

Elementary School Northern Virginia

School Characteristics

Students

- 828 students in grades K-5
- 33 K-5 classes
- 6 preschool classes
- 2 of the preschool classes and 2 of the K-5 classes serve students with autism

School Grounds

- Suburban location
- 12.8 acres on school grounds
- Campus has 2 buildings
- This school is adjacent to two busy streets and a quiet neighborhood.

Climate

- This region has four distinct seasons: colorful crisp fall weather, mild winter with light snowfall, warm wet spring, and hot, humid summers.
- Frequent year round precipitation: ~120 days per year
- Annual rainfall: 43" per year
- Annual snowfall: 22" per year
- Temperatures during the school year generally range from lows ~24°F in January to highs ~85°F in September and May.



Image Source:
Google Earth Pro



100'



Elementary School Northern Virginia

Site Photographs



Photographs, top row to bottom row

1. Many spacious, flat areas with grass and trees surround the school buildings.
2. The school grounds include several existing outdoor classroom spaces, nestled in the woods or near trees.
3. There are expansive paved areas in the playground (bottom left) and in the existing bus parking lot (bottom right).



Photos: Nancy Sriniste



Potential Outdoor Seating Areas

Use Existing Seating and Tree Canopy for Outdoor Learning

When the Weather is Clear and Mild



Image Source:
Google Earth Pro

● 13 potential outdoor seating areas for 10-15 students each

⋯ 1 existing area with 3 picnic tables and potential for 3 more (2 students/table)

■ 2 storage sheds (shipping containers)



100'

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Scenario #1: Low Cost

Climate Considerations

- Local climate varies seasonally
- Classes will require protection from sun and rain, and appropriate clothing to keep everyone warm and dry

Climate Adaptation Strategies

- Use outdoor classrooms as “Plan A” when the weather is nice; go inside or online when it is raining or too cold
- Place seating in areas with existing tree canopies to provide shade

Use and Augment Existing Infrastructure

- Use five existing seating areas with picnic tables, benches, and stumps
- Use nine grassy areas with shade trees and add low cost seating (mats, stumps, benches, and/or existing desks/tables)
- Add storage sheds for class materials
- Preserve space for PE and recess
- Assume students will not stay seated all day; plan to use spaces adjacent to seating areas for hands-on learning

Scenario #1: Outdoor Capacity

- Max: 207 students in 14 seating areas
- Capacity: 25% of enrolled students
- 14 of the school’s 39 classes could use an outdoor learning space



Potential Outdoor Seating Areas

Outdoor Learning to Accommodate Most Classes in Almost All Weather



Image Source:
Google Earth Pro

● 31 potential outdoor seating areas for 10-15 students each

⋯ 1 existing area with 3 picnic tables and potential for 3 more (2 students/table)

■ 31 shelters for sun and rain

▭ 5 storage sheds (shipping containers)



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Scenario #2: Moderate Cost

Climate Adaptation Strategies

Build on Scenario #1:

- Install shelters to protect classes from sun and rain
- Add outdoor heaters and/or provide rain and snow gear so students will be dry and warm when weather is wet and cold

Use and Augment Existing Infrastructure

- Add seating to create new outdoor classroom areas
- Close bus parking lot to traffic during school hours and use pavement for additional outdoor classroom space
- Add plants in large containers to make classes on pavement and open areas more inviting
- Add storage sheds for class materials (1 per grade or per 5-6 classes)
- Prepare designated preschool yards for small social bubbles
- Preserve space for PE and recess

Scenario #2: Outdoor Capacity

- Max: 447 students in 32 seating areas
- Capacity: 57% of enrolled students
- 32 of the school's 39 classes could use an outdoor learning space



Potential Outdoor Seating Areas

All-Weather Outdoor Learning Spaces for Every Class



Image Source:
Google Earth Pro

● 38 potential outdoor seating areas for 10-15 students each

⋯ 1 existing area with 3 picnic tables and potential for 3 more (2 students/table)

■ 38 shelters for sun and rain

■ 6 storage sheds (shipping containers)



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Scenario #3: Infrastructure Investment to Include Forested Land

Investment in Future Outdoor Learning

- This school site includes beautiful forested areas that are currently underutilized by students.
- Add a fence to the edge of the school grounds, near the road.
- Selectively clear some of the dense understory in the forested areas to make clearings to accommodate classes.
- Add shelters to ensure that every classroom space is protected from the weather.
- Where possible, add outdoor heaters to make the outdoor classrooms more comfortable during the winter.

Scenario #3: Outdoor Capacity

- Max: 582 students in 39 seating areas
- Capacity: 70% of enrolled students
- 39 of the school's 39 classes could use an outdoor learning space
- If only 50% of students are on campus each day, every class could be held outside, year-round, if desired.
- If 100% of students return, 50% could be inside and 50% outside



Potential Outdoor Seating Areas

Map Key for Alternate Scenarios



Image Source:
Google Earth Pro

● Potential outdoor seating areas for 10-15 students each

⋯ Existing area with 3 picnic tables and potential for 3 more (2 students/table)

■ Storage sheds (shipping containers)



100'

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Map Key

Color Coded Scenarios

- Scenario #1: Low Cost
- Scenario #2: Moderate Cost
- Scenario #3: Infrastructure Investment

Notes

- The number on each outdoor learning area corresponds with a planning chart that provides additional information about what may be needed in each location.
- The letters identify outdoor storage sheds that will hold classroom materials.
- Recommendation: Assign adjacent outdoor classroom spaces to classes in the same grade level, so that the teachers may share materials in a nearby storage shed and plan for children with similar needs.
- Preschool classes will need their own designated outdoor spaces that are designed differently than K-5 areas.
- Outdoor spaces that serve children with autism should be designed in close collaboration with their teachers.
- The asphalt playground and sports field have been left unobstructed to allow space for PE classes, sports games, and potential use by the local community.

