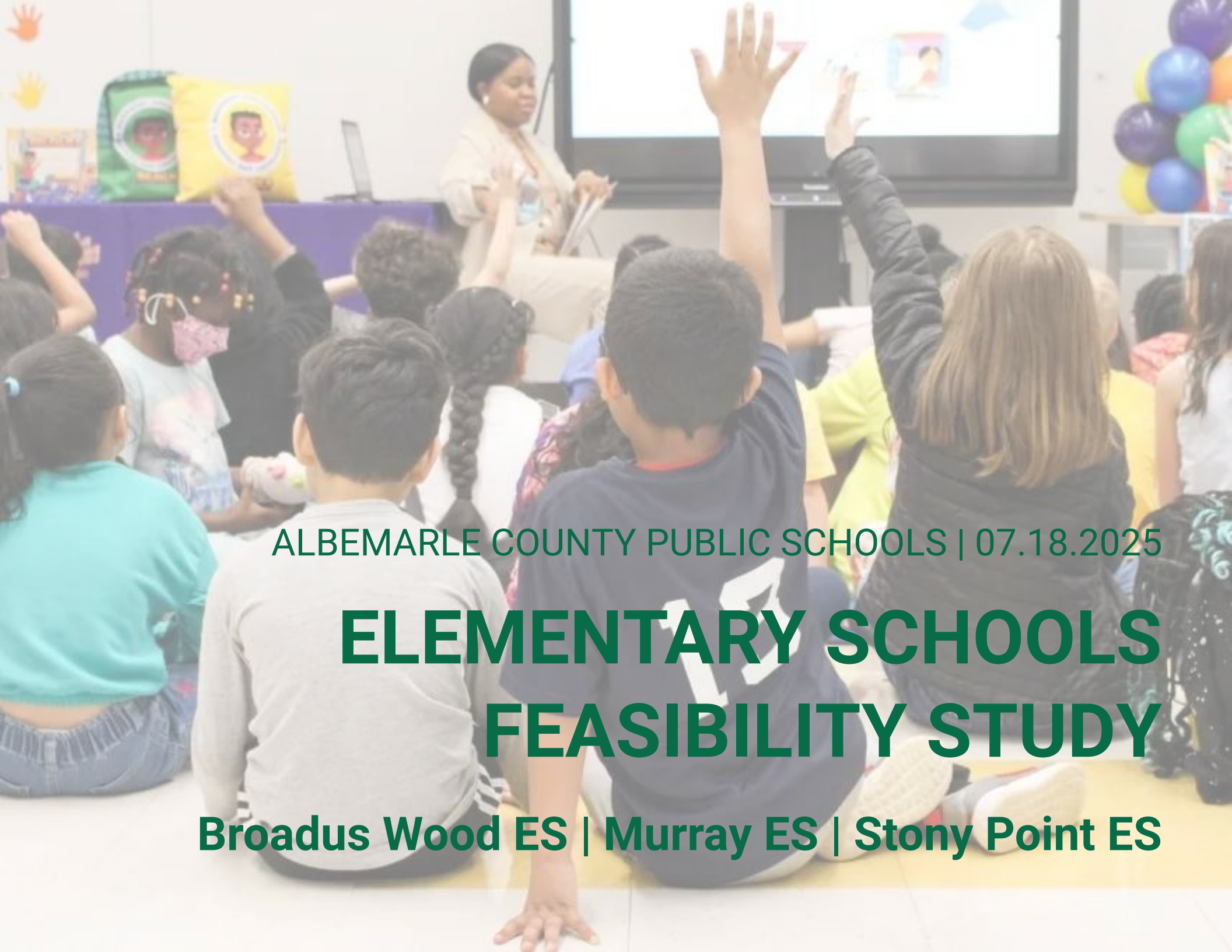


ALBEMARLE COUNTY PUBLIC SCHOOLS | 07.18.2025

ELEMENTARY SCHOOLS FEASIBILITY STUDY

Broadus Wood ES | Murray ES | Stony Point ES



ACKNOWLEDGMENTS

The work presented in this document reflects the dedication and investment of many contributors.

The DLR Group team recognizes those invested in this process and appreciates the continued focus and support of each contributor.



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1 EXECUTIVE SUMMARY

OVERVIEW

Executive Summary

This Feasibility Study was commissioned to support Albemarle County Public Schools in assessing the current and future spatial and facility needs of three elementary schools: Broadus Wood, Murray, and Stony Point. The study provides a foundational understanding of how each school can evolve to better support 21st-century teaching and learning through strategic upgrades, renovations, and targeted additions.

The process involved a multi-faceted approach that included an in-depth analysis of existing site conditions, review of available building systems data, engagement with school and community stakeholders, and the development of test-fit scenarios to explore a range of improvement options. This collaborative and data-informed process ensured that proposed recommendations align with both the operational realities of each school and the broader educational goals of the district.

Each school presents unique challenges and opportunities. The study identifies critical building systems that require repair or replacement to ensure safety, efficiency, and longevity. Beyond essential infrastructure upgrades, the study emphasizes transformative spatial interventions designed to enhance the learning environment. These include the integration of maker spaces that support hands-on, project-based learning; library upgrades to reflect evolving instructional practices; and reimagined entry sequences that improve safety, wayfinding, and the overall school experience for students, staff, and visitors.

The findings serve as a roadmap for future planning, budgeting, and implementation, helping Albemarle County Public Schools make informed decisions to support long-term educational success.

Project Background

DLR Group was commissioned by Albemarle County Public Schools (ACPS) to provide recommendations for site and building improvements for three elementary schools: Broadus Wood Elementary School, Murray Elementary School, and Stony Point Elementary School.

The three schools were selected based on the findings of the Long-Range Planning Recommendations completed in 2023, which evaluated the facility conditions of all elementary schools in the county. According to this study, Broadus Wood Elementary School, Murray Elementary School, and Stony Point Elementary School ranked the lowest in categories such as interior assessment, exterior assessment, structure, and building systems.

Following these assessments, the DLR Group was asked to develop comprehensive renovation and addition recommendations for the three schools. These feasibility studies are to be conceptual in nature and would address several key areas, including:

- Building envelope
- Systems and utilities
- Interior spaces
- Roads, bus/car loops, and parking lots
- Grounds, sidewalks, playgrounds, and athletic fields
- Enrollment and capacity management
- Safety and security (if needed)
- Overall modernization

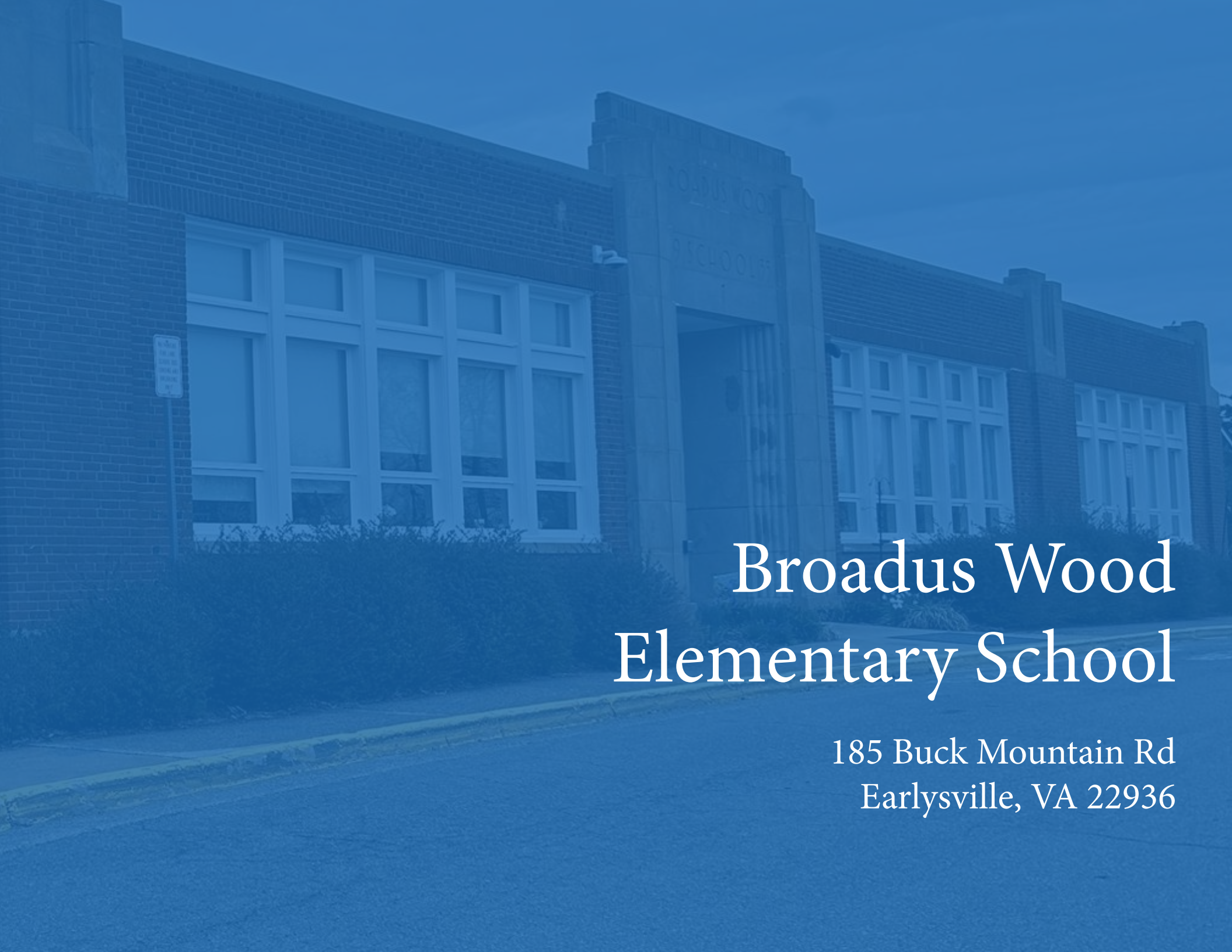
DLR Group's Feasibility Study included in this booklet utilized the existing data provided by ACPS, including previous drawings and assessments, and were supplemented by visual surveys conducted on site. These surveys confirmed general building conditions, system capacities, and accessibility needs. The goal of the studies was to develop a high-level understanding of each school's needs, paired with strategic recommendations for improvements. It is important to note that these were not intended to be detailed Facility Condition Assessments; rather, they relied heavily on the information from the existing facility assessment tool already used by the district.

These studies aimed to provide ACPS with a clear roadmap for creating a high quality and safe learning environment for students at Broadus Wood Elementary School, Murray Elementary School, and Stony Point Elementary School.

Engagement Strategy

In addition to working closely with the leadership of Albemarle County Public Schools (ACPS), DLR Group engaged the broader school communities across all three elementary schools. This engagement included PTO meetings where the participants were asked to give feedback and suggestions about the school building and the site and follow-up surveys to gather input from families and stakeholders. The feedback received through these efforts played a significant role in shaping the understanding of each school's unique needs and priorities. Based on community input, as well as the expertise and research of ACPS leadership and DLR Group, DLR Group has developed a set of recommendations tailored to address each school's challenges and highlight opportunities to ultimately create a nurturing learning environment for the students.





Broadus Wood Elementary School

185 Buck Mountain Rd
Earlysville, VA 22936

SITE

Existing Conditions

Located in northern Albemarle County, Broadus Wood Elementary School serves approximately 282 students in grades PreK–5. The school is a one-story brick façade building with a total floor area of approximately 62,000 square feet located on a 34 acre site. The original structure was built in 1935, with several additions made over the years—in 1961, 1965, 1983, and 1992. The building has undergone various renovations and upgrades, including a roof replacement in 2002, HVAC renovations in 2009, a chiller replacement in 2016, another roof replacement in 2017, and the installation of a VRF system in 2021.

The site features several recreational and outdoor elements. There are three playgrounds: one to the north, one to the west, and a blacktop play area to the south. There is a desire for an exterior-access restroom and water fountain near the lower-grade playground convenience of use during recess, as current arrangements pose supervision challenges.

The west side of the school features both a soccer and a baseball field, while a general use field is located on the south side, encircled by a track and adjacent to the bus area. An asphalt walking path surrounds the site's perimeter and is popular with the community; however, it is in poor condition due to age, erosion, and tree root damage.

All vehicular traffic enters through a single-entry point from Buck Mountain Road, which becomes a major bottleneck and contributes to congestion. The primary parking area and parent pick-up/drop-off zone are in front of the school and share the same space. The car loop, which accommodates staff and visitor parking as well as delivery vehicles, is limited in space. While the existing staff and visitor parking is sufficient for regular school days, the site is lacking in event parking—estimated at only about one-third of the capacity needed.

The bus drop-off and pick-up zone is located on the south side of the school. Currently, six buses double-park in the designated lane (four on one side, two on the other), and this setup prevents any through traffic along the front road of the school during peak times. There is interest from the community in adding a covered walkway to protect students.

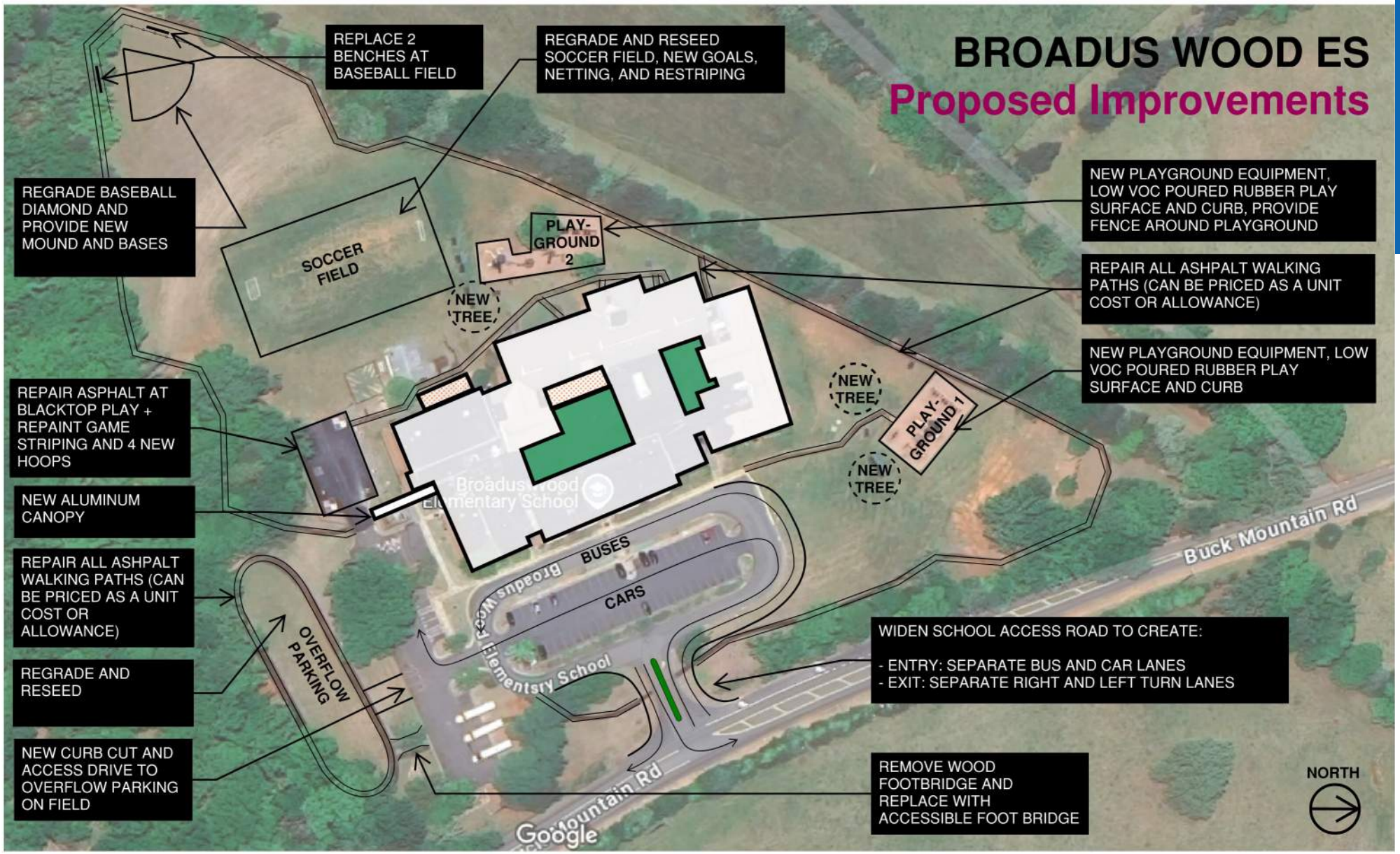
Site Recommendations

The proposed improvements for the school site focus on enhancing safety, accessibility, and recreational spaces. To address traffic congestion, the school access road should be widened to include separate lanes for buses and cars at the entry point, as well as designated right- and left-turn lanes at the exit. The existing wooden footbridge should be removed and replaced with a new, accessible footbridge positioned between the bus drop-off area and the track. A new curb cut is recommended to allow vehicle access to the field inside the track, enabling it to be used for overflow parking as needed. A new aluminum canopy in front of the bus drop-off area will provide students with a covered walkway.

Athletic field upgrades include regrading and reseeding the soccer field and the area inside the track, along with improvements to the baseball diamond, such as a new pitcher's mound and bases. Two benches at the baseball field should also be replaced. Additionally, the soccer field will benefit from new goals, netting, and restriping to support safe and active play.

Recreational enhancements include repairing the asphalt surface of the blacktop play area, repainting game striping, and installing four new basketball hoops. The existing playgrounds to the north and west of the building will receive new play equipment, low-VOC poured rubber surfacing, and curbing. A fence is recommended around the west playground to enhance safety and enclosure. Finally, all asphalt walking paths throughout the site should be repaired to restore accessibility and encourage continued community use.

BROADUS WOOD ES
Proposed Improvements



BROADUS WOOD ELEMENTARY SCHOOL GENERAL SITE NOTES:

- WILL INCLUDE ALLOWANCE OR UNIT COST FOR LAWN LEVELING AND RESEEDING
- MAINTENANCE ISSUE WITH WELLFIELD ODORS NOT ADDRESSED AS PART OF THIS STUDY
- PROVIDE 4 HOSE BIBS AND 4 EXTERIOR QUAD GFI RECEPTACLES
- PROVIDE 2 EXTERIOR FROSTPROOF EXTERIOR DRINKING FOUNTAINS (1 PER PLAYGROUND); MOUNT TO EXTERIOR WALLS OF BUILDING
- PROVIDE 1 SHADE STRUCTURE PER PLAYGROUND


BROADUS WOOD
19 SCHOOL 35
A2
NO PARKING


Bus drop off/pick up area


Black top play surface


Baseball field


Playground

BUILDING

Existing Conditions

Several areas of improvement were identified at Broadus Wood Elementary School. The teacher's lounge lacks natural daylight, and the configuration does not work well for the use. The stage in the gymnasium is off-center and currently occupied by another program. Additionally, both the cafeteria and the stage are undersized for the number of students the school serves, and the stage is inaccessible. The lift in the building does not open directly to the main corridor and instead opens out into the Welcome Center/Administration Suite. This creates an accessibility challenge for those who cannot use the adjacent stairs. The clinic is in the Welcome Center/ Administration Suite and is not visible and readily accessible to students.

Many full-sized classrooms are currently being used as resource rooms, indicating that no additional classrooms may not be needed at this time. The library is a beautiful space filled with natural light from the clerestory windows and is appropriately sized for the school. The gymnasium features wood trusses and clerestory windows. Informal gathering space supported by high top chairs are located throughout the school.

Additionally, the school has two interior courtyards with a mix of grass and concrete paving. The grass in the courtyard posses a maintenance challange. One courtyard includes a stairwell that leads to the basement mechanical room, which may limit use of the courtyard.

Building Recommendations

The proposed building improvements aim to enhance functionality, accessibility, and overall support for student and staff needs. A key addition includes constructing a new stage aligned with the center of the gymnasium, along with adjacent gym storage, outdoor storage, and an exterior-accessible restroom. This allows for greater flexibility in hosting performances, assemblies, and community events. The existing stage within the cafeteria will be reclaimed to enlarge the cafeteria space, helping to better accommodate student capacity during mealtimes.

The administrative and welcome center area, along with adjacent spaces across the main corridor, will be reconfigured for improved efficiency and alignment with daily school operations. This includes relocating the lift to connect directly with the main corridor for better accessibility, centralizing the administrative suite for improved visibility and functionality, and relocating the teacher's lounge to a space that benefits from natural daylight. The clinic will also be made accessible from the main corridor, creating a more welcoming and approachable environment for students needing health services.

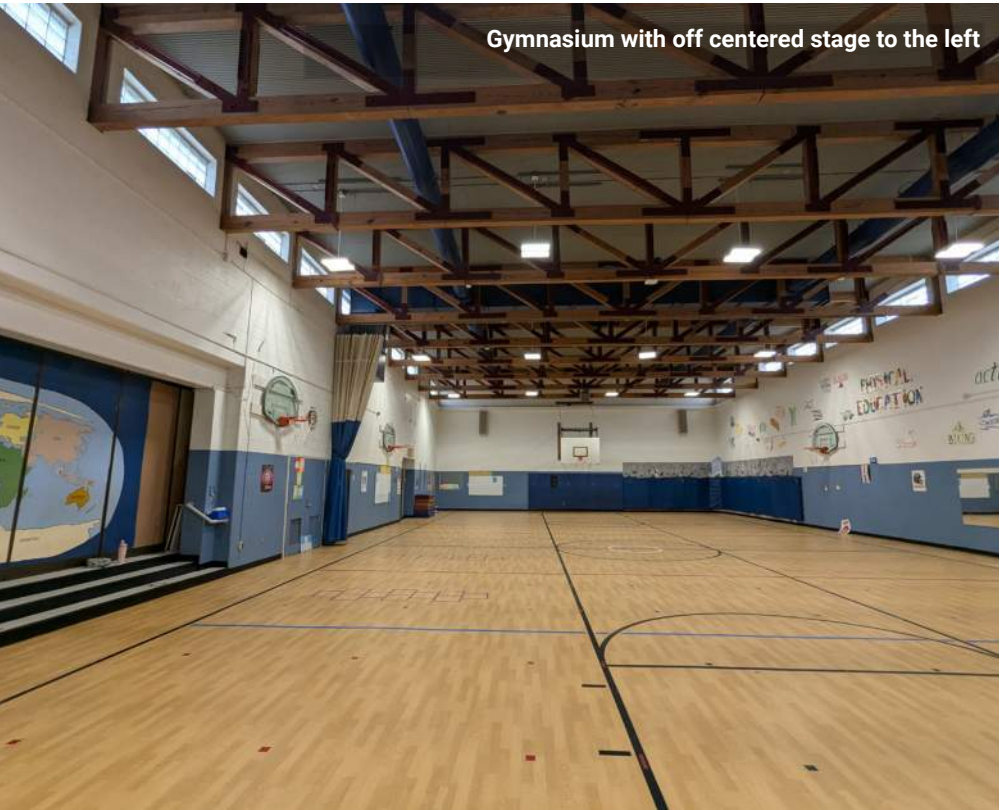
Additional improvements to the interior courtyards include new paving throughout both spaces to enhance usability. In the south courtyard, fencing will be added around the stairwell that leads to the mechanical room to improve safety. A new makerspace is proposed to the west of this courtyard—providing a dedicated area that supports hands-on, project-based learning. Makerspaces foster creativity, collaboration, and problem-solving, making them a valuable resource for enhancing STEAM (science, technology, engineering, arts, and mathematics) education across elementary grade levels. The proposed location of the makerspace, facing the interior courtyard, creates an opportunity for learning activities to extend into the outdoor space. To reinforce this indoor-outdoor connection, design elements such as glass overhead doors should be considered, allowing for flexible use of space and visual continuity between the makerspace and the courtyard.



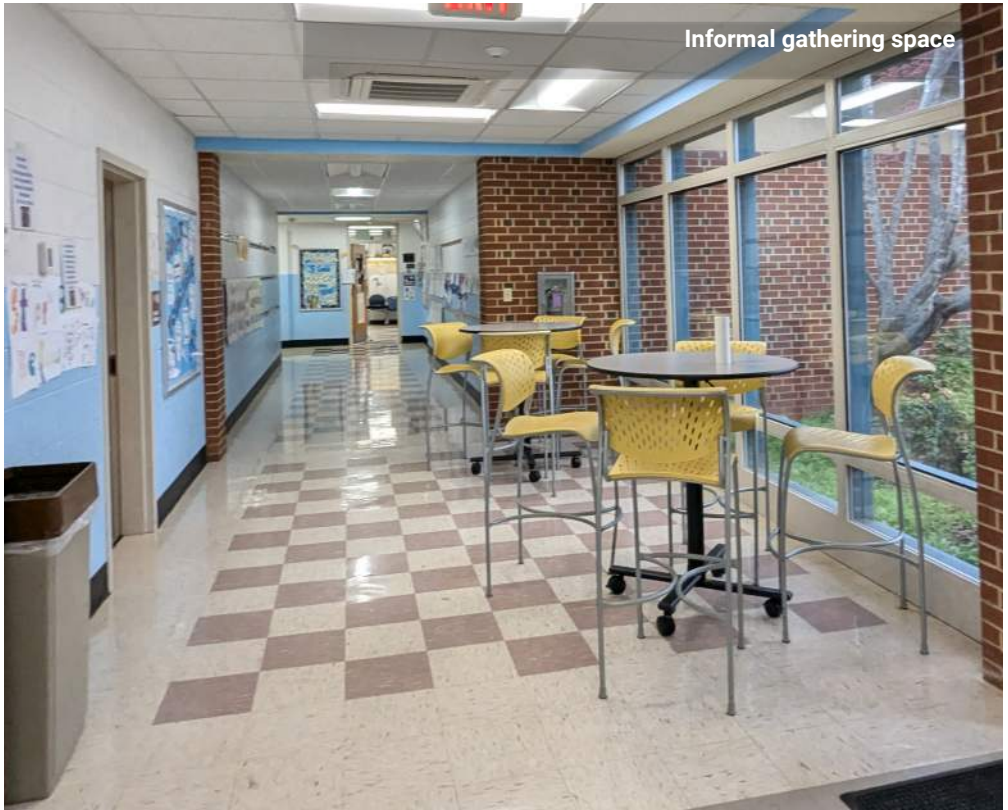
Classroom used as a resource room



Library



Gymnasium with off centered stage to the left



Informal gathering space

BROADUS WOOD ES
EXISTING

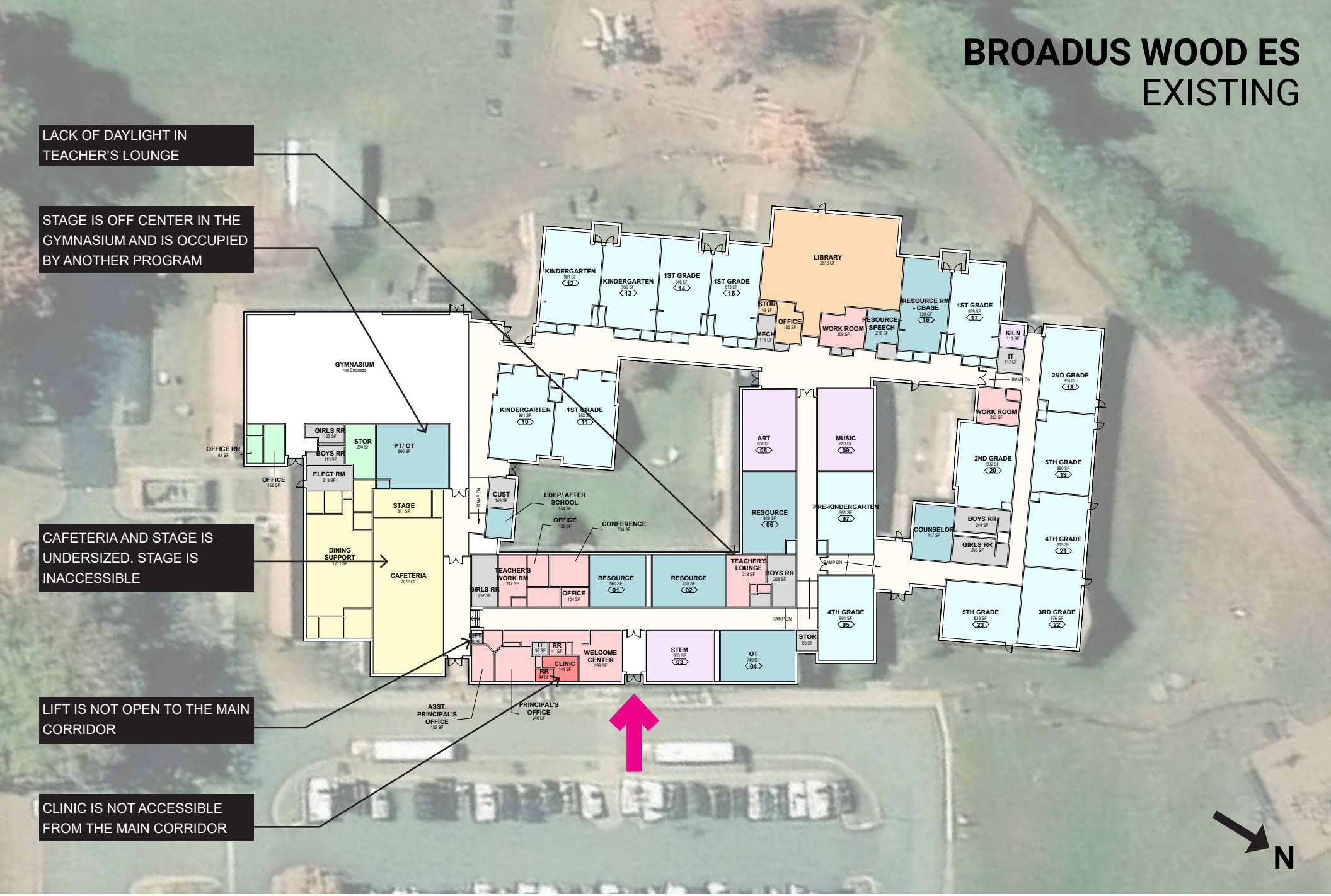
LACK OF DAYLIGHT IN TEACHER'S LOUNGE

STAGE IS OFF CENTER IN THE GYMNASIUM AND IS OCCUPIED BY ANOTHER PROGRAM

CAFETERIA AND STAGE IS UNDERSIZED. STAGE IS INACCESSIBLE

LIFT IS NOT OPEN TO THE MAIN CORRIDOR

CLINIC IS NOT ACCESSIBLE FROM THE MAIN CORRIDOR



ACADEMIC CLASSROOMS
DINING
GYMNASIUM
STUDENT SUPPORT
ADMIN/TEACHER SUPPORT
MUSIC/ART
HEALTH
LIBRARY
BUILDING SUPPORT

0' 50' 100'

BROADUS WOOD ES
PROPOSED

ADDITION TO PROVIDE A STAGE, GYM STORAGE, OUTDOOR STORAGE AND RR ACCESSIBLE FROM THE EXTERIOR

ADDITION OF MAKERSPACE IN WITH AMPLE GLAZING AND OPENING INTO THE COURTYARD

RENOVATE THE STAGE FOR DANCE/ MUSIC PROGRAM

RECLAIM THE STAGE AREA TO ENLARGE THE CAFETERIA

ALL NEW RR TO BE ADA ACCESSIBLE

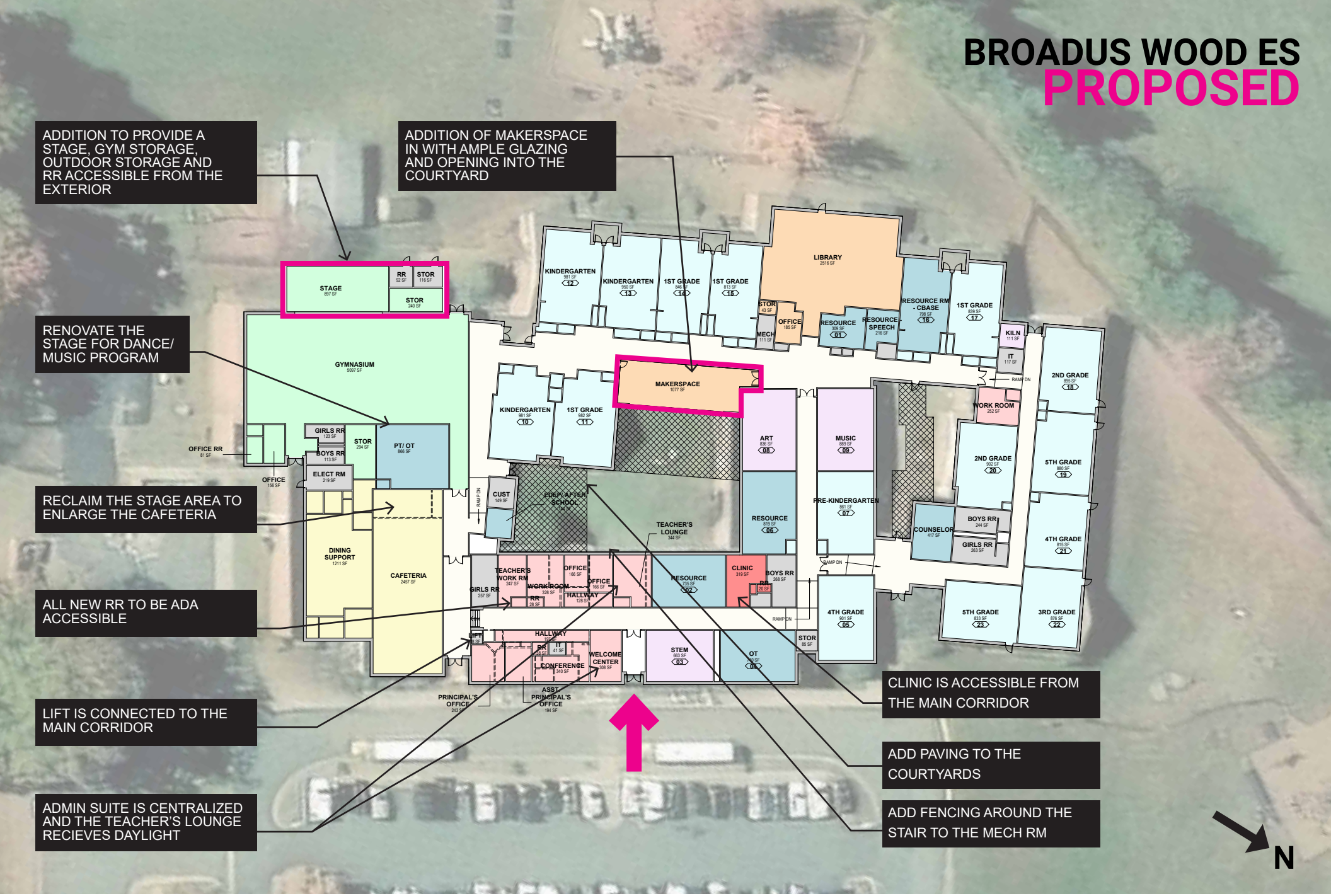
LIFT IS CONNECTED TO THE MAIN CORRIDOR

ADMIN SUITE IS CENTRALIZED AND THE TEACHER'S LOUNGE RECIEVES DAYLIGHT

CLINIC IS ACCESSIBLE FROM THE MAIN CORRIDOR

ADD PAVING TO THE COURTYARDS

ADD FENCING AROUND THE STAIR TO THE MECH RM



ACADEMIC CLASSROOMS
DINING
GYMNASIUM
STUDENT SUPPORT
ADMIN/TEACHER SUPPORT
MUSIC/ART
HEALTH
LIBRARY
BUILDING SUPPORT

0’ 50’ 100’



A similar space which is flexible and has a strong connection to the outdoor can be created by the addition of the Maker Space in the courtyard. The use of overhead doors allow the students to extend their learning/ creating space beyond the formal makerspace boundaries and allows for a more “messy” project-base learning.



The hardscape proposed in both courtyards are designed for easy maintenance, allowing the school to use the spaces for a variety of activities.



Expanding the cafeteria will create a better and more efficient dining experience for the school. There are opportunities to add clerestory windows or skylights, and perhaps open the cafeteria to the corridor, with views to the courtyard beyond.



Stage addition to side of the existing gymnasium allows an intimate experience for presentations and performances. The addition can include storage, pe office, and toilets for indoor and outdoor play.



Corner dance/music room can open up to gymnasium for smaller performances and movement activities (operable partitions could be used instead of curtains).



The proposed asphalt area can be enhanced with colorful graphics to encourage play while also serving as overflow parking when needed.

MEP RECOMMENDATIONS

Overview

The mechanical, electrical, and plumbing (MEP) recommendations encompass both general strategies applicable to all schools and specific improvements tailored to the unique conditions of each site. These recommendations support Albemarle County Public Schools' long-term goals for energy efficiency, sustainability, and operational reliability. They focus on upgrading infrastructure where the building envelope is altered, transitioning to all-electric systems in new additions, and improving classroom functionality and site infrastructure. Additionally, each elementary school has been assessed for site-specific MEP considerations based on existing equipment, capacity, and planned additions or renovations.

General MEP Recommendations

- Where envelope is touched/opened, upgrade envelope to current energy codes.
- Per forthcoming report by Setty Engineers, recommend creating a replacement plant option for the oil-burning boilers at all schools.
- General recommendation for any additions to the building would be to ensure all HVAC systems added to the building will be all-electric in support of sustainability goals of ACPS, and all envelope for the new additions will be pursued with net-zero level envelopes in mind.
- Additional exterior receptacles on the outside of buildings for maintenance.
- Additional receptacles in classrooms for laptop charging and convenience.
- Most areas appeared to have LED lights; recommend replacing the few remaining fluorescents with LEDs.
- Part of the improvements will include assessment of the stormwater management facilities and improvements and/or upgrades if required.

Broadus Wood Elementary School Recommendations

• Broadus Wood Elementary School has a plan for a small addition including a new stage that would be best served (option 1) by a small heat pump packaged RTU, or if possible (option 2), the existing VRF system capacity increased to incorporate this small addition.
• Consider relocation of exterior domestic cold-water entrance from exterior courtyard into adjacent basement mechanical room.
• Consider relocation of buried hydronic piping in courtyard to interior piping to avoid potential weather and outdoor issues that could lead to advanced deterioration of the system.
• The existing 2500A electrical service size appears to be adequate for the current school size. However, if any additional major equipment is desired to be added this will need to be reevaluated.
• The existing generator size appears to be adequate for the existing conditions. If additional equipment is desired to be on the generator this will need to be reevaluated.
• Recommend removing abandoned exterior electrical meter/disconnect housing near the garden.



Recommend removing abandoned exterior electrical meter/ disconnect housing near the garden



Recommend removing abandoned exterior electrical meter/ disconnect housing near the garden



Recommend removing abandoned exterior electrical meter/ disconnect housing near the garden



Recommend replacing existing fluorescent lamp with LED


VIRGINIA L MURRAY



Murray Elementary School

3251 Morgantown Rd
Charlottesville, VA 22903

SITE

Existing Conditions

Located in eastern Albemarle County, Virginia L. Murray Elementary School serves approximately 277 students in grades PreK–5. The school is a one-story brick façade building with a total floor area of approximately 43,000 square feet, situated on a 22-acre site. Originally constructed in 1960, the facility has undergone several expansions and renovations over the years. A classroom addition was completed in 1964, followed by a major expansion in 1990 that added a gymnasium, library, new school entrance, and an east classroom wing. The building's roof was replaced in 2001, and HVAC systems were renovated in 2009, 2015, and 2016. Most recently, the kitchen was renovated in 2019.

The existing site includes car park located primarily at the front and on the west side of the school, providing convenient access for staff and visitors. A dedicated bus loop is located on the northeast side, effectively separating bus traffic from other vehicular activity and improving safety during drop-off and pick-up times. The site also features two curb cuts along Morgantown Road, which support smooth traffic flow in and out of the property.

Several playgrounds are spread across the campus, with three located on the east side of the school and two to the west of the soccer field. A number of these play areas benefit from shade due to surrounding trees. On the south side of the building, a large blacktop play area doubles as a turning area for vehicles. Nearby, the school's service area is located to the west.

At the heart of the outdoor recreation space is a large open field, which includes a soccer field encircled by an asphalt running track. A noticeable grade change exists between the school building's south side and the lower track area, requiring careful consideration for accessibility. While the site generally offers adequate parking, there are occasions where overflow parking is needed. The property is surrounded by wooded areas, adding to the school's natural setting.

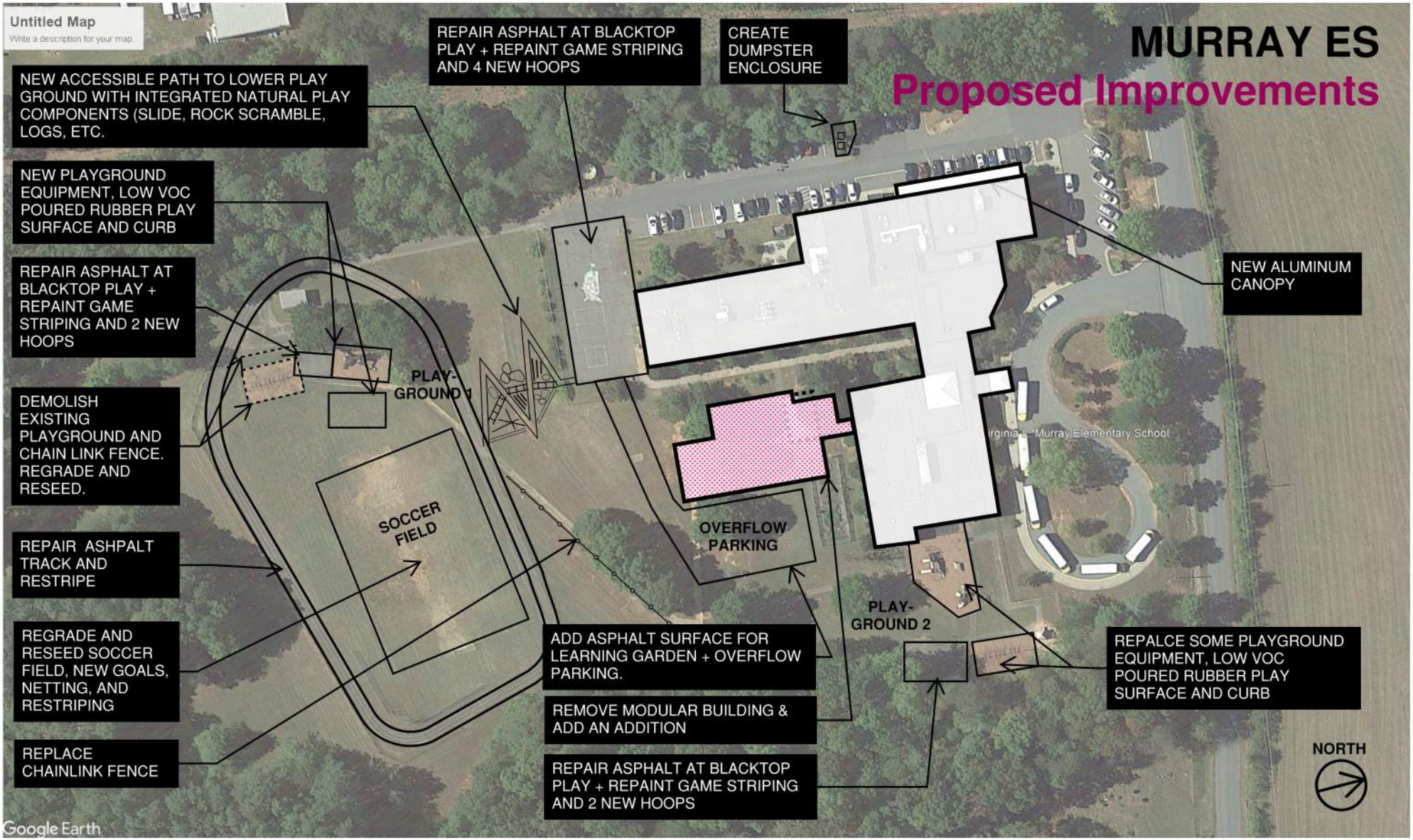
Site Recommendations

Planned improvements include the installation of an aluminum canopy at the pick-up/drop-off area to provide weather protection for students. A new dumpster enclosure should be constructed to better define the service zone. The blacktop play area should be repaired.

Accessibility and play would be enhanced with the potential addition of a new path to the lower playground located within the track. This path could incorporate natural play elements such as a slide, rock scramble, and low climbing walls. The playground itself should receive new equipment, a low-VOC poured rubber play surface, and curbing to improve safety and accessibility. Selected existing playground equipment on the site as shown in the plan could also be replaced.

To support outdoor learning and flexible site use, new asphalt paving should be added to the east of the new building addition. This area should serve as a learning garden but could also function as overflow parking when necessary. The surrounding asphalt track should be repaired and restriped to support ongoing athletic and recreational activities. The soccer field inside the track is proposed to be regraded, reseeded, and upgraded with new goals, netting, and field markings.

Additional improvements can include replacing the aging chain-link fence for enhanced security and removing the modular building located south of the school, potentially opening up space for other site uses. Further recommendations and refinements can be seen in the site plan.



MURRAY ELEMENTARY SCHOOL GENERAL SITE NOTES:

- WILL INCLUDE ALLOWANCE OR UNIT COST FOR LAWN LEVELING AND RESEEDING
- PROVIDE 4 HOSE BIBS AND 4 EXTERIOR QUAD GFI RECEPTACLES
- PROVIDE 2 EXTERIOR FROSTPROOF EXTERIOR DRINKING FOUNTAINS (1 PER PLAYGROUND); MOUNT TO EXTERIOR WALLS OF BUILDING
- PROVIDE 1 SHADE STRUCTURE PER PLAYGROUND




View towards soccer field


Existing playground



Gym exterior


Service Area

BUILDING

Existing Conditions

Several areas of the existing building present functional and spatial limitations. The primary entry and administration suite are undersized and lack access to natural light which can result in the front office feeling dark and crowded. The number of classrooms currently available are not adequate for the size of the student population. Approximately four additional classrooms are projected to be needed.

In addition, both student support and administrative support spaces are undersized and located in areas without any daylight access. The north academic wing, in particular, lacks designated student support areas. Ideally, there would be student support spaces present in all academic wings.

Circulation spaces within the building are constrained and do not allow informal student gathering or flexible use. The library is undersized, reducing its capacity to function as a central resource and collaborative learning space.

On a positive note, the building does not present any ADA concerns related to interior circulation. There are no interior stairs or steps; all floor elevation changes are addressed through accessible ramps. Assembly spaces, including the gymnasium and cafeteria, are centrally located between the two academic wings, supporting convenient shared access.

Building Recommendations

To address limitations in the entry and administrative areas, the proposed design includes an expanded main entrance and front office suite. Glazing should be added to both the entrance and the main office to introduce daylight and improve visibility. Additionally, a skylight would be installed in the existing raised ceiling portion above the lobby to bring in natural light and enhance the welcoming feel of the school's primary entry point.

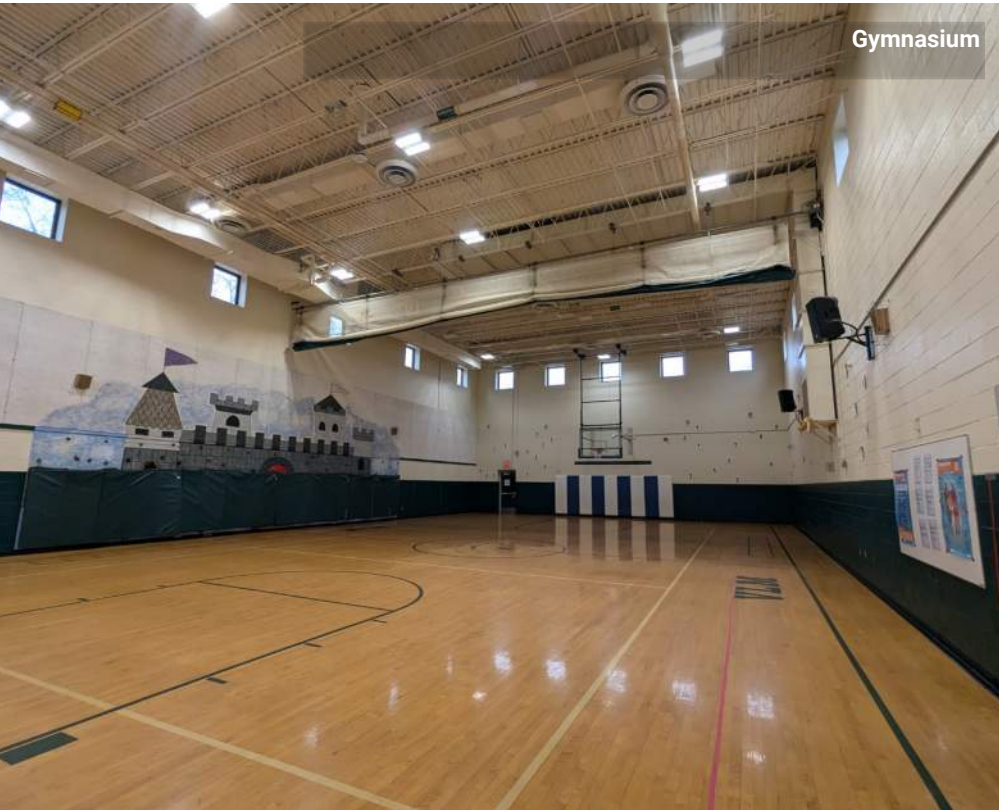
A new building addition would provide four classrooms, along with resource rooms and additional administrative support spaces. A covered walkway could connect the proposed academic wing to the existing academic wing located to the east of it. Several student support and administrative functions currently located along corridors and undersized would be relocated into designated right sized rooms, potentially freeing up corridor space for informal gathering areas. These new breakout zones could offer students opportunities for collaboration, social interaction, and quiet retreat within the academic environment.

To better serve students and staff, the library should be enlarged by moving resource rooms out of the current library footprint. This expansion could create a more functional and flexible space for reading, research, and collaborative learning.



Typical classroom


Library


Gymnasium


Stage off of Cafeteria

MURRAY ES
EXISTING

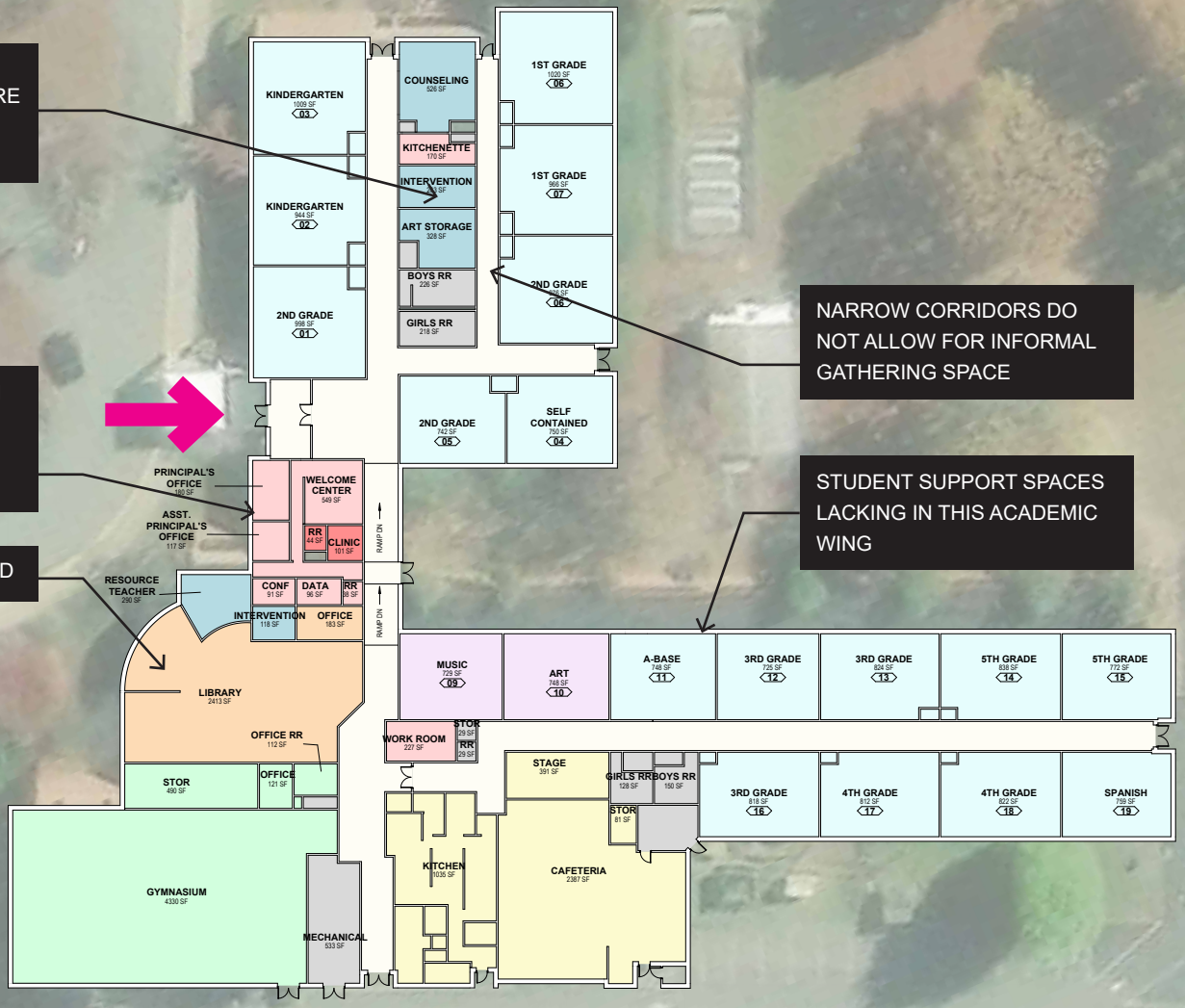
STUDENT SUPPORT AND ADMIN SUPPORT SPACES ARE UNDERSIZED AND DO NOT RECIEVE ANY DAYLIGHT

PRIMARY ENTRY AND ADMIN SUITE IS UNDERSIZED AND LACK ADUNDANT NATURAL LIGHT

THE LIBRARY IS UNDERSIZED

NARROW CORRIDORS DO NOT ALLOW FOR INFORMAL GATHERING SPACE

STUDENT SUPPORT SPACES LACKING IN THIS ACADEMIC WING



N

ACADEMIC CLASSROOMS
DINING
GYMNASIUM
STUDENT SUPPORT
ADMIN/TEACHER SUPPORT
MUSIC/ART
HEALTH
LIBRARY
BUILDING SUPPORT

0’ 50’ 100’

MURRAY ES
PROPOSED

MOVE A NUMBER OF STUDENT SUPPORT AND ADMIN SUPPORT SPACES OUT OF THE CORRIDOR TO CREATE INFORMAL GATHERING SPACE FOR STUDENTS

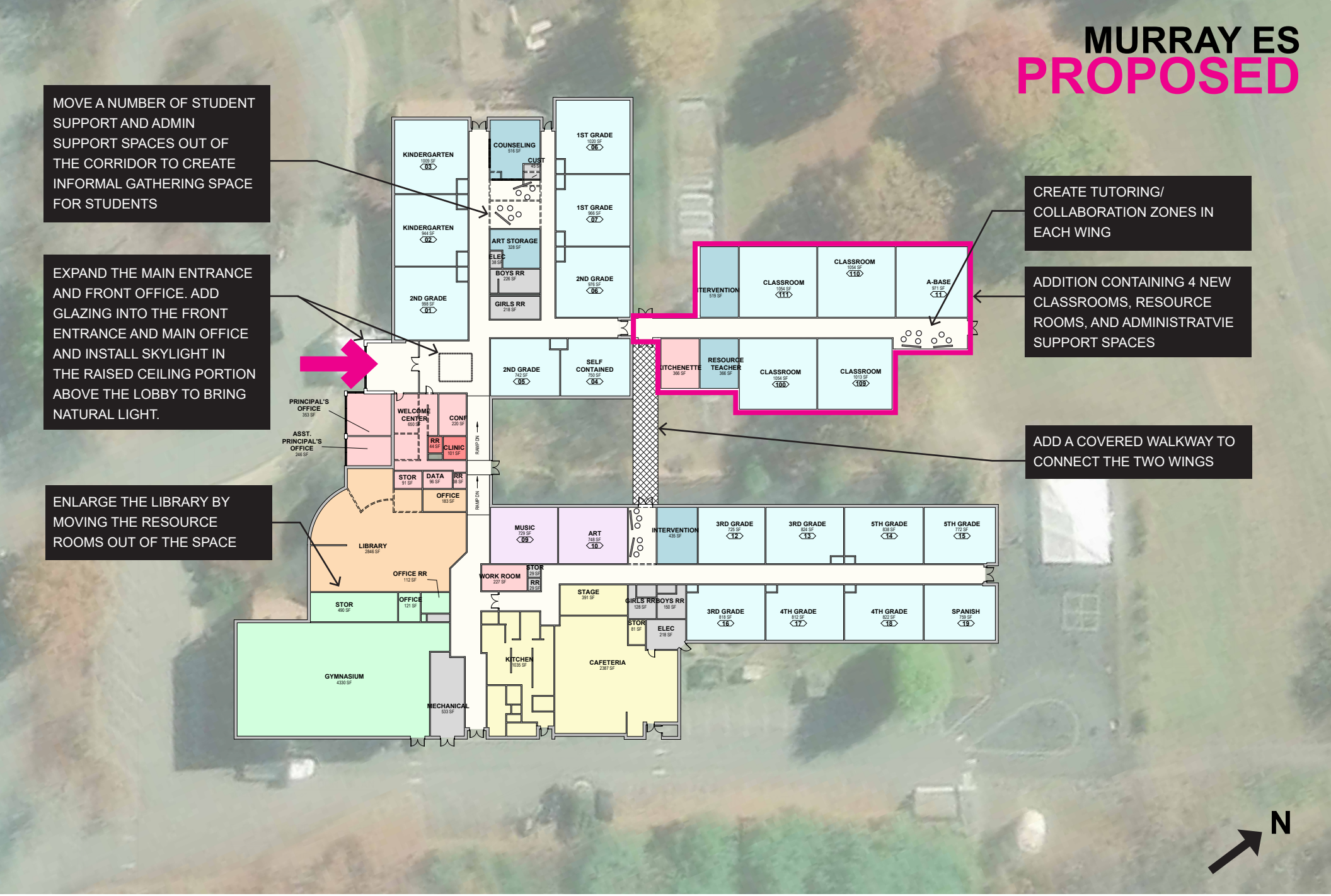
EXPAND THE MAIN ENTRANCE AND FRONT OFFICE. ADD GLAZING INTO THE FRONT ENTRANCE AND MAIN OFFICE AND INSTALL SKYLIGHT IN THE RAISED CEILING PORTION ABOVE THE LOBBY TO BRING NATURAL LIGHT.

ENLARGE THE LIBRARY BY MOVING THE RESOURCE ROOMS OUT OF THE SPACE

CREATE TUTORING/ COLLABORATION ZONES IN EACH WING

ADDITION CONTAINING 4 NEW CLASSROOMS, RESOURCE ROOMS, AND ADMINISTRATVIE SUPPORT SPACES

ADD A COVERED WALKWAY TO CONNECT THE TWO WINGS



N

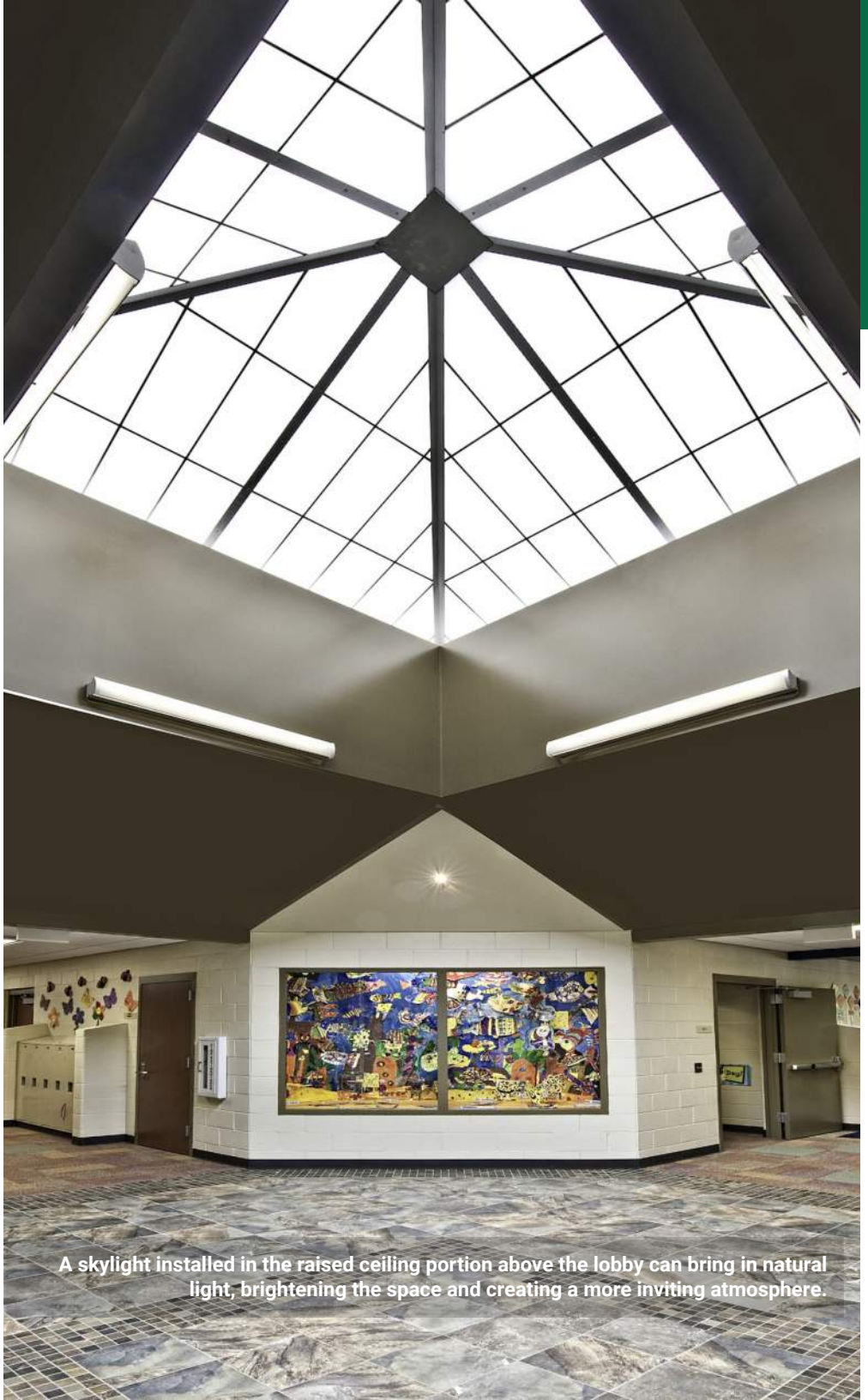
ACADEMIC CLASSROOMS
DINING
GYMNASIUM
STUDENT SUPPORT
ADMIN/TEACHER SUPPORT
MUSIC/ART
HEALTH
LIBRARY
BUILDING SUPPORT

0’ 50’ 100’



The main entrance and front office can be expanded to create a more welcoming and spacious entry point. The use of ample glazing can be used to bring in natural light and allow views to the exterior.





A skylight installed in the raised ceiling portion above the lobby can bring in natural light, brightening the space and creating a more inviting atmosphere.



The new classroom wing shall be open and inviting, with wide corridors designed as collaboration spaces. Glazing should be added not only between classrooms and the corridors but also at the exterior end of the corridors to strengthen the connection to nature and bring in natural light.



Standard double loaded corridors can have potions of wide corridors designed to serve as collaboration areas. The amount of glazing can vary based on the input of the school community.



The steep slope in grade presents an opportunity to incorporate fun, playful features like slides and low climbing walls to the lower playground/ field, enhancing outdoor play and engagement.



The proposed asphalt area can be enhanced with colorful graphics to encourage play while also serving as overflow parking when needed.

MEP RECOMMENDATIONS

Overview

The mechanical, electrical, and plumbing (MEP) recommendations encompass both general strategies applicable to all schools and specific improvements tailored to the unique conditions of each site. These recommendations support Albemarle County Public Schools' long-term goals for energy efficiency, sustainability, and operational reliability. They focus on upgrading infrastructure where the building envelope is altered, transitioning to all-electric systems in new additions, and improving classroom functionality and site infrastructure. Additionally, each elementary school has been assessed for site-specific MEP considerations based on existing equipment, capacity, and planned additions or renovations.

General MEP Recommendations

- Where envelope is touched/opened, upgrade envelope to current energy codes.
- Per forthcoming report by Setty Engineers, recommend creating a replacement plant option for the oil-burning boilers at all schools.
- General recommendation for any additions to the building would be to ensure all HVAC systems added to the building will be all-electric in support of sustainability goals of ACPS, and all envelope for the new additions will be pursued with net-zero level envelopes in mind.
- Additional exterior receptacles on the outside of buildings for maintenance.
- Additional receptacles in classrooms for laptop charging and convenience.
- Most areas appeared to have LED lights; recommend replacing the few remaining fluorescents with LEDs.
- Part of the improvements will include assessment of the stormwater management facilities and improvements and/or upgrades if required.

Murray Elementary School Recommendations

- Murray Elementary School has already started its transition to a Variable Refrigerant Flow(VRF) system. We would recommend the master planned addition to this building utilize a VRF system incorporated into the existing system.
- The existing 2000A electrical service size appears to be adequate to support the current facility and the proposed addition, assuming a VRF mechanical system is utilized. If any other major equipment is added this will need to be reevaluated.
- The proposed addition will require new electrical panels, which will be fed from the existing switchboard.
- The existing generator capacity appears sufficient to support both the current load and the new life safety components associated with the proposed addition. If any additional non-life safety equipment is desired to be added to the generator, a reassessment of the generator's capacity will be required.
- Recommend relocating the kiln from the electrical room.



Kiln in electrical room to be relocated



Existing Main Switchboard in electrical room to remain





Stony Point Elementary School

3893 Stony Point Rd
Keswick, VA 22947

SITE

Existing Conditions

Located in northern Albemarle County in the Keswick area, Stony Point Elementary School serves approximately 240 students in grades PreK–5. The school is a one-story brick façade building with a total floor area of approximately 37,000 square feet, situated on a 45-acre site. Originally constructed in 1935, the building has undergone multiple additions and renovations over the decades. In 1961, a cafeteria and dining support area were added, followed by a 1972 addition to the west of the cafeteria, which was later demolished in 1989. In 1989, a new gymnasium and classroom wing were added. A further classroom wing was added in 1996, extending the 1989 expansion. The kitchen and cafeteria were renovated in 1998. HVAC system upgrades were completed in 2004 and 2009, and roofing projects were carried out in 2008 and again in 2015.

The existing site includes parking located at the front and along the west side of the school, generally sufficient for daily needs. However, there is a noted lack of designated overflow parking, which can become an issue during events.

All vehicular traffic is accessed through a single entry point from Stony Point Road, which tends to become congested during peak hours such as student drop-off and pick-up. A separate bus loop is located toward the east side of the school, helping to distinguish bus traffic from general vehicular flow.

There are several outdoor recreational on site. There is a blacktop play space to the west of the building, and several playgrounds are present—two located close to the school and two situated under the tree canopy to the west of the soccer field. Additionally, a soccer field is located to the south of the school and is encircled by a track.

There several modular buildings are positioned on the west side of the school pointing to the need for additional capacity. These structures may serve functional purposes but contribute to a more fragmented site layout and take up space that could potentially be used more effectively. The modular buildings are currently being used as student support spaces and are oversized for their programmatic use.

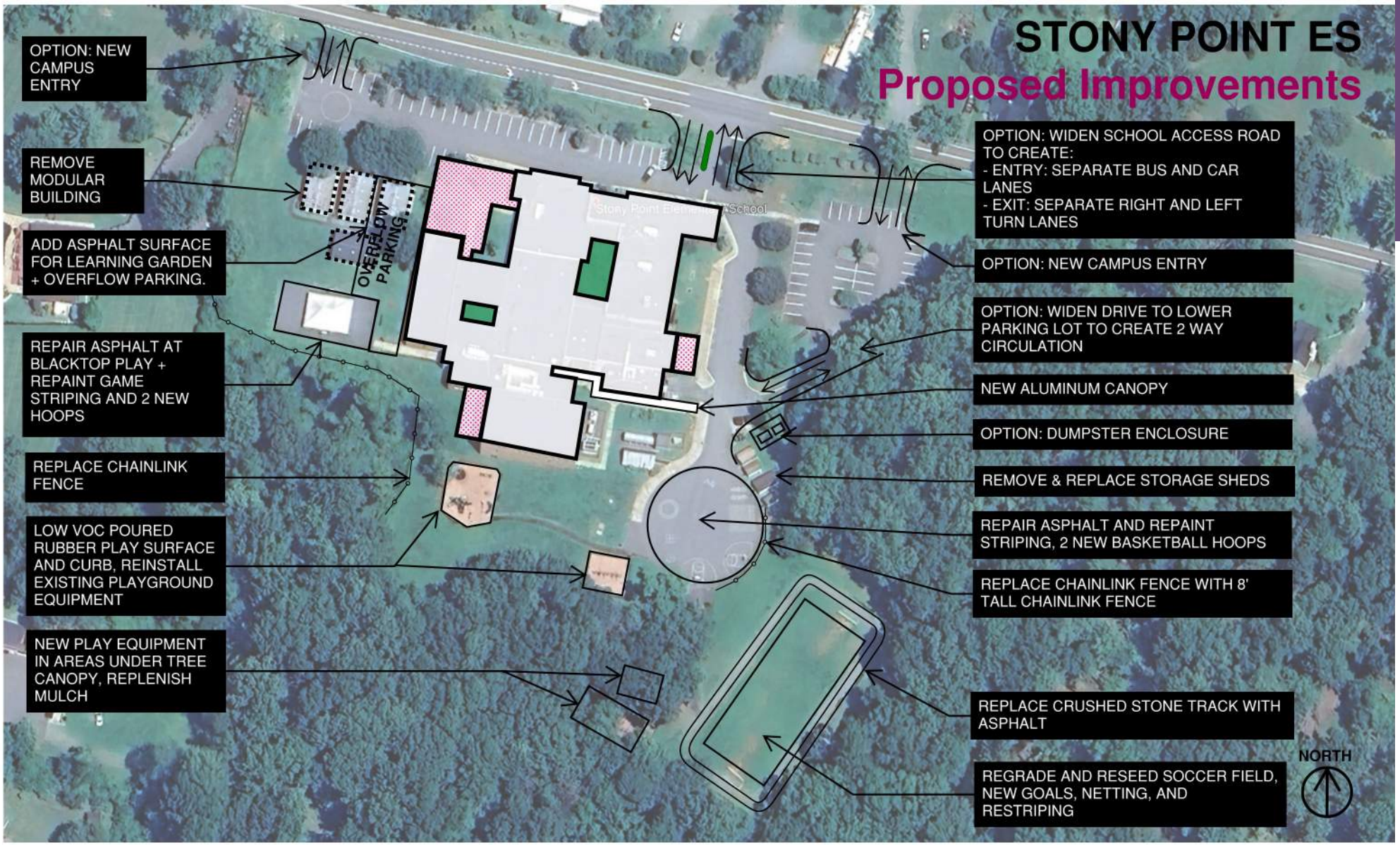
Site Recommendations

To address traffic congestion, two potential new curb cuts are being considered, along with a plan to widen the existing entry drive to two lanes in each direction. These changes aim to significantly improve vehicular circulation during peak hours such as student drop-off and pick-up.

Further site circulation improvements include widening the drive that runs from the bus loop to the eastern parking area, allowing for two-way traffic flow. This adjustment enhances access throughout the site and helps separate car and bus traffic more effectively. A new aluminum canopy will be added in the bus loop area to provide protection for students improving both safety and comfort during inclement weather.

Playground upgrades include the installation of low-VOC poured-in-place rubber surfacing for the two playgrounds located closest to the school, improving accessibility and safety. For the playgrounds near the soccer field, existing mulch will be replenished, and new play equipment will be installed to refresh those areas.

To support flexible outdoor programming, a new asphalt surface will be added for a learning garden that can also serve as overflow parking when needed. The perimeter chain-link fencing will be replaced to enhance site security and aesthetics. Additional recommendations for site improvements can be found in the accompanying site plan.



STONY POINT ELEMENTARY SCHOOL GENERAL SITE NOTES:

- WILL INCLUDE ALLOWANCE OR UNIT COST FOR LAWN LEVELING AND RESEEDING
- PROVIDE 4 HOSE BIBS AND 4 EXTERIOR QUAD GFI RECEPTACLES
- PROVIDE 2 EXTERIOR FROSTPROOF EXTERIOR DRINKING FOUNTAINS (1 PER PLAYGROUND); MOUNT TO EXTERIOR WALLS OF BUILDING
- PROVIDE 1 SHADE STRUCTURE PER PLAYGROUND




View towards soccer field


Existing playground



Modular buildings


Existing fence

BUILDING

Existing Conditions

The existing school facility presents several spatial and functional challenges. The stage in the gymnasium is off-center and is currently occupied by another program, limiting its availability for performances, assemblies, or school events. The cafeteria is undersized for the student population..

Academic support spaces are also constrained. The library is undersized and lacks access to natural daylight. Several student support areas are similarly undersized. However, there are several full sized classrooms which are being used for student support for which the space is oversized. In addition, four mobile classrooms are being used for student services which points to the need for a building addition.

Navigation throughout the school poses difficulties. Dead-end corridors and an overall disjointed layout make wayfinding confusing for students, staff, and visitors. One area contains stairs with no ADA-compliant lift, which is an accessibility concern.

The campus includes two courtyards, which offer opportunities for outdoor learning, recreation, or gathering, though their current use and access may be limited by the building's configuration.

Building Recommendations

A building addition is planned to replace the existing trailers, providing dedicated student support spaces, storage, and accessible restrooms with exterior access. This will consolidate support functions into permanent, well-designed spaces.

The gymnasium will receive a stage addition that is centered within the space and is accessible, improving functionality and usability. Additional storage will also be included as part of this enhancement to better support programming.

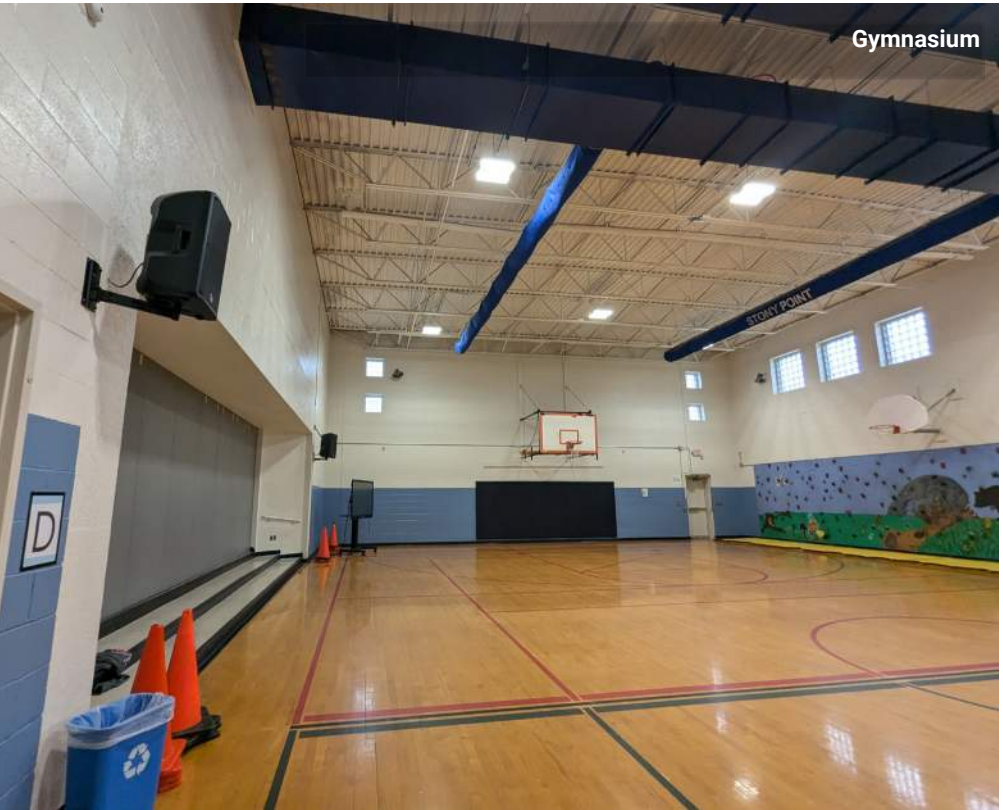
The cafeteria will be expanded to increase capacity. Meanwhile, some student support spaces will be reclaimed and incorporated into the library program. These spaces will be improved with new exterior windows and interior glazing to bring in natural light and increase visual connectivity.

To improve circulation and collaboration, hallways in the new addition will be widened to allow for informal gathering spaces. Additionally, a new courtyard will be created to provide a protected outdoor learning environment.

To address accessibility concerns, an ADA lift will be installed next to the existing stairs near the cafeteria, ensuring barrier-free access throughout the building.


Typical classroom

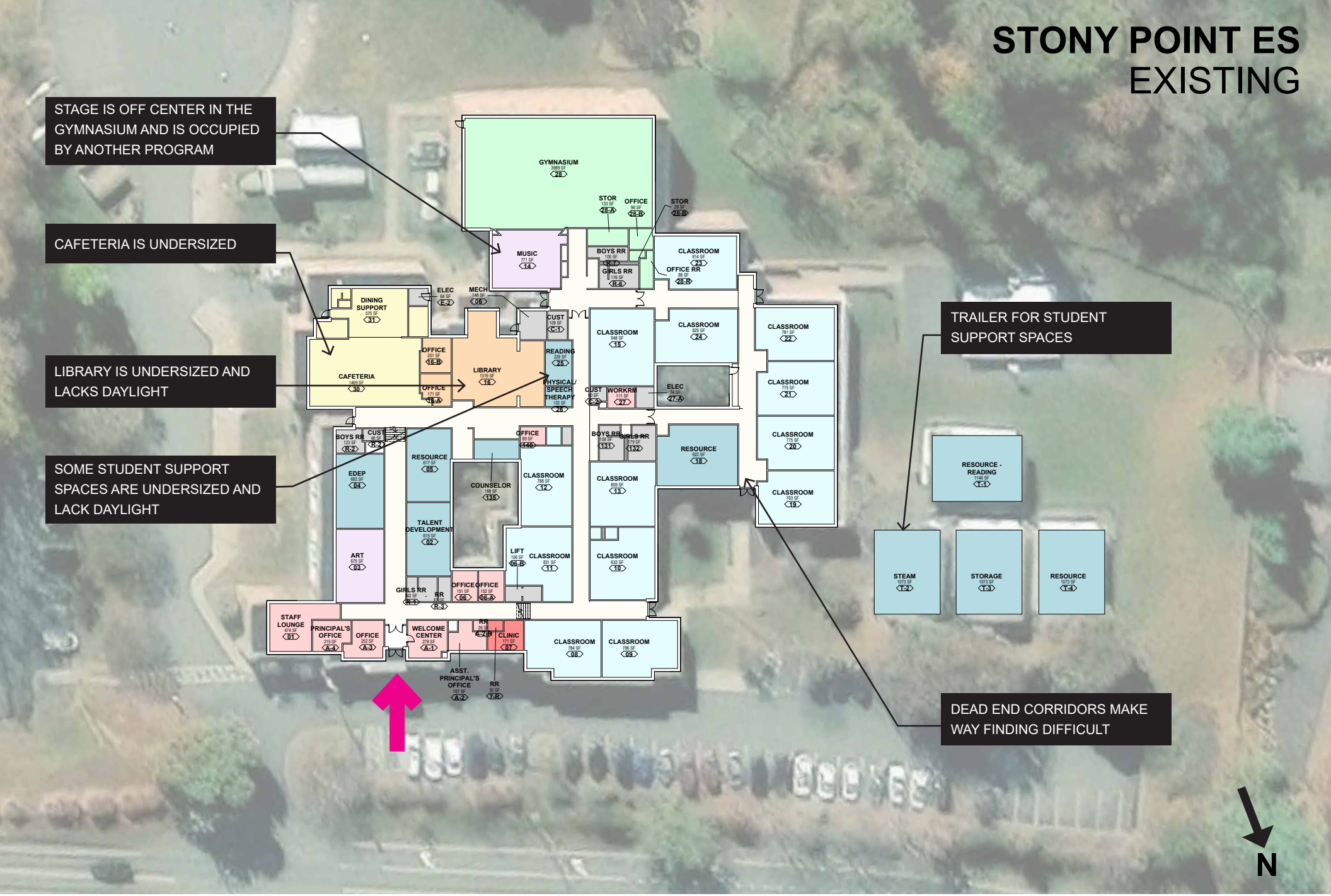

Library



Gymnasium


Cafeteria

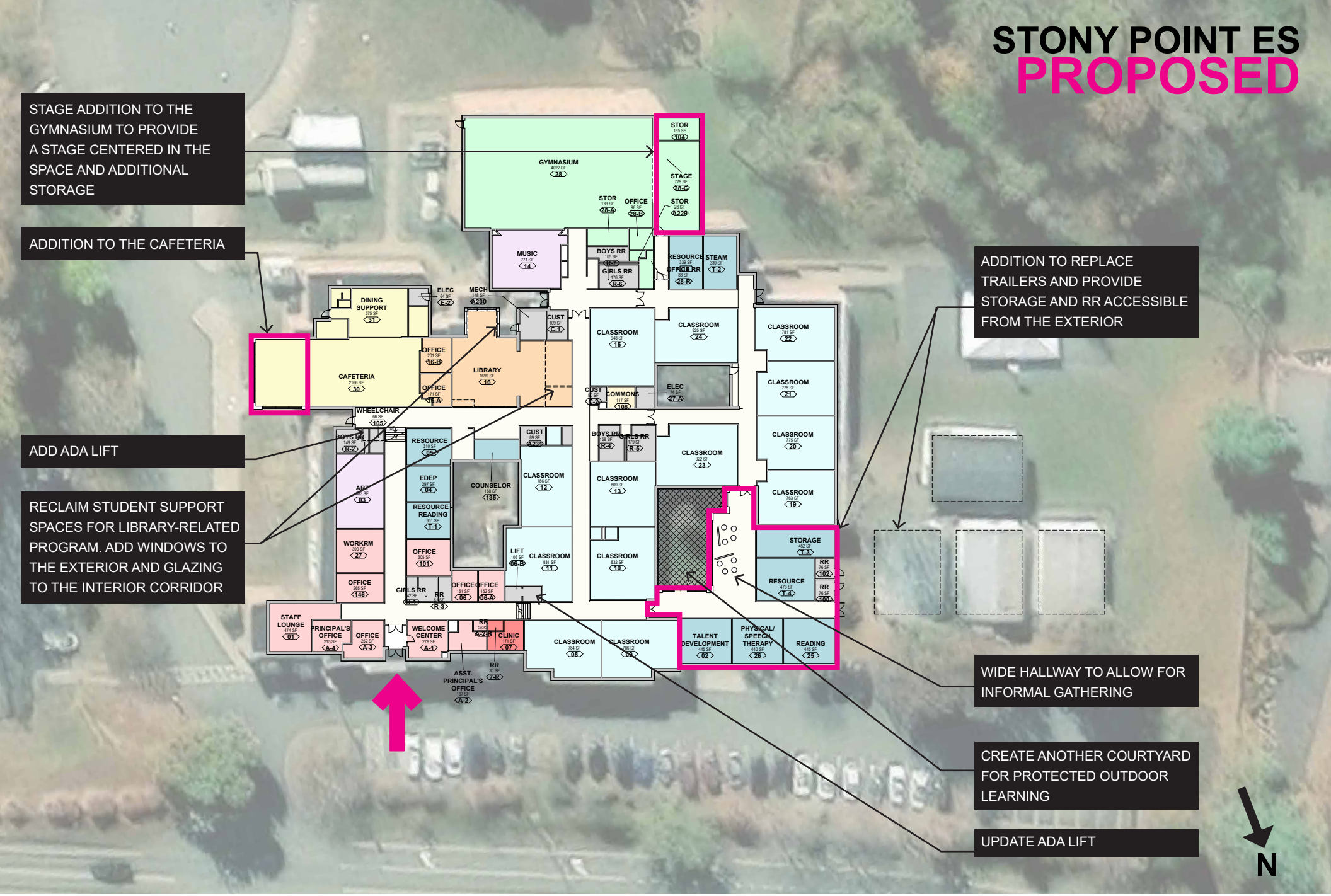
STONY POINT ES
EXISTING



ACADEMIC CLASSROOMS
DINING
GYMNASIUM
STUDENT SUPPORT
ADMIN/TEACHER SUPPORT
MUSIC/ART
HEALTH
LIBRARY
BUILDING SUPPORT

0’ 50’ 100’

STONY POINT ES
PROPOSED



ACADEMIC CLASSROOMS
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HEALTH
LIBRARY
BUILDING SUPPORT

0’ 50’ 100’



The library is envisioned as a transformed, daylight-filled space with the potential for a pop-up roof and clerestory windows, visually connected through interior glazing to circulation routes and surrounding instructional areas.



The cafeteria expansion is envisioned as a transformed, daylight-filled space with the potential for a pop-up roof and clerestory windows, designed to create a large, open area that connects seamlessly to outdoor dining, play areas, and adjacent circulation and instructional spaces.



The new addition can provide space for widened corridors for breakout space for individualized learning. The connection between the classroom and the breakout space can be strengthened by glazing which also allows teachers to supervise both spaces. Additional casework and sinks can be provided to allow for flexible use of the corridor.



There should be a stronger visual connection into the courtyard from the addition. Use of storefront glazing with full lite doors or the use of glass overhead doors provides natural daylight to the informal gathering area as well as allows for a more flexible use of the courtyard.



Stage addition at the end of the existing gymnasium allows for audience seating capacity and could include additional storage, PE office, and toilets for indoor/outdoor play.



The proposed asphalt area can be enhanced with colorful graphics to encourage play while also serving as overflow parking when needed.

MEP RECOMMENDATIONS

Overview

The mechanical, electrical, and plumbing (MEP) recommendations encompass both general strategies applicable to all schools and specific improvements tailored to the unique conditions of each site. These recommendations support Albemarle County Public Schools' long-term goals for energy efficiency, sustainability, and operational reliability. They focus on upgrading infrastructure where the building envelope is altered, transitioning to all-electric systems in new additions, and improving classroom functionality and site infrastructure. Additionally, each elementary school has been assessed for site-specific MEP considerations based on existing equipment, capacity, and planned additions or renovations.

General MEP Recommendations

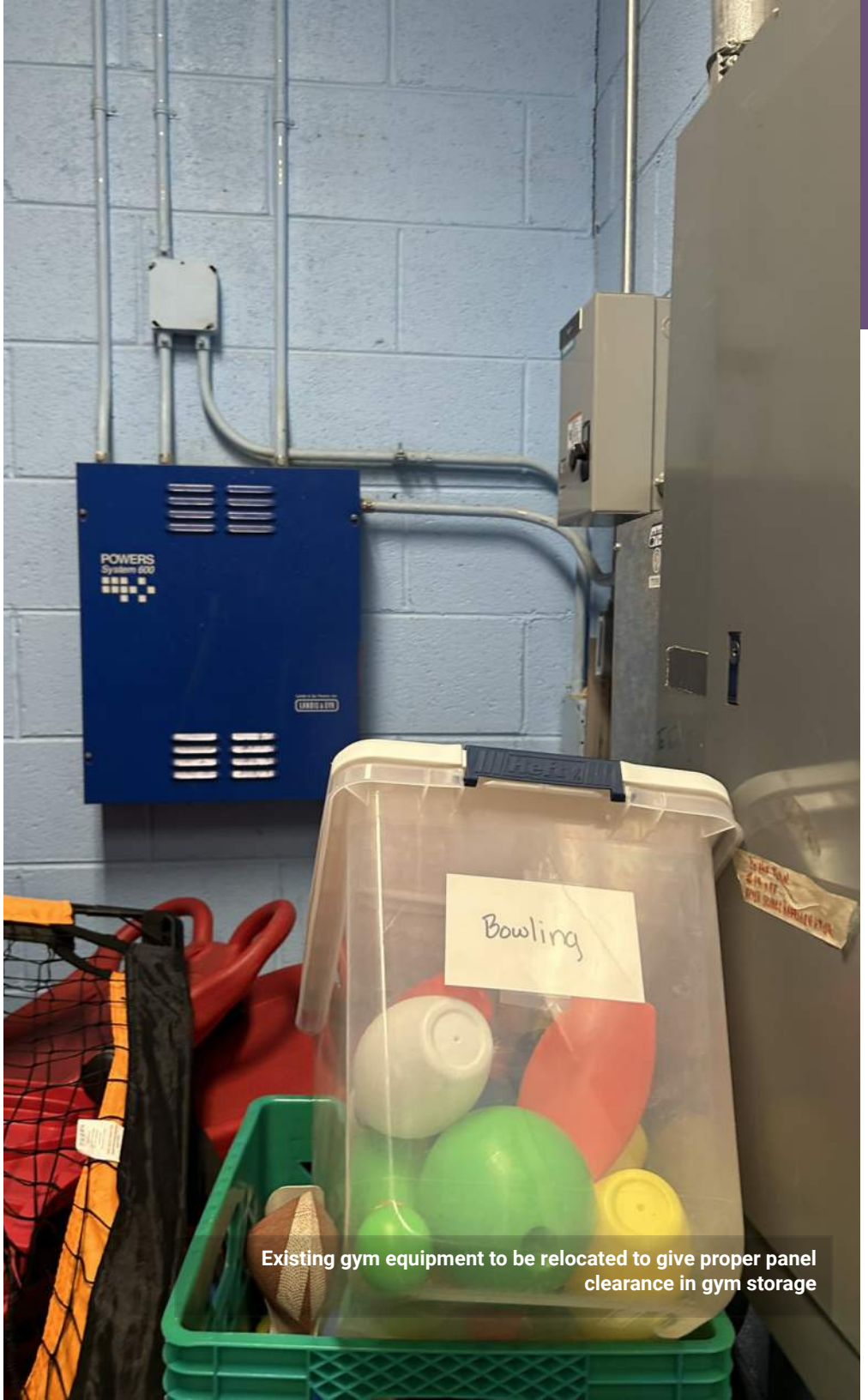
- Where envelope is touched/opened, upgrade envelope to current energy codes.
- Per forthcoming report by Setty Engineers, recommend creating a replacement plant option for the oil-burning boilers at all schools.
- General recommendation for any additions to the building would be to ensure all HVAC systems added to the building will be all-electric in support of sustainability goals of ACPS, and all envelope for the new additions will be pursued with net-zero level envelopes in mind.
- Additional exterior receptacles on the outside of buildings for maintenance.
- Additional receptacles in classrooms for laptop charging and convenience.
- Most areas appeared to have LED lights; recommend replacing the few remaining fluorescents with LEDs.
- Part of the improvements will include assessment of the stormwater management facilities and improvements and/or upgrades if required.

Stony Point Elementary School Recommendations

- The addition planned for Stony Point is adjacent to an area already served by packaged RTU's with Variable Air Volume systems. We would recommend the system for this addition to also be packaged RTU's with VAV system, however, we would recommend utilizing heat pump units to increase the efficiency of the system.
- We recommend a general plan be made regarding the 2-pipe changeover system throughout the building. Utilizing this system as is causes comfort issues throughout the areas served by this system. A couple of options:
- Option 1 – install a second piping system throughout the building and make the 2-pipe changeover system more localized, allowing wings of the space to in heating or cooling instead of the entirety of the building. This would require a significant amount of piping, 6-way changeover valves, and controls work.
- Option 2 – remove the 2-pipe changeover system entirely by ways of removing the unit ventilators and replacing them with another system that can adjust heating and cooling independently. This option will either require RTU's utilizing DX or chilled water, or 4-pipe fan coil units utilizing the existing chilled water system.
- The two minor additions to the building by ways of an extended cafeteria and added stage should consider the addition of small air source packaged RTU heat pumps. Careful coordination will be needed between these units and the existing units serving the spaces these new additions will be connected to. The cafeteria received a new packaged rooftop unit heat pump in 2024, and the gym is currently served by an RTU with hydronic heating. A secondary option for the gym unit could be replacing the gym unit with a larger unit that can accommodate the added stage and will be an opportunity to reduce the load on the existing oil boilers.
- It is recommended the existing 1200A electrical service be upgraded to accommodate the proposed addition. The new addition will also require new electrical panels.
- The existing generator capacity appears sufficient to support both the current load and the new life safety components associated with the proposed addition. If any additional non-life safety equipment is desired to be added to the generator, a reassessment of the generator's capacity will be required.
- Gym storage room had gym equipment blocking access to electrical panels. Recommend relocating gym equipment so panels can have 3' of clearance.



Existing 1200A Main distribution panel to be replaced with larger switchboard accommodate new load of addition.



Existing gym equipment to be relocated to give proper panel clearance in gym storage


llama
llama
lleva
orgullosa
ayuda
muñeca
hoja
Palabras con varios significados
camino
cerca
I Can Do It!
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¿Cómo ha cambiado lo que considera "justo" en las escuelas?
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Entrar, Comer, Trabajar
Merienda
Recreo
Calendario
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Recreo
Biblioteca
Arte
Salir a casa
Cinco puntos
febrero
domingo
lunes
martes
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No hay escuela
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