADA room signage.	\$4,000
16	Install Fire suppression system in the entire building.	\$104,500
<b>Code Evaluation Sub-Total:</b>		<b>\$323,600</b>

## **BUILDING IMPROVEMENTS AND CONSTRUCTION COSTS**

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### **Spring Farms Elementary School**

#### **ARCHITECTURAL SURVEY**

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**Cost**

#### **F. Miscellaneous Upgrades:**

1	Miscellaneous Upgrades	\$110,000
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	<b><i>Miscellaneous Upgrades Sub-Total:</i></b>	<b>\$110,000</b>
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	<b><i>Building Evaluation Total:</i></b>	<b>\$4,116,000</b>
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Spring Farms Elementary School		Preliminary Asset Condition Assessment		Current Concerns / Problems								
System	System Detail	Asset Condition	Asset Condition Description	Energy Efficiency	Ventilation/ IAQ	Temp. Level/Controls	Humidity Control	Light Level	Recent/Impending Failure	Code Compliance	Difficult to Maintain	Additional Notes
Steam Heating System	Peerless Boilers model LCE-13-W/S, oil, 1,966 MBtuh Steam (2011).	Acceptable	Equipment functional	x								
Unit ventilators	Steam unit ventilators for classroom	Alert	Equipment past useful life and due for replacement	x	x	x	x		x		x	
Temperature controls	Pneumatic controls, Controls Service & Engineering Co Inc.	Alert	Equipment past useful life and due for replacement	x		x	x		x		x	
Domestic plumbing fixtures	Toilet, urinals, sinks	Alert	Newer toilets & urinals. Original sinks. High flow fixtures								x	
	Water fountains	Alert	Equipment generally in good condition								x	
	Classroom sinks	Alert	Older china, high flow fixtures								x	
Domestic water heating	A. O. Smith Water Products Co. Model COF 199 940, capacity 199,000 Btuh	Acceptable	Equipment generally in good condition									
Electric service	Cleveland Controls Panels	Alert	Equipment past useful life and due for replacement								x	Upgrade needed for A/C
Electric distribution	Secondary electric panels	Alert	Generally past useful file, in need of replacement								x	Upgrade needed for A/C
Emergency power	Propane generator	Caution	Undersized for current load									
Lighting - interior	Compact fluorescent & T8-32W	Caution	Generally in good condition, opportunity for upgrade	x				x				
	High bay areas - incandescents & HID	Alert	Generally in good condition, opportunity for upgrade	x				x				
Lighting - exterior	Wall packs, canopies - HID	Caution	Generally in good condition, opportunity for upgrade	x				x				
Low voltage systems	Clock, intercom system	Alert							x		x	
	Fire alarm system, EST / Honeywell	Alert								x		
	Security system	Caution	Limited functionality									
	Access control system	Caution	Limited functionality									
	Network/VOIP	Caution	Limited jacks in CR, MDF in un-cooled space									Upgrade to CAT6







## GENERAL DATA

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### SHCSD - High School / Middle School / D.A.O.

<b>Built:</b>	1960 (B), Additions & Renovations in 2004 Eligible for 20-year State Reimbursement in 2024
<b>Site:</b>	10339 Pogue Road, Three Springs, PA 17264 Approximately 45.13 acres, located in a rural area along Rt. 994. The site consists of paved drives, bus loop, and parking areas; tennis courts; football stadium with running track; two softball fields, baseball field, field hockey, and practice fields. Aughwick Creek runs North and West of the site along Wilson Road.
<b>Structure:</b>	This school consisted of one-story and basement-story wings with concrete floors; metal roof & floor deck; consists of steel posts & beams and load-bearing masonry walls. Construction type is non-combustible, unprotected per the International Building Code.
<b>HVAC System:</b>	Central plant has oil-fired hot water boilers, and air cooled chillers. The plant is arranged in a two-pipe configuration, which is limited to heating or cooling. Classroom are typically served by unit vents, with some being served by outdoor air handling units. DDC controls.
<b>Plumbing Service:</b>	On-site well and sewage treatment plant. Oil-fired dom. hot water.
<b>Electrical Service:</b>	3000A 480/277V, 3-phase service. Main and branch panels were manufactured by Square D.
<b>Systems:</b>	Lighting is generally T8 fluorescent tubes. Emergency generator serves egress lighting and exit signs, heating system, freezer and cooler. MDF and IDF rooms have dedicated cooling systems. Telephone system is VOIP. Fire alarm system is current, installed in early 2000's. Public Address and Master Clock systems. Security and access control systems.
<b>Comments:</b>	Facility was recently renovated and is in good condition. Portions of the building are being re-roofed in 2019. District is currently addressing moisture problems through rooftop units and new insulation in pipe tunnels. Finishes and building systems are also in good condition.
<b>Architectural Area:</b>	148,100 s.f. (MS/HS: 138,700 sf; DAO: 9,400 sf)
<b>PDE Replacement Value:</b>	\$19,818,252 ( 926 FTE x 123 sf = 113,898 x \$174 / sf = replacement cost ) \$3,963,650 ( 20% Rule )

**PDE Total Capacity:** 926



## PHOTOGRAPHS

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### SHCSD - High School / Middle School





## PHOTOGRAPHS

### SHCSD - High School / Middle School





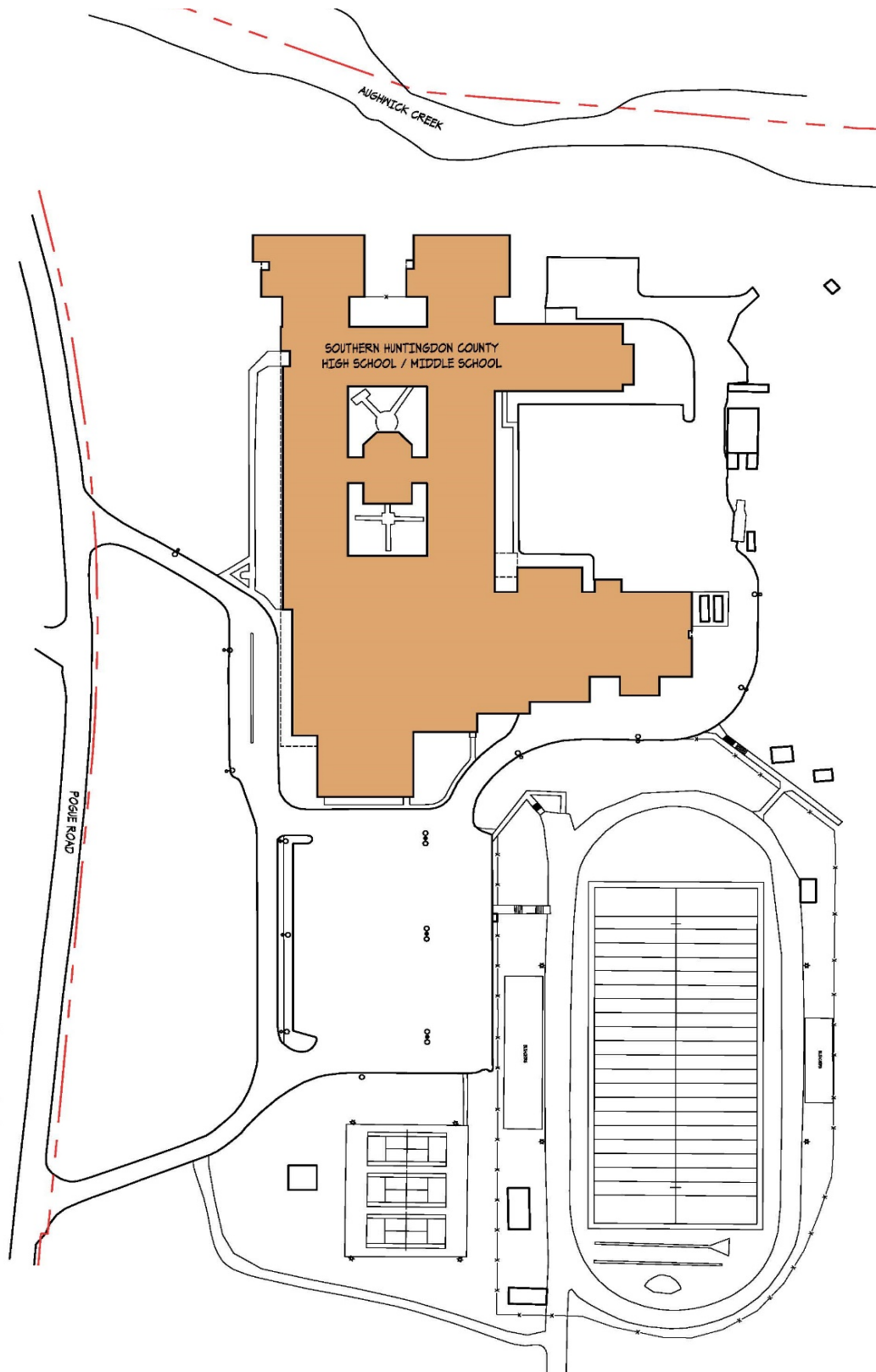
## AERIAL VIEW

SHCSD - High School / Middle School



## EXISTING SITE PLAN

SHCSD - High School / Middle School



# EXISTING FIRST FLOOR PLAN

## SHCSD - High School / Middle School





## EXISTING 6-12 ROOM SCHEDULE

### SHCSD - High School / Middle School / D.A.O.

		6-12 Existing					
	EDUCATIONAL SPACE	High School / Middle School					
		No.	Area	Total	Dist	PDE	
MS CLSRMS	MS Typical Classrooms	11	790	8,690	275	275	MS CLSRMS
	MS Science Labs	3	1,050	3,150	60	60	
	MS S.E. Classroom	3	760	2,280			
	MS S.E. Seminar / S.G.I.	1	360	360			
	MS Seminar / S.G.I.	1	350	350			
	MS Computer Lab	1	780	780	20	20	
HS CLSRMS	HS Typical Classrooms	11	790	8,690	275	275	HS CLSRMS
	HS Science Labs	3	1,170	3,510	60	60	
	HS Classrooms (Health / FL / Support)	2	755	1,510	50	50	
	HS S.E. Classroom	4	880	3,520			
	HS S.E. Seminar / S.G.I. (Speech)	1	360	360			
	HS Seminar / S.G.I.	2	360	720			
	HS Computer Lab / Business Lab	2	825	1,650	40	40	
SUPPORT / SHARED	Pre-K Classrooms (F.C.S.)	2	1,050	2,100			SUPPORT / SHARED
	HS S.G.I. - Alternative Ed. / I.S.S.	3	340	1,020			
	Choral / Vocal Classroom	1	1,485	1,485	25	25	
	Music / Band Room	1	1,360	1,360	25	25	
	Art Classroom	1	1,160	1,160	20	20	
	Family & Consumer Science	1	1,130	1,130	20	20	
	T.E. Wood Shop / Lecture	1	2,390	2,390	20	20	
	T.E. Metal Shop / Lecture	1	2,565	2,565	20	20	
	T.E. Vo-Ag Shop / Lecture	1	2,850	2,850	20	20	
ANCILLARY / CORE AREAS	Media Center	1	3,880	3,880			ANCILLARY / CORE AREAS
	Gymnasium	1	7,890	7,890	66	66	
	Auxiliary Gymnasium	1	5,350	5,350	33	33	
	Weight Room	1	1,440	1,440			
	Training	1	570	570			
	Wrestling Room	1	1,840	1,840			
	Locker Room	2	1,590	3,180			
	Team Room (Locker Rooms)	2	620	1,240			
	Officials / P.E. Office / Coach	6	115	690			
	Auditorium	1	3,960	3,960			
	Stage / Platform	1	1,370	1,370			
	Student Dining	1	4,160	4,160			
	Kitchen Areas	1	2,590	2,590			
	Student Activity (Year Book / Store)	3	235	705			
	Administration / Guidance Suite	1	2,800	2,800			
	Health Suite	1	750	750			
	Faculty Dining / Workroom	5	270	1,350			
	District Administration Offices	1	9,160	9,160			
	District Capacity			772			
	PDE Total Capacity				926		
	Scheduled Area			104,555	SF		
	Total Architectural Area			148,100	SF		
	2018-19 Enrollment				627		

P.D.E.: 20-25 students per classroom; 90% P.D.E. Utilization Factor. District: 75% Utilization Factor

Secondary District Capacity includes all spaces that receive capacity except a Natatorium or District Administration.

Special Education Capacity is not included in the Functional Capacity or Total Capacity.

The existing adjusted building capacity may have been adjusted to represent the intended or adjusted use of space.

The area of existing spaces may be an average of the respective spaces.





High School & Middle School		Preliminary Asset Condition Assessment		Current Concerns / Problems								
System	System Detail	Asset Condition	Asset Condition Description	Energy Efficiency	Ventilation/ IAQ	Temp. Level/Controls	Humidity Control	Light Level	Recent/Impending Failure	Code Compliance	Difficult to Maintain	Additional Notes
Hot Water Heating System	(2) Bryan Water Tube Boilers, Oil	Acceptable	Equipment generally in good condition	x								4000 MBH Each
Chilled Water System	(2) Carrier Air-cooled Chillers 2003	Caution	Equipment near end of useful life - plan to replace						x			235 Tons Each
Unit ventilators	2-pipe HW/CW unit ventilators	Caution	Equipment generally in good condition		x		x					Units do not provide humidity control / de-humidification
Rooftop Units	2-pipe HW/CW units, some have energy recovery	Caution	Equipment generally in good condition		x		x		x			Units do not provide humidity control / de-humidification. Coils do not have freeze protection and vent. is non compliant during coldest days of winter.
Temperature controls	Delta Direct Digital Control System from 2003	Acceptable	Equipment generally in good condition									
Domestic plumbing fixtures	Toilet, urinals, sinks	Acceptable	Equipment generally in good condition									
	Water fountains	Acceptable	Equipment generally in good condition									
Domestic water heating	PVI 1500 gallon, 1,500 MBH	Acceptable	Equipment generally in good condition									No redundancy
Electric service	Siemens Switch Gear 3000A 480Y	Acceptable	Equipment generally in good condition									
Electric distribution	Siemens Panels	Acceptable	Equipment generally in good condition									
Emergency power	Cummins 250kVA Diesel generator	Acceptable	Equipment generally in good condition									
Lighting - interior	Compact fluorescent T8-32W	Caution	Generally in good condition, opportunity for upgrade	x								
	High bay areas - incandescents & HID	Caution	Generally in good condition, opportunity for upgrade	x								
Lighting - exterior	Wall packs, canopies - HID	Caution	Generally in good condition, opportunity for upgrade	x								
Low voltage systems	Clock, intercom system	Acceptable	Equipment generally in good condition									
	Fire alarm system	Acceptable	Equipment generally in good condition									
	Security system	Acceptable	Equipment generally in good condition									
	Access control system	Acceptable	Equipment generally in good condition									
	Network/VOIP	Acceptable	Equipment generally in good condition									Upgrade to CAT6?







## INTRODUCTION TO OPTIONS

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This section of the Feasibility Study is an overview of the Proposed Options. Each Option includes the following information: Proposed Elementary and/or Secondary Room Schedules; Option Summary; Proposed Educational Program; Option Cost Summary; Proposed Conceptual Plans; and Projected Reimbursement.

The following Options were developed during meetings with the Southern Huntingdon County School District and EI Associates. These Options are provided for the Board of Education to evaluate the needs of the District's facilities. The Options are evaluated using the same information, programming, and facility needs for each Option in order to compare the cost of each Option on an equal basis. While Status Quo is included for informational purposes, Status Quo is not being considered as an Option because it does not include the comparable educational upgrades and programming found in Options 1-3.

While the information provided for each facility is for the purpose of the Board of Education to review and evaluate the necessary repairs to each building, for the purpose of Option comparison, the entire cost of each facility's improvements has been included as renovation costs. This cost can be refined in meetings held at a later time with the District, when reviewing the actual materials that would be utilized in the construction project.

School Districts should understand that the Pennsylvania Department of Education will provide an additional 10% reimbursement for renovating existing buildings; also an additional 10% reimbursement for obtaining a minimum of Silver Certification from the U.S. Green Building Council's Leadership in Energy and Environmental Design Green Building Rating System (LEED® NC) for high performance and sustainable design standards.

Total Project Costs include 25% of Construction Cost for the following construction-related costs: Movable Fixtures and Equipment; Project Contingency; Construction-Related Costs; Architect/Engineering/Construction Manager Fees; Financing Cost; and Project Supervision.

*Note 1:* If the Project is going to be Pre-financed, add 3% to the estimated "Total Project Cost".

*Note 2:* Cost estimates extend one-year (to May 2020).

These Options should be evaluated by the Board of Education by a process of elimination, narrowing down to a particular facility Option that best meets the program and budgetary concerns of the Southern Huntingdon County School District.



## SUMMARY OF OPTIONS

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### Status Quo 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects

**K-5**

Full Renovation Projects - No Additions & No Educational Upgrades  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

**6-12**

Maintain High School / Middle School

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### OPT 1 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions

**K-5**

Full Renovation Projects - Alterations & Additions  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

**6-12**

Maintain High School / Middle School with Gymnasium & Locker Room Additions

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### OPT 2 1 NEW K-5 ELEMENTARY SCHOOL -- Located Attached to H.S. / M.S.

**K-5**

Close existing Elementary Schools and replace with 1 New K-5 Elementary School  
Close Rockhill, Shade Gap, and Spring Farms Elementary Schools

**2A**

New Building (Gymnasium & Separate Cafeteria)

**2B**

New Building (Gymnasium as Multi-purpose Room)

**6-12**

Maintain High School / Middle School

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### OPT 3 1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site

**K-5**

Close existing Elementary Schools and replace with 1 New K-5 Elementary School  
Close Rockhill, Shade Gap, and Spring Farms Elementary Schools

**3A**

New Building (Gymnasium & Separate Cafeteria)

**3B**

New Building (Gymnasium as Multi-purpose Room)

**6-12**

Maintain High School / Middle School

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## OPTION EXPLORATION SUMMARY

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### Options Information

Each Option includes the following information: Proposed Elementary and/or Secondary Room Schedules; Option Summary; Proposed Educational Program; Option Cost Summary; Proposed Conceptual Plans; and Projected Reimbursement.

**Proposed Room Schedules:** Room schedules for the Elementary and Secondary Schools provide data for the Proposed Building Capacity. Spaces that receive capacity are shown as well as each Building's Functional Capacity and PDE Total Capacity.

**Option Summary:** A summary of the respective option illustrating the proposed Elementary Schools and/or Secondary Schools as well as the Option Pros & Cons.

**Proposed Educational Program:** A summary of the respective option Proposed Educational Program data. The information includes: Proposed Grade Alignment; Potential Work; PDE Functional and Total Capacity; and the Reimbursement Highest Projected Enrollment for each grade grouping.

**Option Cost Summary:** A Cost Summary of the respective option including: Cost for Additions, Renovation Study Cost, Additional Educational Upgrades Cost including Alterations & Site Costs, Total Construction Cost, Total Project Cost which includes a 25% Soft Cost Factor, Annual Total Share (based upon a respective wrap-around 25-year or 30-year bond issue rate), Annual Operational Expenses, and Annual Net Share which *equals* the Annual Total Share *minus* Annual Operational Expenses.

- Disposition of existing Elementary Schools after consolidation is not included in the costs for the purpose of this study.
- Annual Operational Expenses are included to compare the Current Operational Costs vs. the respective Option Operational Expenses.
- The Annual Operational Expenses are divided equally among the three (3) existing Elementary Schools with the exception of the Annual Energy Expenses for the purpose of comparison.
- The Annual Net Share which *equals* the Annual Total Share *minus* the Annual Operational Expenses does not include Projected State Reimbursement for the Option Cost Summary.

**Conceptual Design:** Conceptual Site Plans and Floor Plans are included as graphical illustrations of each proposed option.

**Projected Reimbursement** Detailed Cost Data for the respective option including projected state reimbursement.

- The Annual Net Share which *equals* the Annual Total Share *minus* the Annual Operational Expenses does not include Projected State Reimbursement for the Option Cost Summary. The Annual Net Share *minus* the Annual State Share would illustrate the inclusion of State Reimbursement.

*Note 1:* If the Project is going to be Pre-financed, add 3% to the estimated "Total Project Cost".

*Note 2:* Cost estimates extend one-year (to May 2020).

**K-12 OPERATIONAL EXPENSES - COMPARISON**

Annual Operational Expenses are included to compare the Current Operational Costs vs. the respective Option Operational Expenses. The Annual Operational Expenses are divided equally among the three (3) existing Elementary Schools with the exception of the Annual Energy Expenses for the purpose of comparison.

Consolidation of the three (3) existing Elementary Schools to one (1) Elementary School will result in overall Annual Operational Costs savings. Consolidation to the High School / Middle School campus site will also allow for additional savings including staff travel, site & site utilities, and food service savings. These annual expenses are illustrated below in four categories including: Annual Energy Expenses, Annual Staff & Travel Expenses, Annual Educational & Services Expenses, and Annual Capital & Maintenance Expenses.

**Annual Energy Expenses**

- Current annual energy expenses vs. proposed annual energy expenses with M.E.P. system upgrades and new construction / additions.

**Annual Staff & Travel Expenses**

- Staff consolidation savings (Teachers, Support Staff, Food Service Staff)
- Staff travel savings

**Annual Educational & Services Expenses**





- Food Services
- Telephone
- Building Internet
- Books & Media Supplies
- Technology / Curriculum Contracts

**Annual Capital & Maintenance Expenses**

- Services & Maintenance Contracts
- Grass Mowing / Leaf Blowing / Site Maintenance
- Snow & Ice Removal
- Fire & Safety Inspections
- Pest Control
- Sewage Treatment Plant Chemicals / Supplies / Water testing Supplies
- Building & General Maintenance Supplies

## EXISTING EDUCATIONAL PROGRAM

### Adjusted Building Capacity for Grades K-5, 6-12, K-12

Building	Existing Grade Alignment	2018-19 Enrollment	** Capacity		PDE Total	Highest Projected Enrollment for Reimbursement	
			Adjusted Elem.	District Functional		Methods I & II	Current + 15% *
	Rockhill Elementary School	K-5	167	168	212	250	
	Shade Gap Elementary School	K-5	133	128	170	200	
	Spring Farms Elementary School	K-5	216	190	234	275	
K-5 TOTAL		516	486	616	725	698 Method I	634 2015
	High School / Middle School	6-12	627	N/A	772	926	
6-12 TOTAL		627	N/A	772	926	683 Method I	735 2015
K-12 TOTAL		1,143	1,258	1,388	1,651	1,381 Method I	1,369 2015

\* PDE allows Current Enrollment + 15% to be used as Highest Projected Enrollment for Project Grades.

\*\* Elementary *Functional Capacity* are Graded Classrooms K-5; *Special Education Capacity* is not included in the Functional Capacity or Total Capacity.

\*\* Elementary *Adjusted Capacity* is included to represent the adjusted use of space. This adjusted capacity nominally re-allocates two graded classrooms per school for support spaces such as Art, Music, Media Center or STEM / Maker-Space areas, as well as small group instruction spaces for the purpose of comparison for this study.

## PROPOSED ROOM SCHEDULE

		K-5 Existing & K-5 Status Quo														
		Rockhill Elementary					Shade Gap Elementary					Spring Farms Elementary				
CLSRMS	Kindergarten Full-day	No.	Area	Total	Dist.	PDE	No.	Area	Total	Dist.	PDE	No.	Area	Total	Dist.	PDE
	First Grade Clsrm	2	895	1790	40	50	1	1010	1010	20	25	2	990	1980	40	50
	Second Grade Clsrm	2	820	1640	40	50	2	790	1580	40	50	2	925	1850	40	50
	Third Grade Clsrm	1	820	820	22	25	2	890	1780	44	50	2	840	1680	44	50
	Fourth Grade Clsrm	1	820	820	22	25	1	850	850	22	25	2	925	1850	44	50
	Fifth Grade Clsrm	2	820	1640	44	50	1	850	850	22	25	1	925	925	22	25
SUPPORT	Support Clsrm / Other Use			0					0					0		
	Pre-Kindergarten Clsrm			0					0					0		
	Spec Educ Classroom	2	820	1640			1	850	850			1	925	925		
	S.E. S.G.I. - Title 1	1	415	415			1	440	440			1	190	190		
	Modular / Clsrm<660 s.f.			0					0			1	1090	1090	4th grade	
	Seminar / S.G.I.	1	150	150			1	400	400					0		
	Art Classroom			0					0					0		
	Music / Band / Choral			0					0					0		
	Music Seminar / Ensemble			0					0					0		
ANCILLARY / CORE AREAS	Media Center / Library	1	360	360			1	270	270			1	240	240		
	Gym (Multi-Purpose)	1	2390	2390			1	1990	1990			1	1640	1640		
	Locker Room			0					0					0		
	Stage / Platform	1	500	500			1	450	450			1	370	370		
	Student Dining			0					0					0		
	Kitchen Areas	1	790	790			1	640	640			1	780	780		
	Administration / Guidance	1	625	625			1	610	610			1	500	500		
	Health Suite	1	290	290			1	100	100			1	300	300		
	Faculty Dining / Workroom	1	160	160			1	110	110			1	110	110		
	District Capacity	212					170					234				
	PDE Total Capacity	250					200					275				
	Scheduled Area	15,670 SF					12,790 SF					16,280 SF				
	Total Architectural Area	23,375 SF					18,490 SF					22,005 SF				
	Exist. Architectural Area	23,375 SF					18,490 SF					22,005 SF				
	New Architectural Area	0 SF					0 SF					0 SF				
	2018-19 Enrollment	167					133					216				

## K-5 ELEMENTARY OPTIONS

K-5 Proposed Option 1												K-5 Proposed Opt. 2A & 3A					K-5 Proposed Opt. 2B & 3B												
Rockhill Elementary					Shade Gap Elementary					Spring Farms Elementary					New K-5 Elementary					New K-5 Elementary									
No.	Area	Total	Dist.	PDE	No.	Area	Total	Dist.	PDE	No.	Area	Total	Dist.	PDE	No.	Area	Total	Dist.	PDE	No.	Area	Total	Dist.	PDE	CLSRMS				
2	895	1790	40	50	1	1010	1010	20	25	1	990	990	20	25	4	900	3600	80	100	4	900	3600	80	100					
2	820	1640	40	50	1	800	800	20	25	1	925	925	20	25	4	850	3400	80	100	4	850	3400	80	100					
2	820	1640	44	50	1	890	890	22	25	1	840	840	22	25	4	850	3400	88	100	4	850	3400	88	100					
2	820	1640	44	50	1	890	890	22	25	1	925	925	22	25	4	850	3400	88	100	4	850	3400	88	100					
2	820	1640	44	50	1	850	850	22	25	1	925	925	22	25	4	850	3400	88	100	4	850	3400	88	100					
2	820	1640	44	50	1	860	860	22	25	1	925	925	22	25	4	850	3400	88	100	4	850	3400	88	100					
1	820	820	22	25	1	770	770	22	25	1	840	840	22	25	3	850	2550	66	75	3	850	2550	66	75	SUPPORT				
	0					0					0				1	900	900			1	900	900							
2	820	1640			1	850	850			1	925	925			4	850	3400			4	850	3400							
1	415	415			1	410	410			1	425	425			3	425	1275			3	425	1275							
	0					0					0					0					0								
1	360	360			1	400	400			1	425	425			3	425	1275			3	425	1275							
1	1000	1000			1	1000	1000			1	990	990			1	1000	1000			1	1000	1000							
Share w/ Art					Share w/ Art					Share w/ Art					1					1200	1200	1					1200	1200	
1	400	400			1	400	400			1	400	400			1	425	425			1	425	425							
1	1200	1200			1	1200	1200			1	1200	1200			1	3000	3000			1	3000	3000			ANCILLARY / CORE AREAS				
1	2390	2390			1	1990	1990			1	1640	1640			1	8000	8000			1	8000	8000							
	0					0					0				2	850	1700			2	850	1700							
1	500	500			1	450	450			1	370	370			1	1500	1500			1	1500	1500							
	0					0					0				1	4000	4000				0								
1	1200	1200			1	1000	1000			1	1000	1000			1	4000	4000			1	4000	4000							
1	1000	1000			1	1000	1000			1	1000	1000			1	2500	2500			1	2500	2500							
1	600	600			1	600	600			1	600	600			1	850	850			1	850	850							
1	850	850			1	850	850			1	850	850			2	850	1700			2	850	1700							
256					128					128					512					512									
325					175					175					675					675									
22,365 SF					16,220 SF					16,195 SF					59,875 SF					55,875 SF									
34,375 SF					24,490 SF					24,005 SF					95,000 SF					90,000 SF									
23,375 SF					18,490 SF					22,005 SF					0 SF					0 SF									
11,000 SF					6,000 SF					2,000 SF					95,000 SF					90,000 SF									
167					133					216					516					516									



## PROPOSED ROOM SCHEDULE

		6-12 Existing & Status Quo				
	EDUCATIONAL SPACE	High School / Middle School				
		No.	Area	Total	Dist	PDE
MS CLSRMS	MS Typical Classrooms	11	790	8,690	275	275
	MS Science Labs	3	1,050	3,150	60	60
	MS S.E. Classroom	3	760	2,280		
	MS S.E. Seminar / S.G.I.	1	360	360		
	MS Seminar / S.G.I.	1	350	350		
	MS Computer Lab	1	780	780	20	20
HS CLSRMS	HS Typical Classrooms	11	790	8,690	275	275
	HS Science Labs	3	1,170	3,510	60	60
	HS Classrooms (Health / FL / Support)	2	755	1,510	50	50
	HS S.E. Classroom	4	880	3,520		
	HS S.E. Seminar / S.G.I. (Speech)	1	360	360		
	HS Seminar / S.G.I.	2	360	720		
	HS Computer Lab / Business Lab	2	825	1,650	40	40
SUPPORT / SHARED	Pre-K Classrooms (F.C.S.)	2	1,050	2,100		
	HS S.G.I. - Alternative Ed. / I.S.S.	3	340	1,020		
	Choral / Vocal Classroom	1	1,485	1,485	25	25
	Music / Band Room	1	1,360	1,360	25	25
	Art Classroom	1	1,160	1,160	20	20
	Family & Consumer Science	1	1,130	1,130	20	20
	T.E. Wood Shop / Lecture	1	2,390	2,390	20	20
	T.E. Metal Shop / Lecture	1	2,565	2,565	20	20
	T.E. Vo-Ag Shop / Lecture	1	2,850	2,850	20	20
ANCILLARY / CORE AREAS	Media Center	1	3,880	3,880		
	Gymnasium	1	7,890	7,890	66	66
	Gymnasium (New)			0		
	Auxiliary Gymnasium	1	5,350	5,350	33	33
	Weight Room	1	1,440	1,440		
	Training	1	570	570		
	Wrestling Room	1	1,840	1,840		
	Locker Room	2	1,590	3,180		
	Locker Room (New)			0		
	Team Room (Locker Rooms)	2	620	1,240		
	Officials / P.E. Office / Coach	6	115	690		
	Auditorium	1	3,960	3,960		
	Stage / Platform	1	1,370	1,370		
	Student Dining	1	4,160	4,160		
	Kitchen Areas	1	2,590	2,590		
	Student Activity (Year-Book / Store)	3	235	705		
	Administration / Guidance Suite	1	2,800	2,800		
	Health Suite	1	750	750		
	Faculty Dining / Workroom	5	270	1,350		
	District Administration Offices	1	9,160	9,160		
	District Capacity				772	
	PDE Total Capacity					926
	Scheduled Area			104,555	SF	
	Total Architectural Area			148,100	SF	
	Exist. Architectural Area			148,100	SF	
	New Architectural Area					
	2018-19 Enrollment					627

## 6-12 HIGH SCHOOL / MIDDLE SCHOOL OPTIONS

6-12 Proposed Option 1					6-12 Proposed Options 2 & 3					
High School / Middle School					High School / Middle School					
No.	Area	Total	Dist	PDE	No.	Area	Total	Dist	PDE	MS CLSRMS
11	790	8,690	275	275	11	790	8,690	275	275	MS CLSRMS
3	1,050	3,150	60	60	3	1,050	3,150	60	60	
3	760	2,280			3	760	2,280			
1	360	360			1	360	360			
1	350	350			1	350	350			
1	780	780	20	20	1	780	780	20	20	
11	790	8,690	275	275	11	790	8,690	275	275	HS CLSRMS
3	1,170	3,510	60	60	3	1,170	3,510	60	60	
2	755	1,510	50	50	3	905	2,715	75	75	
4	880	3,520			4	880	3,520			
1	360	360			1	360	360			
2	360	720			2	360	720			
2	825	1,650	40	40	2	825	1,650	40	40	SUPPORT / SHARED
2	1,050	2,100			1	895	895			
3	340	1,020			3	340	1,020			
1	1,485	1,485	25	25	1	1,485	1,485	25	25	
1	1,360	1,360	25	25	1	1,360	1,360	25	25	
1	1,160	1,160	20	20	1	1,160	1,160	20	20	
1	1,130	1,130	20	20	1	1,130	1,130	20	20	
1	2,390	2,390	20	20	1	2,390	2,390	20	20	
1	2,565	2,565	20	20	1	2,565	2,565	20	20	
1	2,850	2,850	20	20	1	2,850	2,850	20	20	
1	3,880	3,880			1	3,880	3,880			ANCILLARY / CORE AREAS
1	7,890	7,890	66	66	1	7,890	7,890	66	66	
1	8,000	8,000	66	66		0				
1	5,350	5,350	33	33	1	5,350	5,350	33	33	
1	1,440	1,440			1	1,440	1,440			
1	570	570			1	570	570			
1	1,840	1,840			1	1,840	1,840			
2	1,590	3,180			2	1,590	3,180			
2	850	1,700				0				
2	620	1,240			2	620	1,240			
8	115	920			6	115	690			
1	3,960	3,960			1	3,960	3,960			
1	1,370	1,370			1	1,370	1,370			
1	4,160	4,160			1	4,160	4,160			
1	2,590	2,590			1	2,590	2,590			
3	235	705			3	235	705			
1	2,800	2,800			1	2,800	2,800			
1	750	750			1	750	750			
5	270	1,350			5	270	1,350			
1	9,160	9,160			1	9,160	9,160			
821					791					
986					949					
114,485 SF					104,555 SF					
163,100 SF					148,100 SF					
148,100 SF					148,100 SF					
15,000 SF					0 SF					
627					627					



**Status Quo 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects****K-5****Full Renovation Projects - No Additions & No Educational Upgrades  
Rockhill, Shade Gap, and Spring Farms Elementary Schools****6-12****Maintain High School / Middle School****STATUS QUO PROS & CONS****Pros**

- Maintains Status Quo of Schools
- Targeted School Upgrades & Energy savings
- Capacity adequate for the projected student population
- Less disruption of renovations for 3 buildings as GESA projects.

**Cons**

- No Educational Program Upgrades to existing buildings
- No Art Room
- No Music Classroom
- No Library - Facility has small book storage area
- Limited Faculty work areas; Limited Health Suite area
- Inherit costly site deficiencies (i.e.. aged sewage treatment plant at Spring Farms E.S.; buried, abandoned clay pipe and septic system at Rockhill E.S.; etc.)
- Continued yearly operational expenses for 3 Elementary Schools
- 3 Schools are less efficient than one Elementary School building
- Duplication of core facilities and services for 3 buildings
- More disruption of renovations for 3 buildings as traditional bid vs. construction for new building
- No additional Gymnasium for after-school activities at High School site

## PROGRAM SUMMARY

## STATUS QUO

### Status Quo 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects





K-5

Full Renovation Projects - No Additions & No Educational Upgrades  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

6-12

Maintain High School / Middle School

### OPTION EDUCATIONAL PROGRAM

Building	Proposed Work	Proposed Grade Alignment	** Capacity		Highest Projected Enrollment for Reimbursement	
			District Functional	PDE Total	Methods I & II	Current + 15% *
	Rockhill Elementary School	Renovations	K-5	212	250	
	Shade Gap Elementary School	Renovations	K-5	170	200	
	Spring Farms Elementary School	Renovations	K-5	234	275	
K-5 TOTAL			616	725	698 Method I	634 2015
	High School / Middle School	Maintain	6-12	772	926	
6-12 TOTAL			772	926	683 Method I	735 2015
K-12 TOTAL			1,388	1,651	1,381 Method I	1,369 2015





\* PDE allows Current Enrollment + 15% to be used as Highest Projected Enrollment for Project Grades.

\*\* Elementary *Functional Capacity* are Graded Classrooms K-5; *Special Education Capacity* is not included in the Functional Capacity or Total Capacity.

## STATUS QUO COST SUMMARY





## STATUS QUO

### K-12 OPERATIONAL EXPENSES - COMPARISON

	Building	Proposed Work	Arch. Area s.f.	++ Annual Energy Expenses	++ Annual Staff & Travel Expenses	++ Annual Educ. & Serv. Expenses	++ Annual Capital & Maint Expenses	++ Annual Operational Expenses
	Rockhill E.S.	Renovations	23,375	-11,200	0	0	0	-11,200
	Shade Gap E.S.	Renovations	18,490	-11,500	0	0	0	-11,500
	Spring Farms E.S.	Renovations	22,005	-8,600	0	0	0	-8,600
	H.S. / M.S.	Maintain	0	0	0	0	0	0
<b>K-12 Total</b>				<b>-\$31,300</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>-\$31,300</b>

Note: The Annual Operational Expenses are divided equally among the three existing Elementary Schools with the exception of the Annual Energy Expenses for the purpose of comparison.

### STATUS QUO COST SUMMARY

	Building	Constr. Cost for Additions	Renov. Study Cost	Alterations & Site Cost	Total Constr. Cost	Total Project Cost	+ Annual Total Share	++ Annual Operational Expenses	+++ Annual Net Share
	Rockhill E.S.	0	3,645,900	184,800	3,830,700	4,788,000	296,400	-11,200	285,200
	Shade Gap E.S.	0	3,168,100	126,700	3,294,800	4,119,000	254,900	-11,500	243,400
	Spring Farms E.S.	0	3,594,700	521,300	4,116,000	5,145,000	318,300	-8,600	309,700
	New E.S.	0	0	0	0	0	0	0	0
<b>K-5 Total</b>		<b>\$0</b>	<b>\$10,408,700</b>	<b>\$832,800</b>	<b>\$11,241,500</b>	<b>\$14,052,000</b>	<b>\$869,600</b>	<b>-\$31,300</b>	<b>\$838,300</b>
	H.S. / M.S.	0	0	0	0	0	0	0	0
<b>6-12 Total</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>K-12 Total</b>		<b>\$0</b>	<b>\$10,408,700</b>	<b>\$832,800</b>	<b>\$11,241,500</b>	<b>\$14,052,000</b>	<b>\$869,600</b>	<b>-\$31,300</b>	<b>\$838,300</b>

Notes: + Annual Total Share based upon a wrap-around 25-year bond issue rate.  
 ++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.  
 +++ Annual Net Share equals Annual Total Share minus Annual Operational Expenses.



## Status Quo 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects

**K-5**

Full Renovation Projects - No Additions & No Educational Upgrades  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

**6-12**

Maintain High School / Middle School

### Rockhill Elementary School - Site Plan



- EXISTING RENOVATION
- EXISTING SPACE ALTERATION
- ADDITION

## CONCEPTUAL DESIGN

## K-5 -- STATUS QUO

### Status Quo 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects

K-5

Full Renovation Projects - No Additions & No Educational Upgrades  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

6-12

Maintain High School / Middle School

### Rockhill Elementary School - Floor Plan



## Status Quo 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects

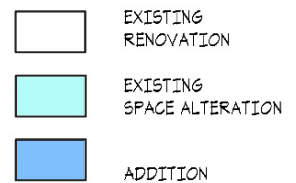
**K-5**

Full Renovation Projects - No Additions & No Educational Upgrades  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

**6-12**

Maintain High School / Middle School

### Shade Gap Elementary School - Site Plan



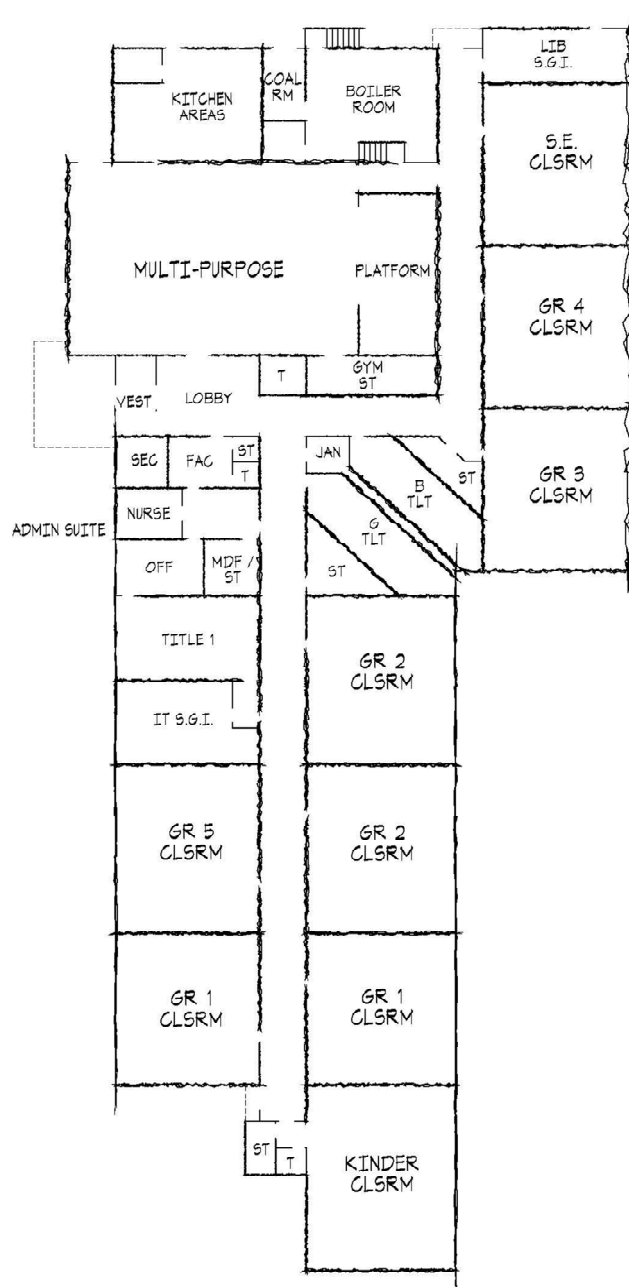





## K-5 -- STATUS QUO

<b>K-5</b>	Full Renovation Projects - No Additions & No Educational Upgrades Rockhill, Shade Gap, and Spring Farms Elementary Schools
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## Full Renovation Projects - No Additions & No Educational Upgrades Rockhill, Shade Gap, and Spring Farms Elementary Schools

Maintain High School / Middle School



 EXISTING  
 EXISTING SPACE ALTERATION  
 ADDITION

## Status Quo 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects

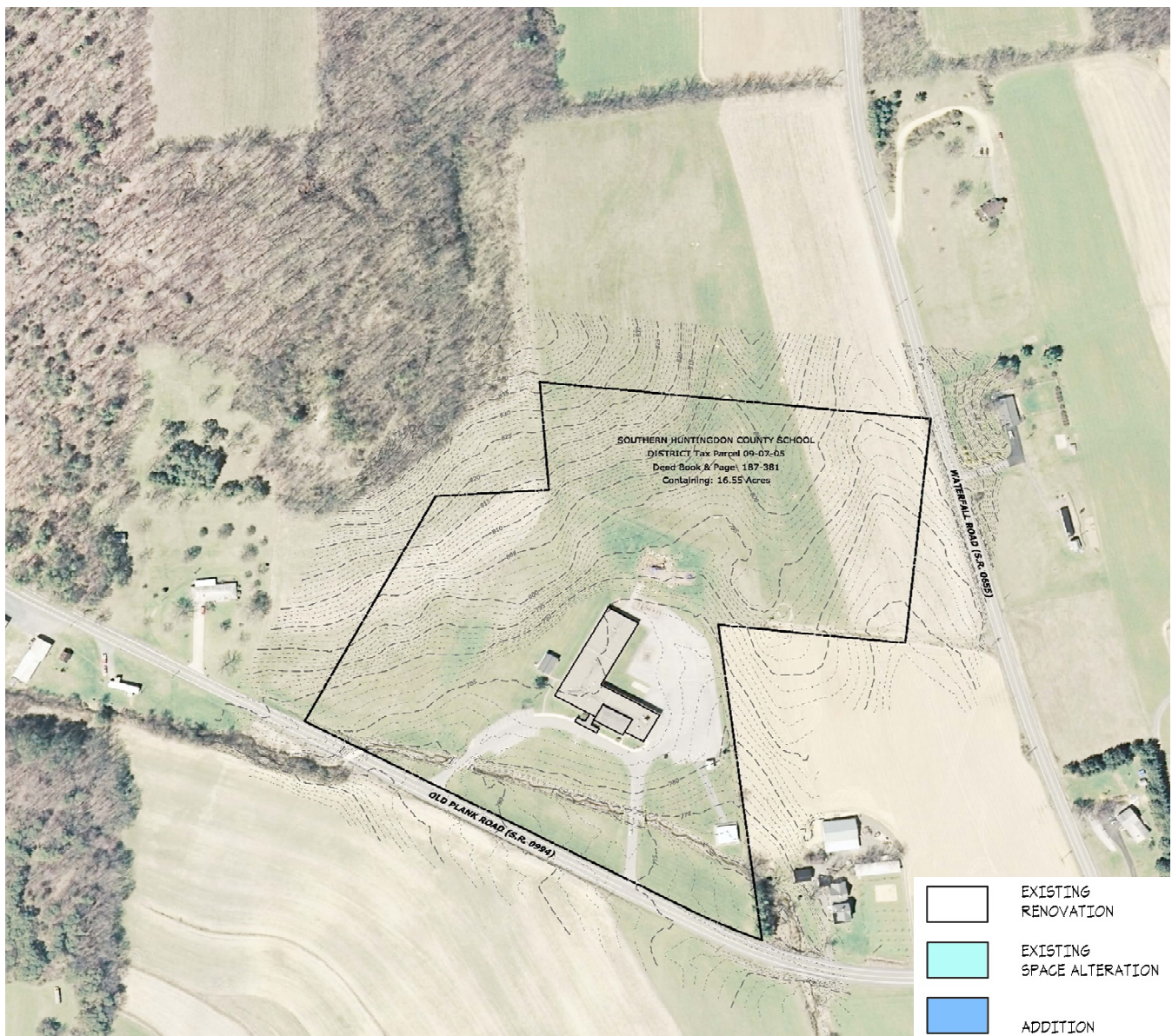
**K-5**

Full Renovation Projects - No Additions & No Educational Upgrades  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

**6-12**

Maintain High School / Middle School

## Spring Farms Elementary School - Site Plan



## CONCEPTUAL DESIGN

## K-5 -- STATUS QUO

### Status Quo 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects

K-5

Full Renovation Projects - No Additions & No Educational Upgrades  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

6-12

Maintain High School / Middle School

### Spring Farms Elementary School - Floor Plan





## Status Quo 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects

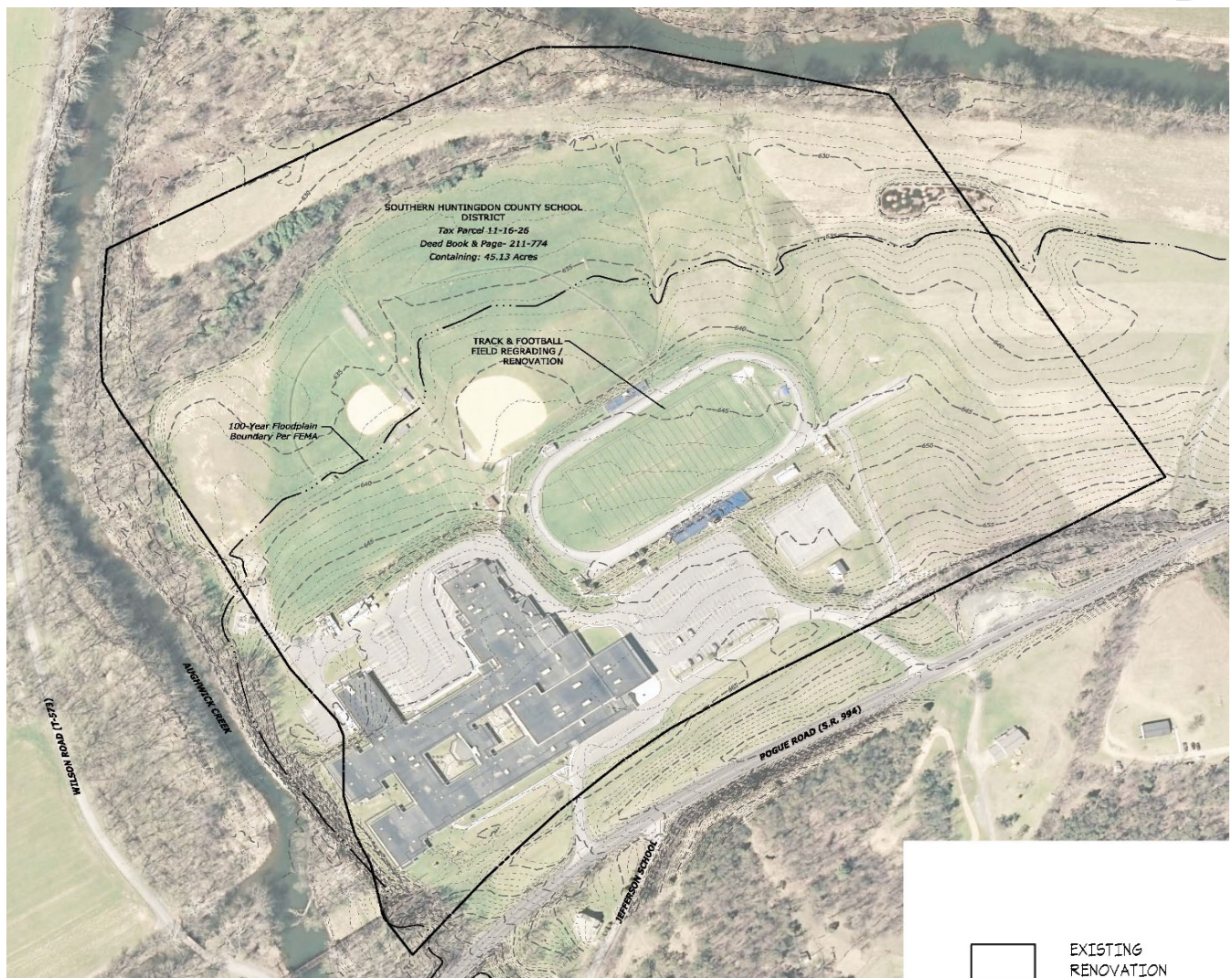
K-5

Full Renovation Projects - No Additions & No Educational Upgrades  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

6-12

Maintain High School / Middle School

## High School / Middle School - Site Plan



- EXISTING RENOVATION
- EXISTING SPACE ALTERATION
- ADDITION

## CONCEPTUAL DESIGN

## 6-12 -- STATUS QUO & OPTIONS 2 & 3

### Status Quo 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects

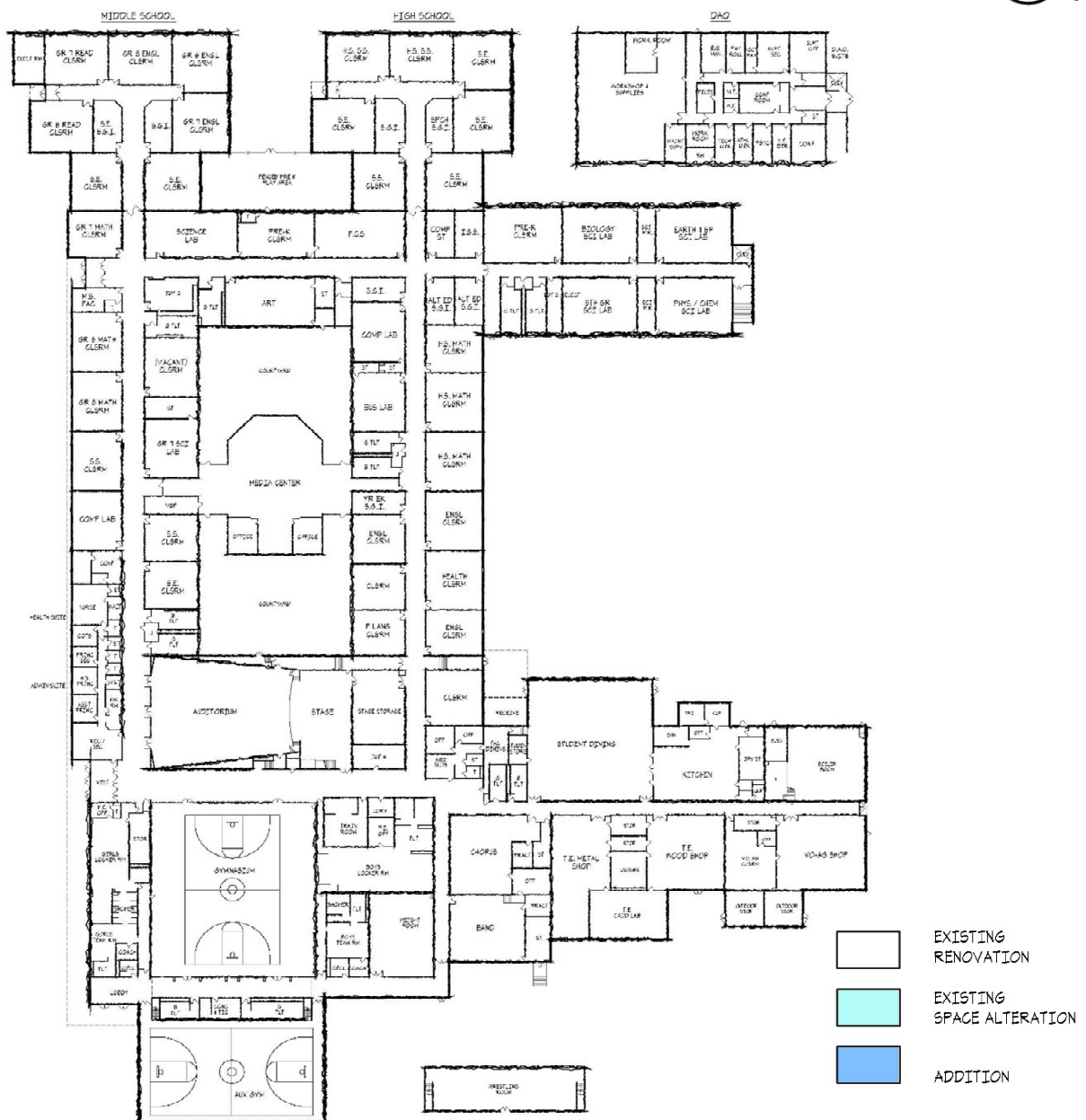
K-5

Full Renovation Projects - No Additions & No Educational Upgrades  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

6-12

Maintain High School / Middle School

### High School / Middle School - Floor Plan



## PROJECTED REIMBURSEMENT

### Status Quo 3 K-5 Elementary Schools -- Full Renovation Projects

**K-5**

Full Renovation Projects - No Additions & No Educational Upgrades  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

**6-12**

Maintain High School / Middle School

	PDE Adj. New FTE		* Reimb. RPC	Factor	Max Elig. Reimb.	Constr. New S.F.	Constr. Cost for Additions	Renov. Exist. S.F.	Renov. Study Cost	Alterations & Site Cost	Total Constr. Cost
Rockhill E.S.	316	442	4,700		2,077,400	0	0	23,375	3,645,900	184,800	3,830,700
	* Exist.	442	470		207,740						
Shade Gap E.S.	243	340	4,700		1,598,000	0	0	18,490	3,168,100	126,700	3,294,800
	* Exist.	340	470		159,800						
Spring Farms E.S.	315	441	4,700		2,072,700	0	0	22,005	3,594,700	521,300	4,116,000
	* Exist.	441	470		207,270						
<b>K-5 Total</b>					<b>\$6,322,900</b>	<b>0</b>	<b>\$0</b>	<b>63,870</b>	<b>\$10,408,700</b>	<b>\$832,800</b>	<b>\$11,241,500</b>
H.S. / M.S.	0		4,700		0	0	0	0	0	0	0
	* Exist.		470		0						
<b>6-12 Total</b>					<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>K-12 Total</b>					<b>\$6,322,900</b>	<b>0</b>	<b>\$0</b>	<b>63,870</b>	<b>\$10,408,700</b>	<b>\$832,800</b>	<b>\$11,241,500</b>

\* Additional 10% Reimbursement for *Qualifying Existing Building*.

*Qualifying Existing Building* must meet reimbursable minimum cost criteria to receive any or part of the additional 10% Reimbursement.

\*\* Disposition of existing Elementary Schools after consolidation is not included in the costs for the purpose of this study

## STATUS QUO

Total Project Cost	Aid Ratio	% State Share	% Local Share	+ Annual Total Share	+ Annual State Share	+ Annual Local Share	++ Annual Operational Expenses	+++ Annual Net Share	
4,788,000	0.7737	36.93%	63.07%	296,400	109,400	187,000	-11,200	285,200	Rockhill E.S.
4,119,000	0.7737	33.02%	66.98%	254,900	84,200	170,700	-11,500	243,400	Shade Gap E.S.
5,145,000	0.7737	34.29%	65.71%	318,300	109,100	209,200	-8,600	309,700	Spring Farms E.S.
<b>\$14,052,000</b>				<b>\$869,600</b>	<b>\$302,700</b>	<b>\$566,900</b>	<b>-\$31,300</b>	<b>\$838,300</b>	<b>K-5 Total</b>
0	0.7737	0.00%	0.00%	0	0	0	0	0	H.S. / M.S.
<b>\$0</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>6-12 Total</b>
<b>\$14,052,000</b>				<b>\$869,600</b>	<b>\$302,700</b>	<b>\$566,900</b>	<b>-\$31,300</b>	<b>\$838,300</b>	<b>K-12 Total</b>

+ Annual Total Share based upon a wrap-around 25-year bond issue rate.

++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.

+++ Annual Net Share *equals* Annual Total Share *minus* Annual Operational Expenses.









## OPTION SUMMARY

## OPTION 1

### OPT 1      3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions

K-5

Full Renovation Projects - Alterations & Additions  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

6-12

Maintain High School / Middle School with Gymnasium & Locker Room Additions

### OPTION PROS & CONS

#### Pros

- Maintains Status Quo of Schools
- Targeted School Upgrades & Energy savings
- Capacity adequate for the projected student population
- Provides Art Room, Music Classroom, and Library at Elementary Schools
- Provides additional Gymnasium for after-school activities at High School site

#### Cons

- Educational Program Upgrades may be limited to constraints of existing building
- Continued yearly operational expenses for 3 Elementary Schools
- 3 Schools are less efficient than one Elementary School building
- Duplication of core facilities and services for 3 buildings
- More disruption of construction for 4 buildings vs. construction for new building
- Inherit costly site deficiencies (i.e.. aged sewage treatment plant at Spring Farms E.S.; buried, abandoned clay pipe and septic system at Rockhill E.S.; etc.)

## PROGRAM SUMMARY

## OPTION 1

### OPT 1 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions









K-5

Full Renovation Projects - Alterations & Additions  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

6-12

Maintain High School / Middle School with Gymnasium & Locker Room Additions

### OPTION EDUCATIONAL PROGRAM

Building	Proposed Work	Proposed Grade Alignment	** Capacity		Highest Projected Enrollment for Reimbursement	
			District Functional	PDE Total	Methods I & II	Current + 15% *
  <b>Rockhill Elementary School</b>	Alterations & Additions	K-5	256	325		
  <b>Shade Gap Elementary School</b>	Alterations & Additions	K-5	128	175		
  <b>Spring Farms Elementary School</b>	Alterations & Additions	K-5	128	175		
<b>K-5 TOTAL</b>			<b>512</b>	<b>675</b>	<b>698</b> Method I	<b>634</b> 2015
  <b>High School / Middle School</b>	Maintain & Additions	6-12	821	986		
<b>6-12 TOTAL</b>			<b>821</b>	<b>986</b>	<b>683</b> Method I	<b>735</b> 2015
<b>K-12 TOTAL</b>			<b>1,333</b>	<b>1,661</b>	<b>1,381</b> Method I	<b>1,369</b> 2015









\* PDE allows Current Enrollment + 15% to be used as Highest Projected Enrollment for Project Grades.

\*\* Elementary *Functional Capacity* are Graded Classrooms K-5; *Special Education Capacity* is not included in the Functional Capacity or Total Capacity.

## OPTION COST SUMMARY









## OPTION 1

### K-12 OPERATIONAL EXPENSES - COMPARISON

	Building	Proposed Work	Arch. Area s.f.	++ Annual Energy Expenses	++ Annual Staff & Travel Expenses	++ Annual Educ. & Serv. Expenses	++ Annual Capital & Maint Expenses	++ Annual Operational Expenses
	 Rockhill E.S.	Alterations & Additions	34,375	2,500	0	0	0	2,500
	 Shade Gap E.S.	Alterations & Additions	24,490	-4,000	0	0	0	-4,000
	 Spring Farms E.S.	Alterations & Additions	24,005	-6,100	0	0	0	-6,100
	 H.S. / M.S.	Maintain & Additions	163,100	15,000	0	0	0	15,000
<b>K-12 Total</b>				<b>\$7,400</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,400</b>

Note: The Annual Operational Expenses are divided equally among the three existing Elementary Schools with the exception of the Annual Energy Expenses for the purpose of comparison.

### OPTION COST SUMMARY

	Building	Constr. Cost for Additions	Renov. Study Cost	Alterations & Site Cost	Total Constr. Cost	Total Project Cost	+ Annual Total Share	++ Annual Operational Expenses	+++ Annual Net Share
	 Rockhill E.S.	2,530,000	3,645,900	297,230	6,473,130	8,091,000	499,300	2,500	501,800
	 Shade Gap E.S.	1,500,000	3,168,100	247,700	4,915,800	6,145,000	379,200	-4,000	375,200
	 Spring Farms E.S.	500,000	3,594,700	688,400	4,783,100	5,979,000	369,100	-6,100	363,000
	New E.S.	0	0	0	0	0	0	0	0
<b>K-5 Total</b>		<b>\$4,530,000</b>	<b>\$10,408,700</b>	<b>\$1,233,330</b>	<b>\$16,172,030</b>	<b>\$20,215,000</b>	<b>\$1,247,600</b>	<b>-\$7,600</b>	<b>\$1,240,000</b>
	 H.S. / M.S.	3,750,000	0	120,500	3,870,500	4,838,000	298,700	15,000	313,700
<b>6-12 Total</b>		<b>\$3,750,000</b>	<b>\$0</b>	<b>\$120,500</b>	<b>\$3,870,500</b>	<b>\$4,838,000</b>	<b>\$298,700</b>	<b>\$15,000</b>	<b>\$313,700</b>
<b>K-12 Total</b>		<b>\$8,280,000</b>	<b>\$10,408,700</b>	<b>\$1,353,830</b>	<b>\$20,042,530</b>	<b>\$25,053,000</b>	<b>\$1,546,300</b>	<b>\$7,400</b>	<b>\$1,553,700</b>

Notes: + Annual Total Share based upon a wrap-around 25-year bond issue rate.  
 ++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.  
 +++ Annual Net Share equals Annual Total Share minus Annual Operational Expenses.

## OPT 1 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions

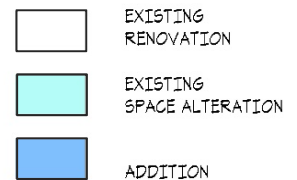
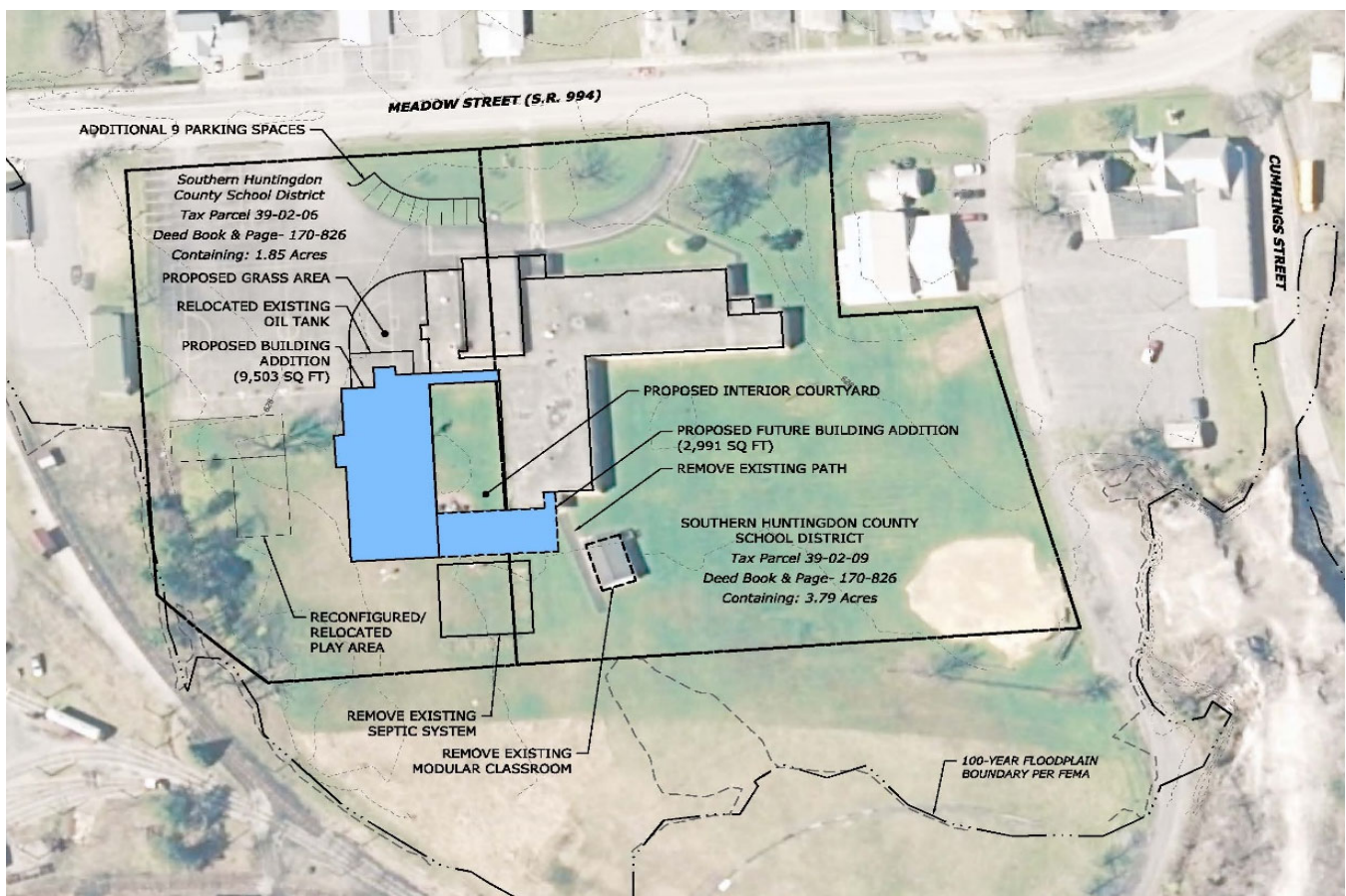
K-5

Full Renovation Projects - Alterations & Additions  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

6-12

Maintain High School / Middle School with Gymnasium & Locker Room Additions

### Rockhill Elementary School - Site Plan



## CONCEPTUAL DESIGN

## K-5 -- OPTION 1

### OPT 1 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions

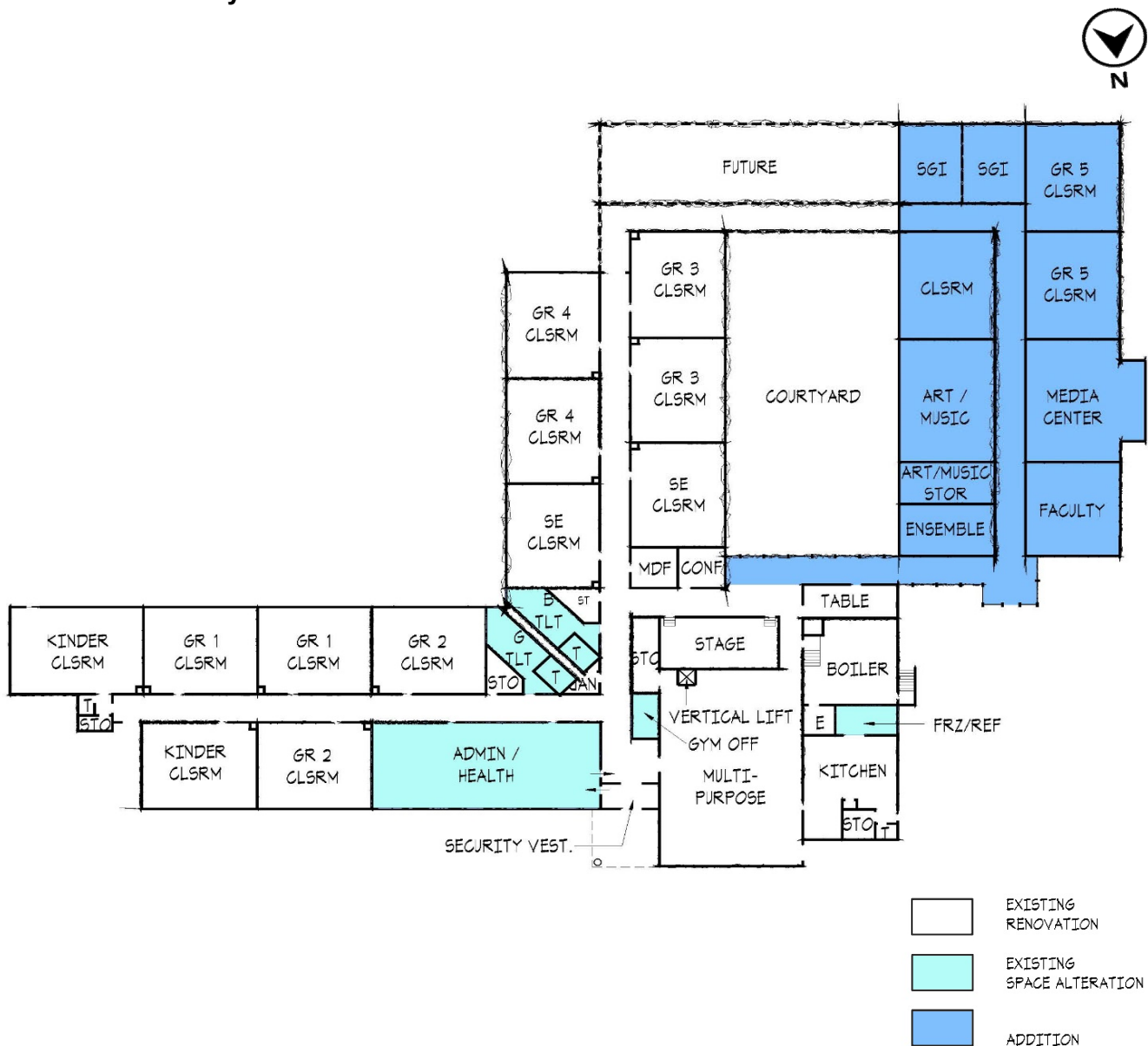
**K-5**

Full Renovation Projects - Alterations & Additions  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

**6-12**

Maintain High School / Middle School with Gymnasium & Locker Room Additions

### Rockhill Elementary School - Floor Plan





## OPT 1 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions

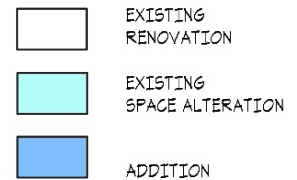
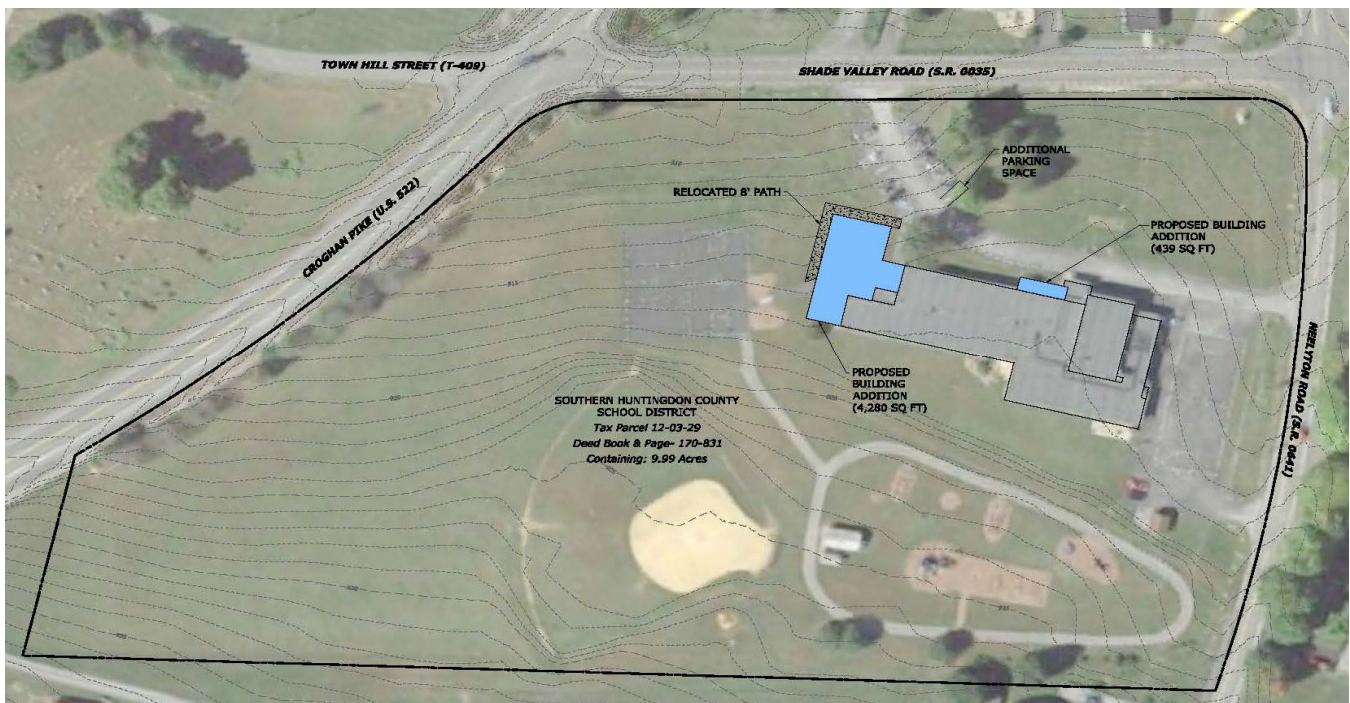
K-5

Full Renovation Projects - Alterations & Additions  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

6-12

Maintain High School / Middle School with Gymnasium & Locker Room Additions

### Shade Gap Elementary School - Site Plan



## CONCEPTUAL DESIGN

## K-5 -- OPTION 1

**OPT 1      3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions**

## K-5

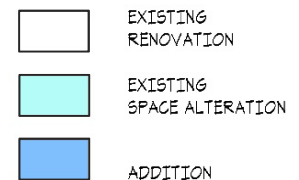
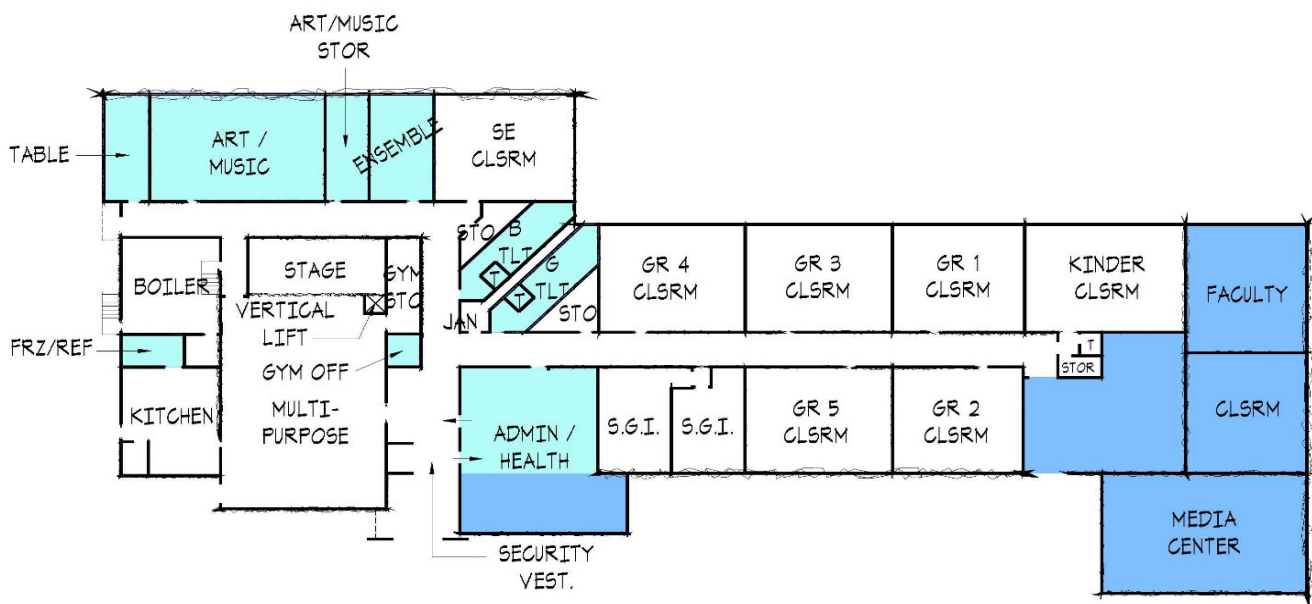
## Full Renovation Projects - Alterations & Additions

### Rockhill, Shade Gap, and Spring Farms Elementary Schools

**6-12**

## Maintain High School / Middle School with Gymnasium & Locker Room Additions

## Shade Gap Elementary School - Floor Plan



## OPT 1 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions

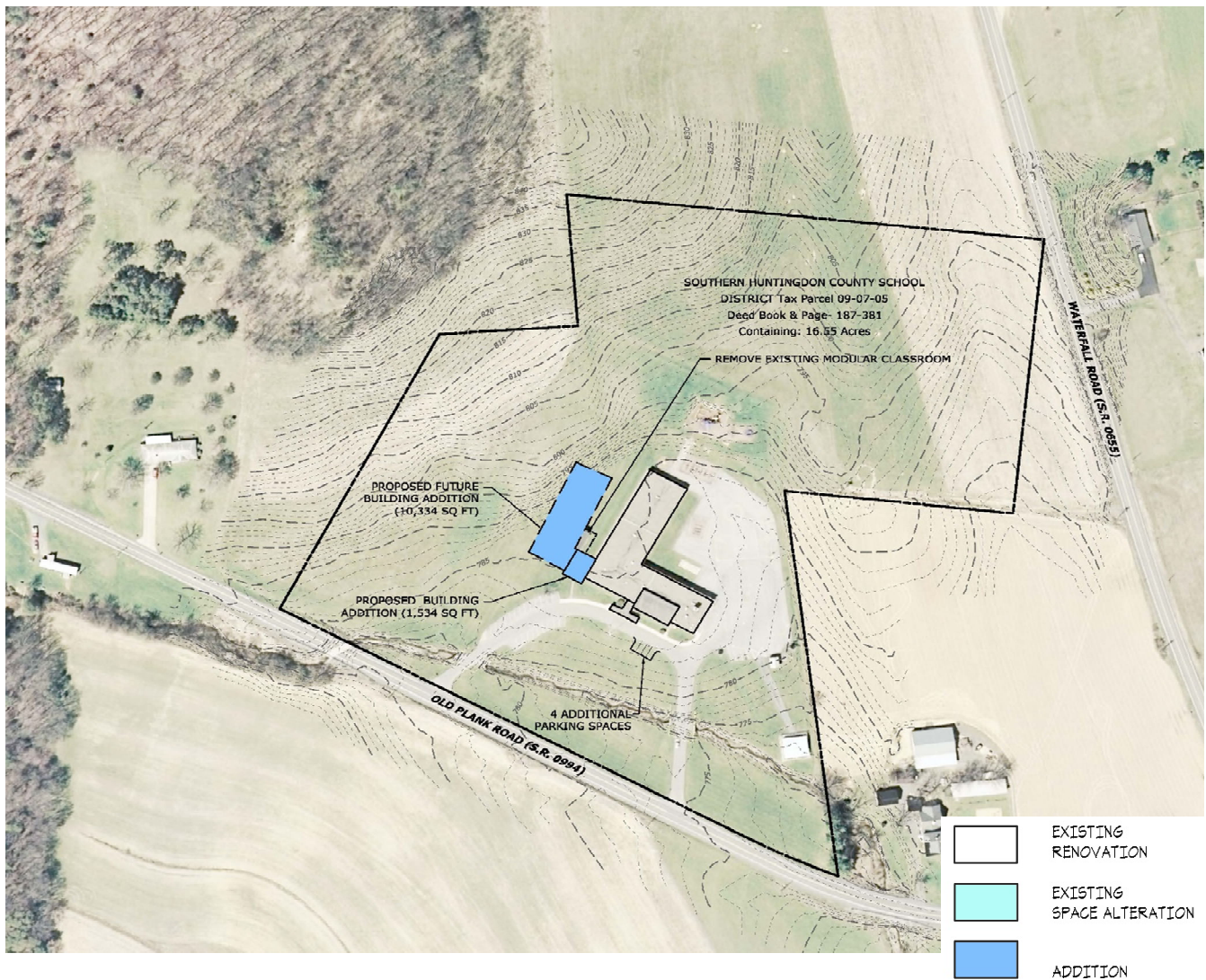
**K-5**

Full Renovation Projects - Alterations & Additions  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

**6-12**

Maintain High School / Middle School with Gymnasium & Locker Room Additions

### Spring Farms Elementary School - Site Plan





## CONCEPTUAL DESIGN

## K-5 -- OPTION 1

### OPT 1 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions

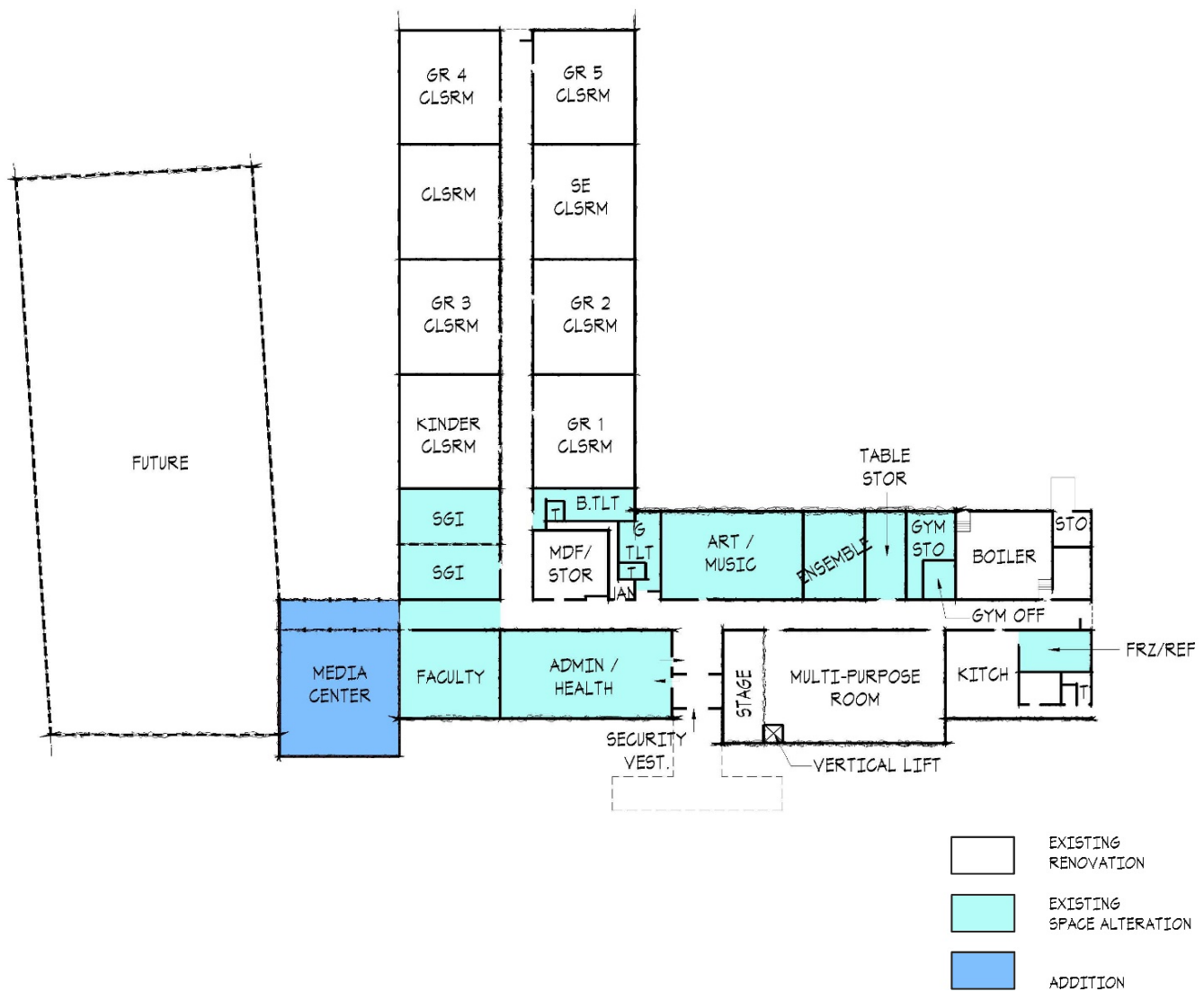
K-5

Full Renovation Projects - Alterations & Additions  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

6-12

Maintain High School / Middle School with Gymnasium & Locker Room Additions

### Spring Farms Elementary School - Floor Plan



## OPT 1 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions

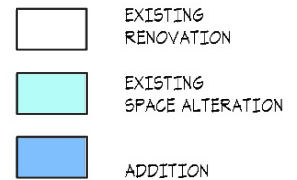
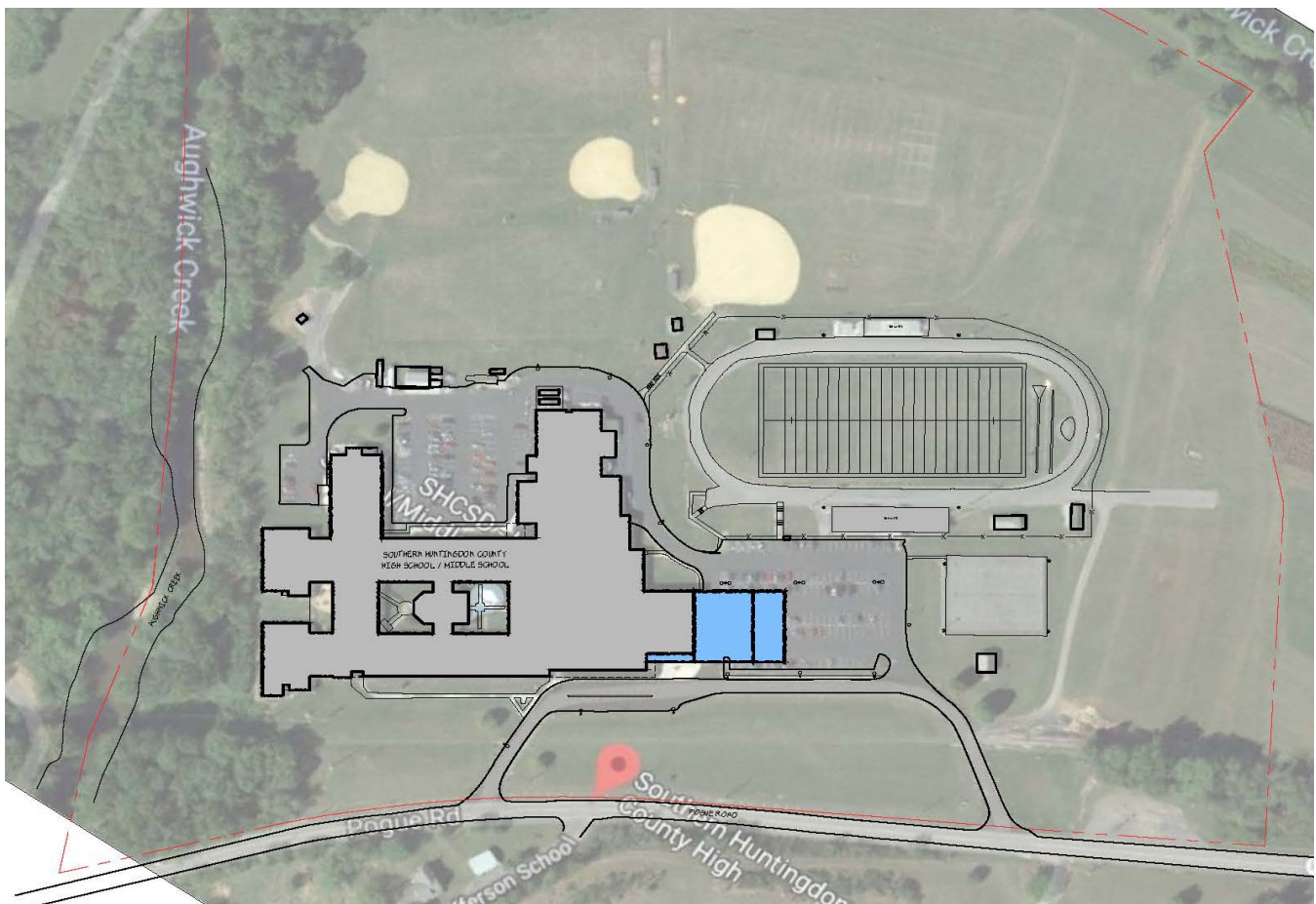
**K-5**

Full Renovation Projects - Alterations & Additions  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

**6-12**

Maintain High School / Middle School with Gymnasium & Locker Room Additions

### High School / Middle School Gymnasium Addition - Site Plan



## OPT 1 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions

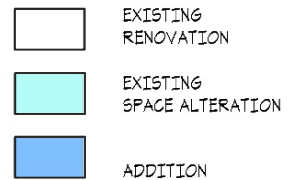
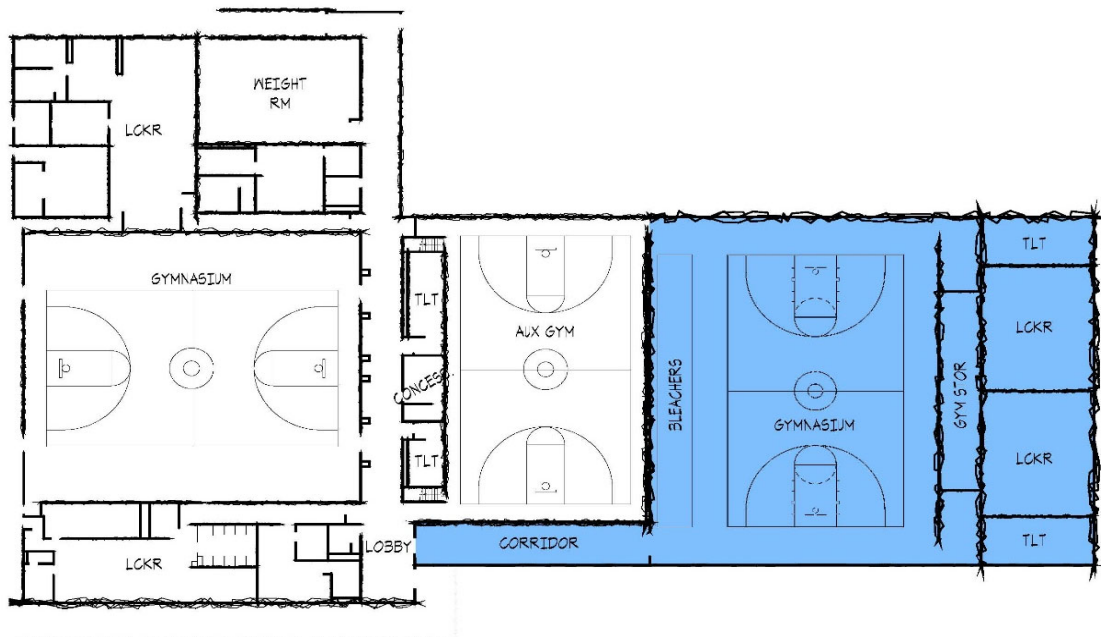
**K-5**

Full Renovation Projects - Alterations & Additions  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

**6-12**

Maintain High School / Middle School with Gymnasium & Locker Room Additions

### High School / Middle School Gymnasium Addition - Floor Plan





## PROJECTED REIMBURSEMENT

### OPT 1 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions

**K-5**

Full Renovation Projects - Alterations & Additions  
Rockhill, Shade Gap, and Spring Farms Elementary Schools

**6-12**

Maintain High School / Middle School with Gymnasium & Locker Room Additions

	PDE Adj. New FTE	RPC	* Reimb. Factor	Max Elig. Reimb.	Constr. New S.F.	Constr. Cost for Additions	Renov. Exist. S.F.	Renov. Study Cost	Alterations & Site Cost	Total Constr. Cost
Rockhill E.S.	400	560	4,700	2,632,000	11,000	2,530,000	23,375	3,645,900	50,000	6,473,130
	* Exist.	560	470	263,200					247,230	
Shade Gap E.S.	225	315	4,700	1,480,500	6,000	1,500,000	18,490	3,168,100	81,000	4,915,800
	* Exist.	315	470	148,050					166,700	
Spring Farms E.S.	225	315	4,700	1,480,500	2,000	500,000	22,005	3,594,700	118,000	4,783,100
	* Exist.	315	470	148,050					570,400	
<b>K-5 Total</b>				<b>\$6,152,400</b>	<b>19,000</b>	<b>\$4,530,000</b>	<b>63,870</b>	<b>\$10,408,700</b>	<b>\$1,233,330</b>	<b>\$16,172,030</b>
H.S. / M.S.	0		4,700	0	15,000	3,750,000	148,100	0	120,500	3,870,500
	* Exist.		470	0						
<b>6-12 Total</b>				<b>\$0</b>	<b>15,000</b>	<b>\$3,750,000</b>	<b>148,100</b>	<b>\$0</b>	<b>\$120,500</b>	<b>\$3,870,500</b>
<b>K-12 Total</b>				<b>\$6,152,400</b>	<b>34,000</b>	<b>\$8,280,000</b>	<b>211,970</b>	<b>\$10,408,700</b>	<b>\$1,353,830</b>	<b>\$20,042,530</b>

\* Additional 10% Reimbursement for *Qualifying Existing Building*.

*Qualifying Existing Building* must meet reimbursable minimum cost criteria to receive any or part of the additional 10% Reimbursement.

\*\* Disposition of existing Elementary Schools after consolidation is not included in the costs for the purpose of this study

## OPTION 1

Total Project Cost	Aid Ratio	% State Share	% Local Share	+ Annual Total Share	+ Annual State Share	+ Annual Local Share	++ Annual Operational Expenses	+++ Annual Net Share	
8,091,000	0.7737	27.69%	72.31%	499,300	138,200	361,100	2,500	501,800	Rockhill E.S.
6,145,000	0.7737	20.51%	79.49%	379,200	77,800	301,400	-4,000	375,200	Shade Gap E.S.
5,979,000	0.7737	21.07%	78.93%	369,100	77,800	291,300	-6,100	363,000	Spring Farms E.S.
<b>\$20,215,000</b>				<b>\$1,247,600</b>	<b>\$293,800</b>	<b>\$953,800</b>	<b>-\$7,600</b>	<b>\$1,240,000</b>	<b>K-5 Total</b>
4,838,000	0.7737	0.00%	100.00%	298,700	0	298,700	15,000	313,700	H.S. / M.S.
<b>\$4,838,000</b>				<b>\$298,700</b>	<b>\$0</b>	<b>\$298,700</b>	<b>\$15,000</b>	<b>\$313,700</b>	<b>6-12 Total</b>
<b>\$25,053,000</b>				<b>\$1,546,300</b>	<b>\$293,800</b>	<b>\$1,252,500</b>	<b>\$7,400</b>	<b>\$1,553,700</b>	<b>K-12 Total</b>

+ Annual Total Share based upon a wrap-around 25-year bond issue rate.

++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.

+++ Annual Net Share *equals* Annual Total Share *minus* Annual Operational Expenses.







<b>OPT 2</b>	<b>1 NEW K-5 ELEMENTARY SCHOOL -- Located Attached to H.S. / M.S.</b>
<b>K-5</b>	<b>Close existing Elementary Schools and replace with 1 New K-5 Elementary School</b> <b>Close Rockhill, Shade Gap, and Spring Farms Elementary Schools</b>
<b>2A</b>	New Building (Gymnasium & Separate Cafeteria)
<b>2B</b>	New Building (Gymnasium as Multi-purpose Room)
<b>6-12</b>	<b>Maintain High School / Middle School</b>

**OPTION PROS & CONS****Pros**

- New School designed for educational program and parity of programs
- More efficient use of District Buildings / decrease number of buildings
- Less yearly operational expenses for 1 Elementary School building
- Less duplication of core facilities and services than 3 buildings
- Less disruption of construction for new building vs. construction at 4 buildings
- Shared staff and travel expenses result in annual operational savings
- Annual operation expense savings reduces annual net share / annual cost of new building

**Cons**

- Larger School - increased capacity on H.S. / M.S. site
- Closing & Relocation of existing Elementary Schools





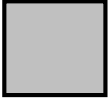


## PROGRAM SUMMARY

## OPTION 2A

### OPT 2 1 NEW K-5 ELEMENTARY SCHOOL -- Located Attached to H.S. / M.S.

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>2A</b>	New Building (Gymnasium & Separate Cafeteria)
<b>6-12</b>	Maintain High School / Middle School

### OPTION EDUCATIONAL PROGRAM

Building	Proposed Work	Proposed Grade Alignment	** Capacity		Highest Projected Enrollment for Reimbursement	
			District Functional	PDE Total	Methods I & II	Current + 15% *
	Rockhill Elementary School	Close & Replace				
	Shade Gap Elementary School	Close & Replace				
	Spring Farms Elementary School	Close & Replace				
	New K-5 Elementary School	New Construction	512	675		
<b>K-5 TOTAL</b>			<b>512</b>	<b>675</b>	<b>698</b> Method I	<b>634</b> 2015
	High School / Middle School	Maintain	791	949		
<b>6-12 TOTAL</b>			<b>791</b>	<b>949</b>	<b>683</b> Method I	<b>735</b> 2015
<b>K-12 TOTAL</b>			<b>1,303</b>	<b>1,624</b>	<b>1,381</b> Method I	<b>1,369</b> 2015





\* PDE allows Current Enrollment + 15% to be used as Highest Projected Enrollment for Project Grades.

\*\* Elementary *Functional Capacity* are Graded Classrooms K-5; *Special Education Capacity* is not included in the Functional Capacity or Total Capacity.

## OPTION COST SUMMARY






## OPTION 2A

### K-12 OPERATIONAL EXPENSES - COMPARISON

	Building	Proposed Work	Arch. Area s.f.	++ Annual Energy Expenses	++ Annual Staff & Travel Expenses	++ Annual Educ. & Serv. Expenses	++ Annual Capital & Maint Expenses	++ Annual Operational Expenses
	Rockhill E.S.	Close & Replace	0	-40,400	-293,000	-20,000	-60,000	-413,400
	Shade Gap E.S.	Close & Replace	0	-34,600	-293,000	-20,000	-60,000	-407,600
	Spring Farms E.S.	Close & Replace	0	-36,100	-293,000	-20,000	-60,000	-409,100
	New E.S.	New Construction	95,000	95,000	0	0	0	95,000
<b>K-12 Total</b>				<b>-\$16,100</b>	<b>-\$879,000</b>	<b>-\$60,000</b>	<b>-\$180,000</b>	<b>-\$1,135,100</b>

Note: The Annual Operational Expenses are divided equally among the three existing Elementary Schools with the exception of the Annual Energy Expenses for the purpose of comparison.

### OPTION COST SUMMARY

	Building	Constr. Cost for Additions	Renov. Study Cost	Alterations & Site Cost	Total Constr. Cost	Total Project Cost	+ Annual Total Share	++ Annual Operational Expenses	+++ Annual Net Share
	Rockhill E.S.	0	0	0	0	0	0	-413,400	-413,400
	Shade Gap E.S.	0	0	0	0	0	0	-407,600	-407,600
	Spring Farms E.S.	0	0	0	0	0	0	-409,100	-409,100
	New E.S.	20,710,000	0	1,400,000	22,110,000	27,638,000	1,704,600	95,000	1,799,600
<b>K-5 Total</b>		<b>\$20,710,000</b>	<b>\$0</b>	<b>\$1,400,000</b>	<b>\$22,110,000</b>	<b>\$27,638,000</b>	<b>\$1,704,600</b>	<b>-\$1,135,100</b>	<b>\$569,500</b>
	H.S. / M.S.	0	0	0	0	0	0	N/A	0
<b>6-12 Total</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>N/A</b>	<b>\$0</b>
<b>K-12 Total</b>		<b>\$20,710,000</b>	<b>\$0</b>	<b>\$1,400,000</b>	<b>\$22,110,000</b>	<b>\$27,638,000</b>	<b>\$1,704,600</b>	<b>-\$1,135,100</b>	<b>\$569,500</b>

Notes: + Annual Total Share based upon a wrap-around 25-year bond issue rate.  
 ++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.  
 +++ Annual Net Share equals Annual Total Share minus Annual Operational Expenses.

## CONCEPTUAL DESIGN

## K-5 -- OPTION 2A

### OPT 2 1 NEW K-5 ELEMENTARY SCHOOL -- Located Attached to H.S. / M.S.

K-5

Close existing Elementary Schools and replace with 1 New K-5 Elementary School  
Close Rockhill, Shade Gap, and Spring Farms Elementary Schools

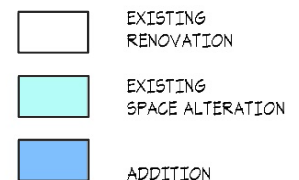
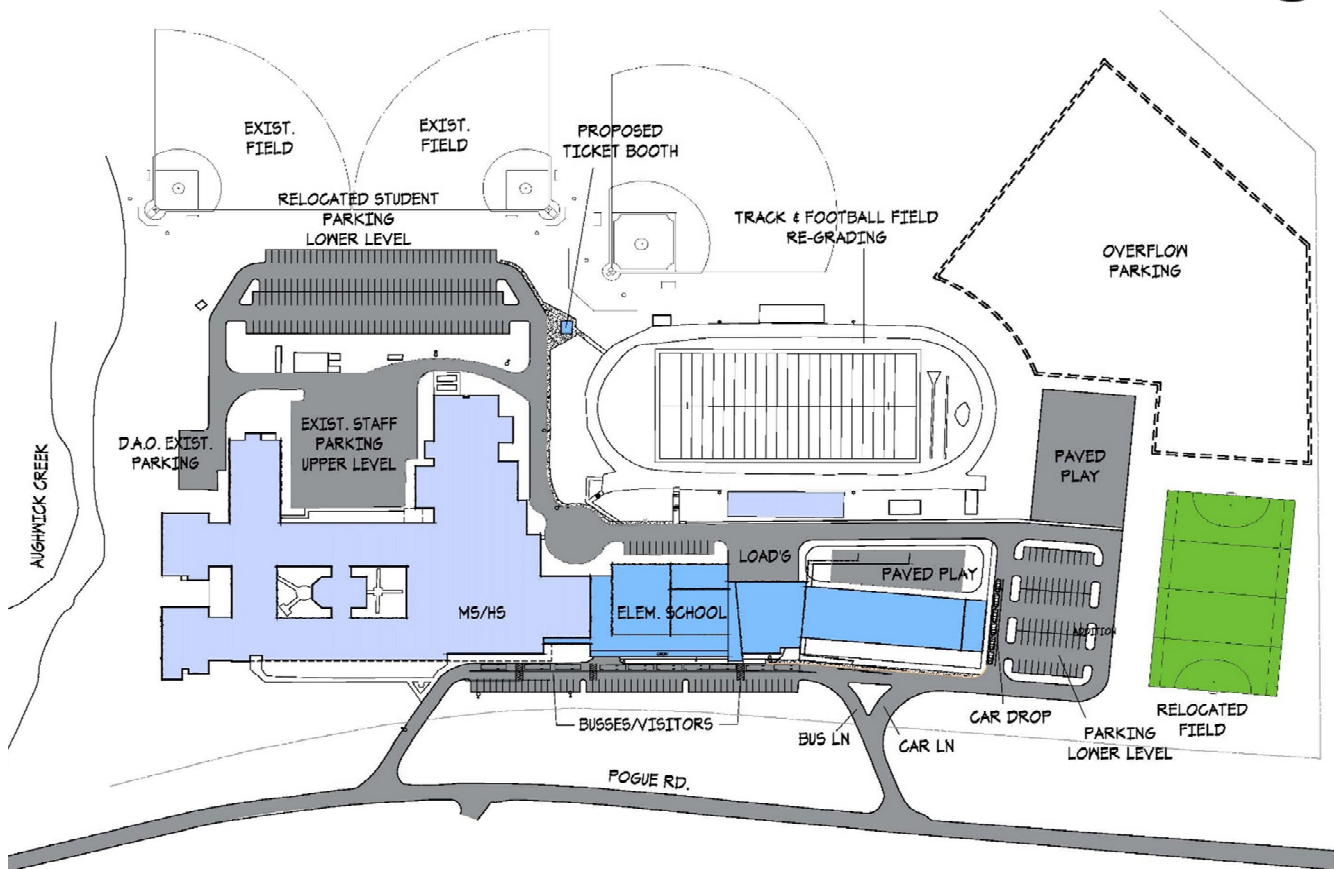
2A

New Building (Gymnasium & Separate Cafeteria)

6-12

Maintain High School / Middle School

### New K-5 Elementary School - Site Plan



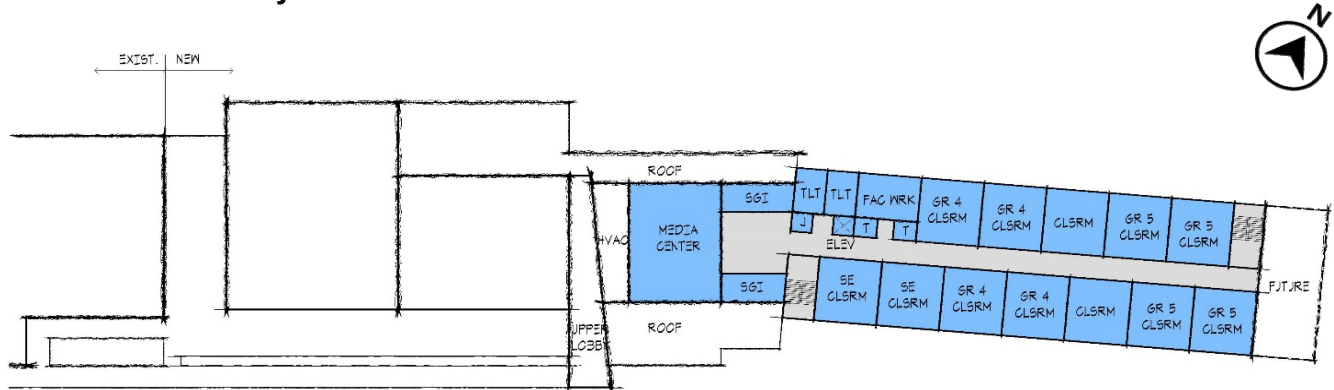
# CONCEPTUAL DESIGN

# K-5 -- OPTION 2A

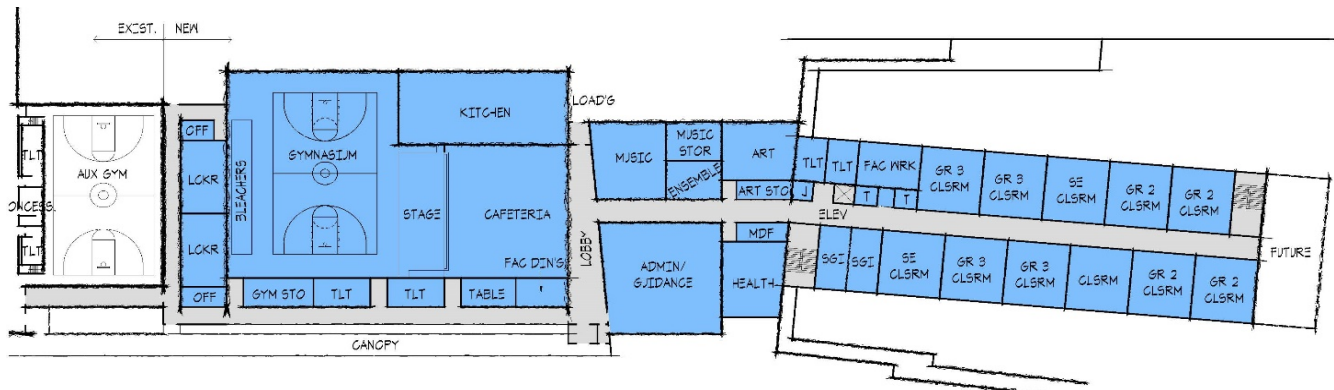
## OPT 2 1 NEW K-5 ELEMENTARY SCHOOL -- Located Attached to H.S. / M.S.

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>2A</b>	New Building (Gymnasium & Separate Cafeteria)
<b>6-12</b>	Maintain High School / Middle School

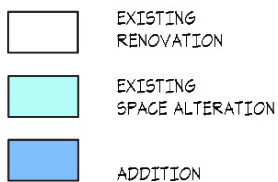
### New K-5 Elementary School - Floor Plan



Second Floor Plan



First Floor Plan



Lower Floor Plan

## PROJECTED REIMBURSEMENT

### OPT 2 1 New K-5 Elementary School -- Located adjacent to H.S. / M.S.

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>2A</b>	New Building (Gymnasium & Separate Cafeteria)
<b>6-12</b>	Maintain High School / Middle School

	PDE Adj. New FTE	RPC	* Reimb. Factor	Max Elig. Reimb.	Constr. New S.F.	Constr. Cost for Additions	Renov. Exist. S.F.	Renov. Study Cost	Alterations & Site Cost	Total Constr. Cost
Rockhill E.S.	0		4,700	0		0		0	0	0
	* Exist.		470	0						
Shade Gap E.S.	0		4,700	0		0		0	0	0
	* Exist.		470	0						
Spring Farms E.S.	0		4,700	0		0		0	0	0
	* Exist.		470	0						
New K-5 E..S.	850	1127	4,700	5,296,900	95,000	20,710,000		0	1,400,000	22,110,000
	* LEED	1127	470	529,690						
<b>K-5 Total</b>				<b>\$5,826,600</b>	<b>95,000</b>	<b>\$20,710,000</b>	<b>0</b>	<b>\$0</b>	<b>\$1,400,000</b>	<b>\$22,110,000</b>
H.S. / M.S.	0		4,700	0	0	0	0	0	0	0
	* Exist.		470	0						
<b>6-12 Total</b>				<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>K-12 Total</b>				<b>\$5,826,600</b>	<b>95,000</b>	<b>\$20,710,000</b>	<b>0</b>	<b>\$0</b>	<b>\$1,400,000</b>	<b>\$22,110,000</b>
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\* Additional 10% Reimbursement for *Qualifying Existing Building* .

*Qualifying Existing Building* must meet reimbursable minimum cost criteria to receive any or part of the additional 10% Reimbursement.

\*\* Disposition of existing Elementary Schools after consolidation is not included in the costs for the purpose of this study

## OPTION 2A

Total Project Cost	Aid Ratio	% State Share	% Local Share	+ Annual Total Share	+ Annual State Share	+ Annual Local Share	++ Annual Operational Expenses	+++ Annual Net Share	
0	0.7737	0.00%	100.00%	0	0	0	-413,400	-413,400	Rockhill E.S.
0	0.7737	0.00%	100.00%	0	0	0	-407,600	-407,600	Shade Gap E.S.
0	0.7737	0.00%	100.00%	0	0	0	-409,100	-409,100	Spring Farms E.S.
27,638,000	0.7737	16.31%	83.69%	1,704,600	278,000	1,426,600	95,000	1,799,600	New K-5 E..S.
<b>\$27,638,000</b>				<b>\$1,704,600</b>	<b>\$278,000</b>	<b>\$1,426,600</b>	<b>-\$1,135,100</b>	<b>\$569,500</b>	<b>K-5 Total</b>
0	0.7737	0.00%	0.00%	0	0	0	0	0	H.S. / M.S.
<b>\$0</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>6-12 Total</b>

<b>\$27,638,000</b>				<b>\$1,704,600</b>	<b>\$278,000</b>	<b>\$1,426,600</b>	<b>-\$1,135,100</b>	<b>\$569,500</b>	<b>K-12 Total</b>
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+ Annual Total Share based upon a wrap-around 25-year bond issue rate.

++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.

+++ Annual Net Share *equals* Annual Total Share *minus* Annual Operational Expenses.





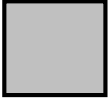


## PROGRAM SUMMARY

## OPTION 2B

### OPT 2 1 NEW K-5 ELEMENTARY SCHOOL -- Located Attached to H.S. / M.S.

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>2B</b>	New Building (Gymnasium as Multi-purpose Room)
<b>6-12</b>	Maintain High School / Middle School

### OPTION EDUCATIONAL PROGRAM

Building	Proposed Work	Proposed Grade Alignment	** Capacity		Highest Projected Enrollment for Reimbursement	
			District Functional	PDE Total	Methods I & II	Current + 15% *
	Close & Replace					
	Close & Replace					
	Close & Replace					
	New Construction	K-5	512	675		
<b>K-5 TOTAL</b>			<b>512</b>	<b>675</b>	<b>698</b> Method I	<b>634</b> 2015
	Maintain	6-12	791	949		
<b>6-12 TOTAL</b>			<b>791</b>	<b>949</b>	<b>683</b> Method I	<b>735</b> 2015
<b>K-12 TOTAL</b>			<b>1,303</b>	<b>1,624</b>	<b>1,381</b> Method I	<b>1,369</b> 2015





\* PDE allows Current Enrollment + 15% to be used as Highest Projected Enrollment for Project Grades.

\*\* Elementary *Functional Capacity* are Graded Classrooms K-5; *Special Education Capacity* is not included in the Functional Capacity or Total Capacity.

## OPTION COST SUMMARY






## OPTION 2B

### K-12 OPERATIONAL EXPENSES - COMPARISON

	Building	Proposed Work	Arch. Area s.f.	++ Annual Energy Expenses	++ Annual Staff & Travel Expenses	++ Annual Educ. & Serv. Expenses	++ Annual Capital & Maint Expenses	++ Annual Operational Expenses
	Rockhill E.S.	Close & Replace	0	-40,400	-293,000	-20,000	-55,000	-408,400
	Shade Gap E.S.	Close & Replace	0	-34,600	-293,000	-20,000	-55,000	-402,600
	Spring Farms E.S.	Close & Replace	0	-36,100	-293,000	-20,000	-55,000	-404,100
	New E.S.	New Construction	90,000	90,000	0	0	0	90,000
<b>K-12 Total</b>				<b>-\$21,100</b>	<b>-\$879,000</b>	<b>-\$60,000</b>	<b>-\$165,000</b>	<b>-\$1,125,100</b>

Note: The Annual Operational Expenses are divided equally among the three existing Elementary Schools with the exception of the Annual Energy Expenses for the purpose of comparison.

### OPTION COST SUMMARY

	Building	Constr. Cost for Additions	Renov. Study Cost	Alterations & Site Cost	Total Constr. Cost	Total Project Cost	+ Annual Total Share	++ Annual Operational Expenses	+++ Annual Net Share
	Rockhill E.S.	0	0	0	0	0	0	-408,400	-408,400
	Shade Gap E.S.	0	0	0	0	0	0	-402,600	-402,600
	Spring Farms E.S.	0	0	0	0	0	0	-404,100	-404,100
	New E.S.	19,620,000	0	1,400,000	21,020,000	26,275,000	1,621,100	90,000	1,711,100
<b>K-5 Total</b>		<b>\$19,620,000</b>	<b>\$0</b>	<b>\$1,400,000</b>	<b>\$21,020,000</b>	<b>\$26,275,000</b>	<b>\$1,621,100</b>	<b>-\$1,125,100</b>	<b>\$496,000</b>
	H.S. / M.S.	0	0	0	0	0	0	N/A	0
<b>6-12 Total</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>N/A</b>	<b>\$0</b>
<b>K-12 Total</b>		<b>\$19,620,000</b>	<b>\$0</b>	<b>\$1,400,000</b>	<b>\$21,020,000</b>	<b>\$26,275,000</b>	<b>\$1,621,100</b>	<b>-\$1,125,100</b>	<b>\$496,000</b>

Notes: + Annual Total Share based upon a wrap-around 25-year bond issue rate.  
 ++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.  
 +++ Annual Net Share equals Annual Total Share minus Annual Operational Expenses.

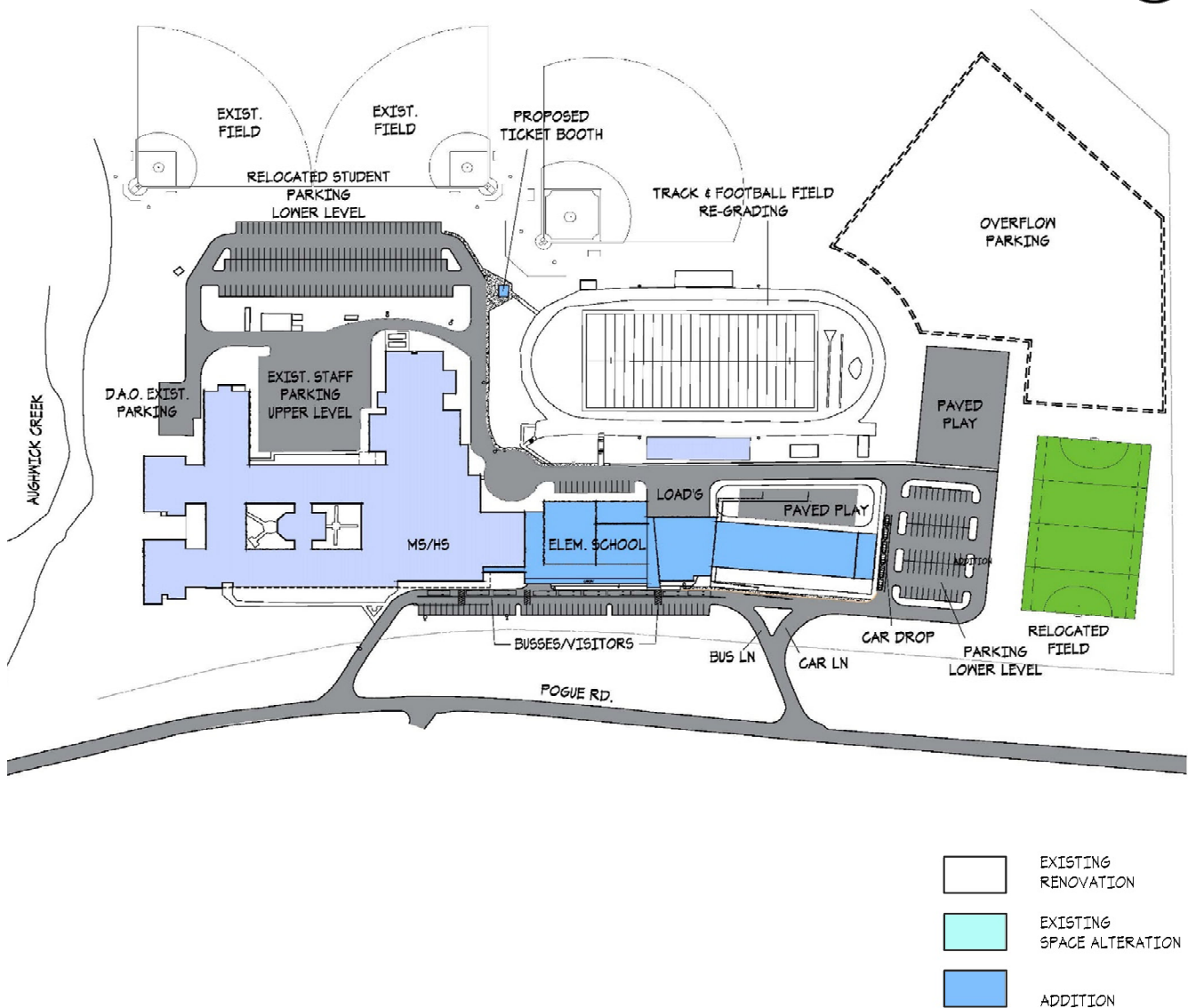
## CONCEPTUAL DESIGN

## K-5 -- OPTION 2B

### OPT 2 1 NEW K-5 ELEMENTARY SCHOOL -- Located Attached to H.S. / M.S.

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>2B</b>	New Building (Gymnasium as Multi-purpose Room)
<b>6-12</b>	Maintain High School / Middle School

### New K-5 Elementary School - Site Plan



## CONCEPTUAL DESIGN

## K-5 -- OPTION 2B

### OPT 2 1 NEW K-5 ELEMENTARY SCHOOL -- Located Attached to H.S. / M.S.

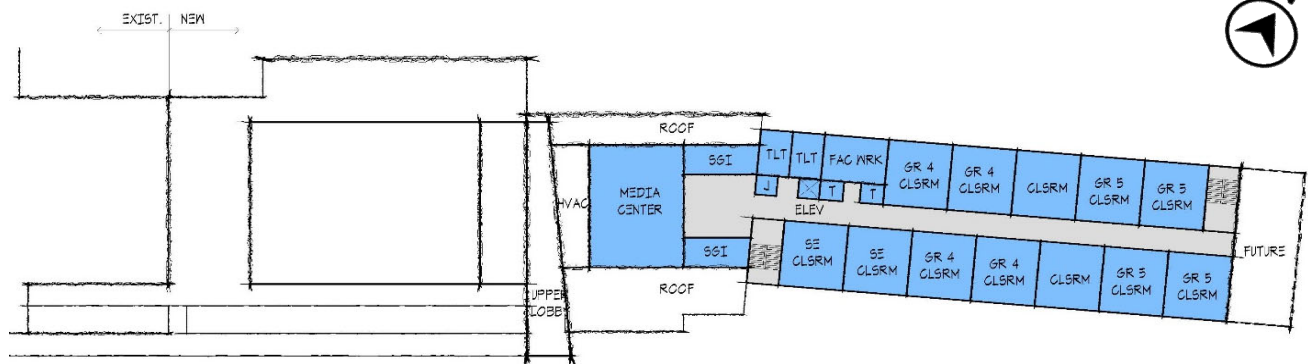
<b>K-5</b>
<b>2B</b>
<b>6-12</b>

Close existing Elementary Schools and replace with 1 New K-5 Elementary School  
Close Rockhill, Shade Gap, and Spring Farms Elementary Schools

New Building (Gymnasium as Multi-purpose Room)

Maintain High School / Middle School

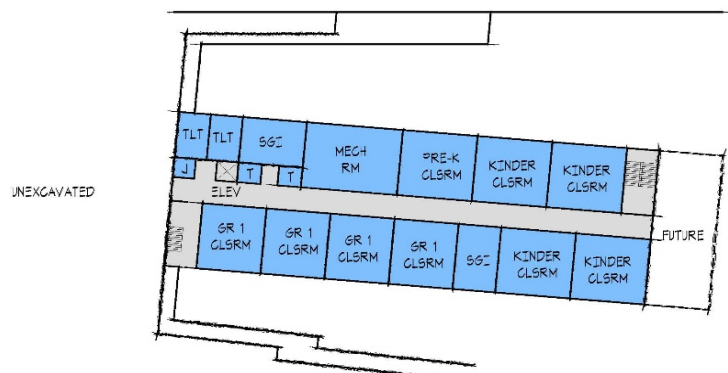
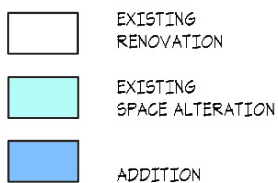
### New K-5 Elementary School - Floor Plan



Second Floor Plan



First Floor Plan



Lower Floor Plan

## PROJECTED REIMBURSEMENT

### OPT 2 1 New K-5 Elementary School -- Located adjacent to H.S. / M.S.

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>2B</b>	New Building (Gymnasium & Separate Cafeteria)
<b>6-12</b>	Maintain High School / Middle School

	PDE Adj. New FTE	RPC	* Reimb. Factor	Max Elig. Reimb.	Constr. New S.F.	Constr. Cost for Additions	Renov. Exist. S.F.	Renov. Study Cost	Alterations & Site Cost	Total Constr. Cost
Rockhill E.S.	0		4,700	0		0		0	0	0
	* Exist.		470	0						
Shade Gap E.S.	0		4,700	0		0		0	0	0
	* Exist.		470	0						
Spring Farms E.S.	0		4,700	0		0		0	0	0
	* Exist.		470	0						
New K-5 E..S.	850	1127	4,700	5,296,900	90,000	19,620,000		0	1,400,000	21,020,000
	* LEED	1127	470	529,690						
<b>K-5 Total</b>				<b>\$5,826,600</b>	<b>90,000</b>	<b>\$19,620,000</b>	<b>0</b>	<b>\$0</b>	<b>\$1,400,000</b>	<b>\$21,020,000</b>
H.S. / M.S.	0		4,700	0	0	0	0	0	0	0
	* Exist.		470	0						
<b>6-12 Total</b>				<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>K-12 Total</b>				<b>\$5,826,600</b>	<b>90,000</b>	<b>\$19,620,000</b>	<b>0</b>	<b>\$0</b>	<b>\$1,400,000</b>	<b>\$21,020,000</b>
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\* Additional 10% Reimbursement for *Qualifying Existing Building* .

*Qualifying Existing Building* must meet reimbursable minimum cost criteria to receive any or part of the additional 10% Reimbursement.

\*\* Disposition of existing Elementary Schools after consolidation is not included in the costs for the purpose of this study

## OPTION 2B

Total Project Cost	Aid Ratio	% State Share	% Local Share	+ Annual Total Share	+ Annual State Share	+ Annual Local Share	++ Annual Operational Expenses	+++ Annual Net Share	
0	0.7737	0.00%	100.00%	0	0	0	-408,400	-408,400	Rockhill E.S.
0	0.7737	0.00%	100.00%	0	0	0	-402,600	-402,600	Shade Gap E.S.
0	0.7737	0.00%	100.00%	0	0	0	-404,100	-404,100	Spring Farms E.S.
26,275,000	0.7737	17.16%	82.84%	1,621,100	278,100	1,343,000	90,000	1,711,100	New K-5 E..S.
<b>\$26,275,000</b>				<b>\$1,621,100</b>	<b>\$278,100</b>	<b>\$1,343,000</b>	<b>-\$1,125,100</b>	<b>\$496,000</b>	<b>K-5 Total</b>
0	0.7737	0.00%	0.00%	0	0	0	0	0	H.S. / M.S.
<b>\$0</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>6-12 Total</b>

<b>\$26,275,000</b>				<b>\$1,621,100</b>	<b>\$278,100</b>	<b>\$1,343,000</b>	<b>-\$1,125,100</b>	<b>\$496,000</b>	<b>K-12 Total</b>
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+ Annual Total Share based upon a wrap-around 25-year bond issue rate.

++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.

+++ Annual Net Share *equals* Annual Total Share *minus* Annual Operational Expenses.









<b>OPT 3</b>	<b>1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site</b>
<b>K-5</b>	<b>Close existing Elementary Schools and replace with 1 New K-5 Elementary School</b> <b>Close Rockhill, Shade Gap, and Spring Farms Elementary Schools</b>
<b>3A</b>	New Building (Gymnasium & Separate Cafeteria)
<b>3B</b>	New Building (Gymnasium as Multi-purpose Room)
<b>6-12</b>	<b>Maintain High School / Middle School</b>

**OPTION PROS & CONS****Pros**

- New School designed for educational program and parity of programs
- More efficient use of District Buildings / decrease number of buildings
- Less yearly operational expenses for 1 Elementary School building
- Less duplication of core facilities and services than 3 buildings
- Less disruption of construction for new building vs. construction at 4 buildings
- Annual operation expense savings reduces annual net share / annual cost of new building

**Cons**

- Larger School - increased capacity on H.S. / M.S. site
- Closing & Relocation of existing Elementary Schools



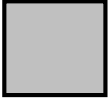


## PROGRAM SUMMARY

## OPTION 3A

### OPT 3 1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>3A</b>	New Building (Gymnasium & Separate Cafeteria)
<b>6-12</b>	Maintain High School / Middle School

### OPTION EDUCATIONAL PROGRAM

Building	Proposed Work	Proposed Grade Alignment	** Capacity		Highest Projected Enrollment for Reimbursement	
			District Functional	PDE Total	Methods I & II	Current + 15% *
	Rockhill Elementary School	Close & Replace				
	Shade Gap Elementary School	Close & Replace				
	Spring Farms Elementary School	Close & Replace				
	New K-5 Elementary School	New Construction	512	675		
<b>K-5 TOTAL</b>			<b>512</b>	<b>675</b>	<b>698</b> Method I	<b>634</b> 2015
	High School / Middle School	Maintain	791	949		
<b>6-12 TOTAL</b>			<b>791</b>	<b>949</b>	<b>683</b> Method I	<b>735</b> 2015
<b>K-12 TOTAL</b>			<b>1,303</b>	<b>1,624</b>	<b>1,381</b> Method I	<b>1,369</b> 2015





\* PDE allows Current Enrollment + 15% to be used as Highest Projected Enrollment for Project Grades.

\*\* Elementary *Functional Capacity* are Graded Classrooms K-5; *Special Education Capacity* is not included in the Functional Capacity or Total Capacity.

## OPTION COST SUMMARY






## OPTION 3A

### K-12 OPERATIONAL EXPENSES - COMPARISON

	Building	Proposed Work	Arch. Area s.f.	++ Annual Energy Expenses	++ Annual Staff & Travel Expenses	++ Annual Educ. & Serv. Expenses	++ Annual Capital & Maint Expenses	++ Annual Operational Expenses
	Rockhill E.S.	Close & Replace	0	-40,400	-259,000	-20,000	-60,000	-379,400
	Shade Gap E.S.	Close & Replace	0	-34,600	-259,000	-20,000	-60,000	-373,600
	Spring Farms E.S.	Close & Replace	0	-36,100	-259,000	-20,000	-60,000	-375,100
	New E.S.	New Construction	95,000	95,000	0	0	0	95,000
<b>K-12 Total</b>				<b>-\$16,100</b>	<b>-\$777,000</b>	<b>-\$60,000</b>	<b>-\$180,000</b>	<b>-\$1,033,100</b>

Note: The Annual Operational Expenses are divided equally among the three existing Elementary Schools with the exception of the Annual Energy Expenses for the purpose of comparison.

### OPTION COST SUMMARY

	Building	Constr. Cost for Additions	Renov. Study Cost	Alterations & Site Cost	Total Constr. Cost	Total Project Cost	+ Annual Total Share	++ Annual Operational Expenses	+++ Annual Net Share
	Rockhill E.S.	0	0	0	0	0	0	-379,400	-379,400
	Shade Gap E.S.	0	0	0	0	0	0	-373,600	-373,600
	Spring Farms E.S.	0	0	0	0	0	0	-375,100	-375,100
	New E.S.	20,425,000	0	1,225,000	21,650,000	27,063,000	1,669,800	95,000	1,764,800
<b>K-5 Total</b>		<b>\$20,425,000</b>	<b>\$0</b>	<b>\$1,225,000</b>	<b>\$21,650,000</b>	<b>\$27,063,000</b>	<b>\$1,669,800</b>	<b>-\$1,033,100</b>	<b>\$636,700</b>
	H.S. / M.S.	0	0	0	0	0	0	N/A	0
<b>6-12 Total</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>N/A</b>	<b>\$0</b>
<b>K-12 Total</b>		<b>\$20,425,000</b>	<b>\$0</b>	<b>\$1,225,000</b>	<b>\$21,650,000</b>	<b>\$27,063,000</b>	<b>\$1,669,800</b>	<b>-\$1,033,100</b>	<b>\$636,700</b>

Notes: + Annual Total Share based upon a wrap-around 25-year bond issue rate.  
 ++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.  
 +++ Annual Net Share equals Annual Total Share minus Annual Operational Expenses.



## CONCEPTUAL DESIGN

## K-5 -- OPTION 3A

### OPT 3 1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site

K-5

Close existing Elementary Schools and replace with 1 New K-5 Elementary School  
Close Rockhill, Shade Gap, and Spring Farms Elementary Schools

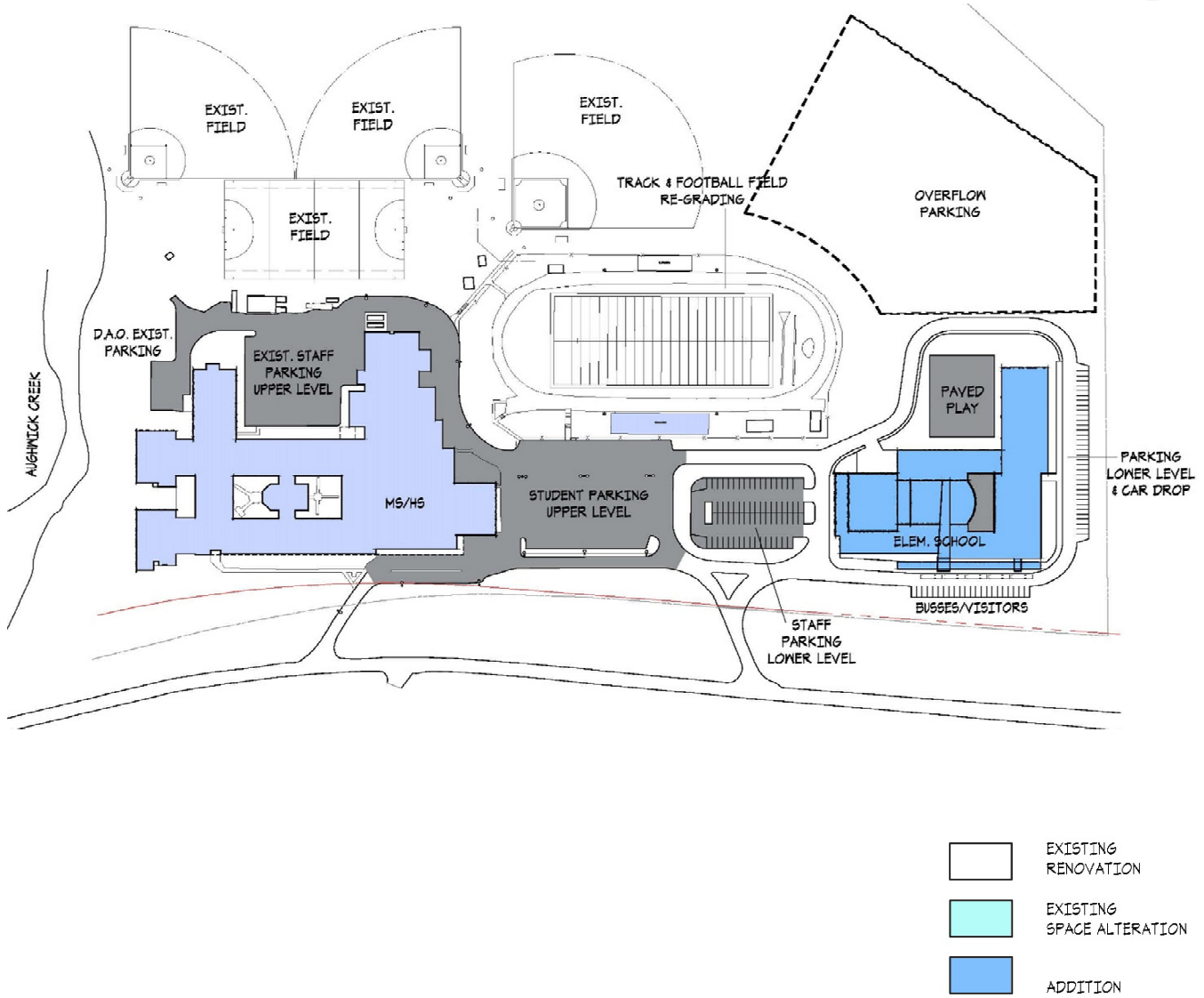
3A

New Building (Gymnasium & Separate Cafeteria)

6-12

Maintain High School / Middle School

### New K-5 Elementary School - Site Plan



## CONCEPTUAL DESIGN

## K-5 -- OPTION 3A

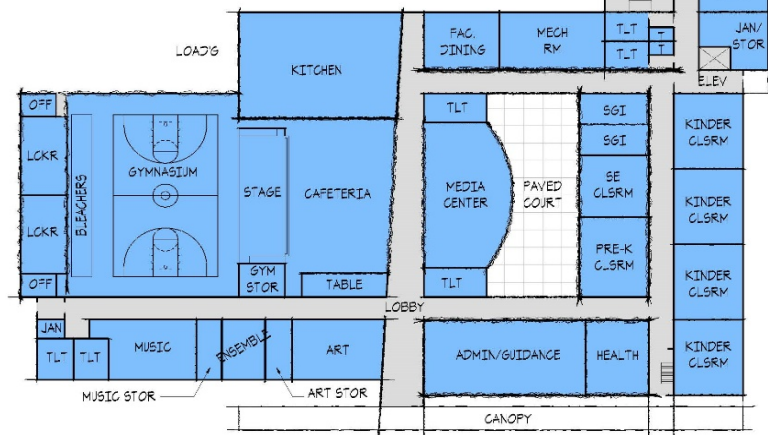
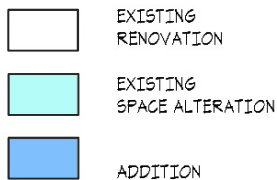
### OPT 3 1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>3A</b>	New Building (Gymnasium & Separate Cafeteria)
<b>6-12</b>	Maintain High School / Middle School

### New K-5 Elementary School - Floor Plan



### Second Floor Plan



### First Floor Plan

## PROJECTED REIMBURSEMENT

### OPT 3 1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>3A</b>	4 Classroom per grade - New Building (Gymnasium & Separate Cafeteria)
<b>6-12</b>	Maintain High School / Middle School

	PDE Adj. New FTE	* Reimb. RPC	Factor	Max Elig. Reimb.	Constr. New S.F.	Constr. Cost for Additions	Renov. Exist. S.F.	Renov. Study Cost	Alterations & Site Cost	Total Constr. Cost
Rockhill E.S.	0	4,700		0		0		0	0	0
	* Exist.		470	0						
Shade Gap E.S.	0	4,700		0		0		0	0	0
	* Exist.		470	0						
Spring Farms E.S.	0	4,700		0		0		0	0	0
	* Exist.		470	0						
New K-5 E..S.	850	1127	4,700	5,296,900	95,000	20,425,000		0	1,225,000	21,650,000
	* LEED	1127	470	529,690						
<b>K-5 Total</b>				<b>\$5,826,600</b>	<b>95,000</b>	<b>\$20,425,000</b>	<b>0</b>	<b>\$0</b>	<b>\$1,225,000</b>	<b>\$21,650,000</b>
H.S. / M.S.	0	4,700		0	0	0	0	0	0	0
	* Exist.		470	0						
<b>6-12 Total</b>				<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>K-12 Total</b>				<b>\$5,826,600</b>	<b>95,000</b>	<b>\$20,425,000</b>	<b>0</b>	<b>\$0</b>	<b>\$1,225,000</b>	<b>\$21,650,000</b>
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\* Additional 10% Reimbursement for *Qualifying Existing Building* .

*Qualifying Existing Building* must meet reimbursable minimum cost criteria to receive any or part of the additional 10% Reimbursement.

\*\* Disposition of existing Elementary Schools after consolidation is not included in the costs for the purpose of this study

## OPTION 3A

Total Project Cost	Aid Ratio	% State Share	% Local Share	+ Annual Total Share	+ Annual State Share	+ Annual Local Share	++ Annual Operational Expenses	+++ Annual Net Share	
0	0.7737	0.00%	100.00%	0	0	0	-379,400	-379,400	Rockhill E.S.
0	0.7737	0.00%	100.00%	0	0	0	-373,600	-373,600	Shade Gap E.S.
0	0.7737	0.00%	100.00%	0	0	0	-375,100	-375,100	Spring Farms E.S.
27,063,000	0.7737	16.66%	83.34%	1,669,800	278,100	1,391,700	95,000	1,764,800	New K-5 E..S.
<b>\$27,063,000</b>				<b>\$1,669,800</b>	<b>\$278,100</b>	<b>\$1,391,700</b>	<b>-\$1,033,100</b>	<b>\$636,700</b>	<b>K-5 Total</b>
0	0.7737	0.00%	0.00%	0	0	0	0	0	H.S. / M.S.
<b>\$0</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>6-12 Total</b>

<b>\$27,063,000</b>				<b>\$1,669,800</b>	<b>\$278,100</b>	<b>\$1,391,700</b>	<b>-\$1,033,100</b>	<b>\$636,700</b>	<b>K-12 Total</b>
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+ Annual Total Share based upon a wrap-around 25-year bond issue rate.

++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.

+++ Annual Net Share *equals* Annual Total Share *minus* Annual Operational Expenses.



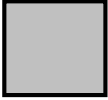


## PROGRAM SUMMARY

## OPTION 3B

### OPT 3 1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>3B</b>	New Building (Gymnasium as Multi-purpose Room)
<b>6-12</b>	Maintain High School / Middle School

### OPTION EDUCATIONAL PROGRAM

Building	Proposed Work	Proposed Grade Alignment	** Capacity		Highest Projected Enrollment for Reimbursement	
			District Functional	PDE Total	Methods I & II	Current + 15% *
	Rockhill Elementary School	Close & Replace				
	Shade Gap Elementary School	Close & Replace				
	Spring Farms Elementary School	Close & Replace				
	New K-5 Elementary School	New Construction	512	675		
<b>K-5 TOTAL</b>			<b>512</b>	<b>675</b>	<b>698</b> Method I	<b>634</b> 2015
	High School / Middle School	Maintain	791	949		
<b>6-12 TOTAL</b>			<b>791</b>	<b>949</b>	<b>683</b> Method I	<b>735</b> 2015
<b>K-12 TOTAL</b>			<b>1,303</b>	<b>1,624</b>	<b>1,381</b> Method I	<b>1,369</b> 2015





\* PDE allows Current Enrollment + 15% to be used as Highest Projected Enrollment for Project Grades.

\*\* Elementary *Functional Capacity* are Graded Classrooms K-5; *Special Education Capacity* is not included in the Functional Capacity or Total Capacity.

## OPTION COST SUMMARY






## OPTION 3B

### K-12 OPERATIONAL EXPENSES - COMPARISON

	Building	Proposed Work	Arch. Area s.f.	++ Annual Energy Expenses	++ Annual Staff & Travel Expenses	++ Annual Educ. & Serv. Expenses	++ Annual Capital & Maint Expenses	++ Annual Operational Expenses
	Rockhill E.S.	Close & Replace	0	-40,400	-259,000	-20,000	-55,000	-374,400
	Shade Gap E.S.	Close & Replace	0	-34,600	-259,000	-20,000	-55,000	-368,600
	Spring Farms E.S.	Close & Replace	0	-36,100	-259,000	-20,000	-55,000	-370,100
	New E.S.	New Construction	90,000	90,000	0	0	0	90,000
<b>K-12 Total</b>				<b>-\$21,100</b>	<b>-\$777,000</b>	<b>-\$60,000</b>	<b>-\$165,000</b>	<b>-\$1,023,100</b>

Note: The Annual Operational Expenses are divided equally among the three existing Elementary Schools with the exception of the Annual Energy Expenses for the purpose of comparison.

### OPTION COST SUMMARY

	Building	Constr. Cost for Additions	Renov. Study Cost	Alterations & Site Cost	Total Constr. Cost	Total Project Cost	+ Annual Total Share	++ Annual Operational Expenses	+++ Annual Net Share
	Rockhill E.S.	0	0	0	0	0	0	-374,400	-374,400
	Shade Gap E.S.	0	0	0	0	0	0	-368,600	-368,600
	Spring Farms E.S.	0	0	0	0	0	0	-370,100	-370,100
	New E.S.	19,350,000	0	1,225,000	20,575,000	25,719,000	1,586,800	90,000	1,676,800
<b>K-5 Total</b>		<b>\$19,350,000</b>	<b>\$0</b>	<b>\$1,225,000</b>	<b>\$20,575,000</b>	<b>\$25,719,000</b>	<b>\$1,586,800</b>	<b>-\$1,023,100</b>	<b>\$563,700</b>
	H.S. / M.S.	0	0	0	0	0	0	N/A	0
<b>6-12 Total</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>N/A</b>	<b>\$0</b>
<b>K-12 Total</b>		<b>\$19,350,000</b>	<b>\$0</b>	<b>\$1,225,000</b>	<b>\$20,575,000</b>	<b>\$25,719,000</b>	<b>\$1,586,800</b>	<b>-\$1,023,100</b>	<b>\$563,700</b>

Notes: + Annual Total Share based upon a wrap-around 25-year bond issue rate.  
 ++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.  
 +++ Annual Net Share equals Annual Total Share minus Annual Operational Expenses.



## CONCEPTUAL DESIGN

## K-5 -- OPTION 3B

### OPT 3 1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site

K-5

Close existing Elementary Schools and replace with 1 New K-5 Elementary School  
Close Rockhill, Shade Gap, and Spring Farms Elementary Schools

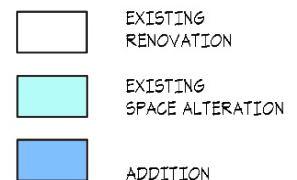
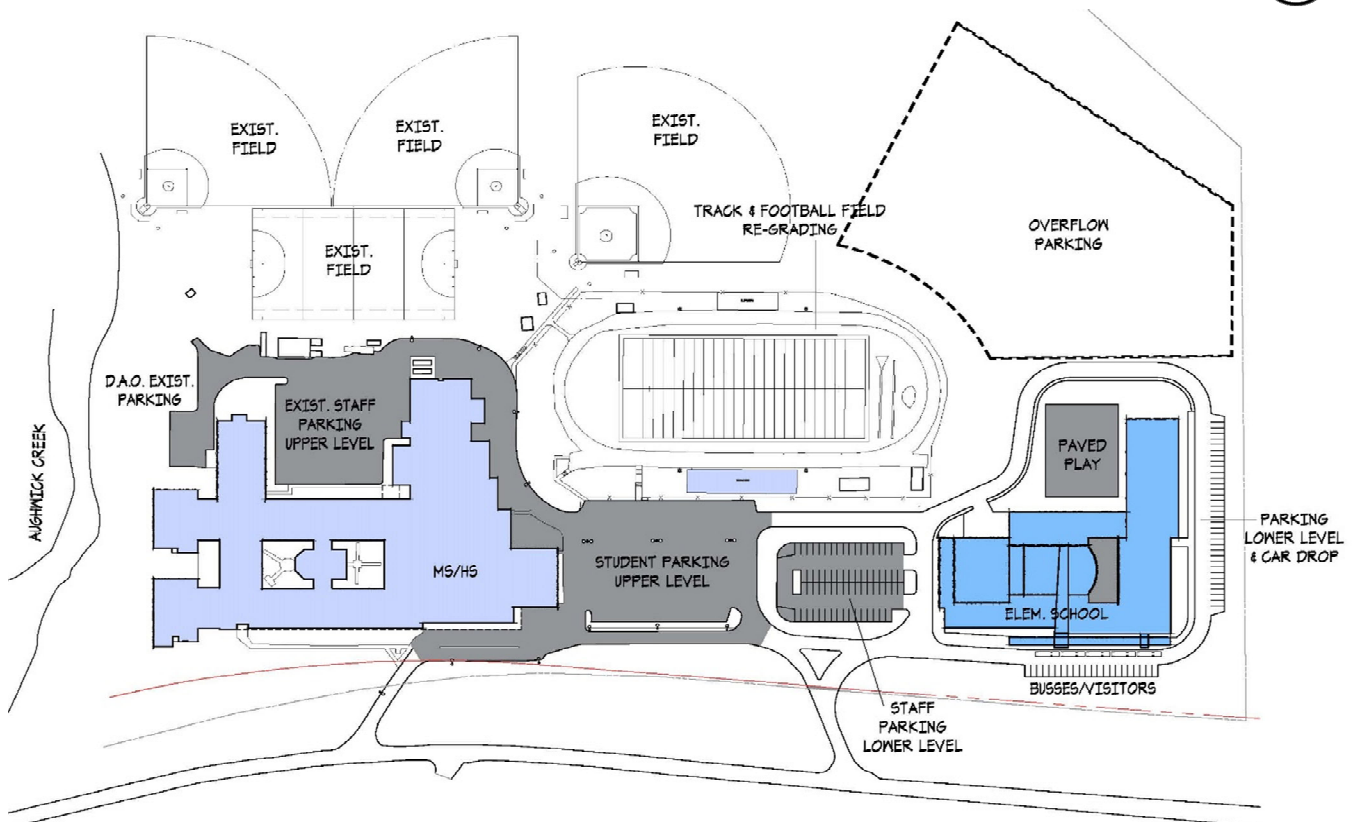
3B

New Building (Gymnasium as Multi-purpose Room)

6-12

Maintain High School / Middle School

### New K-5 Elementary School - Site Plan



## CONCEPTUAL DESIGN

## K-5 -- OPTION 3B

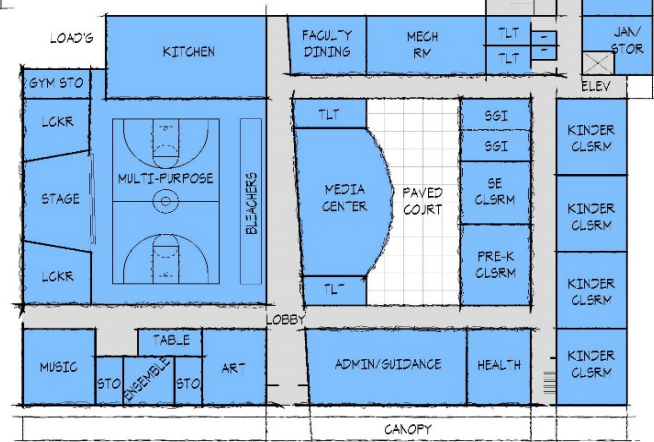
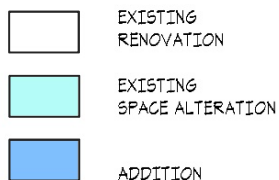
### OPT 3 1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>3B</b>	New Building (Gymnasium as Multi-purpose Room)
<b>6-12</b>	Maintain High School / Middle School

### New K-5 Elementary School - Floor Plan



Second Floor Plan



First Floor Plan

## PROJECTED REIMBURSEMENT

### OPT 3 1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>3B</b>	New Building (Gymnasium as Multi-purpose Room)
<b>6-12</b>	Maintain High School / Middle School

	PDE Adj. New FTE	RPC	* Reimb. Factor	Max Elig. Reimb.	Constr. New S.F.	Constr. Cost for Additions	Renov. Exist. S.F.	Renov. Study Cost	Alterations & Site Cost	Total Constr. Cost
Rockhill E.S.	0		4,700	0		0		0	0	0
	* Exist.		470	0						
Shade Gap E.S.	0		4,700	0		0		0	0	0
	* Exist.		470	0						
Spring Farms E.S.	0		4,700	0		0		0	0	0
	* Exist.		470	0						
New K-5 E..S.	850	1127	4,700	5,296,900	90,000	19,350,000		0	1,225,000	20,575,000
	* LEED	1127	470	529,690						
<b>K-5 Total</b>				<b>\$5,826,600</b>	<b>90,000</b>	<b>\$19,350,000</b>	<b>0</b>	<b>\$0</b>	<b>\$1,225,000</b>	<b>\$20,575,000</b>
H.S. / M.S.	0		4,700	0	0	0	0	0	0	0
	* Exist.		470	0						
<b>6-12 Total</b>				<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>K-12 Total</b>				<b>\$5,826,600</b>	<b>90,000</b>	<b>\$19,350,000</b>	<b>0</b>	<b>\$0</b>	<b>\$1,225,000</b>	<b>\$20,575,000</b>
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\* Additional 10% Reimbursement for *Qualifying Existing Building* .

*Qualifying Existing Building* must meet reimbursable minimum cost criteria to receive any or part of the additional 10% Reimbursement.

\*\* Disposition of existing Elementary Schools after consolidation is not included in the costs for the purpose of this study

## OPTION 3B

Total Project Cost	Aid Ratio	% State Share	% Local Share	+ Annual Total Share	+ Annual State Share	+ Annual Local Share	++ Annual Operational Expenses	+++ Annual Net Share	
0	0.7737	0.00%	100.00%	0	0	0	-374,400	-374,400	Rockhill E.S.
0	0.7737	0.00%	100.00%	0	0	0	-368,600	-368,600	Shade Gap E.S.
0	0.7737	0.00%	100.00%	0	0	0	-370,100	-370,100	Spring Farms E.S.
25,719,000	0.7737	17.53%	82.47%	1,586,800	278,100	1,308,700	90,000	1,676,800	New K-5 E..S.
<b>\$25,719,000</b>				<b>\$1,586,800</b>	<b>\$278,100</b>	<b>\$1,308,700</b>	<b>-\$1,023,100</b>	<b>\$563,700</b>	<b>K-5 Total</b>
0	0.7737	0.00%	0.00%	0	0	0	0	0	H.S. / M.S.
<b>\$0</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>6-12 Total</b>

<b>\$25,719,000</b>				<b>\$1,586,800</b>	<b>\$278,100</b>	<b>\$1,308,700</b>	<b>-\$1,023,100</b>	<b>\$563,700</b>	<b>K-12 Total</b>
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+ Annual Total Share based upon a wrap-around 25-year bond issue rate.

++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.

+++ Annual Net Share *equals* Annual Total Share *minus* Annual Operational Expenses.









## INTRODUCTION TO OPTIONS COST SUMMARY

### Option Cost Summary

This section of the Feasibility Study is a Cost Summary of all options including: Cost for Additions, Renovation Study Cost, Additional Educational Upgrades Cost including Alterations & Site Costs, Total Project Cost which includes a 25% Soft Cost Factor, Annual Total Share (based upon a respective wrap-around 25-year or 30-year bond issue rate), Annual Operational Expenses, and Annual Net Share which *equals* the Annual Total Share *minus* Annual Operational Expenses.

*Athletic Field Cost Alternates* are included for Athletic Field Improvements. *Alternate 1* includes upgrades to the Football Field, Track, and New Field Hockey Field utilizing natural grass. *Alternate 2* includes upgrades to the Football Field, Track, and New Field Hockey Field utilizing Synthetic Turf. Both Alternates include re-grading of the football field and track with respective improvements.

*Note 1:* If the Project is going to be Pre-financed, add 3% to the estimated "Total Project Cost".

*Note 2:* Cost estimates extend one-year (to May 2020).

### PlanCon "20-year Rule" \*

Buildings may only qualify for school construction reimbursement every twenty years at a minimum unless a variance is requested and approved.

### PlanCon "20% Rule"

Existing Renovation Costs must exceed the "20% Rule" to qualify for Reimbursement of the existing portion of the facility.

Based on the provisions of Basic Education Circular (BEC) 24 P.S. § 7-733, "School Construction Reimbursement Criteria", if the Adjusted Estimated Alteration costs for a project fall below 20% of the replacement value at the time a project is bid, the alteration work will be non-reimbursable. If the project is not voided and the District still receives reimbursement for any additions, the project building will not be eligible for reimbursement for alterations for the next 20 years unless a request for a variance is approved by the Pennsylvania Department of Education.

### Minimum Renovation Costs for PlanCon Reimbursement Eligibility

**Table 26** profiles the data for PlanCon Reimbursement Eligibility based upon the "20% Rule" as outlined above for the Proposed Options.

TABLE 26	PDE Total Existing Capacity	PDE Replacement Value	PDE 20% Rule Value	Reimb. Eligibility Status
Rockhill E.S.	250	\$4,002,000	\$800,400	Eligible
Shade Gap E.S.	200	\$3,201,600	\$640,320	Eligible
Spring Farms E.S.	275	\$4,402,200	\$880,440	Eligible
High School / Middle School	926	\$19,818,252	\$3,963,650	* Not Eligible

Note: \* The High School / Middle School is not currently eligible for state reimbursement via the PlanCon 20-year rule.

## SUMMARY OF OPTIONS

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### **OPT 1      3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions**

<b>K-5</b>	Full Renovation Projects - Alterations & Additions Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>6-12</b>	Maintain High School / Middle School with Gymnasium & Locker Room Additions

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### **OPT 2      1 NEW K-5 ELEMENTARY SCHOOL -- Located Attached to H.S. / M.S.**

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>2A</b>	New Building (Gymnasium & Separate Cafeteria)
<b>2B</b>	New Building (Gymnasium as Multi-purpose Room)
<b>6-12</b>	Maintain High School / Middle School

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### **OPT 3      1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site**

<b>K-5</b>	Close existing Elementary Schools and replace with 1 New K-5 Elementary School Close Rockhill, Shade Gap, and Spring Farms Elementary Schools
<b>3A</b>	New Building (Gymnasium & Separate Cafeteria)
<b>3B</b>	New Building (Gymnasium as Multi-purpose Room)
<b>6-12</b>	Maintain High School / Middle School

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### **Alternates    ATHLETIC FIELD IMPROVEMENTS**

<b>Alt 1</b>	Upgrades to Football Field, Track, and Field Hockey Field - Natural Grass
<b>Alt 2</b>	Upgrades to Football Field, Track, and Field Hockey Field - Synthetic Turf

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## OPTIONS COST SUMMARY

	Constr. Cost for Additions	Renov. Study Cost	Alterations & Site Cost	Total Project Cost	+ Annual Total Share	++ Annual Operational Expenses	+++ Annual Net Share
<b>OPTION 1 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions</b>							
K-5 Sub-total	\$4,530,000	\$10,408,700	\$1,233,330	\$20,215,000	\$1,247,600	-\$7,600	\$1,240,000
6-12 Sub-total	\$3,750,000	\$0	\$120,500	\$4,838,000	\$298,700	\$15,000	\$313,700
<b>Option 1</b>	<b>\$8,280,000</b>	<b>\$10,408,700</b>	<b>\$1,353,830</b>	<b>\$25,053,000</b>	<b>\$1,546,300</b>	<b>\$7,400</b>	<b>\$1,553,700</b>

<b>OPTION 2 1 NEW K-5 ELEMENTARY SCHOOL -- Located Attached to H.S. / M.S.</b>							
<b>Option 2A</b>	<b>\$20,710,000</b>	<b>\$0</b>	<b>\$1,400,000</b>	<b>\$27,638,000</b>	<b>\$1,704,600</b>	<b>-\$1,135,100</b>	<b>\$569,500</b>
<b>Option 2B</b>	<b>\$19,620,000</b>	<b>\$0</b>	<b>\$1,400,000</b>	<b>\$26,275,000</b>	<b>\$1,621,100</b>	<b>-\$1,125,100</b>	<b>\$496,000</b>

<b>OPTION 3 1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site</b>							
<b>Option 3A</b>	<b>\$20,425,000</b>	<b>\$0</b>	<b>\$1,225,000</b>	<b>\$27,063,000</b>	<b>\$1,669,800</b>	<b>-\$1,033,100</b>	<b>\$636,700</b>
<b>Option 3B</b>	<b>\$19,350,000</b>	<b>\$0</b>	<b>\$1,225,000</b>	<b>\$25,719,000</b>	<b>\$1,586,800</b>	<b>-\$1,023,100</b>	<b>\$563,700</b>

<b>Alternates ATHLETIC FIELD UPGRADES</b>							
<b>Field Alt 1</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,650,000</b>	<b>\$3,313,000</b>	<b>\$47,600</b>	<b>\$0</b>	<b>\$47,600</b>
<b>Field Alt 2</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,500,000</b>	<b>\$4,375,000</b>	<b>\$107,900</b>	<b>\$0</b>	<b>\$107,900</b>

+ Annual Total Share based upon a respective wrap-around 25-year bond issue rate.

++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.

+++ Annual Net Share equals Annual Total Share minus Annual Operational Expenses.

\*\* Athletic Field Upgrades Annual Total Share information is based upon financing with respect to Option 2A

Note 1: If the Project is going to be Pre-financed, add 3% to the estimated "Total Project Cost".

Note 2: Cost estimates extend one-year (to May 2020).

## SUMMARY OF OPTIONS

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### **OPT 1      3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions**

**K-5**

**Full Renovation Projects - Alterations & Additions  
Rockhill, Shade Gap, and Spring Farms Elementary Schools**

**6-12**

**Maintain High School / Middle School with Gymnasium & Locker Room Additions**

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### **OPT 2      1 NEW K-5 ELEMENTARY SCHOOL -- Located Attached to H.S. / M.S.**

**K-5**

**Close existing Elementary Schools and replace with 1 New K-5 Elementary School  
Close Rockhill, Shade Gap, and Spring Farms Elementary Schools**

**2A**

**New Building (Gymnasium & Separate Cafeteria)**

**2B**

**New Building (Gymnasium as Multi-purpose Room)**

**6-12**

**Maintain High School / Middle School**

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### **OPT 3      1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site**

**K-5**

**Close existing Elementary Schools and replace with 1 New K-5 Elementary School  
Close Rockhill, Shade Gap, and Spring Farms Elementary Schools**

**3A**

**New Building (Gymnasium & Separate Cafeteria)**

**3B**

**New Building (Gymnasium as Multi-purpose Room)**

**6-12**

**Maintain High School / Middle School**

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### **Alternates    ATHLETIC FIELD IMPROVEMENTS**

**Alt 1**

**Upgrades to Football Field, Track, and Field Hockey Field - Natural Grass**

**Alt 2**

**Upgrades to Football Field, Track, and Field Hockey Field - Synthetic Turf**

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## OPTIONS COST SUMMARY

## 25-YEAR VS. 30-YEAR FINANCING

	Total Project Cost	25-year financing			30-year financing		
		+ Annual Total Share	++ Annual Operational Expenses	+++ Annual Net Share	+ Annual Total Share	++ Annual Operational Expenses	+++ Annual Net Share
OPTION 1 3 K-5 ELEMENTARY SCHOOLS -- Full Renovation Projects with Additions							
K-5 Sub-total	\$20,215,000	\$1,247,600	-\$7,600	\$1,240,000	\$1,145,400	-\$7,600	\$1,137,800
6-12 Sub-total	\$4,838,000	\$298,700	\$15,000	\$313,700	\$274,200	\$15,000	\$289,200
Option 1	\$25,053,000	\$1,546,300	\$7,400	\$1,553,700	\$1,419,600	\$7,400	\$1,427,000

<b>OPTION 2 1 NEW K-5 ELEMENTARY SCHOOL -- Located Attached to H.S. / M.S.</b>							
<b>Option 2A</b>	<b>\$27,638,000</b>	<b>\$1,704,600</b>	<b>-\$1,135,100</b>	<b>\$569,500</b>	<b>\$1,565,500</b>	<b>-\$1,135,100</b>	<b>\$430,400</b>
<b>Option 2B</b>	<b>\$26,275,000</b>	<b>\$1,621,100</b>	<b>-\$1,125,100</b>	<b>\$496,000</b>	<b>\$1,487,600</b>	<b>-\$1,125,100</b>	<b>\$362,500</b>

<b>OPTION 3 1 NEW K-5 ELEMENTARY SCHOOL -- Located at H.S. / M.S. Site</b>							
<b>Option 3A</b>	<b>\$27,063,000</b>	<b>\$1,669,800</b>	<b>-\$1,033,100</b>	<b>\$636,700</b>	<b>\$1,532,800</b>	<b>-\$1,033,100</b>	<b>\$499,700</b>
<b>Option 3B</b>	<b>\$25,719,000</b>	<b>\$1,586,800</b>	<b>-\$1,023,100</b>	<b>\$563,700</b>	<b>\$1,457,300</b>	<b>-\$1,023,100</b>	<b>\$434,200</b>

<b>Alternates ATHLETIC FIELD UPGRADES **</b>							
<b>Field Alt 1</b>	<b>\$3,313,000</b>	<b>\$47,600</b>	<b>\$0</b>	<b>\$47,600</b>	<b>\$43,700</b>	<b>\$0</b>	<b>\$43,700</b>
<b>Field Alt 2</b>	<b>\$4,375,000</b>	<b>\$107,900</b>	<b>\$0</b>	<b>\$107,900</b>	<b>\$99,100</b>	<b>\$0</b>	<b>\$99,100</b>

+ Annual Total Share based upon a respective wrap-around 25-year or 30-year bond issue rate.

++ Annual Operational Expenses compares the current operational costs vs. the option operational costs.

+++ Annual Net Share equals Annual Total Share minus Annual Operational Expenses.

\*\* Athletic Field Upgrades Annual Total Share information is based upon financing with respect to Option 2A

Note 1: If the Project is going to be Pre-financed, add 3% to the estimated "Total Project Cost".

Note 2: Cost estimates extend one-year (to May 2020).





## **ENERGY STAR PORTFOLIO SURVEY DATA**

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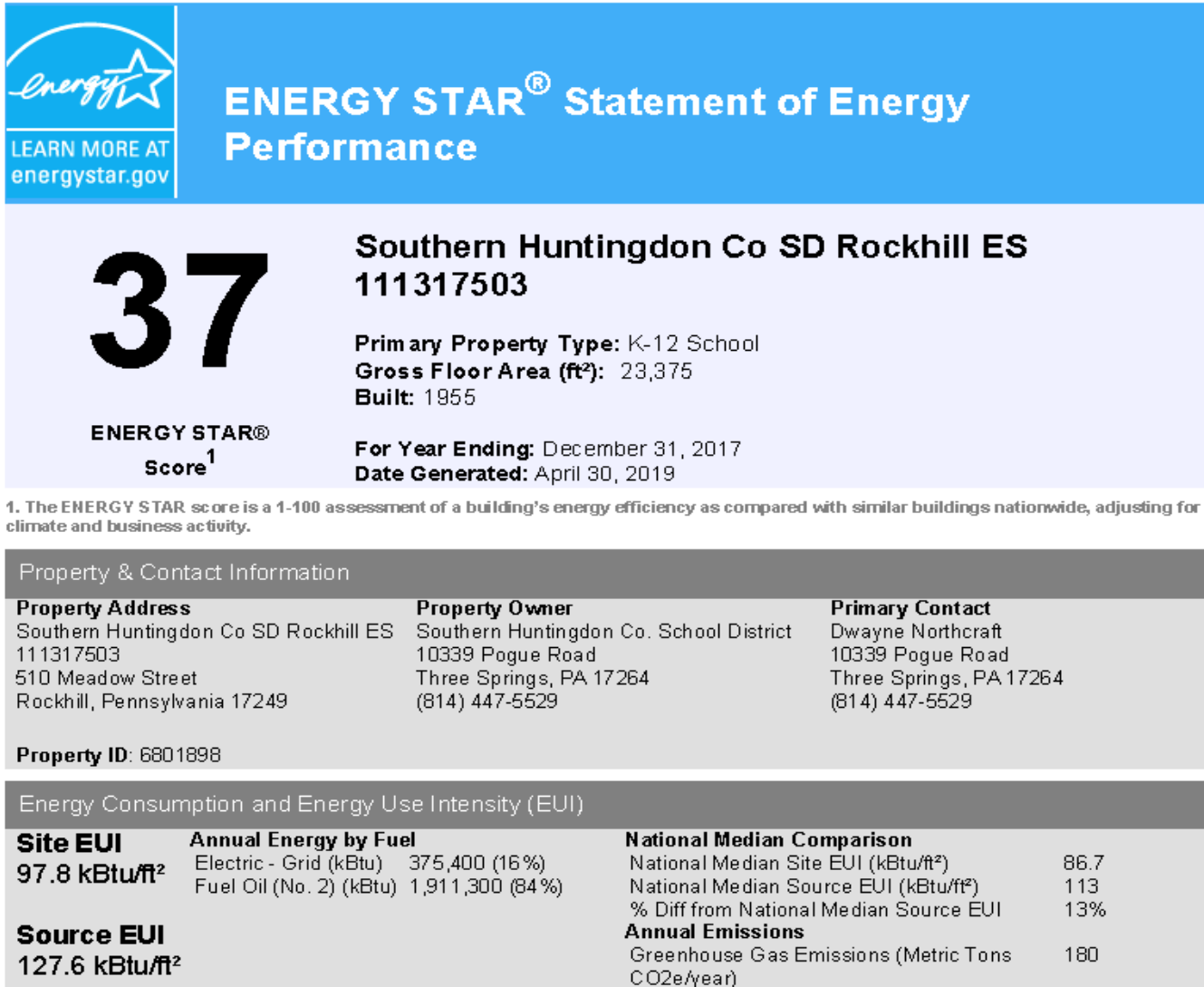
### **SELECTED OPTIONS**

Within the District-Wide Facility Study, Energy Portfolio Surveys must be included for each existing building and for each Construction Option that is being considered.

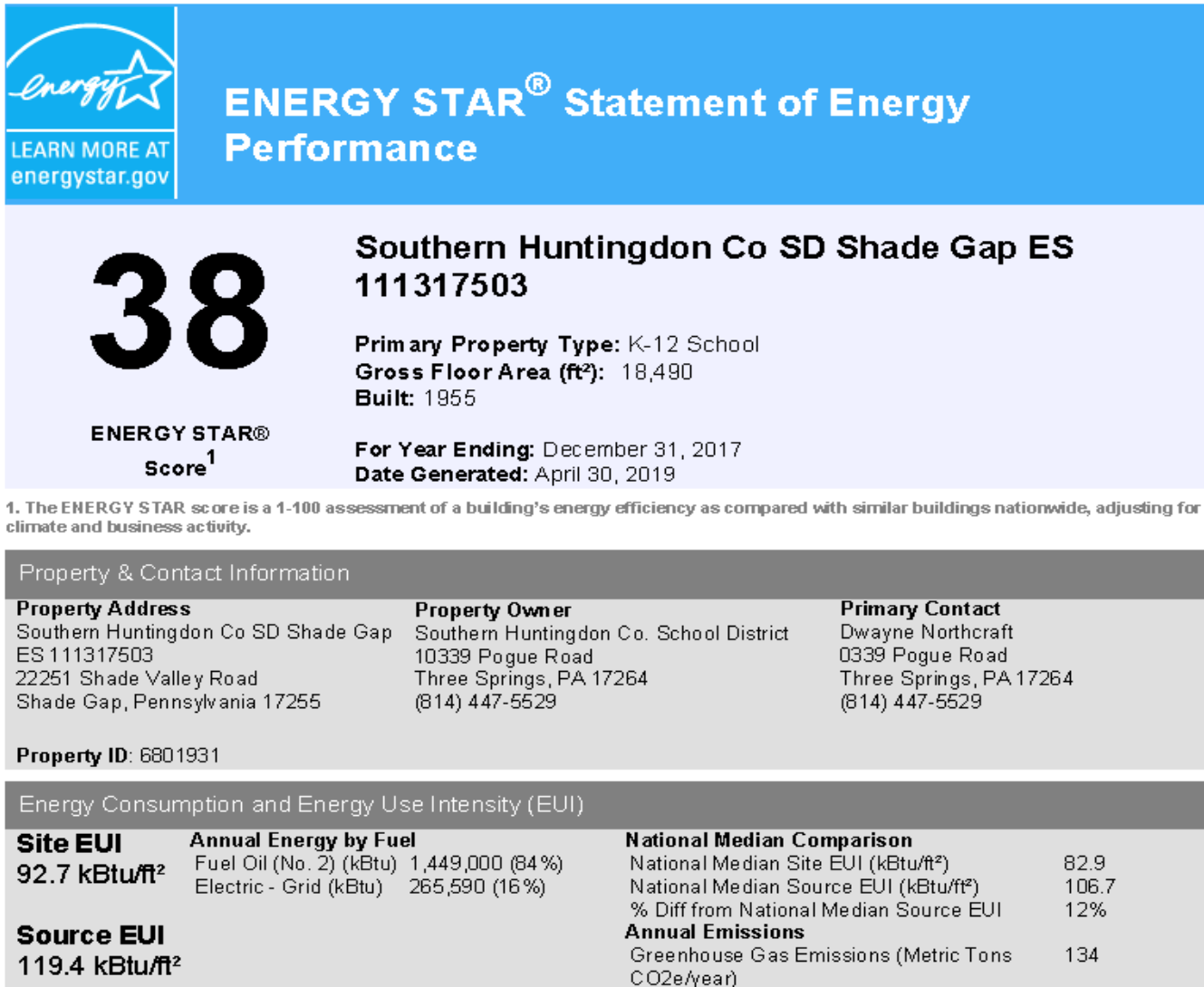
The selection of Options for consideration are Option 1 & Option 2A

1. Energy Star Surveys for each Existing School Building are indicated as the Energy Star Statement of Energy Performance (SEP) Report.
2. Energy Star Surveys for the Construction Options are indicated as the Energy Star Statement of Energy Design Intent (SEDI) Report: This Survey entails providing a predictive utility budget, using the EPA/DOE Target Finder tool, identifying the annual site and source energy and annual water consumption.

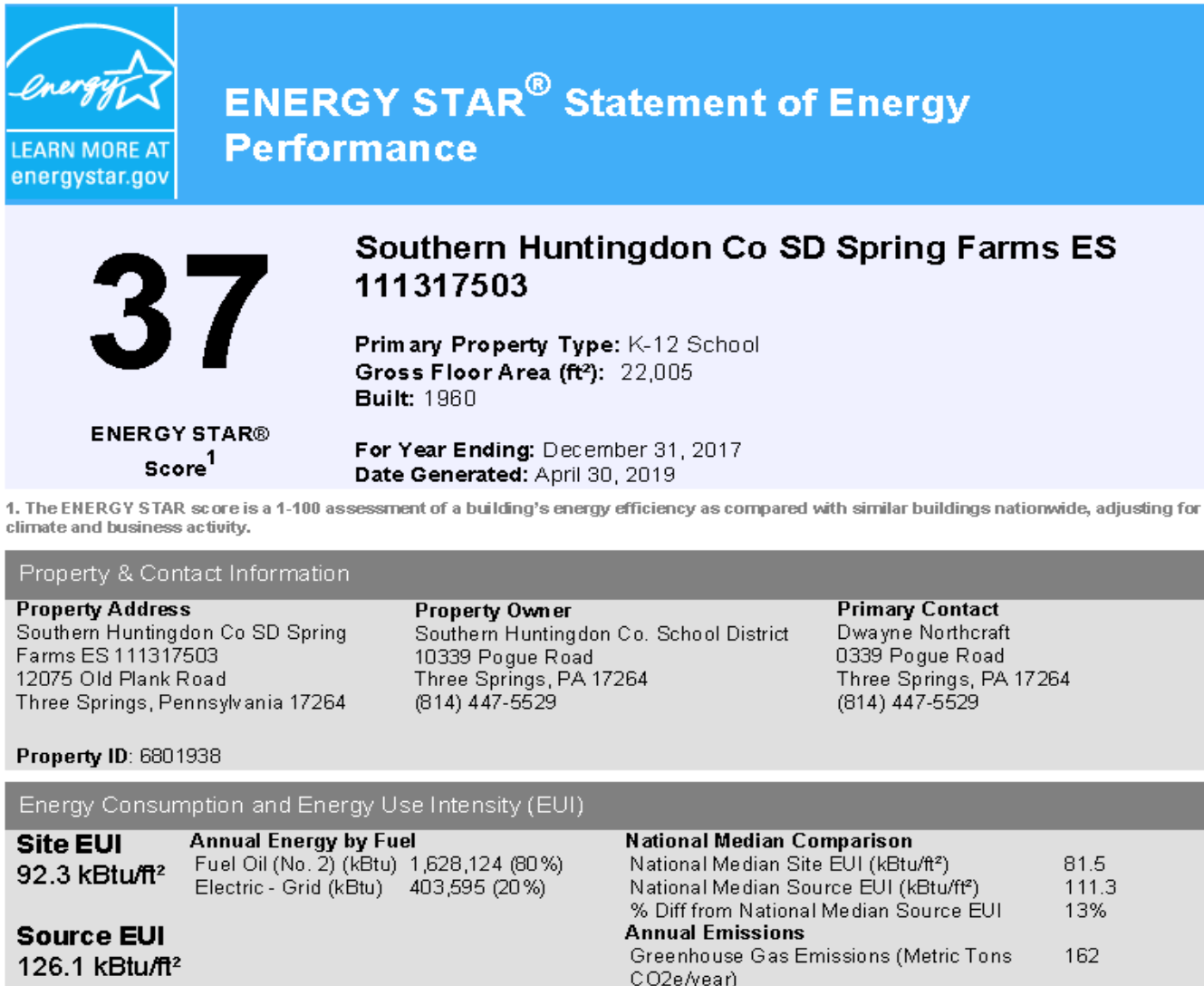
## Rockhill Elementary School



## Shade Gap Elementary School




## Spring Farms Elementary School



## Option 1

## Rockhill Elementary School

 <b>LEARN MORE AT</b> <a href="http://energystar.gov">energystar.gov</a>	<b>ENERGY STAR® Statement of Energy Design Intent (SEDI)<sup>1</sup></b> <b>Rockhill Elementary School</b>	
	<div style="display: flex; align-items: center;"> <div style="font-size: 48pt; margin-right: 20px;">71</div> <div> <p>Primary Property Type: K-12 School</p> <p>Gross Floor Area (ft²): 34,375</p> <p>Estimated Date of Certification of Occupancy: TBD</p> <p>Date Generated: April 30, 2019</p> </div> </div>	
<p>ENERGY STAR® Design Score<sup>2</sup></p>		

1. This form is required when applying for Designed to Earn the ENERGY STAR recognition. It was generated from ENERGY STAR Portfolio Manager.

2. The ENERGY STAR 1 – 100 Score is based on total annual Source Energy. To be eligible for Designed to Earn the ENERGY STAR recognition you must score at least 75.

Property & Contact Information for Design Project		
<b>Property Address</b> Rockhill Elementary School 510 Meadow Street Rockhill, Pennsylvania 17249	<b>Project Architect</b> Peter Ortiz (717) 233-4556	<b>Owner Contact</b> Dwayne Northcraft (814) 447-5529
<b>Property ID:</b> 6825354	<b>Architect Of Record</b> EI Associates 2001 N. Front St. Bldg. #3 Harrisburg, PA 17102 (717) 233-4556	<b>Property Owner</b> Southern Huntingdon Co. S.D. 10339 Pogue Road Three Springs, PA 17264 (814) 447-5529

Estimated Design Energy		
Fuel Type	Usage	Energy Rate (\$/Unit)
Electric - Grid	206,880 kWh (thousand Watt-hours)	\$ 0.09/kWh (thousand Watt-hours)
Fuel Oil (No. 2)	9,773 Gallons	\$ 2.40/Gallons


Estimated Design Use Details	
★ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.	
<b>K-12 School</b>	
★ Number of Workers on Main Shift	28
★ Percent That Can Be Cooled	All of it - 100%
Number of Computers	45
Gymnasium Floor Area	2,390 Sq. Ft.
Number of Walk-in Refrigeration/Freezer Units	0
School District	SHCSD
★ Cooking Facilities	Yes
Student Seating Capacity	325
★ Weekend Operation	Yes
★ High School	No
Gross Floor Area Used for Food Preparation	1,200 Sq. Ft.
★ Percent That Can Be Heated	All of it - 100%
★ Gross Floor Area	34,375 Sq. Ft.
Months in Use	12

Design Energy and Emission Results			
Metric	Design Project	Median Property	Estimated Savings
ENERGY STAR Score (1-100)	71	50	N/A
Energy Reduction (from Median)(%)	-21.2	0	N/A
Source Energy Use Intensity (kBtu/ft²/yr)	97	123	26
Site Energy Use Intensity (kBtu/ft²/yr)	59	75	16
Source Energy Use (kBtu/yr)	3,338,609	4,236,787	898,178
Site Energy Use (kBtu/yr)	2,054,548	2,607,278	552,730
Energy Costs (\$)	42,074	53,393	11,319
Total GHG Emissions (Metric Tons CO2e)	171	217	46



## Option 1

## Shade Gap Elementary School

 <b>ENERGY STAR®</b> Statement of Energy Design Intent (SEDI) <sup>1</sup> Shade Gap Elementary School	<b>69</b> ENERGY STAR® Design Score <sup>2</sup>	Primary Property Type: K-12 School Gross Floor Area (ft²): 24,490 Estimated Date of Certification of Occupancy: TBD  Date Generated: April 30, 2019
	LEARN MORE AT <a href="http://energystar.gov">energystar.gov</a>	

1. This form is required when applying for Designed to Earn the ENERGY STAR recognition. It was generated from ENERGY STAR Portfolio Manager.

2. The ENERGY STAR 1 – 100 Score is based on total annual Source Energy. To be eligible for Designed to Earn the ENERGY STAR recognition you must score at least 75.

## Property &amp; Contact Information for Design Project

**Property Address**  
 Shade Gap Elementary School  
 22251 Shade Valley Road  
 Shade Gap, Pennsylvania 17255

**Property ID:** 6825383

**Project Architect**

Peter Ortiz  
 (717) 233-4556

**Architect Of Record**

EI Associates  
 2001 N. Front St. Bldg. #3  
 Harrisburg, PA 17102  
 (717) 233-4556

**Owner Contact**

Dwayne Northcraft  
 (814) 447-5529

**Property Owner**

Southern Huntingdon Co. S.D.  
 10339 Pogue Road  
 Three Springs, PA 17264  
 (814) 447-5529

## Estimated Design Energy

Fuel Type	Usage	Energy Rate (\$/Unit)
Electric - Grid	146,980 kWh (thousand Watt-hours)	\$ 0.09/kWh (thousand Watt-hours)
Fuel Oil (No. 2)	7,000 Gallons	\$ 2.40/Gallons

## Estimated Design Use Details

☆ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

**K-12 School**


★ Number of Workers on Main Shift	16
★ Percent That Can Be Cooled	All of it - 100%
Number of Computers	45
Gymnasium Floor Area	1,990 Sq. Ft.
Number of Walk-in Refrigeration/Freezer Units	0
★ Cooking Facilities	Yes
School District	SHCSD
Student Seating Capacity	175
★ Weekend Operation	Yes
★ High School	No
Gross Floor Area Used for Food Preparation	1,000 Sq. Ft.
★ Percent That Can Be Heated	All of it - 100%
★ Gross Floor Area	24,490 Sq. Ft.
Months in Use	12

## Design Energy and Emission Results

Metric	Design Project	Median Property	Estimated Savings
ENERGY STAR Score (1-100)	69	50	N/A
Energy Reduction (from Median)(%)	-18.5	0	N/A
Source Energy Use Intensity (kBtu/ft²/yr)	97	119	22
Site Energy Use Intensity (kBtu/ft²/yr)	59	73	14
Source Energy Use (kBtu/yr)	2,379,848	2,921,503	541,655
Site Energy Use (kBtu/yr)	1,467,495	1,801,498	334,003
Energy Costs (\$)	30,028	36,862	6,834
Total GHG Emissions (Metric Tons CO2e)	122	150	28

## Option 3

## Spring Farms Elementary School



ENERGY STAR® Statement of Energy Design Intent (SEDI)<sup>1</sup>  
Spring Farms Elementary School

LEARN MORE AT  
energystar.gov

**67**

ENERGY STAR®  
Design Score<sup>2</sup>

Primary Property Type: K-12 School  
Gross Floor Area (ft²): 24,005  
Estimated Date of Certification of Occupancy: TBD

Date Generated: April 30, 2019

1. This form is required when applying for Designed to Earn the ENERGY STAR recognition. It was generated from ENERGY STAR Portfolio Manager.

2. The ENERGY STAR 1 – 100 Score is based on total annual Source Energy. To be eligible for Designed to Earn the ENERGY STAR recognition you must score at least 75.

## Property &amp; Contact Information for Design Project

**Property Address**  
Spring Farms Elementary School  
12075 Old Plank Road  
Three Springs, Pennsylvania 17264

**Property ID:** 6825444

**Project Architect**  
Peter Ortiz  
(717) 233-4556

**Architect Of Record**  
EI Associates  
2001 N. Front St. Bldg. #3  
Harrisburg, PA 17102  
(717) 233-4556

**Owner Contact**  
Dwayne Northcraft  
(814) 447-5529

**Property Owner**  
Southern Huntingdon Co. S.D.  
10339 Pogue Road  
Three Springs, PA 17264  
(814) 447-5529

## Estimated Design Energy

Fuel Type	Usage	Energy Rate (\$/Unit)
Fuel Oil (No. 2)	7,000 Gallons	\$ 2.40/Gallons
Electric - Grid	147,000 kWh (thousand Watt-hours)	\$ 0.09/kWh (thousand Watt-hours)

## Estimated Design Use Details

☆ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

## K-12 School


★ Number of Workers on Main Shift	16
★ Percent That Can Be Cooled	All of it - 100%
Number of Computers	45
Gymnasium Floor Area	1,640 Sq. Ft.
Number of Walk-in Refrigeration/Freezer Units	0
★ Cooking Facilities	Yes
School District	SHCSD
Student Seating Capacity	175
★ Weekend Operation	Yes
★ High School	No
Gross Floor Area Used for Food Preparation	1,000 Sq. Ft.
★ Percent That Can Be Heated	All of it - 100%
★ Gross Floor Area	24,005 Sq. Ft.
Months in Use	12

## Design Energy and Emission Results

Metric	Design Project	Median Property	Estimated Savings
ENERGY STAR Score (1-100)	67	50	N/A
Energy Reduction (from Median)(%)	-17.1	0	N/A
Source Energy Use Intensity (kBtu/ft²/yr)	99	119	20
Site Energy Use Intensity (kBtu/ft²/yr)	61	73	12
Source Energy Use (kBtu/yr)	2,380,039	2,871,426	491,387
Site Energy Use (kBtu/yr)	1,467,563	1,770,559	302,996
Energy Costs (\$)	30,030	36,230	6,200
Total GHG Emissions (Metric Tons CO2e)	122	147	25

## Option 2A

## New K-5 Elementary School



ENERGY STAR® Statement of Energy Design Intent (SEDI)<sup>1</sup>  
New K-5 Elementary School

LEARN MORE AT  
energystar.gov

**75**

ENERGY STAR®  
Design Score<sup>2</sup>

Primary Property Type: K-12 School  
Gross Floor Area (ft²): 95,000  
Estimated Date of Certification of Occupancy: TBD

Date Generated: April 30, 2019

1. This form is required when applying for Designed to Earn the ENERGY STAR recognition. It was generated from ENERGY STAR Portfolio Manager.

2. The ENERGY STAR 1 – 100 Score is based on total annual Source Energy. To be eligible for Designed to Earn the ENERGY STAR recognition you must score at least 75.

## Property &amp; Contact Information for Design Project

**Property Address**  
New K-5 Elementary School  
10339 Pogue Road  
Three Springs, Pennsylvania 17264

**Property ID:** 6825321

**Project Architect**  
Peter Ortiz  
(717) 233-4556

**Architect Of Record**  
EI Associates  
2001 N. Front St. Bldg. #3  
Harrisburg, PA 17102  
(717) 233-4556

**Owner Contact**  
Dwayne Northcraft  
(814) 447-5529

**Property Owner**  
Southern Huntingdon Co. S.D.  
10339 Pogue Road  
Three Springs, PA 17264  
(814) 447-5529

## Estimated Design Energy

Fuel Type	Usage	Energy Rate (\$/Unit)
Fuel Oil (No. 2)	19,500 Gallons	\$ 2.40/Gallons
Electric - Grid	690,000 kWh (thousand Watt-hours)	\$ 0.09/kWh (thousand Watt-hours)

## Estimated Design Use Details

☆ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

## K-12 School

★ Number of Workers on Main Shift	56
★ Percent That Can Be Cooled	All of it - 100%
Number of Computers	165
Gymnasium Floor Area	8,000 Sq. Ft.
Number of Walk-in Refrigeration/Freezer Units	2
★ Cooking Facilities	Yes
School District	SHCSD
Student Seating Capacity	675
★ Weekend Operation	Yes
★ High School	Yes
Gross Floor Area Used for Food Preparation	3,000 Sq. Ft.
★ Percent That Can Be Heated	All of it - 100%
★ Gross Floor Area	95,000 Sq. Ft.
Months in Use	12

## Design Energy and Emission Results

Metric	Design Project	Median Property	Estimated Savings
ENERGY STAR Score (1-100)	75	50	N/A
Energy Reduction (from Median)(%)	-25.3	0	N/A
Source Energy Use Intensity (kBtu/ft²/yr)	98	131	33
Site Energy Use Intensity (kBtu/ft²/yr)	53	71	18
Source Energy Use (kBtu/yr)	9,309,893	12,466,323	3,156,430
Site Energy Use (kBtu/yr)	5,045,280	6,755,833	1,710,553
Energy Costs (\$)	108,900	145,821	36,921
Total GHG Emissions (Metric Tons CO2e)	438	586	148





## DEFINITIONS

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The following section is included to present the reader with the terminology used in this Study.

**Adjusted Capacity** - The adjusted capacity reflects usage of a building in compliance with Pennsylvania Department of Education (PDE) guidelines. These guidelines include individual classroom spaces for all PDE recommended educational subjects including art, music, and special education programs; and occupancy use of all support services and programs per recommended minimum square footage.

**Architectural Area** - The sum of the areas of all floors, including basements, mezzanines, and penthouses, with a 6 ft. 6 in. minimum head room height. The area is measured from the exterior faces of the exterior walls. The area of open roofed-over paved areas and covered walkways is also included, but multiplied by a factor of 0.50. The area does not include roof overhangs, pipe trenches, exterior steps, or terraces.

**Building Replacement Value** - This value pertains to alteration work for an existing building. A project is only eligible for State reimbursement when the total alteration costs are greater than 20% of the replacement value for the building (20% Rule). The value is determined by following calculations of the PDE formula. (A capacity value or full-time equivalent (FTE) value is calculated for an existing building. The FTE is then multiplied by the PDE recommended square feet per student. This value (the recommended architectural area) is then multiplied by a construction cost per square foot factor to equal the building replacement value.

**CARF** - Capital Account Reimbursement Fraction as determined by the Pennsylvania Department of Education.

**Classroom Equivalent** - An 800 sq. ft. space which can be subdivided into small group instructional areas for special support programs or be considered as a classroom.

**Cohort Survival** - A population projection method based upon historic data averages and multiplied by a retention ratio to determine future projections.

**Construction Cost** - The Total Cost of a project without soft costs. The Total Construction Cost includes: cost for new additions, renovation costs, demolition costs, and additional educational upgrades costs.

**Current Capacity** - The capacity reflects the current usage of spaces in a building. Room capacities are given to specific instructional spaces as determined, but may not be the original capacity when the school was constructed, or meet PDE guidelines for square footage. The capacity represents the PDE designated number of students that will occupy a space (regardless of the actual number of students that will occupy a space). The sum of all individual room capacities will equal the total building capacity.

**Daylighting** - Daylighting is the controlled admission of natural light into a space through glazing with the intent of reducing or eliminating electric lighting. By utilizing solar light, daylighting creates a productive environment for building occupants. Daylighting features include the use of light shelves, solar tubes, and exterior sun-shades, or other controlling devices.



## DEFINITIONS

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**Enrollment** - The number of students that make up the student population in a school for the current year. Enrollment data is supplied for each grade level. The building enrollment includes only the student population in the grade levels which are to be housed by the building.

**Enrollment Projections** - Enrollment projections are calculated and supplied by the school district. The projections span from a current given year, to either five or ten years into the future for each grade level. The district enrollment projection model uses resident live birth data and grade progression rates determined by enrollment patterns from the most recent five years for grades 2 to 12. Retention rates for kindergarten and first grade are determined from births five and six years earlier, respectively. These ten-year projections are used to determine an increase or decline in the student population for each grade level. This data can be used to determine a need for more classroom space in the future.

**Heat Island Effect** - Occurs when warmer temperatures are experienced in urban landscapes compared to adjacent rural areas as a result of solar energy retention on constructed surfaces. Principal surfaces that contribute to the heat island effect include streets, sidewalks, parking lots, and buildings. The intent is to reduce heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impact on microclimate and human and wildlife habitat.

**LEED®** - The Leadership in Energy and Environmental Design (LEED®) Green Building Rating System™ encourages and accelerates global adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria. LEED® certification provides independent, third-party verification that a building project meets the highest green building and performance measures.

**LEED® Equivalent** - Utilizing LEED® design principals in a project. A project may choose to not pursue LEED® certification, however, it may benefit from the LEED® design principals such as Water and Energy use Reduction, low VOC emitting materials, use of regional and recycled materials, sustainability features, and improved indoor air quality.

**PlanCon** - When a school district undertakes a major construction project and seeks reimbursement from the Commonwealth, a process known as PlanCon is initiated. PlanCon, an acronym for Planning and Construction Workbook, is a set of forms and procedures used to apply for Commonwealth reimbursement. The PlanCon forms are designed to: (1) document a local school district's planning process; (2) provide justification for a project to the public; (3) ascertain compliance with state laws and regulations; and (4) establish the level of State participation in the cost of the project.

**PlanCon 20% Rule** - Existing Renovation Costs must exceed the "20% Rule" to qualify for Reimbursement of the existing portion of the facility. Based on the provisions of Basic Education Circular (BEC) 24 P.S. 7-733, "School Construction Reimbursement Criteria", if the Adjusted Estimated Alteration costs for a project fall below 20% of the replacement value at the time a project is bid, the alteration work will be non-reimbursable. If the project is not voided and the District still receives reimbursement for any additions, the project building will not be eligible for reimbursement for alterations for the next 20 years unless a request for a variance is approved by the Pennsylvania Department of Education.

## DEFINITIONS

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**PlanCon 20-Year Rule** - The PlanCon reimbursement process allows reimbursement for alterations every 20-years, unless a request for a variance is approved by the Pennsylvania Department of Education.

**Project Cost** - The Total Cost of a project including Construction costs and soft costs. Total Project Costs include 18%-25% of Construction Cost for the following construction-related costs: Movable Fixtures and Equipment, Project Contingency, Construction-Related Costs, Architect/Engineering Fees, Financing Cost, and Project Supervision.

**Rated Pupil Capacity (RPC)** - The figure used to determine amount of reimbursement. RPC is determined by multiplying the Full Time Equivalent (FTE) by the RPC factor.

**Reimbursement** - For School construction projects, it is based on the capacity of a building that can be justified by current or projected student enrollment and is based on the Rated Pupil Capacity (RPC) of a building. RPC is the figure used to determine amount of reimbursement, and is determined by multiplying the Full Time Equivalent (FTE) by the RPC factor.

**Retention Ratio** - A ratio of the difference between a past year population and a present year population for a given progressing grade.

**Scheduled Area** - The sum of areas of instructional spaces which accommodate direct student instruction, such as classrooms, laboratories, student project or activity rooms, seminar rooms, shops, band and choral rooms, and physical education stations. General use areas are also included such as libraries, locker rooms, team rooms, instructors' offices, multipurpose rooms, auditorium, stage, cafeteria and kitchen areas, health suites, faculty rooms, and administration suites. However, service and general storage areas, toilet rooms, custodial rooms, maintenance and utility areas, and circulation are not included.

**Transpired Solar Wall** - Outside air passes through South-facing, perforated solar collector wall panels and is pre-heated 30 to 55 degrees Fahrenheit on sunny days before entering the building's ventilation system. As the warm air rises, it is collected for use in the ventilation system on cold days, or vented out the top on warmer days. The feature also helps to keep the space behind it cooler in the summer months.

**Vegetative Roof** - Green roofs are vegetated roof surfaces that may provide many benefits. They reduce the heat island effect by replacing heat-absorbing surfaces with plants, shrubs and small trees that cool the air through evapotranspiration (or evaporation of water from leaves). Green roofs provide insulating benefits, stormwater management benefits, and the potential for rainwater harvesting and re-use as non-potable (non-drinking) water.

**VOCs (Low Emitting Materials)** - Volatile Organic Compounds (VOC) are carbon compounds that participate in atmospheric photochemical reactions (excluding carbon monoxide, carbon dioxide, carbonic acid metallic carbides and carbonates, and ammonium carbonate). The compounds vaporize (become a gas) at normal room temperatures. The intent is to reduce the quantity of indoor air contaminants that are odorous, irritating, and/or harmful to the occupants' well-being.

## INFORMATION UTILIZED IN THE STUDY

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District Aid Ratio - 0.7737

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### DESIGN GUIDELINES FOR NEW CONSTRUCTION

	S.F. Per Student	Cost per S.F. New Construction
ADDITIONS AND ALTERATIONS		
Elementary School	125 s.f.	\$200 - \$250 / s.f. construction cost for additions
Middle/Jr HS School	150-165 s.f.	\$200 - \$250 / s.f. construction cost for additions
High School	175-200 s.f.	\$200 - \$250 / s.f. construction cost for additions
* \$250 - \$350 / s.f. for new construction under 15,000 s.f.		

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### DESIGN GUIDELINES FOR RENOVATION

Renovation	See Part III Facilities
Miscellaneous Upgrades	See Part III Facilities

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**Site Acquisition or State Reimbursement on Site Acquisition  
– Not included in Total Construction Cost**

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**Total Project Costs Include:  
25% of construction cost for the following construction-related costs.**

Movable Fixtures and Equipment	Architect/Engineering Fees
Project Contingency	Financing Cost
Construction-Related Costs	Project Supervision

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## **AUTHORS OF THE STUDY**

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Business Manager / Transportation Director / Board Treasurer	LuAnne Keebaugh
Director of Special Education	Stacey J. Miller
Director of Facilities	Stanley Hall Jr.
Principal, Elementary Schools	Brent Pistner

### **SOUTHERN HUNTINGDON COUNTY BOARD OF EDUCATION**

<b>School Board Members:</b>	<b>School Board Officials:</b>
Michael Brown	Brent Stoltzfus, President
Jerry Hammons	Frank Hooper, Vice President
Heather McClure	Donna Clark, Secretary
Candy Sonnenberg	LuAnne Keebaugh, Treasurer
Joann Wakefield	
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## NOTES

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