

# Elementary School Los Angeles Area, CA

## School Characteristics

### Students

- 558 students in grades K-5
- 28 classes, across all grade levels
- COVID-19 response:  
Exploring scenarios where students are in smaller groups (e.g. half classes)

### School Grounds

- Suburban location in Southern California, on 9.1 acres
- Campus has 18 separate buildings
- Each classroom has two external doors; all “hallways” are outside
- This school is not close to a park.

### Climate

- Very hot, dry climate, often over 100° F
- The weather is only cool enough to be comfortable outside from November to May, even in the shade.
- Santa Ana winds usually blow strongly through the city in October.



100'



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## Site Photographs

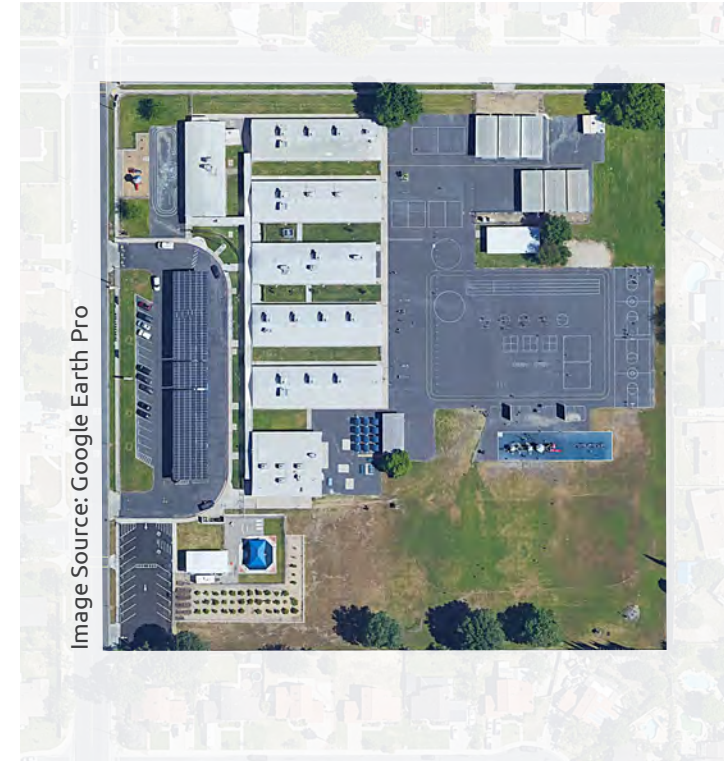


Image Source: Google Earth Pro



### Photographs, clockwise from top

1. View of the school buildings, playground, and shade tree
2. Solar panels shade part of the parking lot at the front of the school
3. Classrooms open directly to the outside; small groups already meet outside on the shadier north side of the buildings



# Potential Outdoor Seating Areas

## Use Existing Infrastructure to Spread Out



Image Source: Google Earth Pro

● 14 potential outdoor seating areas for 12-16 students each

■ 27 potential outdoor seating areas for 7 students each

●●● 2 existing covered picnic areas for 16 and 24 students



100'

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## Scenario #1: Low Cost

### Climate Constraints

- Limit outdoor classroom use to cooler months (November - May)
- Avoid outdoor learning when the Santa Ana winds are strongest in October.

### Shade Strategies

Place seating in areas with existing shade structures and deep shadows:

- Add outdoor seating under existing tree canopies
- Use existing shade from covered walkways on the north and west sides of each classroom building
- Close traffic in front driveway during the school day; use shade below solar panels

### Seating Strategies

- For seating on hardscape, move existing indoor desks outside
- For seating under trees, use movable mats

### Scenario #1: Outdoor Seating Capacity

- Max: 453 students in 43 seating areas
- 16 outdoor spaces can accommodate half a class
- 27 additional spaces would be useful for small group work, near classrooms



# Potential Outdoor Seating Areas

## Expand Capacity Using Shade Canopies and Simple Seating



Image Source: Google Earth Pro



14 potential outdoor seating areas for 12-16 students each



6 seating areas for 7 students each  
22 seating areas for 10-15 students each



2 existing covered picnic areas for 16 and 24 students



8 shade canopies



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## Scenario #2: Small Infrastructure Investment

### Shade Strategies

Build on Scenario #1 to add more shade:

- Add retractable, cloth shade canopies (12'-15' wide), suspended on wires between classroom buildings to better protect students from heat and expand seating capacity in those areas. (Retract shade canopies on cool or windy days.)

### Seating Strategies

- For seating near classroom doors, move existing indoor desks outside
- For seating under solar panels, add picnic tables or other sturdy, modular seating units. Add movable barriers to driveway entrance during the school day.
- For seating under trees, use log rounds, picnic tables, benches, or mats

### Scenario #2: Outdoor Seating Capacity

- Max: 636 students in 44 seating areas
- 37 outdoor spaces can accommodate half a class
- 7 additional spaces would be useful for small group work, near classrooms
- Some seating options are not ideal



# Potential Outdoor Seating Areas

## Optimized: 50% of Enrolled Students Can Sit Outside



Image Source: Google Earth Pro



9 potential outdoor seating areas for 12-16 students each



6 seating areas for 7 students each



17 seating areas for 10-15 students each



2 existing covered picnic areas for 16 and 24 students



8 shade canopies



100'

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## Scenario #3: Infrastructure Aligned with Education Program

### Assumptions

- Each class will have its own reserved indoor room *and* outdoor space for up to 16 students and 1 teacher
- Students will not be seated all day. The outdoor spaces for each class will be used for hands-on learning.
- Most of the playground and field will remain open for PE classes and recess

### Strategy for Site Selection and Program

- Position outdoor classes to maximize convenience, comfort, and space for physical education classes and recess
- Include 28 outdoor classroom spaces large enough for half a class

### Scenario #3: Outdoor Seating Capacity

- Max: 481 students in 34 seating areas
- 28 outdoor spaces for half a class + 6 spaces for small group work
- If only 50% of students are on campus each day, every class could be held outside, if desired
- If 100% of students return, 50% could be inside and 50% outside