

# ROANOKE COUNTY PUBLIC SCHOOLS

## FACILITY USE STUDY

JANUARY 2016



## EXECUTIVE SUMMARY /



*Cave Spring Elementary School*



*Clearbrook Elementary School*



*Glen Cove Elementary School*



*Glenvar Elementary School*



*Cave Springs High School*

In the fall of 2015, Roanoke County Public Schools hired the Perkins+Will with Rife+Wood and Cropper GIS with McGibben Demographics to do a Facility Use and Demographics Study for the school system.

Roanoke County Public Schools is the 17th largest of more than 130 school systems in the Commonwealth of Virginia. The County of Roanoke is located in the southwestern part of the State and is the suburban hub of the Roanoke Valley, with a provisional population of 926,871 and a Metropolitan Statistical Area (MSA) population of approximately 300,000. Located in the largest urban area west of Richmond, the School System is the largest employer in Roanoke County. RCPS provides educational services to approximately 14,100 students in preschool through grade 12 who are served in 16 elementary schools, 5 middle schools, 5 high schools and one specialty school. The District needed a comprehensive population and facilities use assessment to ascertain the present use of each facility.

This Facility Use Study found that based on current program usage, the student **capacity at each school in the Roanoke County Public Schools system is greater than its current enrollment.**

**Based on the current program usage, in 2025- 2026 the forecasted enrollments will be greater than the current capacity at four (4) elementary schools and one (1) high school: Cave Spring Elementary School, Clearbrook Elementary School, Glen Cove Elementary School, Glenvar Elementary School, and at Cave Spring High School.** (Cave Spring High School is currently slated for renovation in 2017-2018.)

**Based on the Virginia Department of Education recommended square footages for classroom sizes, Cave Spring Elementary School, Northside Elementary School, William Byrd Elementary School, Northside Middle School, Cave Spring High School, Northside High School, and William Byrd High School have a considerable number of classrooms that are smaller than recommended.**

**A number of elementary schools have substantial amounts of special programs, i.e., PEAP, FACES, PBSC, Title 1, OT/PT, Remediation, occupying classroom-sizes spaces. These schools include Bonsack Elementary School Burlington Elementary School, Glencove Elementary School, Herman Horn Elementary School, Mountain View Elementary School, Oak Grove Elementary School, Penn Forest Elementary School, and W. E. Cundiff Elementary School.**

## FACILITY USE STUDY /

### FACILITY USE STUDY METHODOLOGY

To determine the capacity of each school in the Roanoke County Public Schools system, Perkins+Will with Rife+Wood did the following.

We analyzed the existing building plans for each school.

We identified every space that could function as a classroom based on typical Department of Education square foot recommendations.

We counted the number of classroom sized spaces at every school that could potentially house students.

We calculated the square footage of every potential classroom space from the existing building plans.

With information provided by the school principals and the special education department, we identified which classroom-sized spaces were occupied by special programs.

We walked through the elementary schools and substantiated the current use of all the classrooms, whether they were being used for core classrooms housing Pre-K -5th grade students, for full time special education programs, for computer labs, for STEM labs, for reading specialists, and/or for other support programs.

We generated capacity numbers based on current average students / classroom counts:

Pre-K:	18 students / classroom
K-5th Grade:	21 students / classroom
6th - 8th Grade:	24 students / classroom
9th - 12th Grade:	24 students / classroom
Special Education	8 students / classroom

We compared these capacity numbers to the current student enrollment numbers and to the 2025-2026 forecasted student enrollment numbers.

To calculate capacity we dealt only with spaces that did house or could house students full time. We considered only classroom-sized spaces, and did not factor in any small resource rooms that are used for pull-out support services such as speech, guidance, remediation, etc.

## ELEMENTARY SCHOOLS /

### ELEMENTARY SCHOOLS

The elementary schools vary significantly in size with current capacities ranging from to 252 to 585. Along with calculating the current and forecasted capacities, there were three significant findings in analyzing the current and future capacities at the elementary schools.

**First, nine (9) schools house significant special programs as listed below.** These programs currently occupy classroom sized spaces and therefore limit the capacities in those specific schools.

#### **Bonsack Elementary School**

- 2 Special Ed
- 1 PEAP
- 1 OT/PT
- 1 Special Ed/Psychologist
- 1 Guidance
- 1 Remediation

#### **Burlington Elementary School**

- 2 Special Ed
- 1 (FACES)
- 1 OT/PT

#### **Glen Cove Elementary School**

- 4 Special Ed
- 2 Remediation (PALS)
- 1 ELL (in modular)

#### **Glenvar Elementary School**

- 3 Special ED
- 1 OT/PT

#### **Herman L. Horn Elementary School**

- 2 Special ED
- 1 Title 1
- 1 FACES

#### **Mountain View Elementary School**

- 3 Special Ed
- 1 FACES
- 1 PBSC
- 1 Sensory
- 1 OT/PT
- 2 Remediation

#### **Oak Grove Elementary School**

- 1 Special Ed (FACES)
- 1 OT/PT
- 2 Remediation (Open Classrooms)

#### **Penn Forest Elementary School**

- 1 Special Ed
- 1 REAP
- 1 Speech/OT

#### **W. E. Cundiff Elementary School**

- 3 Special Ed
- 1 Title 1
- 1 OT/PT

**ELEMENTARY SCHOOLS /**

**Second when we assume a typical complement of support programs for each elementary school, seven (7) schools could not accommodate this.** We assumed that a typical elementary school would have the following programs with each of these occupying a full-sized classroom space:

- 2 Special Education Classrooms
- 2 Computer Labs
- 1 Maker Space/STEM Lab
- ! Reading Specialist

The schools listed below do not have a total of six (6) classroom-sized spaces that are not used as Pre-K - 5th grade core classrooms available for the above assumed support programs.

- Back Creek Elementary School
- Cave Spring Elementary School\*
- Clearbrook Elementary School
- Fort Lewis Elementary School\*
- Green Valley Elementary School\*
- Masons Cove Elementary School\*
- Mount Pleasant Elementary School

Cave Spring, Fort Lewis, Green Valley, and Masons Cove Elementary Schools do however have multiple smaller rooms used for Special Education.

**Thirdly we found six (6) elementary schools have classrooms with square footages significantly smaller than those recommended by the Virginia Department of Education.** While this did not affect our capacity numbers since we were using the previously noted assumed average class sizes, we do think this fact should be taken into consideration in future planning.

Preferred VA DOE Classroom size:

Pre-K - 1st Grade:	975 SF
2nd - 5th Grade:	800 SF

Those with the smaller classrooms are:

- Fort Lewis Elementary School (10 classrooms: 694 SF average)
- Glen Cove Elementary School (700 SF average)
- Green Valley Elementary School (7 classrooms: 705 SF average)
- Herman L. Horn Elementary School (10 classrooms: 764 SF average)
- Mount Pleasant Elementary School (8 classrooms: 697 average)
- W. E. Cundiff Elementary School (730 average)

## ELEMENTARY SCHOOLS /

The following chart shows the current enrollments, forecasted 2025-2026 enrollments, and the current capacity of each elementary school. It also shows how many classrooms are core classrooms, being used for Pre-K through 5th grade classes, how many house Special Education students all day, and then how many other classroom-sized spaces exist at each school. The breakdown of what these other classrooms are used for is included on the following pages.

Currently the capacities at every school are greater than the enrollments. In 2025-2026, four (4) schools will have enrollments greater than the current capacities. They are:

- Cave Spring Elementary School
- Clearbrook Elementary School
- Glen Cove Elementary School
- Glenvar Elementary School

Both Glen Cove and Glenvar appear to have a sufficient number of classrooms to support their core Pre-K -5th grade classes, our assumed 6 (six) support programs, and accommodate some growth if current programs there could be consolidated, relocated, etc.

	Current Enrollment	Forecasted 2025-2026 Enrollment	Current Program Capacity	Spaces as Currently Used:		Other Classroom Sized Spaces in Use	Total Spaces Classroom Sized Spaces
				Core Classrooms	Special Ed. Classrooms		
<b>Elementary Schools</b>							
Back Creek Elementary	316	284	349	16	2	2	20
Bonsack Elementary	386	342	428	19	4	8	31
Burlington Elementary	464	456	525	24	3	4	31
Cave Spring Elementary	489	515	501	24	0	4	28
Clearbrook Elementary	348	356	354	17	0	2	19
Fort Lewis Elementary	233	215	252	12	0	2	14
Glen Cove Elementary	436	499	470	21	4	5	30
Glenvar Elementary	403	440	420	19	3	5	27
Green Valley Elementary	507	514	517	24	2	3	29
Herman L. Horn Elementary	422	399	501	23	3	4	30
Masons Cove Elementary	239	213	270	13	0	3	16
Mount Pleasant Elementary	349	320	412	19	2	2	23
Mountain View Elementary	379	321	483	21	5	7	33
Oak Grove Elementary School	456	410	467	22	1	7	30
Penn Forest Elementary	468	427	504	23	3	6	32
W. E. Cundiff Elementary	545	522	585	27	3	4	34

ELEMENTARY SCHOOLS /

	Current Enrollment	Total # Spaces	Average # of Students	Total # Students	Total Teaching Spaces	Total Student Capacity
<b>BACK CREEK ELEMENTARY SCHOOL</b>	<b>316</b>					
<b>Classrooms</b>					16	333
Pre -K (18 students/975 sf)		1	18	18		
K (24 students/975 sf)		2	21	42		
1st (24 students/975 sf)		2	21	42		
2nd (24 students/ 800 sf)		3	21	63		
3rd (24 students/ 800 sf)		3	21	63		
4th (25 students/800 sf)		2	21	42		
5th (25 students/800 sf)		3	21	63		
		16		333		
Special Education		2	8	16	2	16
Computer		1				
Maker Space		1				
		20		349	18	349
<i>Music (currently in modular)</i>					1	
Art		1			1	
Gymnasium		1			1	
<b>BONSACK ELEMENTARY SCHOOL</b>	<b>386</b>					
<b>Classrooms</b>					19	396
Pre -K (18 students/975 sf)		1	18	18		
K (24 students/975 sf)		3	21	63		
1st (24 students/975 sf)		3	21	63		
2nd (24 students/ 800 sf)		3	21	63		
3rd (24 students/ 800 sf)		3	21	63		
4th (25 students/800 sf)		3	21	63		
5th (25 students/800 sf)		3	21	63		
		19		396		
Special Education		3	8	24	3	24
PEAP		1	8	8	1	8
Computer (and Laptop Lab)		2				
OT/PT		1				
Special Ed/Psychologist		1				
Guidance Classroom		1				
Remediation		1				
Reading Coordinator		1				
Books		1				
		31		428	23	428
Gymnasium		1			1	
Music		1			1	
Art		1			1	



ELEMENTARY SCHOOLS /

	Current Enrollment	Total # Spaces	Average # of Students	Total # Students	Total Teaching Spaces	Total Student Capacity
<b>BURLINGTON ELEMENTARY SCHOOL</b>	<b>464</b>					
<b>Classrooms</b>					24	501
Pre -K (18 students/975 sf)		1	18	18		
K (24 students/975 sf)		4	21	84		
1st (24 students/975 sf)		4	21	84		
2nd (24 students/ 800 sf)		4	21	84		
3rd (24 students/ 800 sf)		4	21	84		
4th (25 students/800 sf)		4	21	84		
5th (25 students/800 sf)		3	21	63		
		24		501		
Special Education		2	8	16	2	16
Special Ed (FACES)		1	8	8	1	8
Computer		3				
OT/PT		1				
		31		525	27	525
Gymnasium		1			1	
Music		1			1	
Art		1			1	
<b>CAVE SPRING ELEMENTARY</b>	<b>489</b>					
<b>Classrooms</b>					24	501
Pre -K (18 students/975 sf)		1	18	18		
K (24 students/975 sf)		4	21	84		
1st (24 students/975 sf)		3	21	63		
2nd (24 students/ 800 sf)		4	21	84		
3rd (24 students/ 800 sf)		4	21	84		
4th (25 students/800 sf)		4	21	84		
5th (25 students/800 sf)		4	21	84		
		24		501		
Special Education						
PT/OT		1				
Computer		2				
STEM		1				
		28		501	24	501
Gymnasium		1			1	
Music		1			1	
Art		1			1	

ELEMENTARY SCHOOLS /

	Current Enrollment	Total # Spaces	Average # of Students	Total # Students	Total Teaching Spaces	Total Student Capacity
<b>CLEARBROOK ELEMENTARY</b>	<b>348</b>					
<b>Classrooms</b>					17	354
Pre -K (18 students/975 sf)		1	18	18		
K (24 students/975 sf)		3	21	63		
1st (24 students/975 sf)		3	21	63		
2nd (24 students/ 800 sf)		3	21	63		
3rd (24 students/ 800 sf)		3	21	63		
4th (25 students/800 sf)		2	21	42		
5th (25 students/800 sf)		2	21	42		
		17		354		
4-5 Math (currently in modular)						
Special Education						
Computer		2				
		19		354	17	354
Gymnasium					1	
Music (currently in modular)		1				
Art (currently on stage in gymnasium)					1	
<b>FORT LEWIS ELEMENTARY</b>	<b>233</b>					
<b>Classrooms</b>					12	252
Pre -K (18 students/975 sf)			18	0		
K (24 students/975 sf)		2	21	42		
1st (24 students/975 sf)		2	21	42		
2nd (24 students/ 800 sf)		2	21	42		
3rd (24 students/ 800 sf)		2	21	42		
4th (25 students/800 sf)		2	21	42		
5th (25 students/800 sf)		2	21	42		
		12		252		
Special Education						
Computer		2				
		14		252	12	252
Gymnasium		1			1	
Music/Art (shared)		1			1	
Art						

ELEMENTARY SCHOOLS /

	Current Enrollment	Total # Spaces	Average # of Students	Total # Students	Total Teaching Spaces	Total Student Capacity
<b>GLEN COVE ELEMENTARY</b>	<b>436</b>					
<b>Classrooms</b>					21	438
Pre -K (18 students/975 sf)		1	18	18		
K (24 students/975 sf)		2	21	42		
1st (24 students/975 sf)		3	21	63		
2nd (24 students/ 800 sf)		4	21	84		
3rd (24 students/ 800 sf)		4	21	84		
4th (25 students/800 sf)		4	21	84		
5th (25 students/800 sf)		3	21	63		
		21		438		
Special Education		4	8	32	4	32
Remediation (PALS)		2				
Reading Specialist		1				
Computer		2				
ELL (in modular)						
Maker Space (in modular)						
		30		470	25	470
Gymnasium		1			1	
Music		1				
Art		1			1	
<b>GLENVAR ELEMENTARY</b>	<b>403</b>					
<b>Classrooms</b>					19	396
Pre -K (18 students/975 sf)		1	18	18		
K (24 students/975 sf)		3	21	63		
1st (24 students/975 sf)		3	21	63		
2nd (24 students/ 800 sf)		3	21	63		
3rd (24 students/ 800 sf)		3	21	63		
4th (25 students/800 sf)		3	21	63		
5th (25 students/800 sf)		3	21	63		
		19		396		
Special Education		3	8	24	3	24
OT/PT		1				
Reading		1				
Computer		2				
Maker Space		1				
		27		420	22	420
Gymnasium		1			1	
Music		1			1	
Art		1			1	

ELEMENTARY SCHOOLS /

	Current Enrollment	Total # Spaces	Average # of Students	Total # Students	Total Teaching Spaces	Total Student Capacity
<b>GREEN VALLEY ELEMENTARY SCHOOL</b>	<b>507</b>					
<b>Classrooms</b>					24	501
Pre -K (18 students/975 sf)		1	18	18		
K (24 students/975 sf)		4	21	84		
1st (24 students/975 sf)		4	21	84		
2nd (24 students/ 800 sf)		3	21	63		
3rd (24 students/ 800 sf)		4	21	84		
4th (25 students/800 sf)		4	21	84		
5th (25 students/800 sf)		4	21	84		
		24		501		
Special Education		2	8	16	2	16
Computer		2				
Reading Specialist		1				
		29		517	26	517
Gymnasium		1			1	
Music		1			1	
Art		1			1	
<b>HERMAN HORN ELEMENTARY SCHOOL</b>	<b>395</b>					
<b>Classrooms</b>					23	477
Pre -K (18 students/975 sf)		2	18	36		
K (24 students/975 sf)		4	21	84		
1st (24 students/975 sf)		3	21	63		
2nd (24 students/ 800 sf)		3	21	63		
3rd (24 students/ 800 sf)		3	21	63		
4th (25 students/800 sf)		4	21	84		
5th (25 students/800 sf)		4	21	84		
		23		477		
Special Education		2	8	16	2	16
FACES		1	8	8	1	8
Title 1		1				
Computer		2				
STEM/Maker Space		1				
		30		501	26	501
Gymnasium		1			1	
Music		1			1	
Art		1			1	

ELEMENTARY SCHOOLS /

	Current Enrollment	Total # Spaces	Average # of Students	Total # Students	Total Teaching Spaces	Total Student Capacity
<b>MASONS COVE ELEMENTARY SCHOOL</b>	<b>239</b>					
<b>Classrooms</b>					13	270
Pre -K (18 students/975 sf)		1	18	18		
K (24 students/975 sf)		2	21	42		
1st (24 students/975 sf)		2	21	42		
2nd (24 students/ 800 sf)		2	21	42		
3rd (24 students/ 800 sf)		2	21	42		
4th (25 students/800 sf)		2	21	42		
5th (25 students/800 sf)		2	21	42		
		13		270		
Special Education						
Computer		2				
STEM Lab		1				
		16		270	13	270
Gymnasium		1			1	
Music		1			1	
Art		1			1	
<b>MOUNT PLEASANT ELEMENTARY SCHOOL</b>	<b>349</b>					
<b>Classrooms</b>					19	396
Pre -K (18 students/975 sf)		1	18	18		
K (24 students/975 sf)		3	21	63		
1st (24 students/975 sf)		3	21	63		
2nd (24 students/ 800 sf)		3	21	63		
3rd (24 students/ 800 sf)		3	21	63		
4th (25 students/800 sf)		3	21	63		
5th (25 students/800 sf)		3	21	63		
		19		396		
Special Education (ICANN)		1	8	8	1	8
		1	8	8	1	8
Computer		2				
		23		412	21	412
Gymnasium		1			1	
Music		1			1	
Art		1			1	

ELEMENTARY SCHOOLS /

	Current Enrollment	Total # Spaces	Average # of Students	Total # Students	Total Teaching Spaces	Total Student Capacity
<b>MOUNTAIN VIEW ELEMENTARY SCHOOL</b>	<b>379</b>					
<b>Classrooms</b>					21	435
Pre -K (18 students/975 sf)		2	18	36		
K (24 students/975 sf)		4	21	84		
1st (24 students/975 sf)		3	21	63		
2nd (24 students/ 800 sf)		3	21	63		
3rd (24 students/ 800 sf)		3	21	63		
4th (25 students/800 sf)		4	21	84		
5th (25 students/800 sf)		2	21	42		
		21		435		
Special Education		3	8	24	3	24
FACES		1	8	8	1	8
PBSC		1	16	16	1	16
Sensory		1				
OT/PT		1				
Computer		2				
Maker Space		1				
Remediation		2				
		33		483	26	483
Gymnasium		1			1	
Music		1			1	
Art		1			1	
<b>OAK GROVE ELEMENTARY SCHOOL</b>	<b>456</b>					
<b>Classrooms</b>						
Pre -K (18 students/975 sf)		1	18	18	22	459
K (24 students/975 sf)		4	21	84		
1st (24 students/975 sf)		4	21	84		
2nd (24 students/ 800 sf)		4	21	84		
3rd (24 students/ 800 sf)		3	21	63		
4th (25 students/800 sf)		3	21	63		
5th (25 students/800 sf)		3	21	63		
		22		459		
Special Education (FACES)		1	8	8	1	8
OT/PT		1				
Computer		3				
STEM/Maker Space		1				
Open Classrooms (Remediation)		2				
		30		467	23	467
Gymnasium		1				
Music		1				
Art		1				

ELEMENTARY SCHOOLS /

	Current Enrollment	Total # Spaces	Average # of Students	Total # Students	Total Teaching Spaces	Total Student Capacity
<b>PENN FOREST ELEMENTARY SCHOOL</b>	<b>468</b>					
<b>Classrooms</b>					23	480
Pre -K (18 students/975 sf)		1	18	18		
K (24 students/975 sf)		4	21	84		
1st (24 students/975 sf)		3	21	63		
2nd (24 students/ 800 sf)		4	21	84		
3rd (24 students/ 800 sf)		4	21	84		
4th (25 students/800 sf)		3	21	63		
5th (25 students/800 sf)		4	21	84		
		23		480		
Special Education (Self-Contained)		1	8	8	1	8
REAP		2	8	16	2	16
Reap/Sensory		1				
Speech/OT		1				
Reading Specialist		1				
Flex Space/Tutoring		1				
Computer		2				
		32		504	26	504
Gymnasium		1			1	
Music		1			1	
Art		1			1	
<b>W. E. CUNDIFF ELEMENTARY SCHOOL</b>	<b>545</b>					
<b>Classrooms</b>					27	561
Pre -K (18 students/975 sf)		2	18	36		
K (24 students/975 sf)		4	21	84		
1st (24 students/975 sf)		4	21	84		
2nd (24 students/ 800 sf)		5	21	105		
3rd (24 students/ 800 sf)		4	21	84		
4th (25 students/800 sf)		4	21	84		
5th (25 students/800 sf)		4	21	84		
		27		561		
Special Education		3	8	24	3	24
Title 1		1				
OT/PT		1				
Computer		2				
		34		585	30	585
Gymnasium		1			1	
Music		1			1	
Art						

MIDDLE SCHOOLS /

MIDDLE SCHOOLS

In calculating the capacity of the middle schools, we included every space that housed a full complement of students during any period of the day because these students unlike elementary students move throughout the day from classroom to classroom. We assumed an average of twenty-four (24) students in the generic 6th, 7th, and 8th grade classrooms, science rooms, career tech/shared labs, music, art, and the gymnasium, and we assumed eight (8) students in the special education and special resource classrooms.

In programming a middle school or a high school, an 85% utilization factor is typically used to calculate student capacity. The number of students in every classroom-sized space is added and multiplied by 85%. This 85% utilization rate accounts for the fact that not every classroom is filled every period of the day. With teacher planning periods built in, 85% is a typical utilization factor used in middle and high school programming.

Four of the five middle schools have similar classroom counts. The difference in the capacity numbers is the number of classrooms dedicated to Special Education and Resource classrooms, hence carrying a smaller student load. These four middle schools, Cave Spring, Hidden Valley, Northside, and William Byrd Middle School all have 50 instructional spaces but their capacities range from 938 to 993.

All of the middle schools have more capacity than the forecasted 2025-2026 enrollments.

Below is the summary chart of current enrollment, forecasted enrollment, and current program capacity for Roanoke County Public Schools middle schools.

	Current Enrollment	Forecasted 2025-2026 Enrollment	Current Program Capacity	Total Classroom Spaces
<b>Middle Schools</b>				
Cave Spring Middle School	769	841	952	50
Glenvar Middle School	434	493	619	33
Hidden Valley Middle School	595	614	952	50
Northside Middle School	678	690	993	50
William Byrd Middle School	804	785	938	50

As with the elementary schools, we did calculate the square footages of all the classroom spaces in the middle schools. Northside was the only one where the generic classrooms are considerably smaller than recommended by Virginia DOE. The average classroom size at Northside Middle School is 640 square feet versus the 700 square feet recommended by the VA DOE.

The charts on the following pages show the breakdown of the instructional spaces at the middle schools.



MIDDLE SCHOOLS /

	Current Enrollment	Total # of Spaces	Average # of Students	Total Student Capacity
<b>CAVE SPRING MIDDLE SCHOOL</b>				
	769			
Generic Classrooms (6th, 7th, and 8th)		30	24	720
Science		6	24	144
		36		864
Health Classrooms		2	24	48
Career Tech/Shared Labs		4	24	96
Special Education		5	8	40
Gymnasium		1	24	24
Music		1	24	24
Art		1	24	24
		50		1,120
85% Utilization				952
<b>GLENVAR MIDDLE SCHOOL</b>				
	434			
Generic Classrooms (6th, 7th, and 8th)		16	24	384
Science		4	24	96
		20		480
Health Classrooms		2	24	48
Career Tech/Shared Labs		3	24	72
Specialty Classrooms (Resource)				
Special Education		4	8	32
Gymnasium		1	24	24
Music		1	24	24
Art		2	24	48
		33		728
85% Utilization				619

MIDDLE SCHOOLS /

	Current Enrollment	Total # of Spaces	Average # of Students	Total Student Capacity
<b>HIDDEN VALLEY MIDDLE SCHOOL</b>				
	595			
Generic Classrooms (6th, 7th, and 8th)		29	24	696
Science		6	24	144
		35		840
Health Classrooms		2	24	48
Career Tech/Shared Labs		4	24	96
Specialty Classrooms (Resource)		2	8	16
Special Education		3	8	24
Gymnasium		1	24	24
Music		2	24	48
Art		1	24	24
		50		1,120
85% Utilization				952
<b>NORTHSIDE MIDDLE SCHOOL</b>				
	678			
Generic Classrooms (6th, 7th, and 8th)		35	24	840
Science		5	24	120
		40		960
Health Classrooms				
Career Tech/Shared Labs		4	24	96
Specialty Classrooms (Resource)				
Special Education		2	8	16
Gymnasium		1	24	24
Music		2	24	48
Art		1	24	24
		50		1,168
85% Utilization				993

MIDDLE SCHOOLS /

				Current Enrollment		Total # of Spaces	Average # of Students	Total Student Capacity
<b>WILLIAM BYRD MIDDLE SCHOOL</b>				804				
						28	24	672
						7	24	168
						35		840
						5	24	120
						1	8	8
						5	8	40
						1	24	24
						2	24	48
						1	24	24
						50		1,104
								938

HIGH SCHOOLS /

HIGH SCHOOLS

Much like with the middle schools, in calculating the high school capacities, we included all the instructional spaces that house students any period of the day. Again we used an average of 24 students for all spaces excluding special education where we used 8 students per classroom. We used the same 85% utilization factor to compute the actual capacities of the schools.

Three of the five high schools are similar in size and classroom counts, Cave Spring, Hidden Valley, and Northside High Schools. Their capacities range from 1190 to 1251. William Byrd High School is smaller with a capacity of 1107 and Glenvar High School is much smaller with a capacity of only 755 students.

All of the high schools have capacity for the current enrollment. For the forecasted 2025-2026 enrollments, Cave Springs will be over capacity as its current capacity is 1190 and the forecasted enrollment is 1219 students. Cave Springs High School is currently slated for renovation in 2017-2018, so this issue will be addressed.

In looking at the actual classroom square footages, we found Cave Spring, Northside, and William Byrd High Schools have classrooms with less square footage than the 700 square feet recommended by the Virginia Department of Education:

- Cave Spring High School (22 classrooms @ 653 SF)
- Northside High School (26 classrooms @ 620-670 SF)
- William Byrd High School (29 Classrooms @ 635-660 SF)

Below is the summary chart of current enrollment, forecasted enrollment, and current program capacity for Roanoke County Public Schools high schools.

	Current Enrollment	Forecasted 2025-2026 Enrollment	Current Program Capacity	Total Classroom Spaces
<b>High Schools</b>				
Cave Spring High School	1024	1219	1190	61
Glenvar High School	564	610	755	43
Hidden Valley High School	951	853	1251	62
Northside High School	1044	929	1217	61
William Byrd Hig School	1143	1030	1107	56
Burton Center for Arts & Technology			510	25

The charts on the following pages show the breakdown of the instructional spaces at the high schools.

HIGH SCHOOLS /

	Current Enrollment	Total # of Spaces	Average # of Students	Total Student Capacity
<b>CAVE SPRING HIGH SCHOOL</b>	1,024			
Generic Classrooms		36	24	864
Science		6	24	144
Health Classrooms		2	24	48
Business, Computer, etc.		5	24	120
Other Career Techs		3	24	72
Special Education		3	8	24
Self Contained		1	8	8
Gymnasium		1	24	24
Music		1	24	24
Drama		1	24	24
Art		2	24	48
		<b>61</b>		<b>1,400</b>
85% Utilization				<b>1,190</b>
<b>GLENVAR HIGH SCHOOL</b>	564			
Generic Classrooms		23	24	552
Science		6	24	144
Health Classrooms		2	24	-48
Business, Computer, etc.		2	24	48
Other Career Techs		2	24	48
Special Education		2	8	16
Self Contained		1	8	8
Gymnasium		1	24	24
Music		2	24	48
Drama		1	24	24
Art		1	24	24
		<b>43</b>		<b>888</b>
85% Utilization				<b>755</b>

HIGH SCHOOLS /

	Current Enrollment	Total # of Spaces	Average # of Students	Total Student Capacity
<b>HIDDEN VALLEY HIGH SCHOOL</b>	951			
Generic Classrooms		40	24	960
Science		7	24	168
Health Classrooms		2	24	48
Business, Computer, etc.			24	
Other Career Techs		7	24	168
Special Education				
Self Contained		1	8	8
Gymnasium		1	24	24
Music		2	24	48
Drama				
Art		2	24	48
		<b>62</b>		<b>1,472</b>
85% Utilization				<b>1,251</b>
<b>NORTHSIDE HIGH SCHOOL</b>	1,044			
Generic Classrooms		36	24	864
Science		10	24	240
Health Classrooms		2	24	48
Business, Computer, etc.		5	24	120
Other Career Techs		1	24	24
Special Education		1	8	8
Self Contained		1	8	8
Gymnasium		1	24	24
Music		2	24	48
Drama				
Art		2	24	48
		<b>61</b>		<b>1,432</b>
85% Utilization				<b>1,217</b>

HIGH SCHOOLS /

	Current Enrollment	Total # of Spaces	Average # of Students	Total Student Capacity
<b>WILLIAM BYRD HIGH SCHOOL</b>				
	1,143			
Generic Classrooms		33	24	792
Science		8	24	192
Health Classrooms			24	
Business, Computer, etc.		2	24	48
Other Career Techs		6	24	144
Special Education		2	8	16
Self Contained		1	8	8
Gymnasium		1	24	30
Music		1	24	24
Drama				
Art		2	24	48
		<b>56</b>		<b>1,302</b>
85% Utilization				<b>1,107</b>
<b>BURTON CENTER FOR THE ARTS AND TECHNOLOGY</b>				
Generic Classrooms				
Science				
Health Classrooms				
Business, Computer, etc.		9	24	216
Other Career Techs		16	24	384
Special Education				
Self Contained				
Gymnasium				
Music				
Drama				
Art				
		<b>25</b>		<b>600</b>
85% Utilization				<b>510</b>

