



NATIONAL COVID-19  
OUTDOOR LEARNING  
INITIATIVE

CREATING  
OUTDOOR SPACES

EMERGENCY  
SCHOOLYARD  
DESIGN VOLUNTEERS

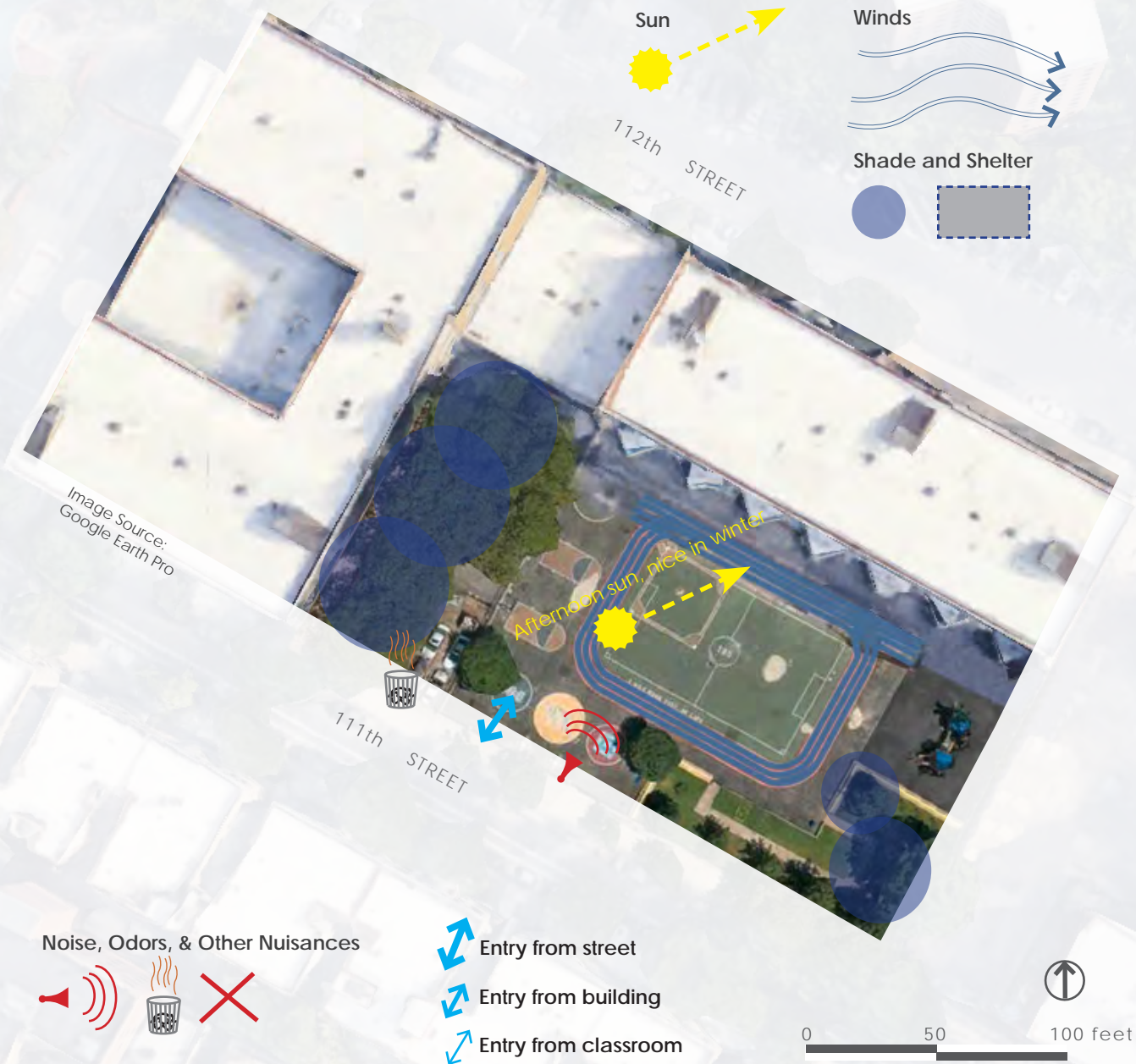


## LOCKE SCHOOL OF ARTS AND ENGINEERING — HARLEM, NEW YORK

P.S. 185 The Locke School of Arts and Engineering, a public Title 1 elementary school of approximately 350 students located in New York City, aims to use outdoor learning spaces primarily for P.E. but also as a supplement to classroom learning when the weather is nice or in mild rain and snow, taking advantage of the area's distinct four seasons. In all three scenarios, every student signed up for in person learning, and over 30% of the usual student enrollment, could be welcomed back to campus by using designated outdoor areas located right outside classrooms and with access to existing tree canopy and gardens. With additional funds, organic "hugel" berms planted along the southern edge could help absorb sound and provide habitat and garden space. .



# Site Analysis Considerations



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## School Characteristics

### Students

- 350 students in grades PK-5
- 20 PK-5 classes. Classes to be broken into 3 cohorts of 8 students each, to be onsite part time
- Need 10 small breakout areas for 8 students each
- Provide a trauma-informed design approach (likely for all urban schools)

### School Grounds

- Urban location, almost 1 acre
- High levels of noise from car stereos, ambulances, construction
- Odors from animal waste, garbage piles, smoking
- School staff does daily walk-around cleanup of perimeter sidewalks.
- Minimal outdoor storage available.
- 5-minute walk to Central Park

### Climate

- Four distinct seasons: crisp fall, cold winter with snowfall, warm wet spring, and hot, humid summers. Heavy rain, high wind, snow, extreme heat, extreme cold, and poor air quality are all factors.
- Historically ~80 days/year indoor recess. School working to change weather mindset to reduce this to ~20 days.

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.





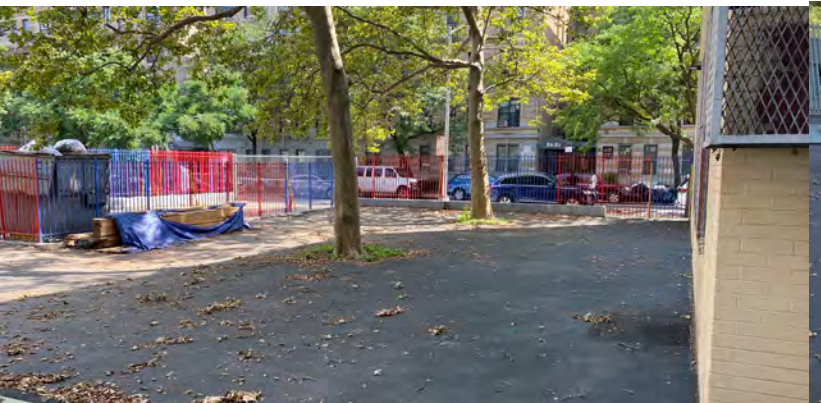


Photos: Cara Scifani



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Site Photographs



Photographs, top row to bottom row

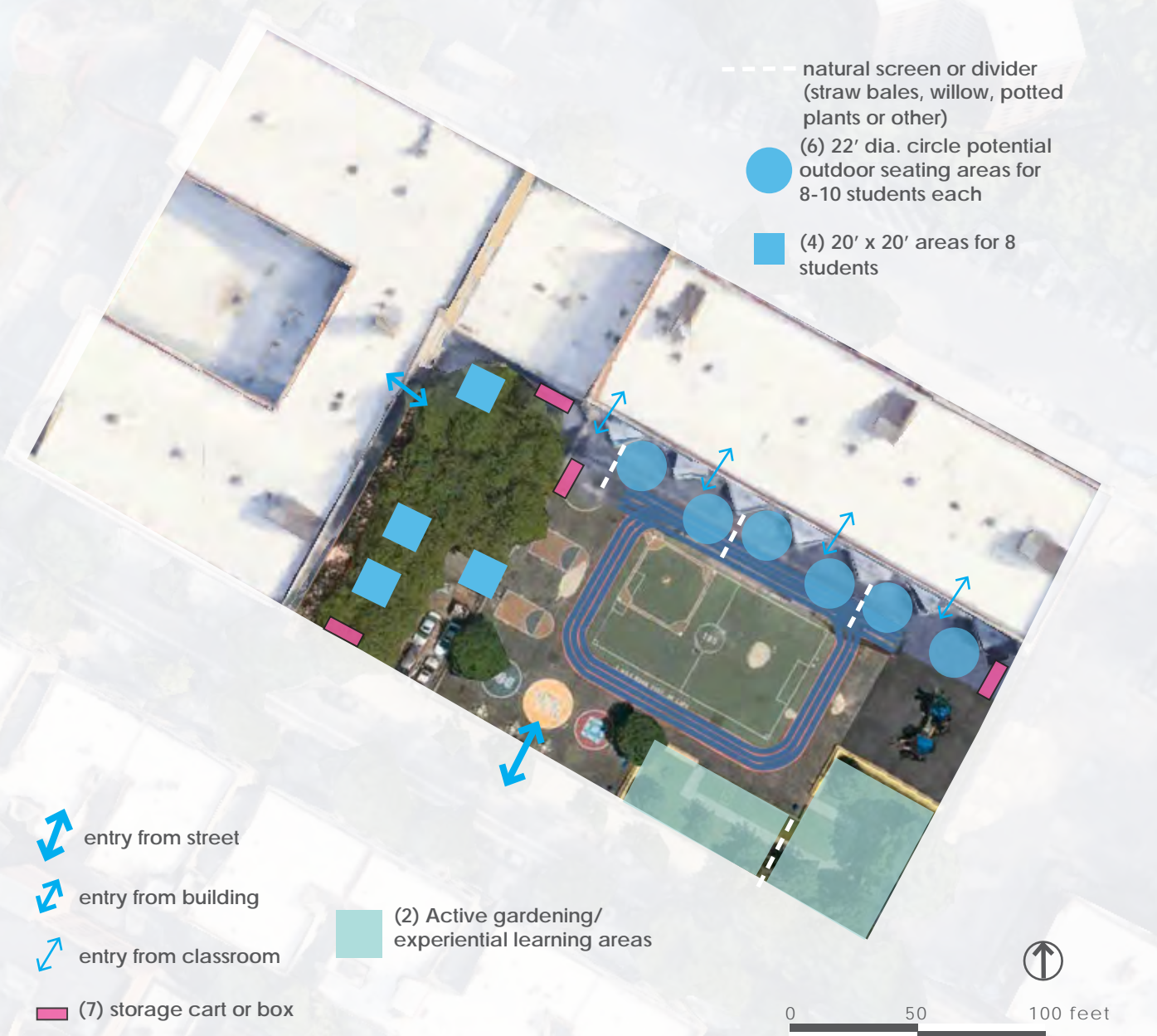
1. Recent playground improvements include new asphalt and play structures
2. Mature trees provide shade around the perimeter of the schoolyard
3. A series of classrooms with bathrooms open into the schoolyard—opportunity to pull seats and desks right outside
4. A garden area with trees and planters provides hands-on learning opportunities





# Potential Outdoor Classrooms

## Using Existing Tree Canopy and Shade for Mild Weather



- natural screen or divider (straw bales, willow, potted plants or other)
- (6) 22' dia. circle potential outdoor seating areas for 8-10 students each
- (4) 20' x 20' areas for 8 students

- ↔ entry from street
- ↔ entry from building
- ↔ entry from classroom
- (7) storage cart or box

■ (2) Active gardening/ experiential learning areas

0 50 100 feet

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### Scenario #1: Low Cost

#### Climate Considerations

- Local climate varies seasonally
- Classes will require protection from sun, rain, and snow 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 where existing tree canopies provide morning or afternoon shade, and away from street to reduce noise

#### Use and Augment Existing Infrastructure

- Use 4 areas with shade trees and add low cost seating (mats, stumps, benches, and/or existing desks/tables)
- Place 6 seating circles outside doors
- Add storage sheds for class materials
- Preserve space for gardening and nature play

#### Scenario #1: Outdoor Capacity

- Max: 92 students in 10 seating areas
- Max: 16 students in active garden areas
- Capacity: 31% of enrolled students





## Potential Outdoor Classrooms

### Providing Light Shelter for Sun, Rain, or Snow



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## Scenario #2: Moderate Cost

### Climate Considerations

Build on Scenario #1

- Install shelters to protect from rain, snow, and sun. Ideal shelters could be adjustable in height to allow winter sun.
- Add outdoor heaters and/or provide rain and snow gear so students will be dry and warm when weather is wet and cold

### Climate Adaptation Strategies

- Use outdoor classrooms as "Plan A" when the weather is nice or in mild rain and snow; go inside or online when it is too cold or harsh

### Use and Augment Existing Infrastructure

- Add low cost seating (mats, stumps, benches, and/or existing desks/tables)
- Install shelters to protect from rain, snow, and sun in areas away from street
- Add storage sheds for class materials
- Preserve and activate space for gardening and nature play

### Scenario #2: Outdoor Capacity

- Max: 104 students in 13 covered seating areas
- Max: 16 students in active garden areas
- Capacity: 34% of enrolled students





## Potential Outdoor Classrooms

### Providing Infrastructure to Support School Programs



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### Scenario #3: Green Infrastructure Investment

#### Climate Considerations

Build on Scenario #2

- Add low, planted hills (hugels) on top of asphalt or grass along fence line to reduce noise and odors from street
- Provide potted trees for green views and to divide outdoor class areas, to be replanted in ground later

#### Climate Adaptation Strategies

- Use outdoor classrooms as "Plan A" when the weather is nice or in mild rain and snow; go inside or online when it is too cold or harsh

#### Use and Augment Existing Infrastructure

- Preserve and activate space for gardening and nature play
- Leave room and flexibility for long-term outdoor classroom vision ideas

#### Scenario #3: Outdoor Capacity

- Max: 104 students in 13 covered seating areas
- Max: 16 students in active garden areas
- Capacity: 34% of enrolled students

