

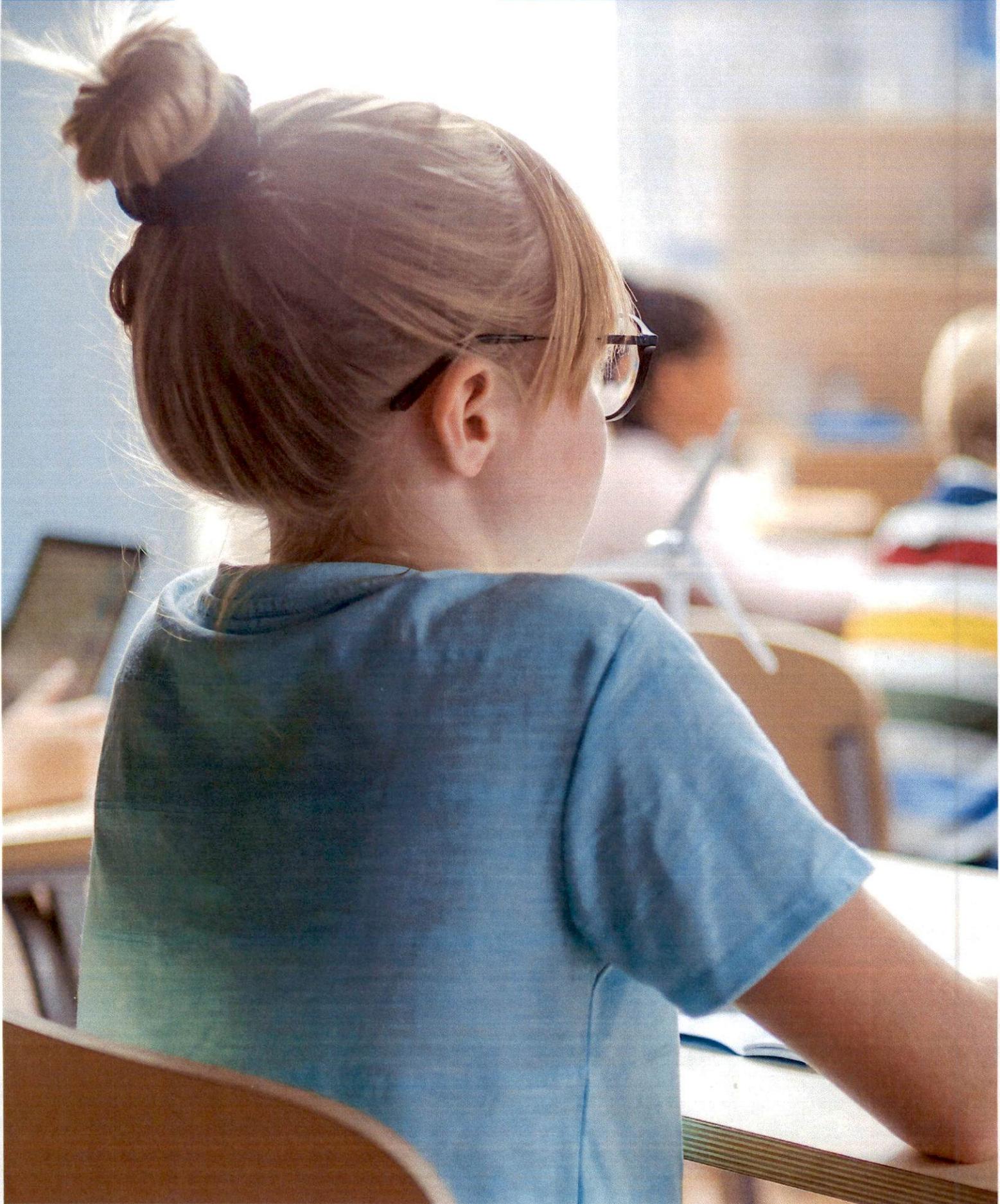
# ENERGY SYSTEMS GROUP



# CANNON COUNTY

*Educational Feasibility Study 2024*

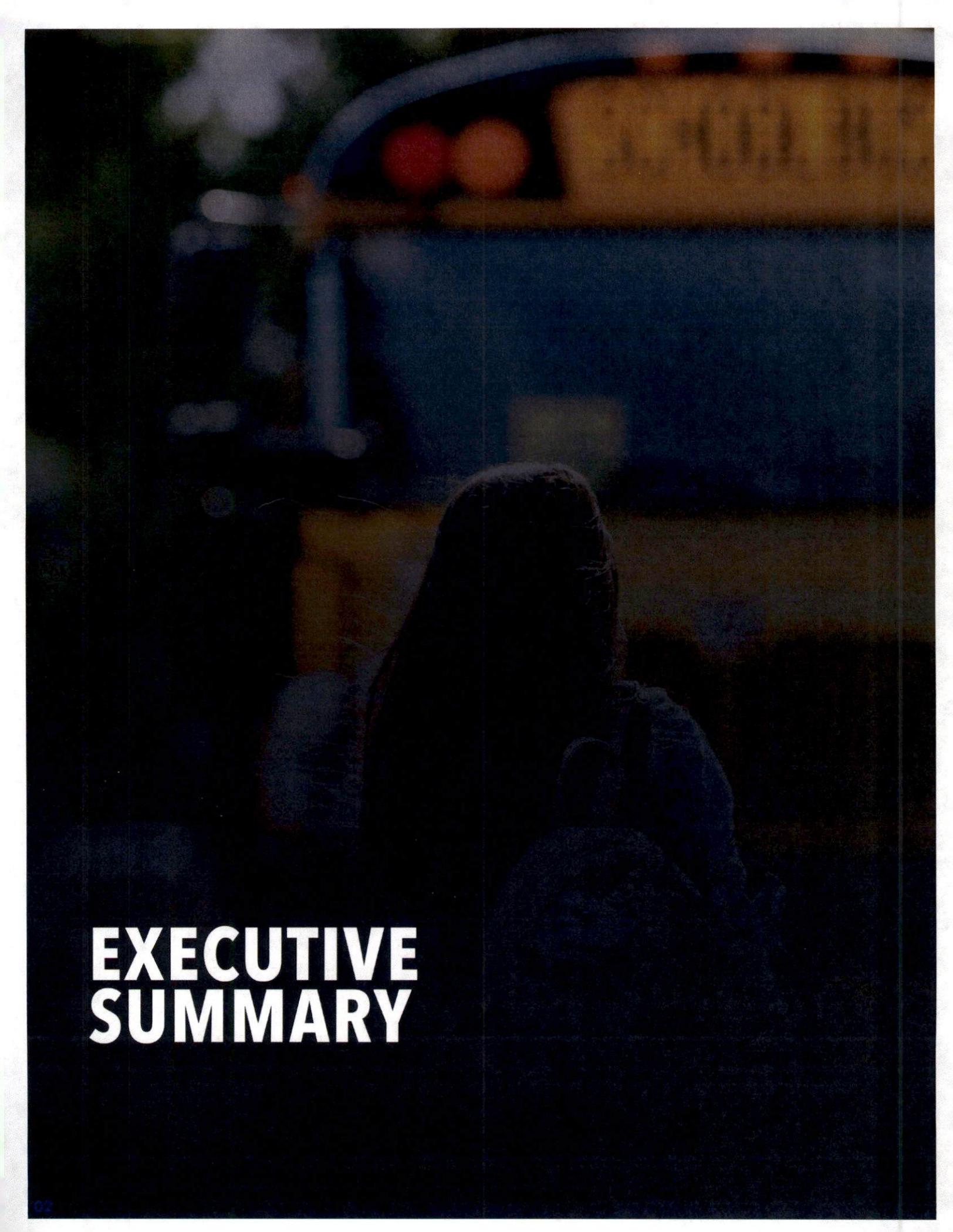
# FEASIBILITY STUDY



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# EXECUTIVE SUMMARY

# EXECUTIVE SUMMARY

Explore our three customized, dynamic options to solve the overcrowding issues currently being experienced within your district, all while enhancing educational opportunities. Working collaboratively with the leaders of your school district, our team of engineers, construction managers, and former superintendents have curated three options for Cannon County School District to consider.

**Option 1** proposes repurposing East Side Elementary into a robust K-5th grade facility, while transforming Woodbury Elementary into a dedicated middle school for 6-8th grades, optimizing resources and fostering tailored programming for each age group.

**Option 2** suggests converting East Side Elementary into a state-of-the-art 6-8th grade middle school, leveraging its advantageous location and potential for renovation to provide an enriched learning environment for middle school students.

**Option 3** presents the ambitious prospect of constructing a brand-new middle school, albeit the most costly option, ensuring cutting-edge facilities and resources tailored specifically for the unique needs of 6-8th grade students.

Each option represents our commitment to excellence in education and the holistic development of your students, offering distinct pathways to success within your community.

## Introduction

The purpose of the Educational Facilities Feasibility Study document is to identify and communicate the educational and physical needs of the Cannon County School District to the school administration, board of education and community.

In January 2024, a planning process began to explore current and future educational program needs for each grade level and to determine the ability of each school building to accommodate program requirements. This study is intended to expand and complement any current facilities planning already in place.

The recommendations contained in the feasibility study documents can serve as a "guide" for the incremental funding and implementation of a comprehensive Capital Improvement Plan over the next 10-15 years.



## Budget Review

A thorough examination of the Cannon County School District's financial landscape was undertaken, coupled with insightful discussions with the Director of Schools shedding light on both the current budget constraints and the district's financial history. It's evident that your current budget falls short of supporting the recommended expansions, renovations, or the ambitious prospect of erecting a new building. Without substantial revenue increases, sustaining your district's operational standards and planning for future growth will remain challenging. While optimizing energy efficiency in existing buildings presents a viable short-term solution to alleviate some financial strain and redirect funds towards renovations, it's imperative to establish a reliable, long-term revenue stream to fulfill any enduring commitments.

Navigating the financial intricacies of your district demands a proactive approach to secure stability and ensure sustainable growth. The limitations in your budget show that it's crucial to plan ahead carefully. You need to focus on finding ways to bring in and retain more money to ensure your budget stays stable and secure in the long run. This will help create a better learning environment that boosts students and keeps your teachers and staff happy and supported.



**A steady school budget makes all the difference in keeping students and staff happy and focused on learning and teaching.**



## Transportation Department Review

A review of the transportation department was conducted at the request of the district as part of the feasibility study. The transportation department has an annual budget of approximately \$750,000.00 to operate buses to transport students to and from school and to school events. While the district was able to utilize ESSER funding over the last two years to install new cameras and radios on all buses, the transportation department is still facing numerous additional challenges to meet the needs and maintenance of the district.

The district operates 23 buses on a daily basis. One overarching concern voiced was the lack of qualified applicants to hire into the driver pool. The district is currently short 3 drivers and has no substitute drivers in the current pool. Due to lack of drivers, buses on occasion have to double routes to ensure students are transported within state requirements for student daily ride time. With the recent change in the school district configuration the transportation of students has been affected. Zoning of schools has increased ride time for some students, extending their time on the school bus to and from school.

Due to the lack of drivers and bus routes it is also hard to transport students to sporting events



### TOP TRANSPORTATION CHALLENGES:

- short-staffed
- extended ride times
- deferred maintenance
- aging buses
- rising fuel costs

especially in the spring. The transportation department's primary expense is salaries, though it has also seen a rise in fuel costs due to increased mileage over recent school years. Maintenance cost have been lessened to off set this deficit but will continue to rise as buses age over time. When new buses are needed there is an 8 to 9 month wait time from the time of order of the bus to the arrival of the bus on site.

A recommendation to enhance the transportation experience would involve reviewing the current zoning layout of the district and implementing adjustments to decrease travel time while also allocating additional funds to ensure that all buses receive annual maintenance by certified mechanics.

ANNUAL BUDGET OF  
**\$750,000**

**23 BUSES**  
OPERATED DAILY

**ZERO**  
QUALIFIED SUBSTITUTE  
DRIVERS AVAILABLE

DISTRICT NEEDING  
**3 MORE** DRIVERS



## Enrollment Review

Analysis of District-Wide Growth Projections along with Student Enrollment Projections for various grade levels encouraged the planning team to recommend a 400-600 Student Grade-Level Planning Model for a total maximum capacity of 2400 students.



### Elementary Schools

(PreK to 5 grades @ 400 Students  
= 1,200 Students)



### Middle School

(6-8 @ 600 Students = 600 Students)



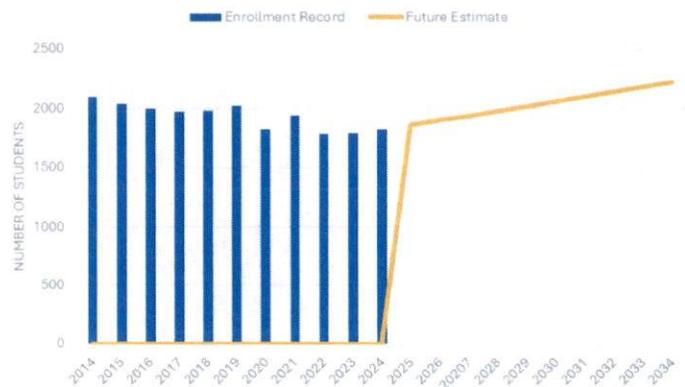
### High School

(9-12 @ 600 Students = 600 Students)

Interviews with principals were conducted to establish the current needs of each school and to determine the classroom requirements for both PreK-5, 6-8, and 9-12 facilities to determine both Classroom Capacity and Optimal Planning Capacity. This grade level organization and planning model was reviewed with school principals/staff, Director of Schools, and the Director of Facilities to gain feedback during the data gathering process.

The Administrative Group agreed Option 1 was the preferred grade-level organization plan, and that it should be further evaluated to determine: its ability to adequately respond to the impacts of student enrollment projections and classroom capacity analysis for each school, critical path scheduling for implementation, relative order of magnitude in potential construction cost, and the priorities of a capital improvements plan.

## Enrollment Trend

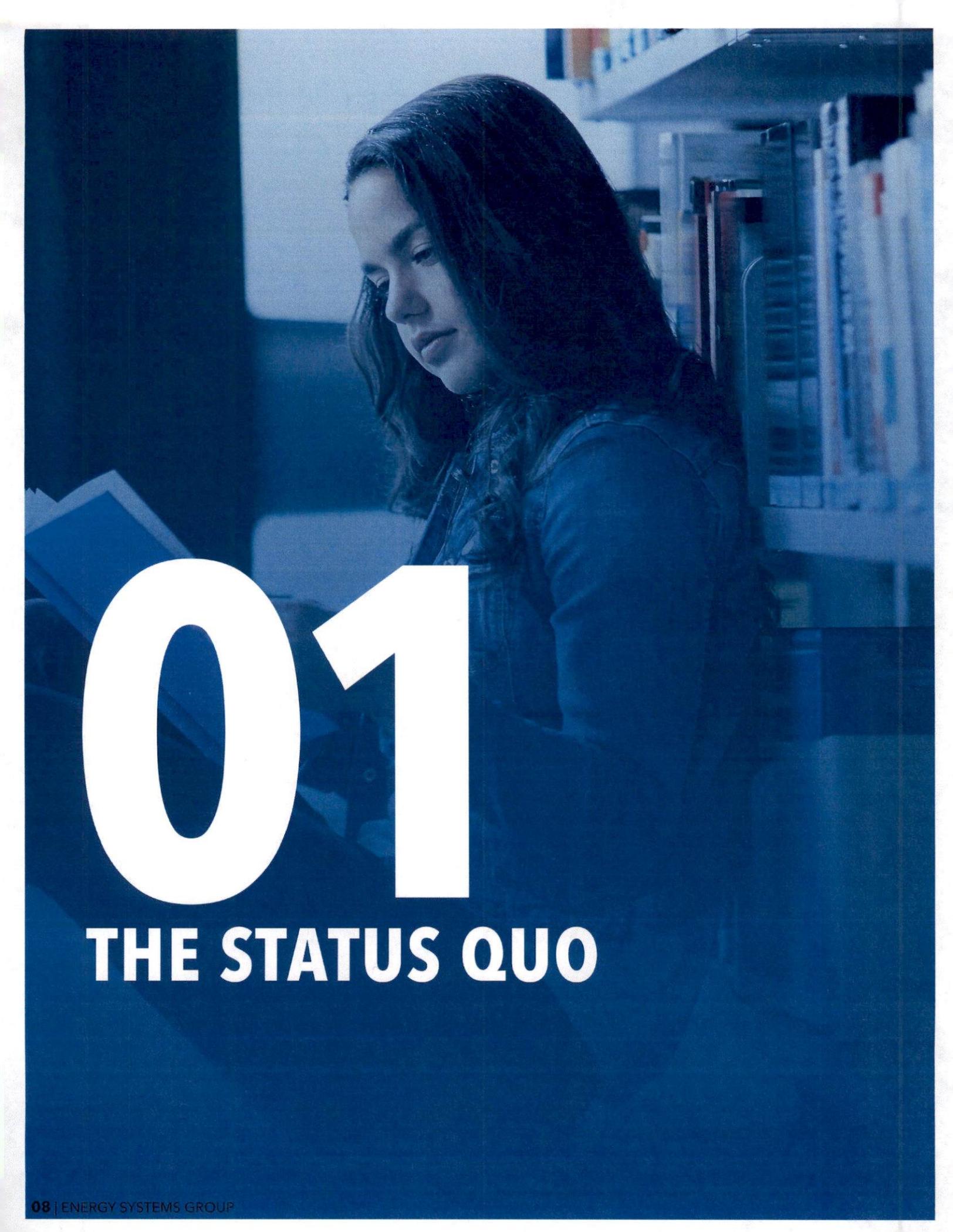


## Enrollment Summary by Grade & Future Projections

| School Year      | Pre K | K   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | District Total |
|------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|
| <b>2014-2015</b> | 83    | 141 | 154 | 161 | 159 | 154 | 152 | 157 | 171 | 156 | 142 | 147 | 153 | 164 | <b>2094</b>    |
| <b>2015-2016</b> | 94    | 129 | 141 | 142 | 166 | 149 | 144 | 156 | 152 | 174 | 163 | 131 | 140 | 161 | <b>2042</b>    |
| <b>2016-2017</b> | 95    | 153 | 131 | 135 | 141 | 160 | 152 | 142 | 157 | 148 | 164 | 155 | 124 | 140 | <b>1997</b>    |
| <b>2017-2018</b> | 100   | 154 | 153 | 125 | 135 | 140 | 155 | 154 | 135 | 149 | 143 | 163 | 149 | 115 | <b>1970</b>    |
| <b>2018-2019</b> | 103   | 151 | 160 | 145 | 122 | 138 | 137 | 154 | 158 | 139 | 146 | 139 | 154 | 133 | <b>1979</b>    |
| <b>2019-2020</b> | 91    | 155 | 165 | 162 | 143 | 129 | 139 | 140 | 159 | 160 | 144 | 143 | 145 | 148 | <b>2023</b>    |
| <b>2020-2021</b> | 74    | 121 | 96  | 144 | 151 | 122 | 122 | 127 | 141 | 153 | 153 | 141 | 138 | 140 | <b>1823</b>    |
| <b>2021-2022</b> | 99    | 146 | 145 | 127 | 158 | 142 | 151 | 129 | 130 | 144 | 158 | 156 | 131 | 127 | <b>1943</b>    |
| <b>2022-2023</b> | 70    | 124 | 145 | 132 | 108 | 135 | 143 | 143 | 120 | 133 | 145 | 138 | 133 | 117 | <b>1786</b>    |
| <b>2023-2024</b> | 100   | 154 | 114 | 137 | 121 | 114 | 134 | 145 | 132 | 115 | 137 | 142 | 126 | 121 | <b>1792</b>    |
| <b>2024-2025</b> | 1022  | 157 | 116 | 140 | 123 | 116 | 137 | 148 | 135 | 117 | 140 | 145 | 129 | 123 | <b>1828</b>    |
| <b>2025-2026</b> | 104   | 160 | 119 | 143 | 126 | 119 | 139 | 151 | 137 | 120 | 143 | 148 | 131 | 126 | <b>1864</b>    |
| <b>2026-2027</b> | 106   | 163 | 121 | 145 | 128 | 121 | 142 | 154 | 140 | 122 | 145 | 151 | 134 | 128 | <b>1902</b>    |
| <b>2027-2028</b> | 108   | 167 | 123 | 148 | 131 | 123 | 145 | 157 | 143 | 124 | 148 | 154 | 136 | 131 | <b>1940</b>    |
| <b>2028-2029</b> | 110   | 170 | 126 | 151 | 134 | 126 | 148 | 160 | 146 | 127 | 151 | 157 | 139 | 134 | <b>1979</b>    |
| <b>2029-2030</b> | 113   | 173 | 128 | 154 | 136 | 128 | 151 | 163 | 149 | 130 | 154 | 160 | 142 | 136 | <b>2018</b>    |
| <b>2030-2031</b> | 115   | 177 | 131 | 157 | 139 | 131 | 154 | 167 | 152 | 132 | 157 | 163 | 145 | 139 | <b>2058</b>    |
| <b>2031-2032</b> | 117   | 180 | 134 | 161 | 142 | 134 | 157 | 170 | 155 | 135 | 161 | 166 | 148 | 142 | <b>2100</b>    |
| <b>2032-2033</b> | 120   | 184 | 136 | 164 | 145 | 136 | 160 | 173 | 158 | 137 | 164 | 170 | 151 | 145 | <b>2142</b>    |
| <b>2033-2034</b> | 122   | 188 | 139 | 167 | 147 | 139 | 163 | 177 | 161 | 140 | 167 | 173 | 154 | 147 | <b>2184</b>    |
| <b>2034-2035</b> | 124   | 191 | 142 | 170 | 150 | 142 | 167 | 180 | 164 | 143 | 170 | 177 | 157 | 150 | <b>2228</b>    |



Based on the school district’s historical data from 2014-15 until 2023-24, the student enrollment decreased by 302 students from 2,094 to 1,792 students. Analysis and projections indicate the total student enrollment may increase over the next 10 years to approximately 2,228 by the school year 2034/35. This growth would be about 2.0% per year and the Boyd Center for Business and Economic Research indicates that the growth projection for Cannon County would be approximately 1.81%. The system-wide grade level projected student enrollment allocation by grade levels would be as follows: PreK-5 grades @ 1,087 students, 6th-8th grades @ 487 students; and 9th-12th grades @ 654 students.

A woman with long dark hair, wearing a denim jacket, is looking down at a book in a library. The scene is dimly lit with a blue tint. A large white '01' is overlaid on the left side of the image. Below the '01', the text 'THE STATUS QUO' is written in white, bold, uppercase letters.

# 01

## THE STATUS QUO

# COMMUNITY-CENTRIC EVALUATION

## Understanding Your School Needs

Every school system is different from its neighboring counties, that's no secret. This is why our solutions are never taken from an old playbook, and applied to another district. We invest our time into learning from you the needs your schools and community are facing and form our recommendations from what you share.

This summary dives into the evaluation of your school spaces, highlighting the necessity of investing in upgrades for buildings, learning environments, and structural safety. Through our time spent with district leadership we are developing a connection to the communities served by your schools, which is why we aim to ensure that the voices of your community - parents, teachers, and students alike - are heard. Together, we embark on this journey of improvement, driven by our partnership with you and a shared commitment to creating safe, nurturing spaces where every child can thrive.



## Study Timeline

- January 2024**  
ESG Team met with Cannon County Director of Schools to agree on scope of study and finalize timeline.
- February 2024**  
ESG Team develops high-level plan from data gathered to present to Director of Schools for review and collaboration.
- March 2024**  
ESG Team develops structured building construction/renovation plan to present to Director of Schools for review and collaboration.
- April 2024**  
ESG Team develops possible timeline for implementation of construction/renovation of buildings for review to Director of Schools for review and collaboration.
- May 2024**  
Full Educational Feasibility Study completed and presented to Cannon County School District for review and next steps.

## Scope of Work

1. Identify and document current facility and grounds conditions and deficiencies.
2. Recommend corrections for all deficiencies.
3. Provide cost estimates for corrections.
4. Forecast future facility renewal and/or new configurations with costs.
5. Incorporate pre-existing Facility and Condition Assessment (FCA) data.

## District Buildings Identified in Scope of Work

1. East Side Elementary School
2. Cannon County Elementary/ Cannon Middle School
3. Cannon North Elementary School
4. Cannon South Elementary School
5. Cannon County High School
6. Veterans Memorial Gym

## 1.1 Cannon County Elementary School

Cannon County Elementary has had several major mechanical and structural upgrades in the facility. In recent years the school has operated as a PreK-5 elementary school, and middle school. The administration has done an outstanding job with organization and scheduling to ensure that students can use the facility to the best of their ability. However, the current grade structure has created a very overcrowded situation, and the school has limited ability to operate as an elementary or middle school. To function effectively it is recommended that only one grade structure, either a middle school structure or elementary school structure be used at the school, rather than both. The school has limited space due to the grade structure and number of students in the school which will not allow for CTE programming and expansion of academic programs that could be developed if space were available.

Functionally and mechanically the school has been updated with 22 new HVAC units installed, new LED lighting and a new cooling tower. There are no fresh air units to bring fresh outside air into the building and to complete the overall upgrade of the school 50 new HVAC units will need to be purchased and installed. The school does have a new control system which will allow for energy savings and will allow funds to be saved and used in other ways in the district.

Overall, the utilization of space has been at an operable level but not an ideal level allowing for expansion of programs and educational spaces to be used at peak efficiency.



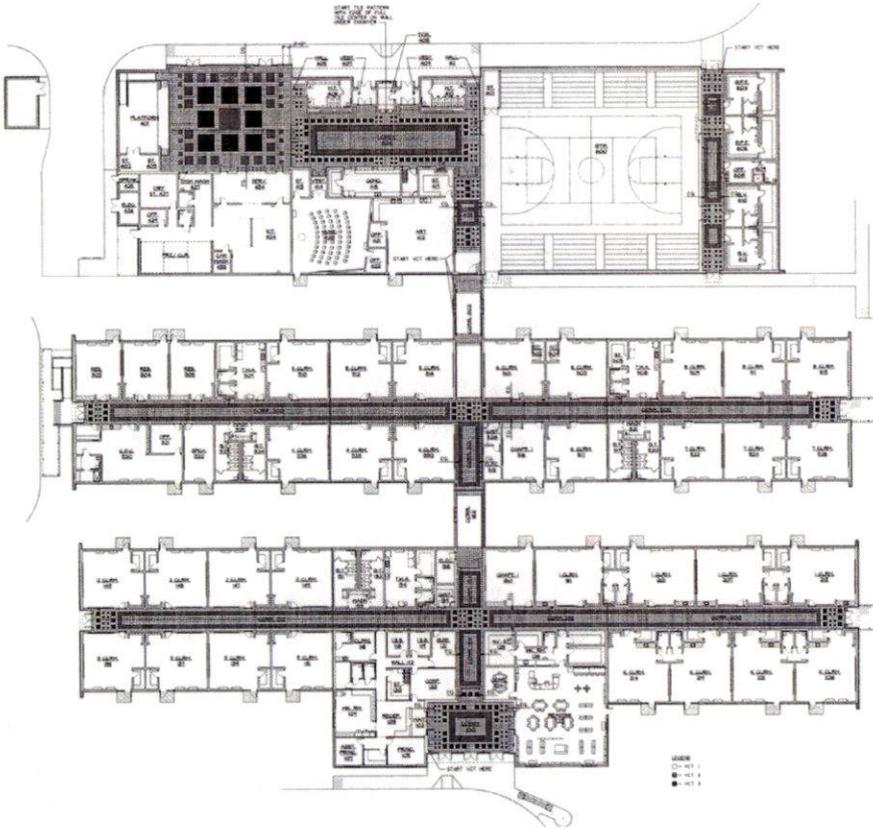
### Meeting Notes:

1. PreK Program at school consist of CDC PreK and two regular classrooms.
2. Transient population due to housing in zone of school.
3. Counseling at the school is funded by ESSER funds which will be expended end of year 2024.
4. No dedicated classroom space for ESL programing.
5. School does have an outside therapist that works with the district as well as multiple outside services.
6. SRO Officer rotates within 4 schools.
7. School does contain a nurse onsite in the building.

### Major Maintenance items:

1. HVAC/Lighting/Cooling Tower all new.
2. Gym floor replacement due to HVAC leak.
3. No Fresh Air units and some HVAC units not working at present time.
  - a. 50 Units to complete new installation
  - b. 22 new units installed serving Middle School area and Common Areas.
4. School is all on control system.

## Floor Plan



### Support Areas

|                     |   |
|---------------------|---|
| Art                 | 1 |
| Computer Lab        | 0 |
| Library             | 1 |
| Assistant Principal | 1 |
| Counseling          | 1 |
| ESL                 | 2 |
| Music               | 0 |
| RTI                 | 1 |
| Special Education   | 2 |
| Speech              | 2 |

## Additional Evaluation

| Pre K - 5th       | 2023-2024 Enrollment | Classroom Type | Quantity | Student Average | Student Maximum |
|-------------------|----------------------|----------------|----------|-----------------|-----------------|
| Pre K             | 43                   | Regular        | 3        | 14.33           | 20              |
| K                 | 55                   | Regular        | 3        | 18.33           | 25              |
| 1                 | 35                   | Regular        | 2        | 17.50           | 25              |
| 2                 | 40                   | Regular        | 2        | 20.00           | 25              |
| 3                 | 40                   | Regular        | 2        | 20.00           | 25              |
| 4                 | 38                   | Regular        | 2        | 19.00           | 30              |
| 5                 | 39                   | Regular        | 2        | 19.50           | 30              |
| Extended Resource | 30                   |                | 2        | 15.00           |                 |
| <b>TOTAL</b>      | <b>320</b>           |                |          |                 |                 |

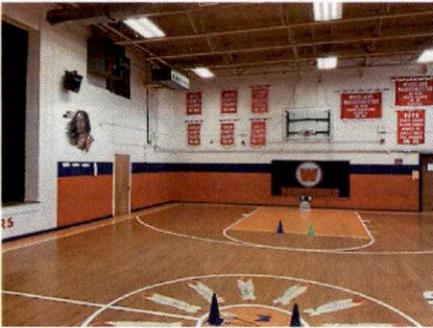
## 1.2 Cannon County South Elementary

Cannon County South is in a remote location close to the Coffee County line. The school currently operates as an elementary school and has been well maintained by the district and staff over the life of the school and several additions have been added over time. New technology for educational use has been installed through fundraisers and new camera systems and keyless entry have been installed by the school district. The building does have several plumbing and septic system issues that need to be resolved and owns 17 acres on the property. The building also has had a new roof installed but is still dealing with roof leaks that will also need to be resolved over time.

The building functions now and should continue to function as an elementary school serving the students of the county. Zoning and transportation have been one issue and concern that will need to be addressed through zoning over time. Students are transported long distances to and from school each day.

Cannon County South does not currently have LED lighting in the building and is in need of an HVAC renovation to maximize energy savings at the school. A new roof was installed two years ago but still has leaking around the old and outdated HVAC equipment. The school could also benefit from controls that will allow for peak efficiency during and after school hours. The school as noted has had several renovations completed but could benefit from refreshed restrooms in all areas, dedicated staff restrooms, and dedicated clinic space with water in space.

Overall, the utilization of space has been at an operable level but not an ideal level allowing for expansion of programs and educational spaces and the building is not operating at peak efficiency with regard to energy use.



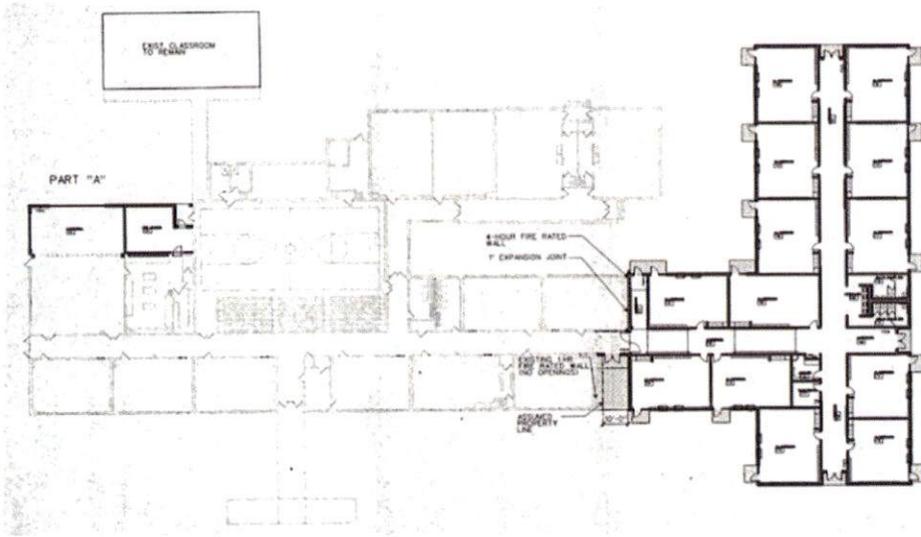
### Meeting Notes:

1. Busing students is an issue and causes some attendance issues for students due to distance covered.
2. Art is housed in portable.
3. School has assistant principal second year in position.
4. Project Basic Grant Behavior Based K-3 is here 4 days a week.
5. ESL teacher shared with Cannon County Elementary.
6. RTI staffed by teacher assistants.
7. Tutors in classrooms funded by ESSER funds will be expended end of year 2024.
8. Nurse Split with Cannon County North Elementary.

### Major Maintenance items:

1. Roof two years old but still has leaks.
2. Need for staff restrooms, septic systems is a problem 17 acres owned by school for plumbing 8 restrooms for 400 people.
3. No water in clinic space.
4. Fire alarm system not monitored.
5. Security system not functioning properly.
6. Non-HD camera system in place for over 10 years.

## Floor Plan



## Support Areas

|                     |     |
|---------------------|-----|
| Art                 | 1   |
| Computer Lab        | 0.5 |
| Library             | 0.5 |
| Assistant Principal | 0.5 |
| Counseling          | 1   |
| ESL                 | 0.5 |
| Music               | 0   |
| RTI                 | 1.5 |
| Special Education   | 1   |
| Speech              | 0.5 |
| Nurse               | 0.5 |



## Additional Evaluation

| Pre K - 5th  | 2023-2024 Enrollment | Classroom Type | Quantity | Student Average | Student Maximum |
|--------------|----------------------|----------------|----------|-----------------|-----------------|
| Pre K        | 20                   | Regular        | 1        | 20.00           | 20              |
| K            | 58                   | Regular        | 3        | 19.33           | 25              |
| 1            | 50                   | Regular        | 3        | 16.67           | 25              |
| 2            | 61                   | Regular        | 3        | 20.33           | 25              |
| 3            | 46                   | Regular        | 3        | 15.33           | 25              |
| 4            | 42                   | Regular        | 2        | 21.00           | 30              |
| 5            | 55                   | Regular        | 3        | 18.33           | 30              |
| <b>TOTAL</b> | 320                  |                | 33       |                 |                 |

## 1.3 Cannon County North Elementary

Cannon County North is in a high traffic location close to the Rutherford County line. The school currently operates as an elementary school and has been well maintained by the district and staff over the life of the school and several additions have been added over time. The building does have several plumbing issues and has no dedicated restrooms for staff nor dedicated office space. Currently copy machines and community use equipment are in hallways due to lack of dedicated space. During the study a private roofing consultant evaluated the roof and determined that the building is in need of a new roof which will need to be addressed in the next two to three years. Over time zoning and transportation have been one issue of concern that will need to be addressed. The school has been rezoned three times since the district rezoned schools which has caused issue with the school population. Students are transported long distances to and from school. The school is located near Rutherford County and it is estimated over time could have a population growth due to development of homes moving out of Rutherford County and into Cannon County.

At one point this or East Side Elementary were discussed as a Middle School Site which with development could be entertained but is not the ideal location and would result in continued transportation issues due to location and extensive renovation would have to be done to use the property in that fashion.

Cannon County North does not currently have LED lighting in the building and is in need of an HVAC renovation to maximize energy savings at the school. The school could also benefit from controls that will allow for peak efficiency during and after school hours. The school as noted has had several renovations completed but could benefit from refreshed restrooms in all areas, dedicated staff restrooms fresh air units and dedicated office space for equipment.

Overall, the utilization of space has been at an operable level but not an ideal level allowing for expansion of programs and educational spaces and the building is not operating at peak efficiency with regard to energy use.

### Major Maintenance Item: Roof Replacement

The overall condition of roof is currently at a D to D- and there are several areas that raise concerns about long-term performance. It is recommended that the building roof be replaced in the next 3 years. There are several areas where sealant around seams are aged and beginning to fail. There are also several areas where blisters have become evident and could lead to potential fractures, leaking, and water damage to the insulation layer. We would recommend budgeting for a new roof system.

Maintenance Roof Replacement Cost: \$600,000 to \$700,000



### Meeting Notes:

1. Restructured three times in the rezoning for Cannon County Elementary.
2. Art three days a week iterant.
3. Assistant Principal not full time.
4. One full time teacher and teacher assistant ESSER funded.
5. ESL Teacher iterant county wide.
6. Nurse split with Cannon South Elementary.

### Major Maintenance items:

1. No restroom for staff in office area.
2. Clinic area in classroom space.
3. Needed gate across the front the school for security .
4. No new lighting, HVAC, no controls in place.
5. Restrooms have been replumbed.
6. New roof needed on building



## 1.4 Cannon County Middle School

Cannon Middle mirrors the same utilization of space comments as Cannon Elementary since they share the same building. The building has had several major upgrades in the facility mechanically as well as structurally. In recent years the school has operated as a PreK-5 Elementary school, and a middle school. The administration has done an outstanding job with organization and scheduling to ensure that students can use the facility to the best of their ability.

However, the current grade structure has created a very overcrowded situation, and the school has limited ability to operate as an elementary or middle school. To function effectively it would be recommended that only one grade structure, either a middle school structure or elementary school structure used at the school, rather than both. The school has limited space due to the grade structure and number of students in the school which will not allow for CTE programing and expansion of academic programs that could be developed if space was available.

Functionally and mechanically the school has been updated with 22 new HVAC units installed, new LED lighting and a new Cooling Tower. There are no fresh air units to bring fresh outside air into the building and to complete the overall upgrade of the school 50 new HVAC units will need to be purchased and installed. The school does have a new control system which will allow for energy savings which will allow funds to be saved and used in other ways in the district.

Overall, the utilization of space has been at an operable level but not an ideal level allowing for expansion of programs and educational spaces to be used at peak efficiency.



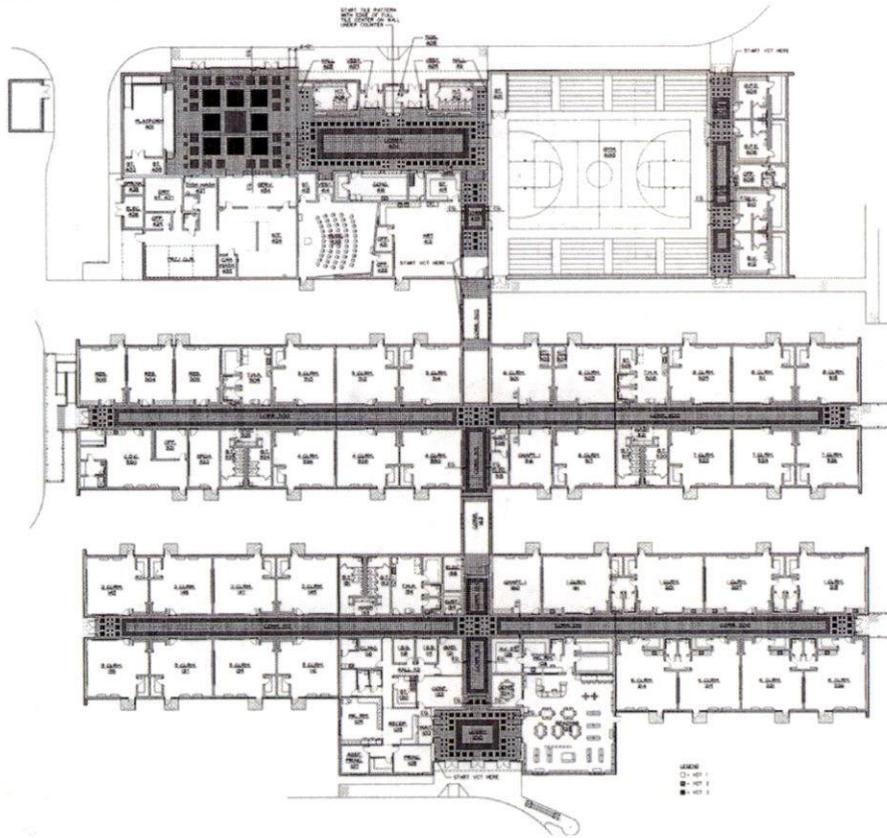
### Meeting Notes:

1. Crowded educational environment for teachers and students
2. Would like to implement other program for students (i.e. CTE programs, Band/Music, Theater, etc)
3. Lions camp held in summer to transition students from elementary schools to middle school environment
4. Capturing Kids Hearts National Showcase School
5. Transition to High School easier with middle school experience
6. Last year had one Principal at building now has two in one building

### Major Maintenance items:

1. HVAC/Lighting/Cooling Tower all new.
2. Gym floor replacement due to HVAC leak.
3. No Fresh Air units and some HVAC units not working at present time.
4. 50 Units to complete new installation
5. 22 new units installed serving Middle School area and Common Areas.
6. School is all on control system

## Floor Plan



## Support Areas

|                      |          |
|----------------------|----------|
| Art                  | 1        |
| Computer Lab         | 0        |
| Library              | 1        |
| Assistant Principal  | 1        |
| Counseling           | 1        |
| +Full time Therapist |          |
| ESL                  | Internet |
| Music                | 0        |
| RTI                  | 2        |
| Special Education    | 2        |
| Need 3 / 1 CDC       |          |
| Speech               | 0.5      |
| Alternative School   | 1        |

## Additional Evaluation

| 6th - 8th    | 2023-2024 Enrollment | Classroom Type | Quantity | Student Average | Student Maximum |
|--------------|----------------------|----------------|----------|-----------------|-----------------|
| 6            | 147                  | Regular        | 5        | 29.40           | 30              |
| 7            | 134                  | Regular        | 4        | 33.50           | 30              |
| 8            | 117                  | Regular        | 4        | 29.25           | 30              |
| <b>TOTAL</b> | 398                  |                |          |                 |                 |

## 1.5 Cannon County High School

Cannon County High School, like most buildings in the County has had several additions since being built in 1978. The school is operated well and is very innovative in programming but lacks space to fully implement CTE programs as wanted or needed to meet the job market and employment opportunities of the current workforce in and around Cannon and surrounding counties. The school has been updated with new camera systems and keyless entry systems that have improved the security of the building and is operated in a very efficient manner by the school's administration. The building has had a new roof installed as well and new LED lighting. The lighting is not ideal in the hallways and classrooms but allows for energy savings throughout the building as well as deferred maintenance cost. The building does have a new control system as well as water sourced heating and cooling which is operational but has caused issues over time.

One key issue is the traffic situation that exist with only one way in and out of the school. This is a safety concern for student drivers as well as for emergency personnel during times that activities are held at the school. This building however would be an ideal location for a middle school site if a new High School was constructed in the county. A new high school building would allow for up-to-date classrooms, technology, expanded CTE programs, athletic facilities, and well as opportunities to grow educational opportunities after the school day if partnering with higher education institutions.

Overall, the utilization of space has been at an operable level but not an ideal level allowing for expansion of programs and educational spaces to be used at peak efficiency.



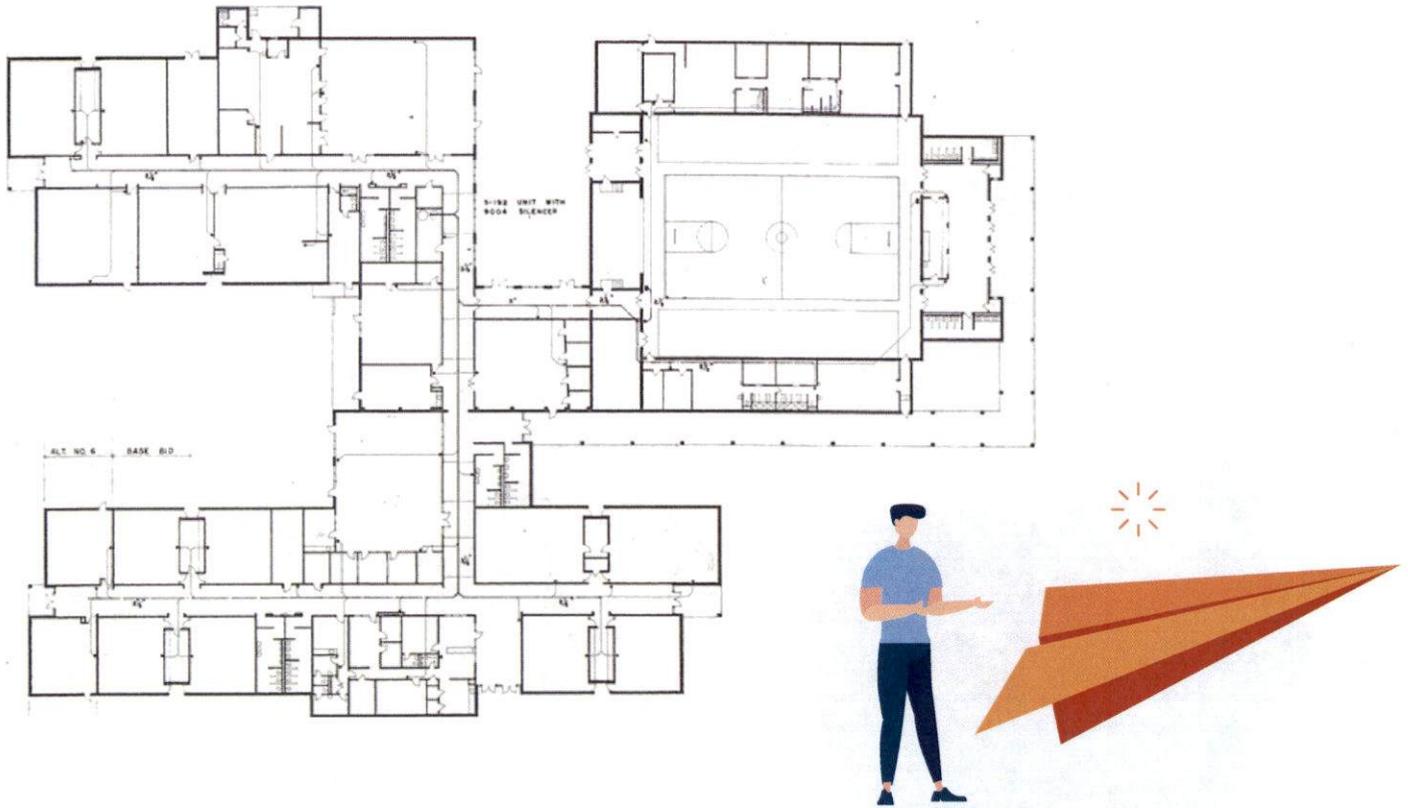
### Meeting Notes:

1. School operates on A/B Modified Block schedule with Skinny Block of Friday
2. SRO no dedicated space shares office with Assistant Principal
3. CTE and Dual Credit/Enrollment with Motlow State Community College and Middle Tennessee State University
4. Gym space is at maximum need for auxiliary gym
5. Several innovative programs at the school (i.e. industry certifications, Broadcasting, Print Shop, and Coffee Shop)

### Major Maintenance items:

1. Roof and Foundation issue 4 years old
2. Building built in 1978 with 3 additions since initial build
3. Water source heating and cooling causing issues over time
4. Lighting was recently changed to LED but not ideal lighting in classrooms and hallways
5. Security items in good condition some cameras need to be replaced
6. Keyless entry to building on some doors, not all, and would like to have keyless entry into all classrooms
7. Traffic is an issue with only one way in and out of school and neighborhood

## Floor Plan



## Additional Evaluation

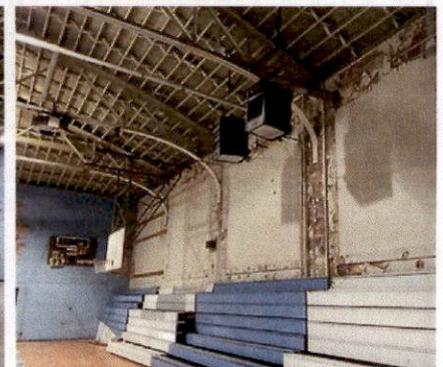
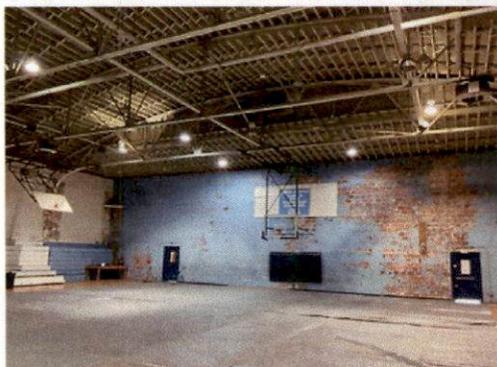
| 9th - 12th   | 2023-2024 Enrollment | Classroom Type | Quantity | Student Average | Student Maximum |
|--------------|----------------------|----------------|----------|-----------------|-----------------|
| 9            | 137                  | Regular        |          |                 | 35              |
| 10           | 142                  | Regular        |          |                 | 35              |
| 11           | 128                  | Regular        |          |                 | 35              |
| 12           | 122                  | Regular        |          |                 | 35              |
| <b>TOTAL</b> | <b>529</b>           |                |          |                 |                 |



## 1.6 Veterans Memorial Gym

An overall evaluation of the Veterans Memorial Gym property was conducted with an in-depth walkthrough conducted and building evaluation completed. The front steps of Gym are in need of repair and replacement. The complete electrical system and HVAC system are in need of replacement and the basement of building will need to be repaired structurally. Main Gymnasium looks to be structurally sound but needs to be cosmetically updated. Gym floor is in good shape and has been well protected over time. The building did sustain storm damage which resulted in a new roof being installed on the building within the last year.

Currently the building is inoperable for use by the school district due to code violations and has been declared uninhabitable by the State Fire Marshals office. The facility is being used for storage but cannot be used for school or student use. The cost of updating and renovating of the facility for use beyond gymnasium would outweigh the overall benefit gained of renovation. It is recommended that this facility be abandoned as uninhabitable. With the caveat that consideration be given if this facility was to be used in the future as a gymnasium only with major upgrades required.



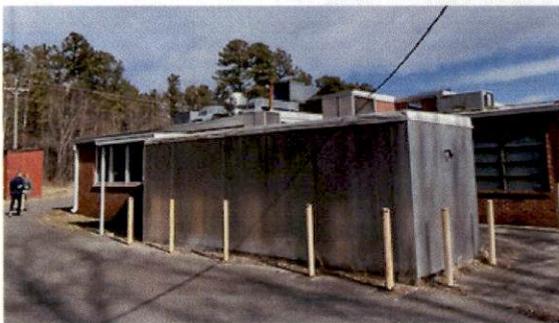
## 1.7 East Side Elementary School

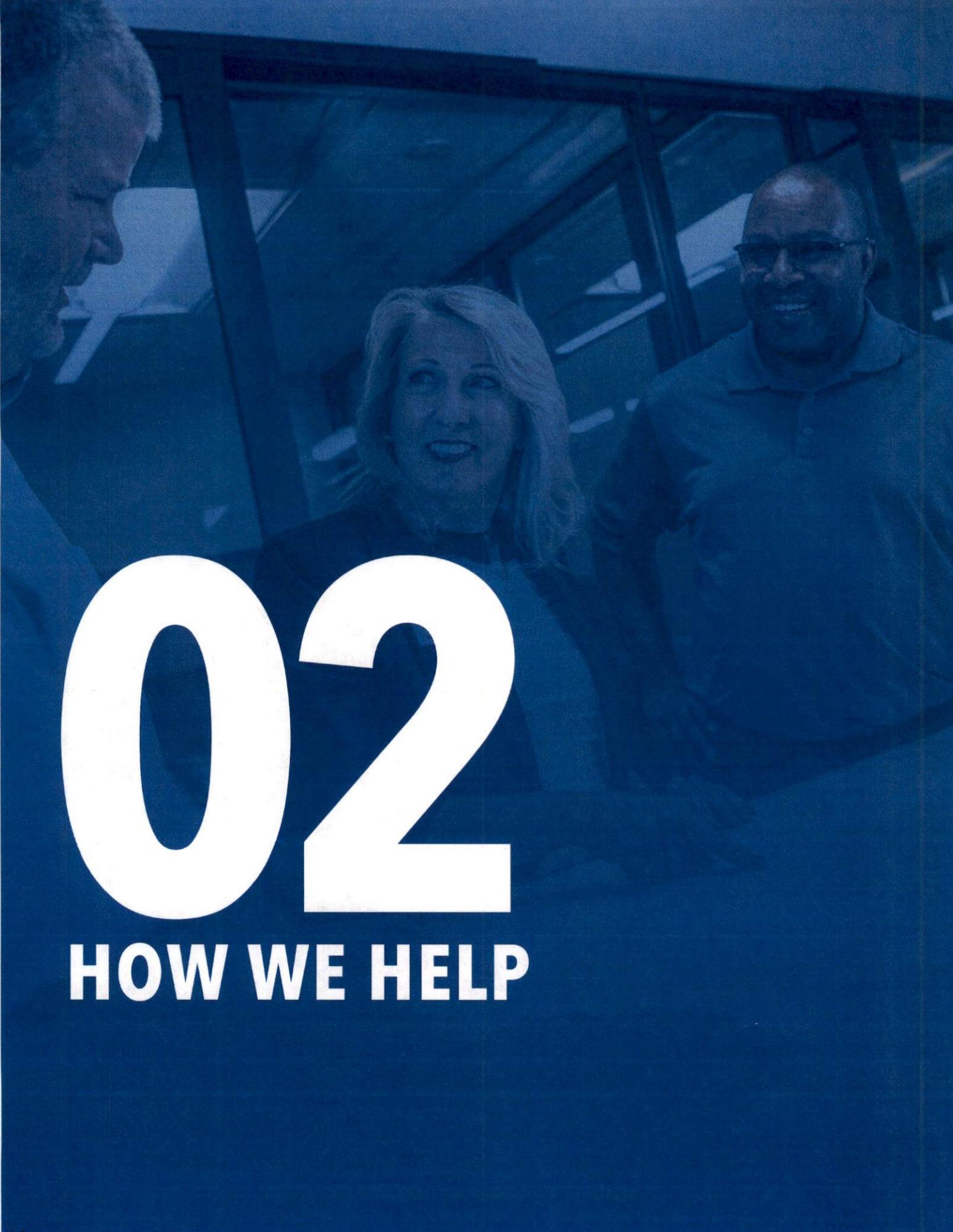
East Side Elementary School is currently offline and is not being used as school but has the potential to be brought back online with relatively little financial resources expended. The current exterior of the facility has new windows, but some exterior issues would have to be resolved as well as roof and septic system on the exterior of the building. The interior of the building has had several renovations and has small classroom size but would function well as a PreK or an elementary school or potentially a middle school with expansion. Over the last two years many things have been salvaged from the school such as restroom fixtures, kitchen equipment, and furniture. The school if renovated or repurposed would need a full renovation and would have to be brought up to current building code before the building could be brought back online.

### Major Maintenance Item: Roof Replacement

In order for the building to be opened we recommend that the roof be replaced in the next 3-5 years. Currently the condition of the roof is in a grade C to grade D condition meaning that the roof is beginning to show age-related deficiencies or is not performing as expected. A maintenance program may help prevent unnecessary leaks and minimize repair cost depending on the severity of the deficiency. The total square feet of roof on the building is 24,962.

Estimated Replacement Cost: \$500,000 to \$600,000





# 02

## HOW WE HELP

## EXPERIENCED PARTNERS

Since 1994, Energy Systems Group has helped school administrators overcome the challenges of limited budgets to transform outdated school buildings into secure, energy-efficient powerhouses for learning and engagement. Working with your team, we'll help you do more with less to boost student achievement, staff satisfaction, and community goodwill.



### ESG at a Glance

**30 YEARS**  
IN BUSINESS

**+350**  
TEAM MEMBERS  
NATIONWIDE

**+850** SUCCESSFUL  
ENERGY EFFICIENT PROJECTS

VENDOR & EQUIPMENT  
**AGNOSTIC**

**\$ 1 BILLION+**  
IMPLEMENTED  
IN K -12 PROJECTS

Our team has completed 40+ projects in Tennessee worth over \$350 million, and a significant portion of these efforts went into improving K-12 schools. This hands-on experience has given us valuable insights into maximizing energy efficiency in this specific climate. It's also helped us assemble a skilled team and reliable subcontractors.

Most of our Tennessee K-12 projects have required deep renovations to older buildings, which have involved the same upgrades that are priorities for Cannon County School District. Our track record of satisfied customers is backed up by the fact that the majority of the school districts partnering with ESG have contracted for additional phases of work. Choosing to implement additional work is the clearest indicator that we are an expert partner who meets and exceeds the promises made.

### We Understand Performance Contracting in Tennessee

- Local regulations
- Utility rates
- Performance contracting legislation

#### We Deliver on Our Promises

“ The energy and infrastructure upgrades will not only improve the quality of learning environments at all Bradley County Schools, but they will also reduce energy and operational costs, allowing us to invest those dollars for educational purposes. ”

- Dr. Linda Cash,  
*Director of Bradley County Schools*

## Leaders in Performance Contracting

Performance contracting enables you to pay for today's facility upgrades with tomorrow's energy and operational savings. From the initial energy audit and engineering scope through construction and long-term measurement and verification of project savings, our team designs and implements sustainable infrastructure improvements by examining how your buildings work and comparing them with similar facilities to gauge performance.

We also understand that comfort, reliability, safety, and security are just as important as reduced costs, so partnering with Energy Systems Group will result in a project that not only achieves cost savings but also delivers additional benefits to students, faculty, and the community, addressing their needs and enriching their overall experience.

### Funding Challenges

- School district improvements often lack consistent funding
- Energy savings contracts offer a solution: pay for upgrades with future savings

### Guidance for Maximizing Funds

- Our approach ensures budget-neutral solutions
- Ideal for time-sensitive, high-quality projects

### Neutral Solutions

- Unbiased towards specific technologies or products
- Focus solely on providing value and leveraging existing investments

### Efficient Implementation

- From audit to construction to long-term savings verification
- Sustainable upgrades pay for themselves over time

### Building Assessment

- Analyzing systems and controls for performance
- Benchmarking against industry standards

### Focus on Comfort and Safety

- Prioritize comfort, reliability, safety, and security
- Result: modern, student-centered spaces reflecting district commitment

## SERVICES OFFERED

- Facility Auditing
- Design-Build
- Construction & Project Management
- Engineering
- Operations & Maintenance
- Facilitate Project Financing
- Measurement & Verification
- Training
- Commissioning

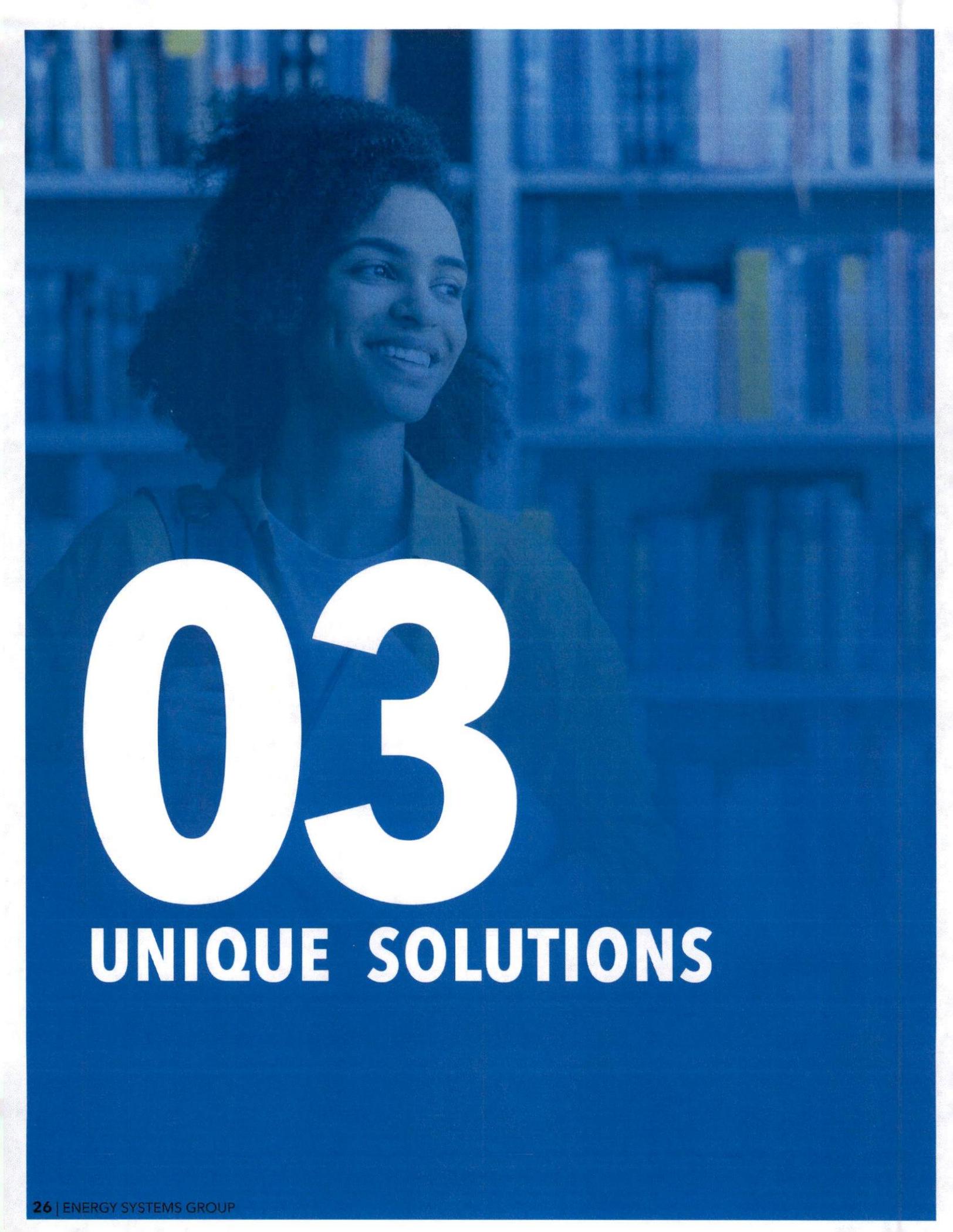




“ Now that the project is complete, the Lawrence County Board of Education and I are highly satisfied with the results we are seeing. Without hesitation, I would recommend that your organization would allow Energy Systems Group the opportunity to deliver a quality energy performance contract. ”

- Michael Adkins, Director of Schools LCS  
Lawrence County School System TN





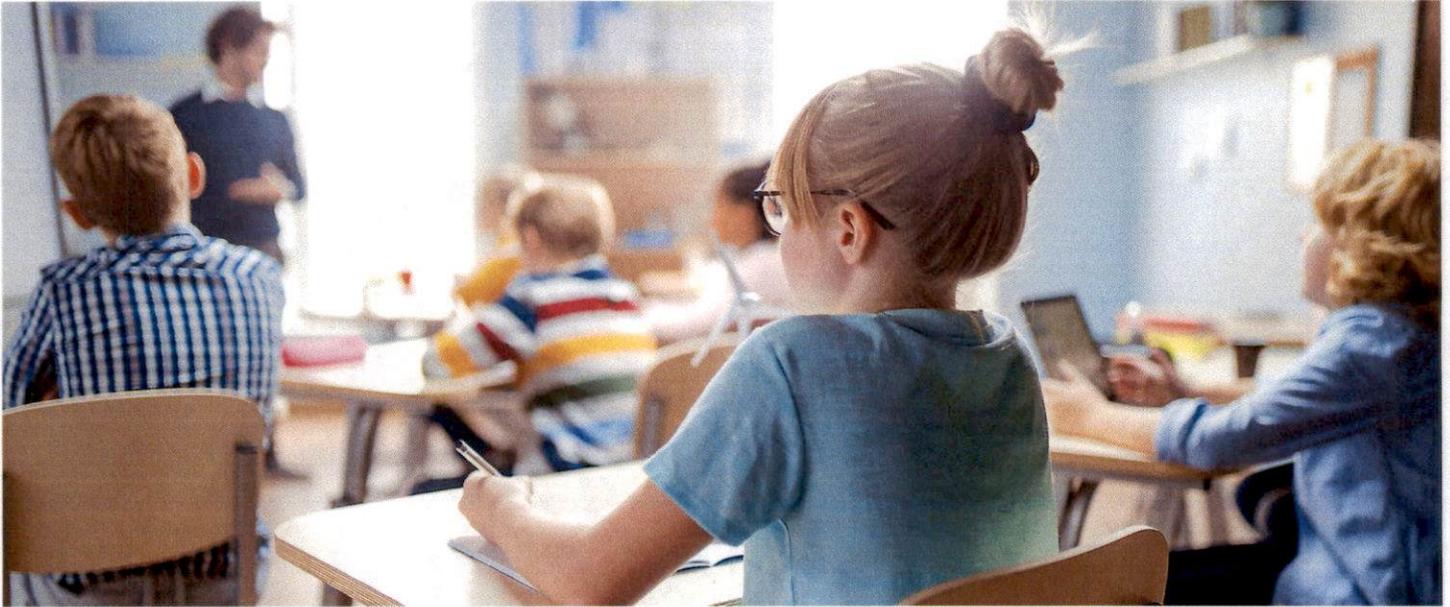
**03**

**UNIQUE SOLUTIONS**

# CONCLUSIONS & RECOMMENDATIONS

## Defining 3 Recommendation Plans

In the initial planning conversations with Director Patterson and the Administrative Staff, several options were explored to identify potential solutions that can address both current and future educational program needs. Three (3) Educational Organizational Plans were considered:



### 3.1 Option 1

#### *Includes Pre-K - 5th, 6th - 8th, and 9th - 12th*

Imagine this: East Side Elementary making a comeback as a vibrant K-5 school, and Cannon County Elementary getting a makeover into a refreshed 6-8 grade middle school. Plus, we're suggesting setting up a PreK facility at Cannon County Elementary/Cannon County Middle School.

This whole plan isn't just about giving your schools a facelift; it's about tackling the middle school overcrowding and opening up new doors for awesome CTE programs. Let's make your schools the kind of places where every student feels excited to learn and grow!

#### **Required Upgrades and Renovations:**

- HVAC Upgrades,
- Interior Finishings (Painting, Ceilings, Lighting)
- Gym Finishings
- Kitchen Upgrades
- Roof Replacement
- Plumbing Upgrades
- Restroom Repairs

**Estimated Timeframe:**  
12 Months

**Estimated cost of  
Option #1:**  
\$1.5 Million to  
\$3.5 Million



## 3.2 Option 2

### *Includes Pre-K - 5th, 6th - 8th, and 9th - 12th*

We're envisioning a transformation for East Side Elementary into an innovative 6-8 middle school hub, primed to deliver tailored programming for your 6th-8th graders. The strategic location of East Side is a game-changer, granting access to the high school's top-notch athletic fields and providing ample space for modern renovations and expansions. Picture this: with a revamped gym, new classrooms, and essential maintenance, East Side will emerge as a cutting-edge middle school, equipped to nurture student success and foster a dynamic learning environment.

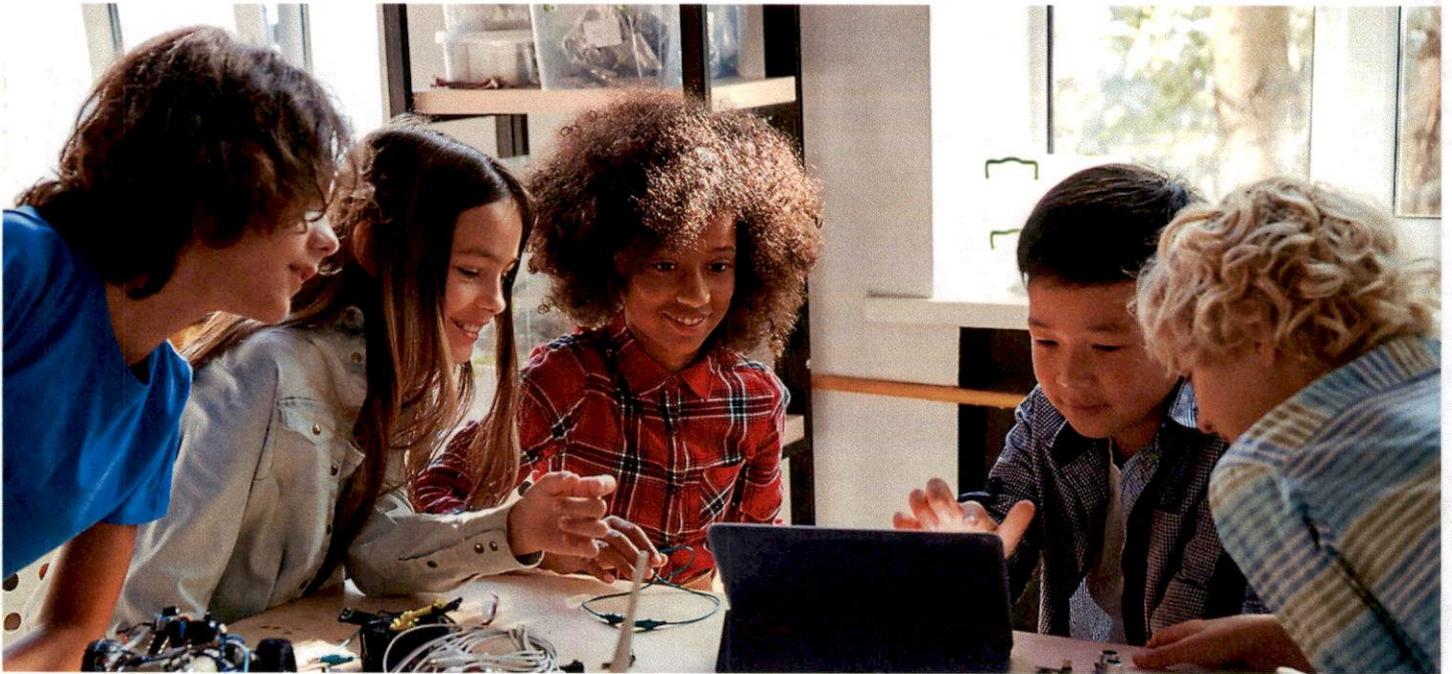
This move isn't just about repurposing a building; it's about investing in our students' future and ensuring they have the resources they need to thrive academically and beyond. Let's make East Side the beacon of modern education excellence in your community!

### **Required Upgrades and Renovations:**

- HVAC Upgrades,
- Interior Finishings (Painting, Ceilings, Lighting)
- Gym Finishings
- Kitchen Upgrades
- Roof Replacement
- Plumbing Upgrades
- Restroom Repairs
- Classroom Addition
- Gym Addition

**Estimated Timeframe:**  
18 - 24 Months

**Estimated cost of  
Option #2:**  
\$5.5 Million to  
\$10 Million



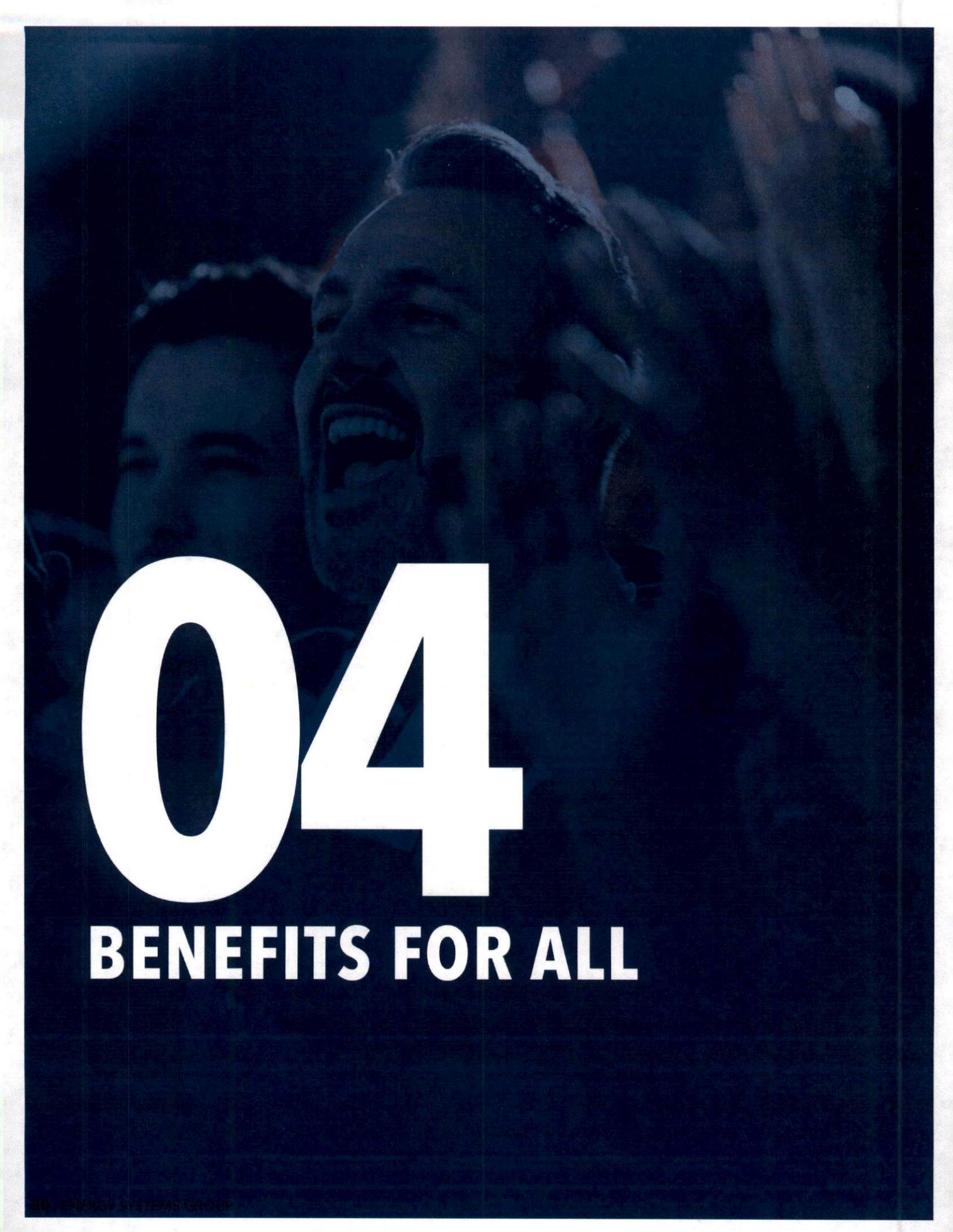
### 3.3 Option 3

*Includes Pre-K - 5th, 6th - 8th, and 9th - 12th*

Reviving the district's original plan of potentially constructing a brand-new middle school, while keeping the other schools as they are for now is what this option is all about. Now, what's most exciting here is the potential for East Side Elementary. We're considering transforming it into a cutting-edge CTE center, or selling it off if that's what's best for the district.

Let's talk benefits: a new intermediate facility would swiftly tackle the pressing overcrowding issue at the middle school level, providing a much-needed expansion space for all elementary schools. However, it's important to note that while this plan brings immense benefits, the cost might be a stretch for your budget. This is a significant investment, but the payoff in terms of student success and community development could be truly transformative.

**Estimated cost of  
Option #3:  
\$40 Million to  
\$60 Million**



**04**

**BENEFITS FOR ALL**

# STUDENTS, STAFF & COMMUNITY

## Serving Community by Fueling Future Generations

Unlocking the potential of our future generations starts with providing them with the best possible learning environments. Upgrading schools to modern, healthy learning environments isn't just about aesthetics; it's about fostering communities where students thrive. Imagine classrooms bathed in natural light, equipped with state-of-the-art technology, and designed to promote collaboration and creativity. By investing in these upgrades, we not only enhance educational outcomes but also prioritize the well-being of our students. Modern schools offer safer, cleaner spaces that promote physical and mental health, laying the groundwork for a brighter future. Together, let's build a community where every child has the opportunity to flourish.

## Benefits of School Investment

Our energy efficiency and facility modernization projects help school districts to:

- Increase safety
- Improve student health and attendance
- Support teacher retention
- Promote environmental and financial stewardship



Modern Learning Environments

By repurposing or optimizing unused spaces, districts can expand their educational offerings without requiring new construction. Not sure where these opportunities exist? We conduct thorough evaluations of current facilities to uncover the inefficiencies in space utilization



Growth Planning

School districts can significantly reduce their operational expenses over time, and the savings accrued from lower utility bills can be channeled into funding future growth initiatives, such as expanding educational programs, modernizing facilities, or investing in technology infrastructure.



Expanded Educational Offerings

Budget shortfalls and tight margins are barriers to achieving your organizational goals. Partnering with ESG guarantees budget stability by financing upgrades with future energy savings, ensuring zero upfront costs and reliable performance with a 99.999% accuracy rate in projected savings.



Budget Stability

The benefits of energy efficiency extend beyond the confines of the school district, positively impacting the broader community. By leveraging energy savings to fund infrastructure improvements, you can enhance the quality of educational facilities, thereby bolstering community pride and attracting families to the area.



Community Engagement

For additional questions contact:

**Bobby Cox**

jcox@esg.email | 931.607.0339  
or visit [energysystemsgroup.com](http://energysystemsgroup.com)



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