



Advanced Planning & Advisory Services

August 8, 2022



Our Team



**Ben
Thompson**

AIA, ALEP

K-12 Studio
Director, PIC



**Hamilton
Cort**

AIA

Project
Manager



**Aubrey
Donnellan**

AIA, LEED GA, NCARB

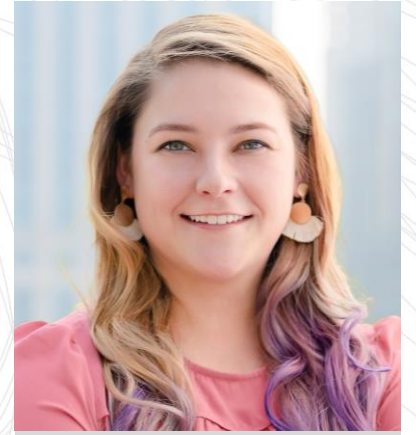
School
Assessor /
Architect



**Peter
Nilson**

AIA, NCARB

School
Assessor /
Architect



**Sara
Bonesteel**

School
Assessor

Board of Education



Mr. Robert Queen
BOARD, CHAIR



Mr. Joel Shores
BOARD, VICE-CHAIR



Mr. Danny Blanton
BOARD MEMBER



Mr. Rodney Fitch
BOARD MEMBER



Mr. Phillip Glover
BOARD MEMBER



Ms. Dena Green
BOARD MEMBER



Mr. Ron Humphries
BOARD MEMBER



Mr. Coleman Hunt
BOARD MEMBER

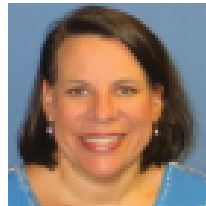


Mr. Greg Taylor
BOARD MEMBER

District Leadership



Dr. Stephen Fisher
SUPERINTENDENT



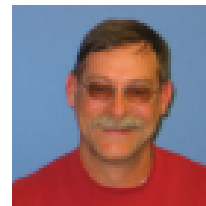
Mrs. Jennifer Wampler
ASSISTANT SUPERINTENDENT
OF OPERATIONS AND HUMAN
SERVICE



DR. BRIAN HUNNELL
ASSISTANT SUPERINTENDENT



Mr. Chip Childers
MAINTENANCE DIRECTOR



Mr. Ed Richards
ENERGY MANAGER



AGENDA

- I. **Introduction, Purpose and Team**
- II. **Demographic Forecasts & Building Utilization Study**
- III. **Facilities Physical Needs Assessment**
 - In-Field Review and Deficiencies Reporting
 - Building Assessment and Prioritization
 - Software/Demonstration
 - Executive Summaries
- IV. **Take Aways**
 - Goals and Guiding Principles
 - Recommendation by Attendance Zone
 - Cost Estimating

Comprehensive Approach

Step 1

DISCOVER

Operational data collection
Physical building assessment
Population and enrollment forecast

Step 2

APPRAISE

Cost Projections
Facility Utilization Appraisal
Economic drivers + Student Outcomes
Stakeholder engagement, User + Community

Step 3

IMPROVE.

Maintenance Planning
Capital Improvements Planning
Value Driven Design + Improvement

Initial Data Collection

Pre-Assessment Questionnaire

Historical Enrollment Data Collection

Define target ratios

Define existing space usage

Operational Data Collection

Interview School Administration + District-wide Teacher Surveys

Sanitary Sewer			
Storm Water			
Electricity			
Gas			
Phone/Data			
<Other>			

<Provide Total Yearly Costs for each utility in service>

Questions:

Does the district lease site lighting from the local power utility?

Do Buses remain stored on campus?

Is there a Compliant Sprinkler System Installed?

Describe Roofing Type 1? <List> Approximately %

Describe Roofing Type 2? <List> Approximately %

Describe Roofing Type 3? <List> Approximately %

Fire Alarm System Installation Date? <Date> Complete

Occupancy Sensors:

Primary Artificial Lighting in Educational Spaces:

Mechanical Controls? <Y/N> If Yes, company that installed?

Has an Asbestos Report been completed for the facility? <Y/N>

Has a Lead Report been completed for the facility? <Y/N>

Has an Indoor Air Quality Test been completed for the facility? <Y/N>

HISTORICAL INFORMATION

<Download State Department of Education Scoring Data for the district. This data is broken into multiple categories per year. If available, provide data for the last 7 available years.>

<District to Provide all digital documents of existing facility designs, including but not limited to: Current Property GIS Imagery, GIS data (topographic, aerial, etc.), and building designs.>

<Prefer AutoCAD or Revit files of building designs>

their supporting staff (i.e. Principals, Assistant Principals, Secretarial, athletic director, etc.). Support Staff are:

Grade Level	Ideal Teacher:Student ratio per Grade	Pr
Daycare		Le
3K		M
4K		S
Kindergarten		T
1 st Grade		M
2 nd Grade		W
3 rd Grade		C
4 th Grade		Sc
5 th Grade		Sc
6 th Grade		PR
7 th Grade		Ge
8 th Grade		2B
9 th Grade		3B
10 th Grade		B
11 th Grade		O
12 th Grade		D
Middle College		D
Early College		M
Adult		IT
<Other>		Se
<Other>		Se
<Other>		Di
<Other>		M
<Other>		Se

<Provide Ideal or Target student to teacher ratios per grade level for each grade level at the facility. Prior to filling this section out, coordinate with the district to align with overall district terminology and list additional information as needed.>

Does the school currently utilize "1 to 1" technology? <Y/N>

Does the school plan to utilize "1 to 1" technology? <Y/N>

What is the number of Computer Labs Associated with the facility? <Number>

What is the number of Computer Labs that are shared with other facilities? <Number>

Provide a "bell schedule" and method of scheduling. <Method may be provided as a 1 paragraph description.>

Provide a "educational program description" attached to the facility. <Note special features, teaching methods, student requirements, etc. No more than 3 paragraphs.>

PHYSICAL CONDITION INFORMATION

Total Number of Acres: <Number>

Total Current Building(s) SF: <Number>

Total number of Permanent Classrooms in Use: <Number>

Total Number of Temporary Classroom in Use: <Number>

Total Buses in Use during Student Pick-up: <Number>

Total Number of 'Lined' Parking Spaces: <Number>

Total Number of Handicap Parking Spaces: <Number>

Linear Feet from Car Ingress to Drop-off zone: <Number>

Linear Feet from Bus Ingress to Drop-off zone: <Number>

Dining Room Size: <Number>

Maximum Dining Room Occupancy: <Number>

Gymnasium Size: <Number>

Maximum Gymnasium Seating (Bleachers): <Number>

Maximum Theater Seating: <Number>

Maximum Stadium Seating – HOME: <Number>

Maximum Stadium Seating – VISITOR: <Number>

Improvement Type: _____ New Gross (SF): _____

Original Building Construction	<Addition, Renovation>
<Addition, Renovation>	
<Addition, Renovation>	
<Addition, Renovation>	
<Addition, Renovation>	

<Only include Major Additions, Renovations, Demos, etc. No more than 3 paragraphs.>

Type of Student Transportation Used at Student Drop-off	% of Current Year Enrollment
Car Rider	
District Sponsored Bus Rider	
Pedestrian, Walker	
Public Transportation	

Utility	Cost FY 20xx-20xx	Cost FY 20xx-20xx	Cost FY 20xx-20xx
Water			

District-wide Facility Needs Assessment Questionnaire

<The owner should provide the information requested below for each facility listed in the Facility Needs Assessment Scope Document. This document will be web-based for simultaneous entry by various district departments, school administrators, and consultants.>

BASIC INFORMATION

Building Name: <Insert School Name>

Building Address: <Insert School Address>

Building Owner: <Insert School District>

Current Use: <Insert Grade Levels and/or Specialty Program Name>

Current Total FTE: <Insert the Current Years Total number of FTE at the school>

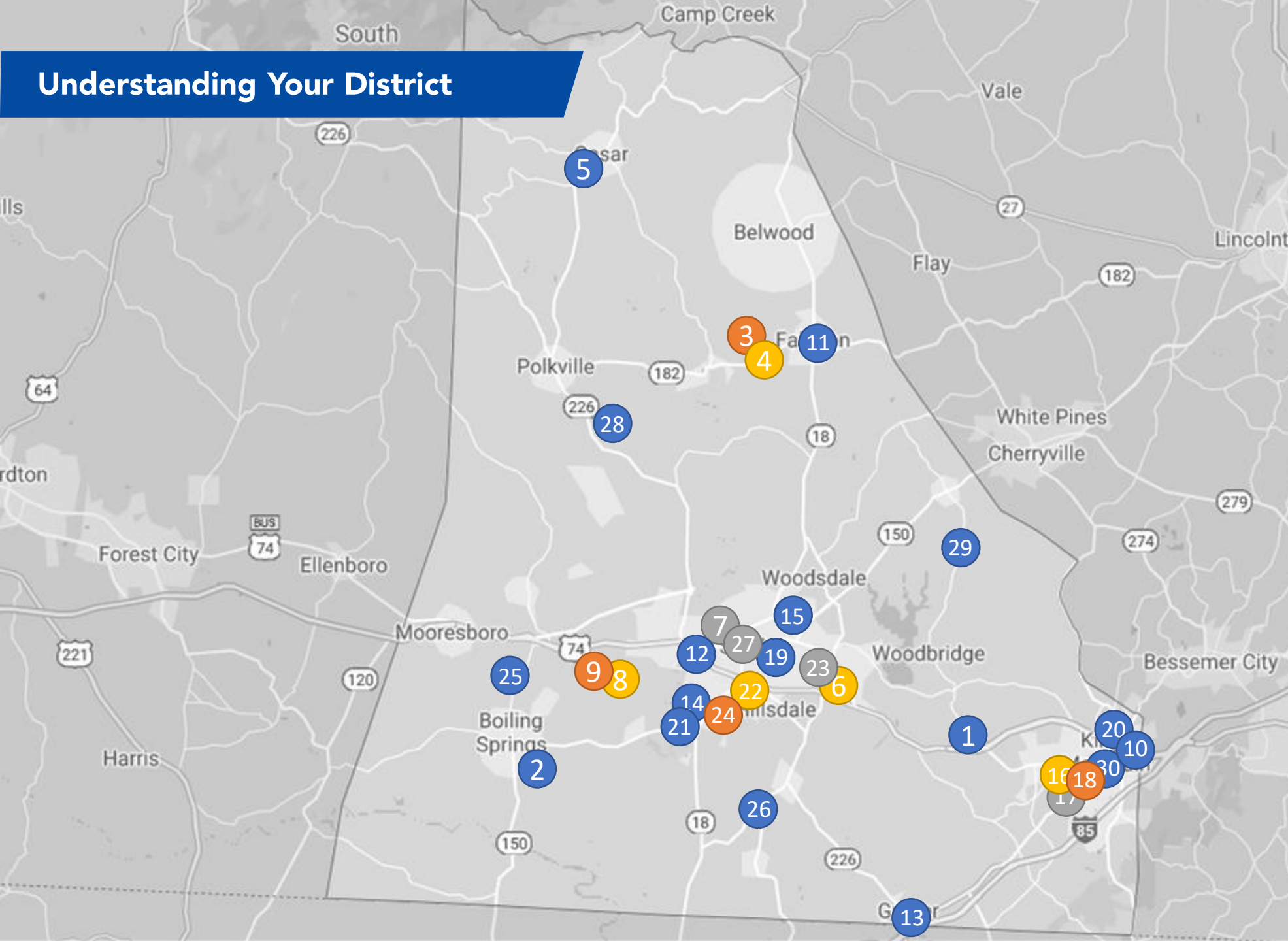
Current Fiscal Year: <Insert Current FY>

STUDENT INFORMATION and SCHOOL INFORMATION

Grade Level	FY 20xx-20xx	FY 20xx-20xx	FY 20xx-20xx	FY 20xx-20xx	FY 20xx-20xx	FY 20xx-20xx	Current Year FY 20xx-20xx
Daycare							
3K							
4K							
Kindergarten							
1 st Grade							
2 nd Grade							
3 rd Grade							
4 th Grade							
5 th Grade							
6 th Grade							
7 th Grade							
8 th Grade							
9 th Grade							
10 th Grade							
11 th Grade							
12 th Grade							
Adult							

<Provide 7 years of enrollment data by grade, by school. For each of the prior years, provide the year's actual final enrollment. For the current year, provide the 120-day enrollment value. For Early Childhood education, describe length of enrollment, partnership with other entities, or other pertinent information needed to assess enrollment.>

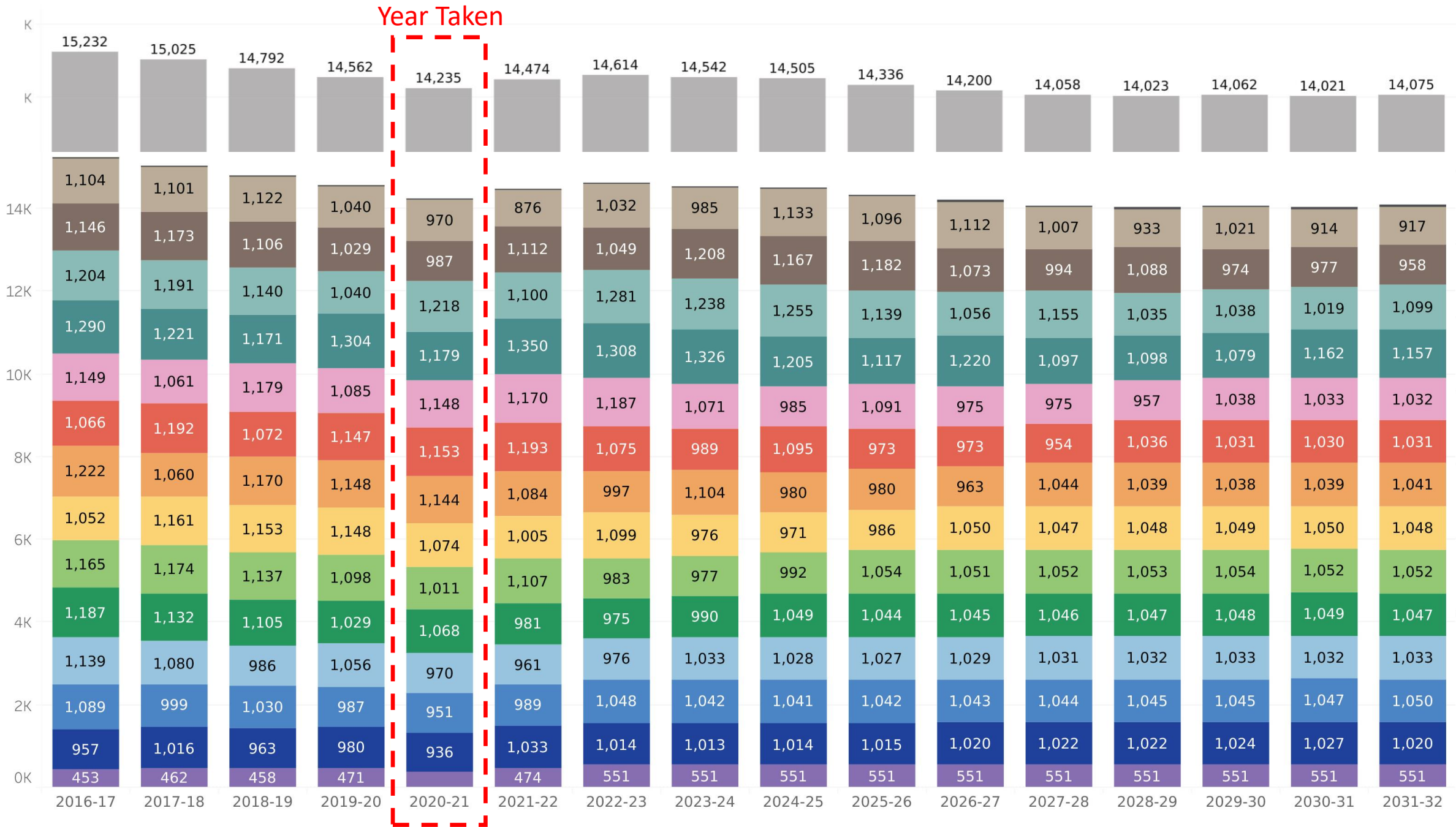
Understanding Your District



SCHOOLS

- | | |
|-------------------------------|---------------------------------|
| 1. Bethware Elementary | 17. Kings Mountain Intermediate |
| 2. Boiling Springs Elementary | 18. Kings Mountain Middle |
| 3. Burns Middle School | 19. Marion Elementary |
| 4. Burns High School | 20. North Elementary |
| 5. Casar Elementary | 21. North Shelby School |
| 6. Cleveland Early College HS | 22. Shelby High School |
| 7. Cleveland Innovation | 23. Shelby Intermediate |
| 8. Crest High School | 24. Shelby Middle School |
| 9. Crest Middle School | 25. Springmore Elementary |
| 10. East Elementary | 26. Township Three Elementary |
| 11. Fallston Elementary | 27. Turning Point Academy |
| 12. Graham Elementary | 28. Union Elementary School |
| 13. Grover Elementary | 29. Washington Elementary |
| 14. James Love Elementary | 30. West Elementary School |
| 15. Jefferson Elementary | |
| 16. Kings Mountain High | |

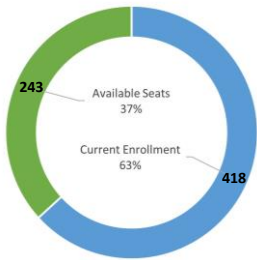
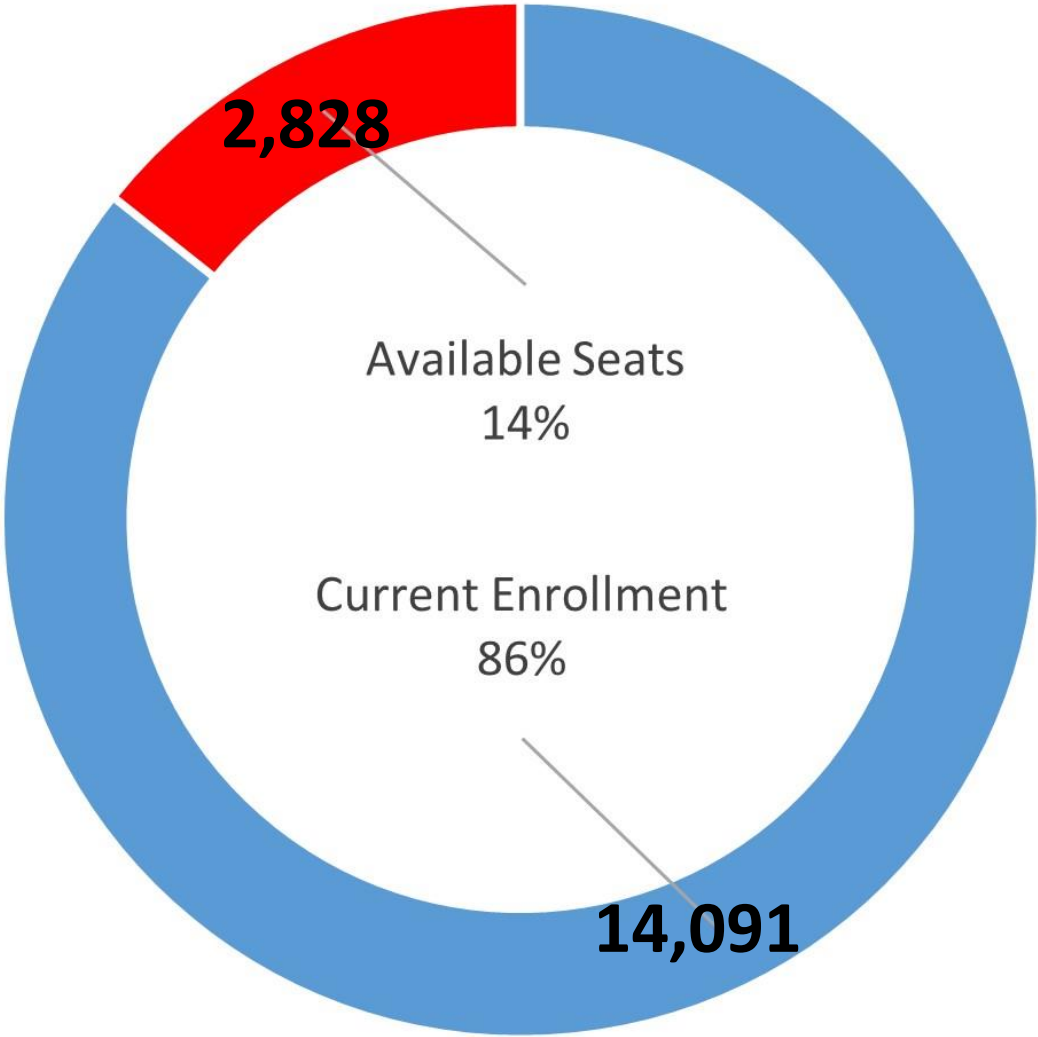
- | | |
|--|--|
| ● Elementary | ● High |
| ● Middle | ● Other |



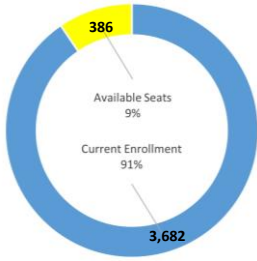
EXECUTIVE SUMMARY:

1. The resident total fertility rate for the Cleveland County Schools over the life of forecasts is **below replacement level**. (1.87 vs. 2.1)
2. Most in-migration to the district continues to occur in the 0-to-9 and 24-to-44 year-old age groups.
3. The local 18-to-24 year-old population continues to leave the district, going to college or moving to other urbanized areas. This population group accounts for the largest segment of the district's out migration flow and will increase steadily over the last 10 years.
4. The primary factors causing the district's enrollment to decrease over the next 10 years is the **increase in empty-nest households**, the relatively low number of elderly housing units turning over coupled with a **flat rate of in-migration of young families**.
5. Changes in year-to-year enrollment over the next ten years will primarily be due to relatively small cohorts entering and moving **through** the school system in conjunction with larger cohorts leaving the system.
6. The elementary enrollment will slowly increase over the next 10 school years.
7. The median age of the district's population will increase from 42.0 in 2020 to 43.1 in 2030.
8. Even if the district continues to have some amount of annual new housing unit construction over the next 10 years, the rate, magnitude and price of existing home sales will become the increasingly dominant factor affecting the amount of population and enrollment change.
9. Total district enrollment is forecasted to decrease by 351 students, or -2.5%, between 2021-22 and 2026-27. Total enrollment will decrease by 125 students, or -.9%, from 2026-27 to 2031-32.

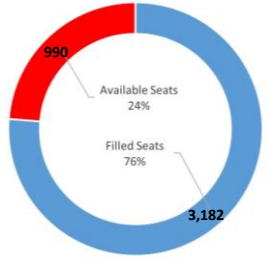
District-wide Facility Utilization



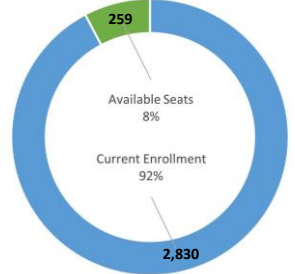
District-wide Programs



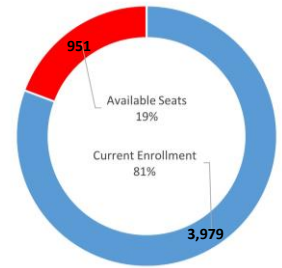
Crest Attendance Zone



Burns Attendance Zone

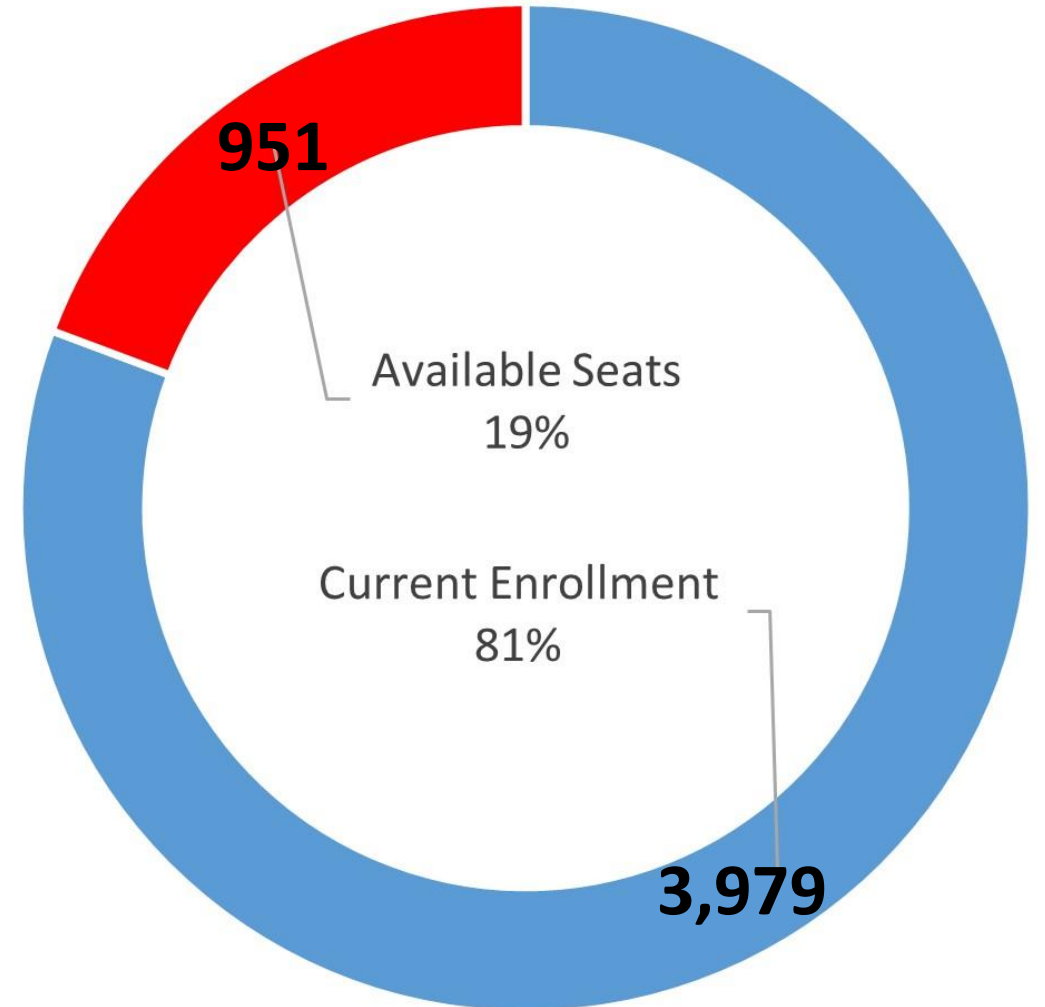
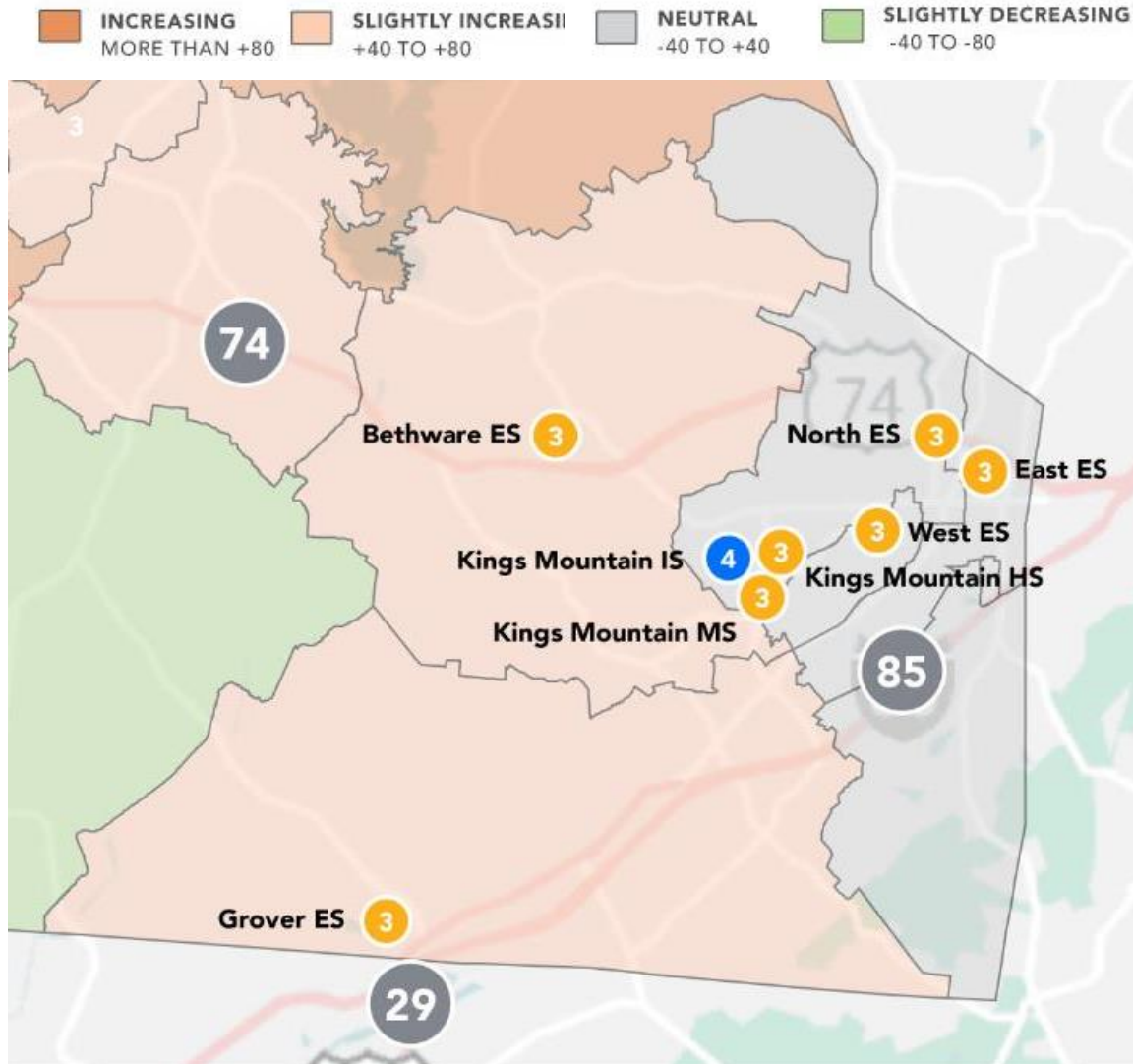


Shelby Attendance Zone



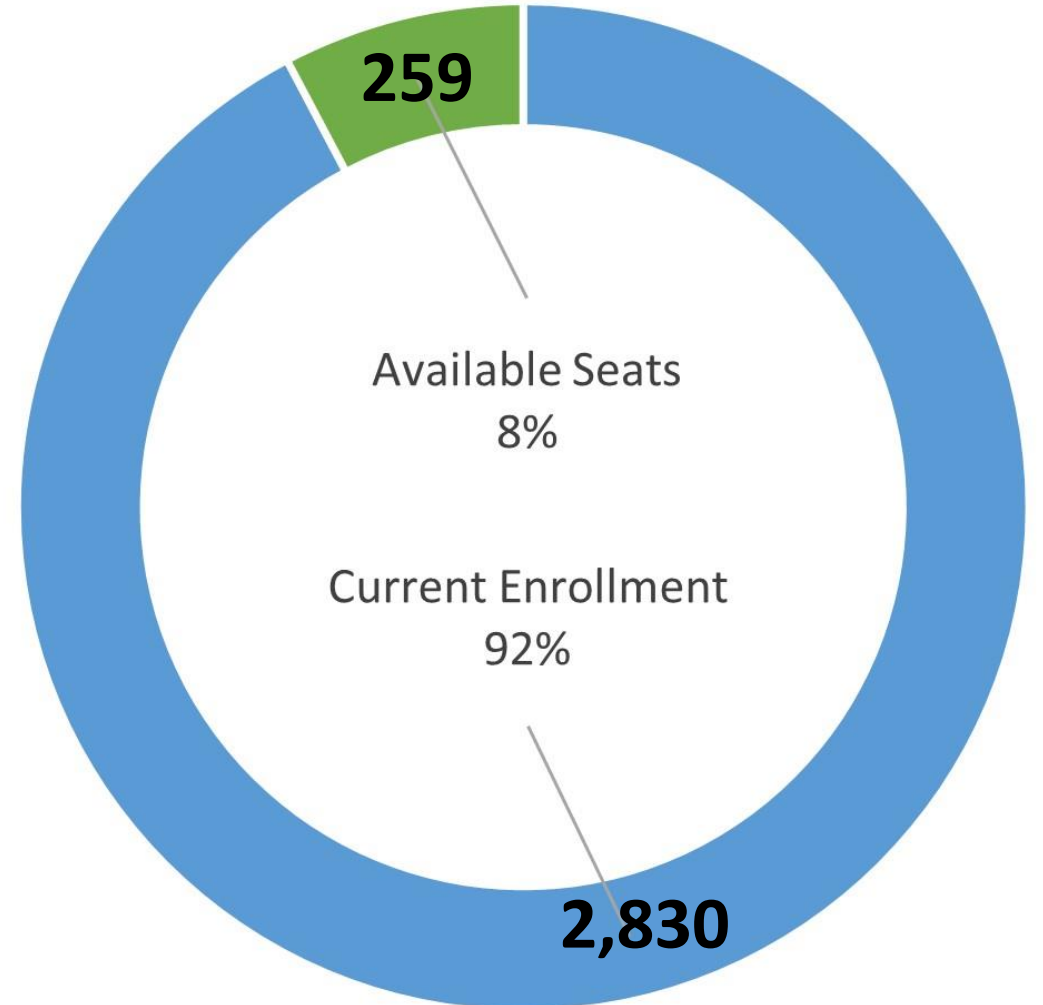
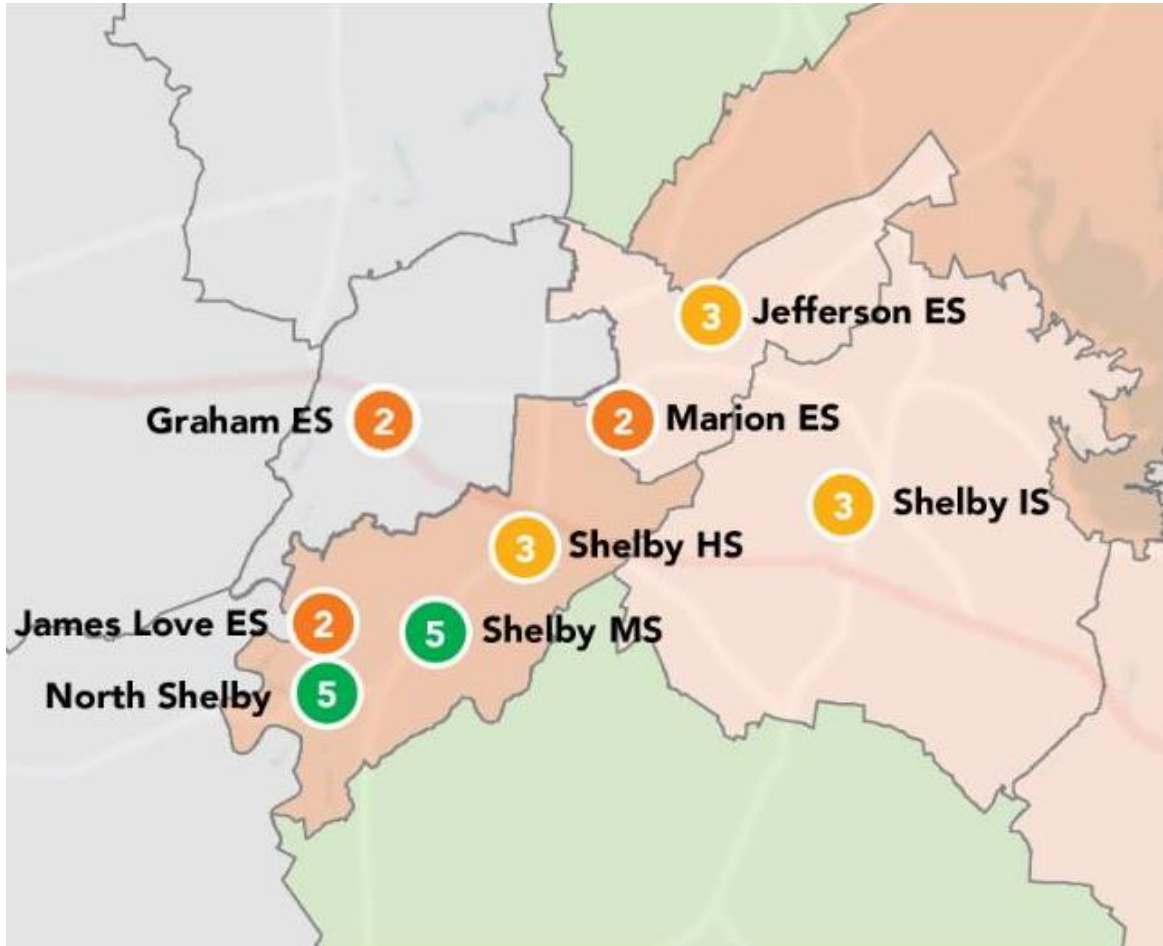
Kings Mountain Attendance Zone

Kings Mountain Attendance Zone



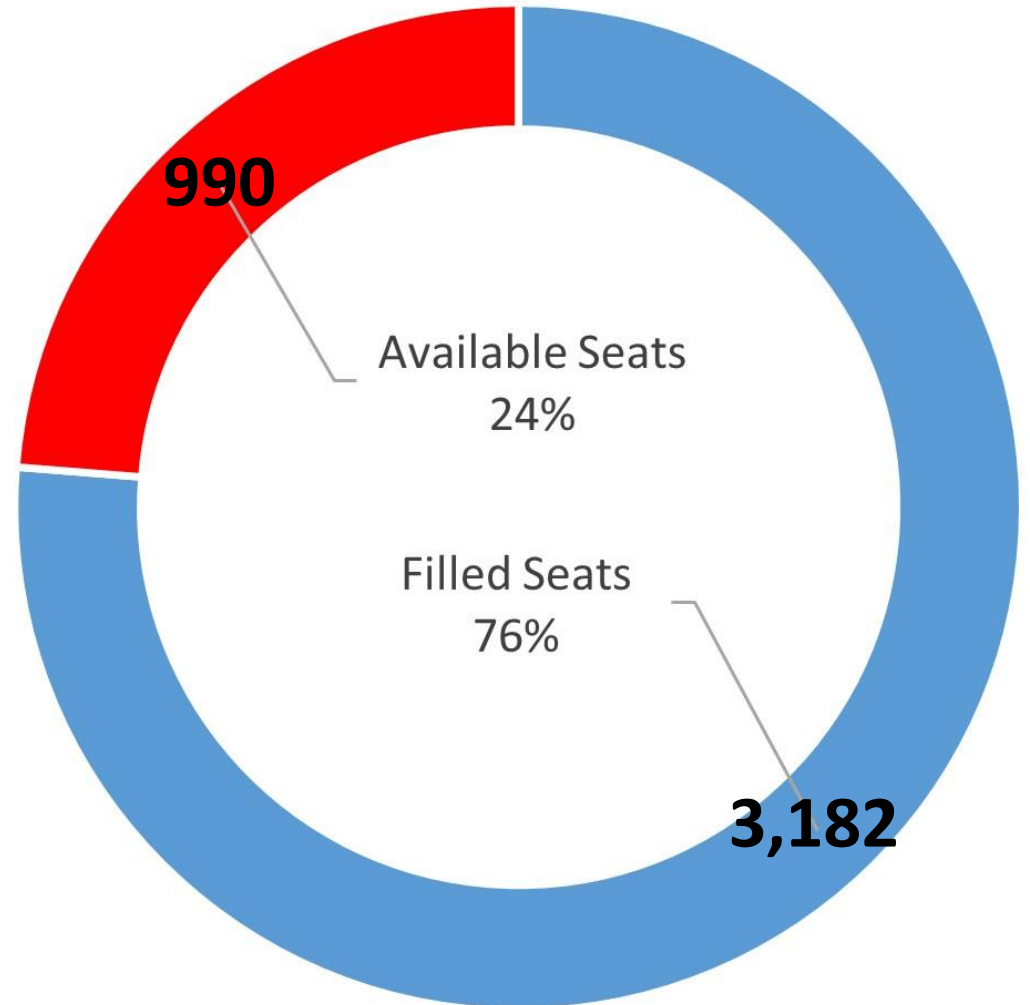
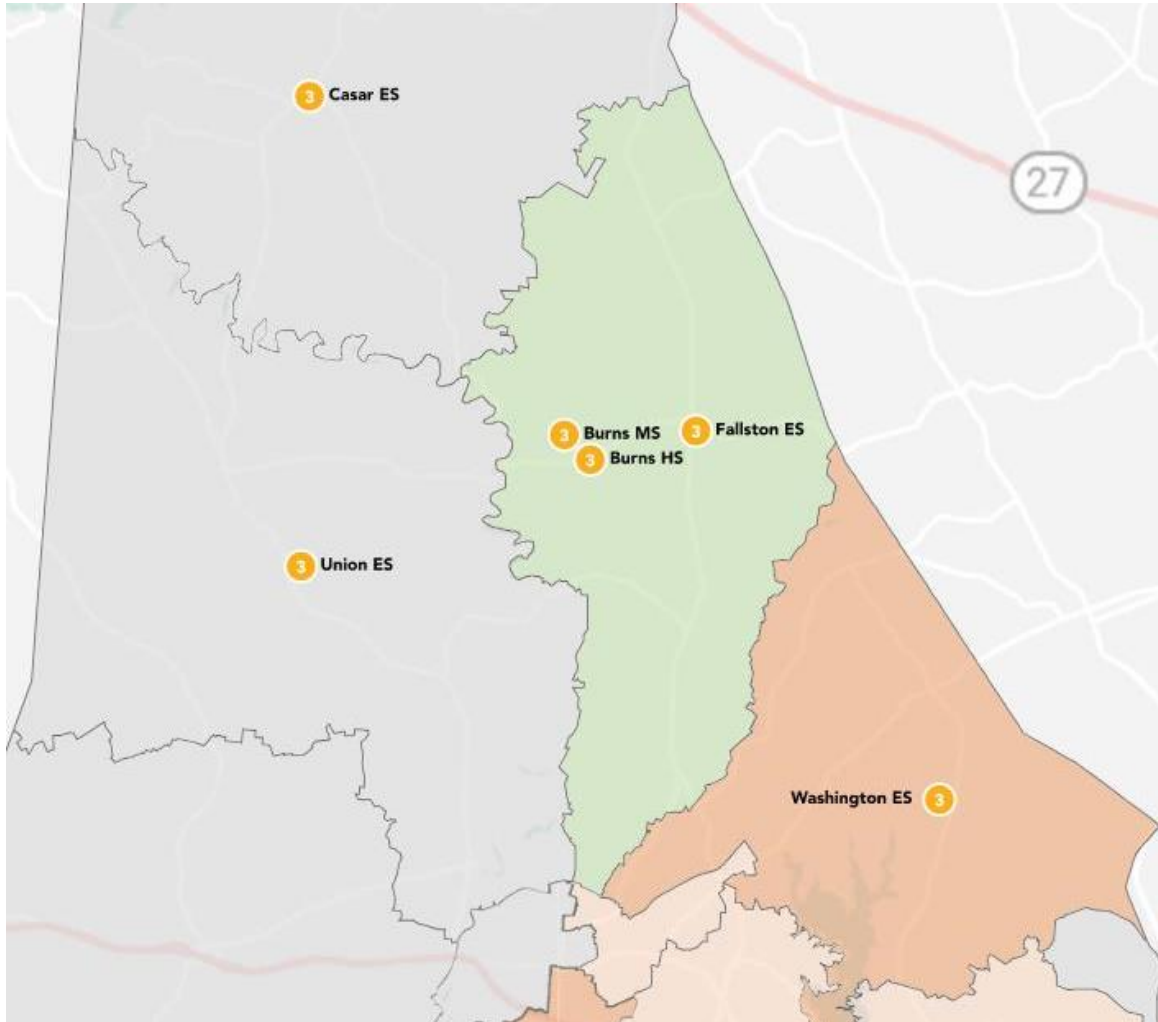
Zone Utilization Availability to Grow

Shelby Attendance Zone



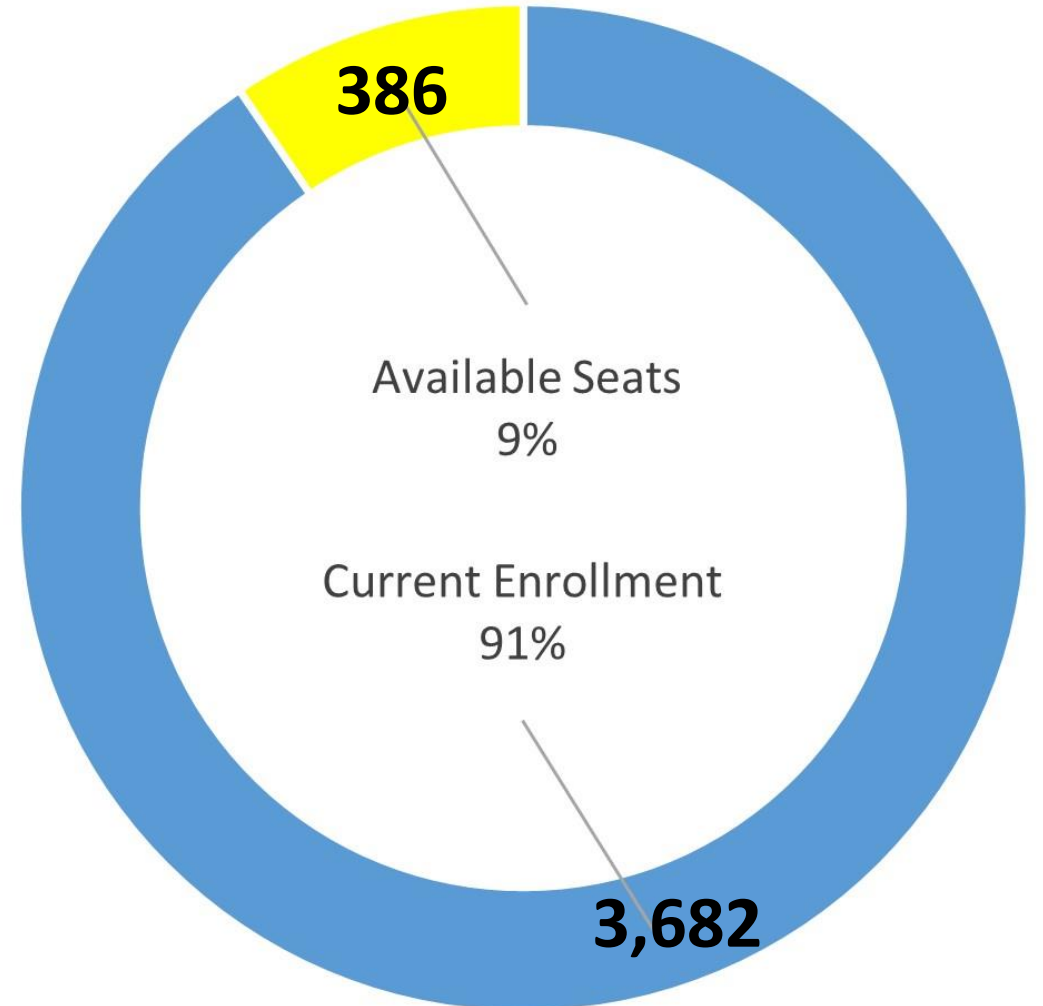
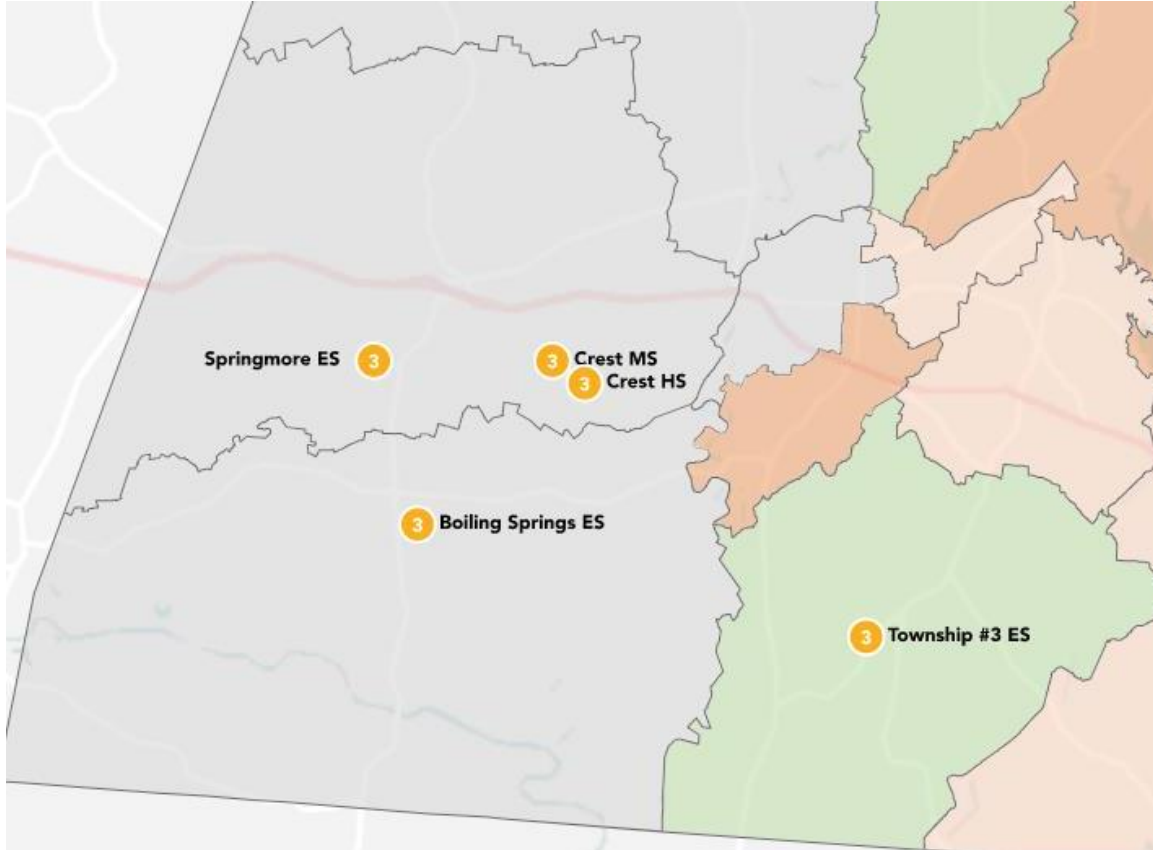
Zone Utilization Availability to Grow

Burns Attendance Zone



Zone Utilization Availability to Grow

Crest Attendance Zone



Zone Utilization Availability to Grow

Assessment Worksheet

HEALTH, SAFETY, AND SECURITY SYSTEMS				FACILITY NAME					XX/XX/XXXX		
[INSERT PHOTO OF FACILITY]	Review considerations: Age of Component or System Functionality of Component or System Expected Service Life Visual Survey of Condition			5					Score 5 of 5, 100%. New or like-new condition. No issues to report, no expected failures. Reevaluate in 3 years.	COST ESTIMATE	
				4					Score 4 of 5, 80%. Good Condition. No reported issues or concerns, no expected failures. Consider Replacement/Improvement in 7-10 years, reevaluate condition in 3 years.		
				3					Score 3 of 5, 60%. Average Condition. Not new, with some issues to report. Average wear for its age. Replace/Improve within 3-6 years.		
				2					Score 2 of 5, 40%. Poor Condition. Worn from use and nearing the end of its life cycle. Replace/Improve within 2-3 years as funds are available.		
	SOURCE	OVERALL CONDITION			1				Score 1 of 5, 20%. Extremely worn, damaged, or inoperable. Replace/Improve in less than 2 years.		
DIVISION / ASPECT / COMPONENT		M	A/E	5	4	3	2	1	AVG. SCORE	COMMENTS / RECOMMENDATIONS	LUMP SUM

SAFETY AND SECURITY

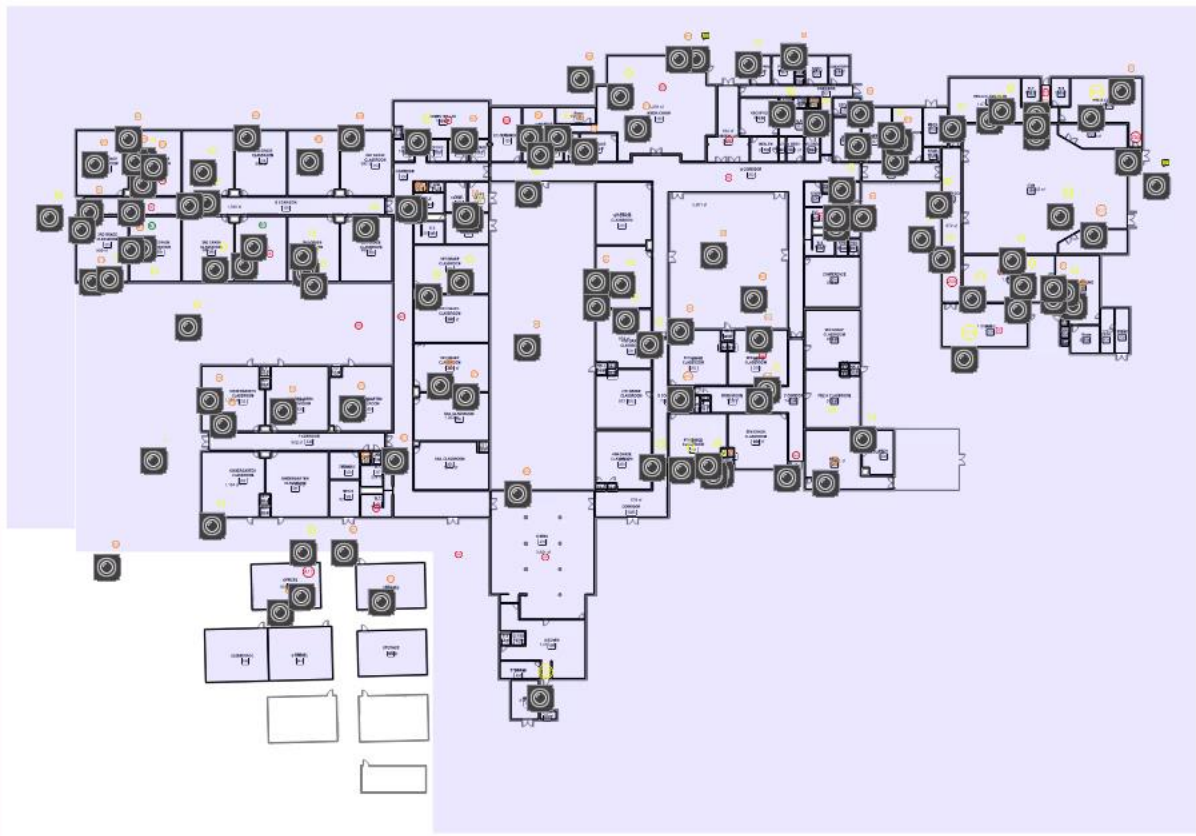
1	Building Security System		x				2			40%	
2	Security Cameras - Exterior		x				2			40%	
3	Security Cameras - Interior		x					1		20%	
4	Secure Entry		x		4					80%	
5	Identifiable Front Entry		x	5						100%	
6	Access Control - Main Entry		x			3				60%	
7	Access Control - Secondary Entries		x			3				60%	
8	Access Control - Physical Barriers		x			3				60%	
9	Access Control - Natural Strategies		x	5						100%	
10	Traffic Control - Pick-up / Drop-off		x		4					80%	
11	Traffic Control - Afterhours		x		4					80%	
12	Natural Surveillance		x				2			40%	
13	Natural Surveillance - Landscape Maintenance		x			3				60%	
14	Territorial Reinforcements - Property Boundaries (Fence, Landscaping, etc.)		x			3				60%	
15	Territorial Reinforcements - Maintenance Plan		x				2			40%	
16	Signage and Wayfinding		x					1		20%	
17	Interior - Circulation (widths)		x		4					80%	



In-Field Review

021179.00 - Cleveland County School - Facility Masterplan

Township #3 ES - Floor Plan*



Floor Plan: Level 1 - W (1 of 1)

42.00 x 30.00 in 1 in = 16'-0"

Markups List

Filter List

Subject	Space	Issue Remarks	Issue Type	Severity
> Area Measurement (1...)				
> Building Code (3)				
> Building Code	B CORRIDOR 121	Install (1) fire extinguishers in hallwall.	Fire Extinguishers	1
> Building Code	PRE-K CLASSROOM ...	Remove cubbies from corridor to provide accessible exit from classroom.	Means of Egress	1
> Building Code	HALL 100B	Drinking fountain extends into exit passageway. Install dividing partitions to both sides of drinking fountain.	Means of Egress	2

SCORE CHART

5	4	3	2	1
5 of 5 (100%)	5 of 5 (80%)	5 of 5 (60%)	5 of 5 (40%)	5 of 5 (20%)
<p>New or like-new condition. No issues to report, no expected failures. Reevaluate in 3 years.</p>	<p>No reported issues or concerns; No expected failures. Consider replacement and / or improvement in 7-10 years, reevaluate condition in 3 years.</p>	<p>Not new, with some issues to report. Average wear for its age. Replace or improve within 3-6 years</p>	<p>Worn from use and nearing the end of its life cycle. Replace or improve within 2-3 years as funds are available.</p>	<p>Extremely worn, damaged, or inoperable. Replace or improve in less than 2 years.</p>

Deficiency Reports

- Geolocated Instance Issues per school
- Photographic and In-field Notes
- Web-based and Searchable Platform
- *Facility and Maintenance Depart.*

Assessment Recommendations

- Approx. 268 individual assessment recommendations per school
- Itemized, Rated, and Cost Valued
- *Facility Depart. and District Leadership*

Executive Summary

- Categorized Focus Areas
- *District Leadership, Board of Education, Internal and External Stakeholders*

Kings Mountain Attendance Zone

	Yr. Built	Overall Score	Site	BE	Int.	MEP	HSS
Bethware Elementary	1925	3	3	2	3	3	2
East Elementary	1956	3	3	3	3	3	3
Grover Elementary	1950	3	3	2	3	3	2
North Elementary	1956	3	3	2	3	3	2
West Elementary	1975	3	3	3	3	2	2
Kings Mountain Intermediate	2002	4	5	4	4	4	5
Kings Mountain Middle	1975	3	3	2	3	2	3
Kings Mountain High	1965	3	3	3	2	2	3

Shelby Attendance Zone

Yr. Built

Overall Score

Site

BE

Int.

MEP

HSS

~~Graham Elementary~~

1955

2

3

1

3

1

2

James Love Elementary

1968

2

3

2

3

2

1

Jefferson Elementary

1969

3

3

2

3

2

3

~~Marion Elementary~~

1950

2

2

3

3

2

1

(Elizabeth Elementary)

~~Shelby Intermediate~~

1950

3

3

3

3

3

3

Shelby Middle

2011

5

5

5

5

5

5

Shelby High

1961

3

4

2

3

3

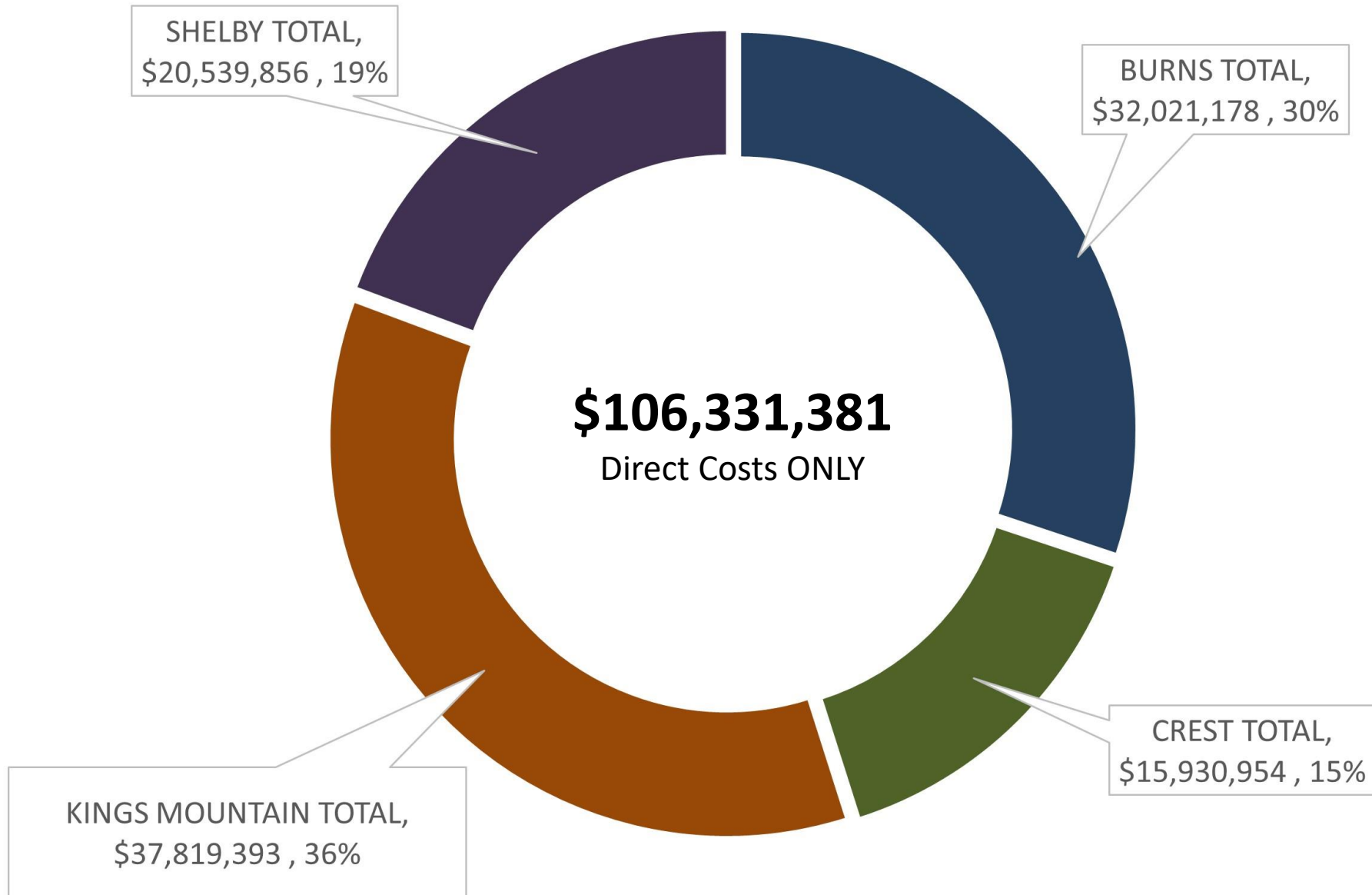
3

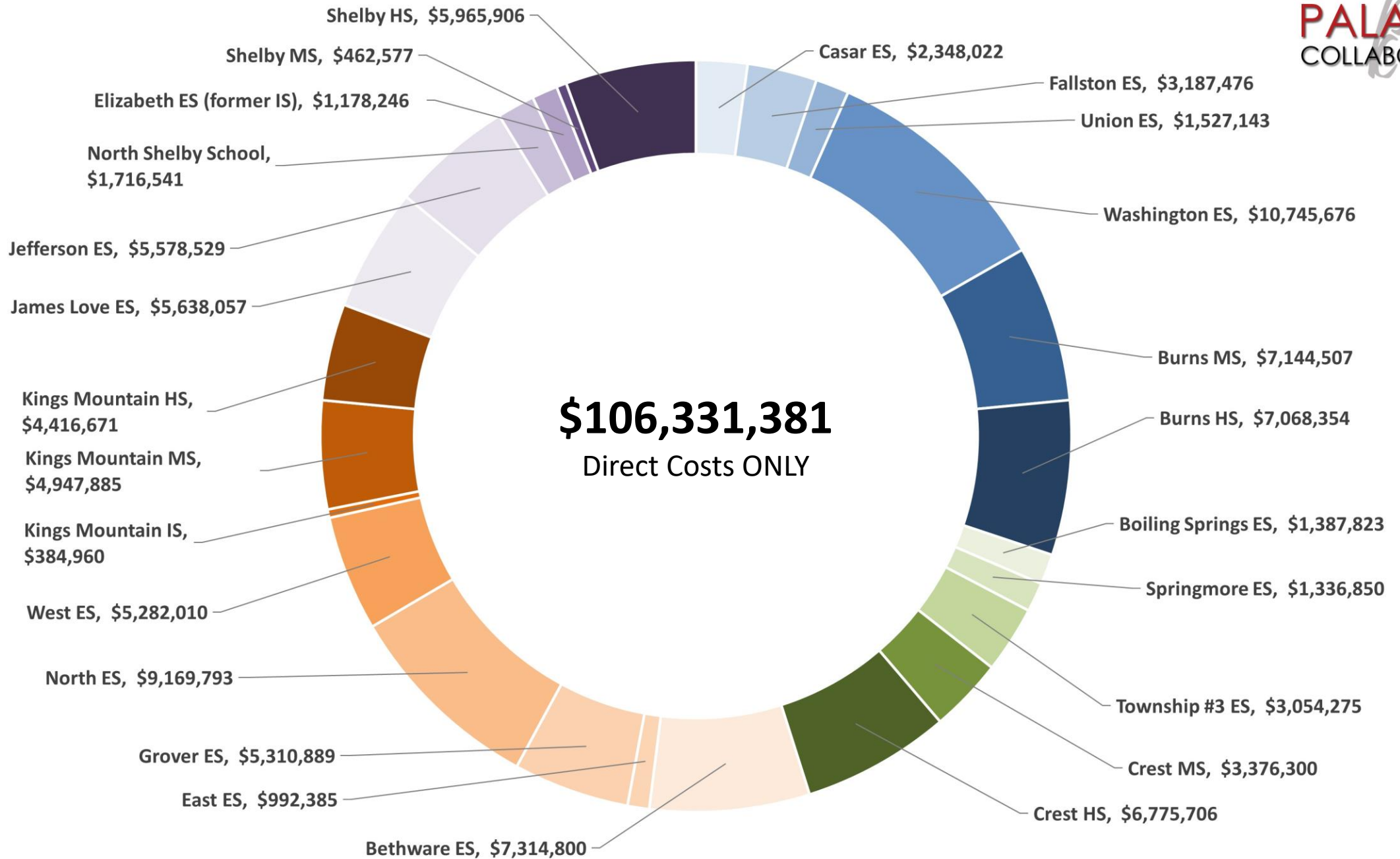
Burns Attendance Zone

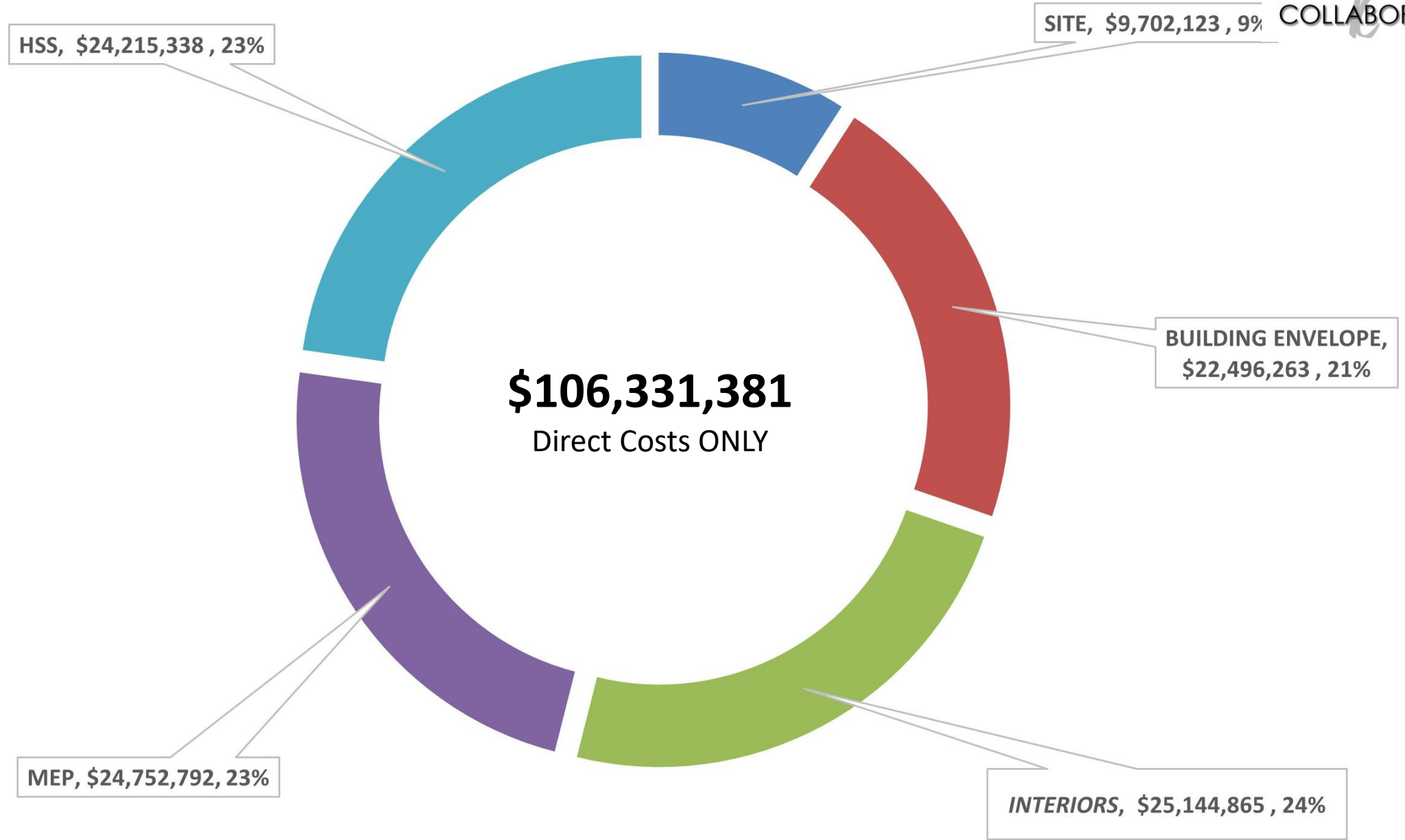
	Yr. Built	Overall Score	Site	BE	Int.	MEP	HSS
Casar Elementary	1926	3	3	3	3	3	2
Fallston Elementary	1930	3	4	3	3	3	3
Union Elementary	1991	3	3	3	3	3	3
Washington Elementary	1950	3	2	3	3	3	2
Burns Middle	1976	3	3	3	3	3	3
Burns High	1967	3	3	3	2	2	

Crest Attendance Zone

	Yr. Built	Overall Score	Site	BE	Int.	MEP	HSS
Boiling Springs Elementary	1990	3	3	3	3	3	3
Springmore Elementary	2000	3	3	3	4	2	3
Township #3 Elementary	1950	3	3	2	3	3	3
Crest Middle	1976	3	3	3	3	3	3
Crest High	1967	3	4	3/1	2	2	3







MAINTENANCE PLANNING and PARAMETERS:

Direct Construction Costs..... \$ 106,311,381

Indirect Construction Costs..... \$ 31,893,414

Contingency..... \$ 10,631,138

TOTAL PROJECT COSTS..... \$ 148,835,933

*Does not include escalation. A master schedule is needed.

Indirect Construction Costs

Includes required due diligence studies, surveys, general conditions, professional fees, legal costs, permitting and inspection costs, FFE, technology infrastructure, and insurance among other similar costs. Indirect Construction Costs can represent 23-37% of the overall project budget depending on the project's typology, complexity, and size.

Cost Escalation

Variable percentage of Direct Costs for the project's duration, therefore, it is also directly related to the CIP Master Schedule. The costs are projected to escalate 8% per year after June 2023.

Project Delivery

Assuming 3 sub-bidders per major division (high competitiveness)

Contingency

Because of the complexity of this project type, maintain a construction and design contingency of a minimum of 10%

GUIDING PRINCIPLES



- 1. Maximizing operational efficiency and effectiveness should inform key decisions on maintaining, improving, or changing each campus within the school system's portfolio of buildings.**
2. Maintain the school system's four identified enrollment zones for student matriculation from Kindergarten through 12th Grade.
3. Continue to maintain and improve each of the school system's four high school campuses in their current locations.
4. In each enrollment zone, campuses should be designated by age group. Age grouping should include Elementary Schools (K-5th Grade), Middle Schools (6th-8th Grade), and High School (9th – 12th Grade).
5. For Cleveland County Schools overall, and for the Shelby and Kings Mountain attendance zones specifically, smaller age groups in an 'intermediate' campus should be considered for elimination. Instead, these age groups should consider following the age groupings listed above.
6. For Cleveland County Schools, the optimal elementary school enrollment ranges from 450 – 600 students. Optimal middle school enrollment ranges from 800 – 900 students. Optimal high school enrollment ranges from 1,000 – 1,500 students.
7. Program types should expand 'choice' offerings and may include special education, early childhood education, technical education, college preparatory education, or other similar programs that may develop.