



NATIONAL COVID-19
OUTDOOR LEARNING
INITIATIVE

CREATING
OUTDOOR SPACES

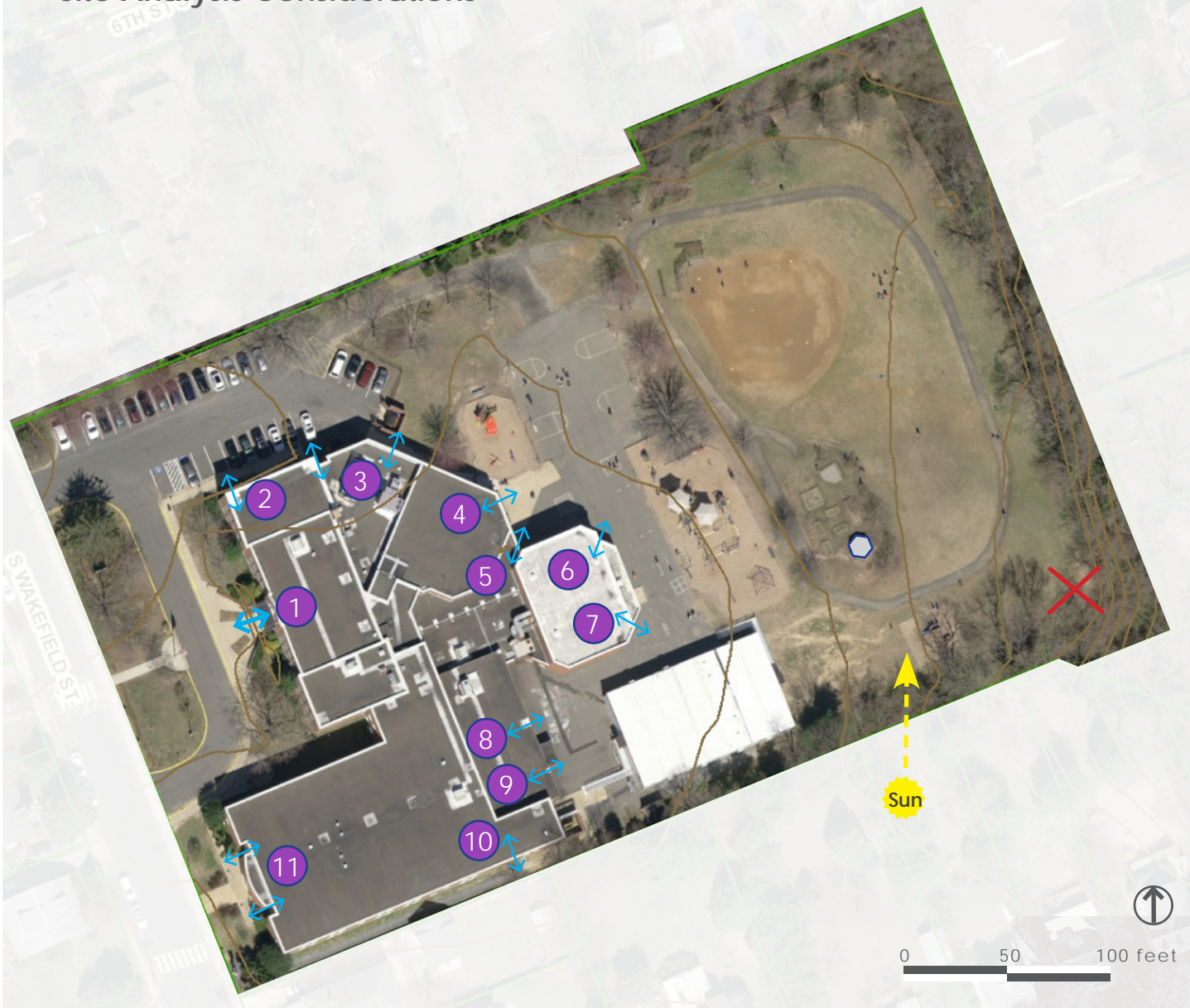
EMERGENCY
SCHOOLYARD
DESIGN VOLUNTEERS







BARCROFT ELEMENTARY SCHOOL — ARLINGTON, VIRGINIA

This Title 1 public elementary school in the DC suburbs typically enrolls 450 PK-5th grade students in 24 classes. 60% of the students are English language learners. Their Northern Virginia climate has 4 distinct seasons with hot, humid summers and relatively mild winters. The schemes offered here exceed the school's goal of 12 outdoor classrooms by providing 12-18+ separate spaces which can accommodate 1/4 to 1/3 of the students learning outdoors on their 5 acre campus in a variety of types of weather.

Site Analysis Considerations



-  Avoid drainage swale
-  Existing gazebo

-  Entry from building
-  Entry from classroom

-  Door number

NOTE: These diagrams are intended to provide visual concepts to assist schools in planning. They are neither intended nor may be used for construction. Green Schoolyards America, Earth Island Institute, the Emergency Schoolyard Design Volunteers, and the partners of the National COVID-19 Outdoor Learning Initiative do not assume responsibility or liability for the technical accuracy of drawings or for any unauthorized use.

Barcroft Elementary Arlington, Virginia

School Characteristics

Students

- 450 students in grades PK-5
- 60% are English language learners and 60%+ have free and reduced-price lunch
- Typically there are 24 PK-5 classes.

School Grounds

- Suburban location 5.12 acres
- Schoolyard is bordered by single family homes on three sides and a medium traffic street along the front.
- This school has a loop walking path around the playing fields with potential for outdoor learning along the path, as well as in some niches adjacent to the building in front and in back.
- There are 11 doors that are all used
- There is an existing garden area and a covered gazebo that could seat 6 physically distanced students. Stumps and picnic tables are being donated by the community.
- Need 12 + outdoor learning areas for 8-12 students each

Climate

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



Barcroft Elementary
Arlington, Virginia

Site Photographs (Back of School)



1



2



3



4



5



6

Photographs, top row to bottom row

1. Loop trail with potential classroom space along perimeter
2. Gazebo could seat up to 6
3. Shaded, secluded, paved/grassy area behind modular building
4. Extensive blacktop
5. Shaded area with picnic tables
6. NE Corner along walking path with stump seating circle

*All photos by Nancy Striniste and Lauren Ford



Potential Outdoor Classrooms

Barcroft Elementary
Arlington, Virginia

Scenario #1: Low Cost

Scenario

- Create 12 outdoor learning areas behind school in existing shade from building or trees. Nine outdoor classrooms will be along existing walking path. One area will be on blacktop and two will be in narrow and very private space behind modular building
- Use outdoor classrooms as "Plan A" for in-person school when the weather is nice: go inside or online when it is too hot, too cold, or raining.
- Preserve and activate space for recess, arrival, outdoor PE and gardening, as well as outdoor lunch if desired.
- Use low-cost seating (mats, stumps, benches, and/or existing desks/tables)
- Provide appropriate clothing for the season so all students and teachers are equally warm and dry.
- Face teachers away from each other and space groups 40' apart where possible to minimize sound carrying between groups.
- Add straw bales or planted buffers (raised beds, berms, or in the ground beds with dense plantings of shrubs and grasses) to separate groups visually and to cut down on noise.
- Provide a trauma-informed design approach

Scenario #1: Outdoor Capacity

- Where space allows, 24' circles can seat 10 students spaced 6' apart and one teacher. In smaller spaces 20' squares can seat 8 physically distanced students and one teacher.
- **This scenario can accommodate 112 students and 12 teachers.**



Preserve playground, central blacktop and fields for recess, PE, and outdoor lunch

- ✗ Avoid drainage swale
- ⬆ Existing gazebo
- ① Door number
- ➡ Main Entrance

- straw bale or planted buffer
- 26' dia. circle potential outdoor seating areas for 10 students each
- 20' x 20' areas for 8 students

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Barcroft Elementary Arlington, Virginia

Site Photographs (Front of School)



Photographs, top row to bottom row

1. Front Entry
2. Niche at front of school
3. Paved and flat grassy space outside door 11
4. Front island for arrival staging or two classrooms
5. Small front island for small group
6. Narrow area to SW of building for exercise or small groups

*All photos by Nancy Striniste and Lauren Ford



Potential Outdoor Classrooms

Barcroft Elementary
Arlington, Virginia

Scenario #2: Moderate Cost

Scenario

- Add 5-6 outdoor learning spaces in front of the building. These spaces can be used for older students or, if fenced could be for any age.
- Provide appropriate clothing for the season so all students and teachers are equally warm and dry.
- Add white boards in each outdoor classroom and nearby storage for supplies.
- Use outdoor classrooms as "Plan A" for in-person school when weather allows: go inside or online when needed.
- Preserve space for arrival at the front of the building, as well as space for recess, outdoor PE, gardening, and outdoor lunch if desired.
- Face teachers away from each other and space groups 40' apart where possible to minimize sound carrying between groups.
- Add straw bales or planted buffers (raised beds, berms, or in the ground beds with dense plantings of shrubs and grasses) to separate groups visually and to cut down on noise.
- Provide a trauma-informed design approach

Scenario #2: Outdoor Capacity

- Where space allows, 24' circles can seat a maximum of 10 students spaced 6' apart and one teacher. In smaller spaces 20' squares can seat a maximum of 8 physically distanced students and one teacher.
- **This scenario can accommodate 160 students and 18 teachers.**



- ✗ Avoid drainage swale
- ⬆ Existing gazebo
- ① Door number
- ➡ Main Entrance

- straw bale or planted buffer
- 26' dia. circle potential outdoor seating areas for 10 students each
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Potential Outdoor Classrooms



Preserve playground, central blacktop and fields for recess, PE, and outdoor lunch

- Avoid drainage swale
- Door number
- Existing gazebo
- Main Entrance

- 26' dia. circle potential outdoor seating areas for 10 students each
- straw bale or planted buffer
- 20' x 20' areas for 8 students
- 26' or 22' canopy

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Barcroft Elementary Arlington, Virginia

Scenario #3: High Cost

Scenario

- Add shelters over some or all of the outdoor learning areas to provide shade, and shelter from rain.
- Add roll down or slatted sides on 1-2 sides of shelter to provide wind breaks, and additional protection from precipitation, while still maintaining air flow to reduce viral transmission.
- Provide appropriate clothing for the season so all students and teachers are equally warm and dry.
- Provide gear like reusable hand warmers and lap blankets in cold weather, or misters in heat to increase comfort.
- Use outdoor classrooms as "Plan A" when weather allows: go inside or online when needed.
- Preserve space for arrival at the front of the building, as well as space for recess, outdoor PE and gardening, and outdoor lunch if desired.
- Face teachers away from each other and space groups 40' apart where possible to minimize sound carrying between groups.
- Add straw bales or planted buffers (raised beds, berms, or in the ground beds with dense plantings of shrubs and grasses) to separate groups visually and to cut down on noise.
- Provide a trauma-informed design approach

Scenario #3: Outdoor Capacity

- Where space allows, 24' circles can seat a maximum of 10 students spaced 6' apart and one teacher. In smaller spaces 20' squares can seat a maximum of 8 physically distanced students and one teacher.
- **This scenario can accommodate 160 students and 18 teachers.**

