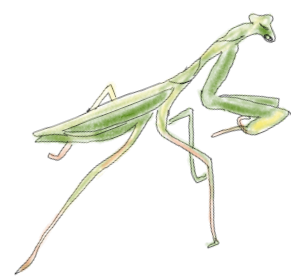


GREENING **SCHOOLYARDS** ensuring all children have access to green spaces



Aldama Elementary School

The aim of this project is to turn Aldama Elementary School's outdoor grounds into a green schoolyard and connect the children to nature

The benefits of school grounds where natural elements are abundant, can have a lasting impact on children's health and well-being. By greening public schoolyards in economically challenged urban neighborhoods is a way of spreading the well-being in a way only nature can provide.



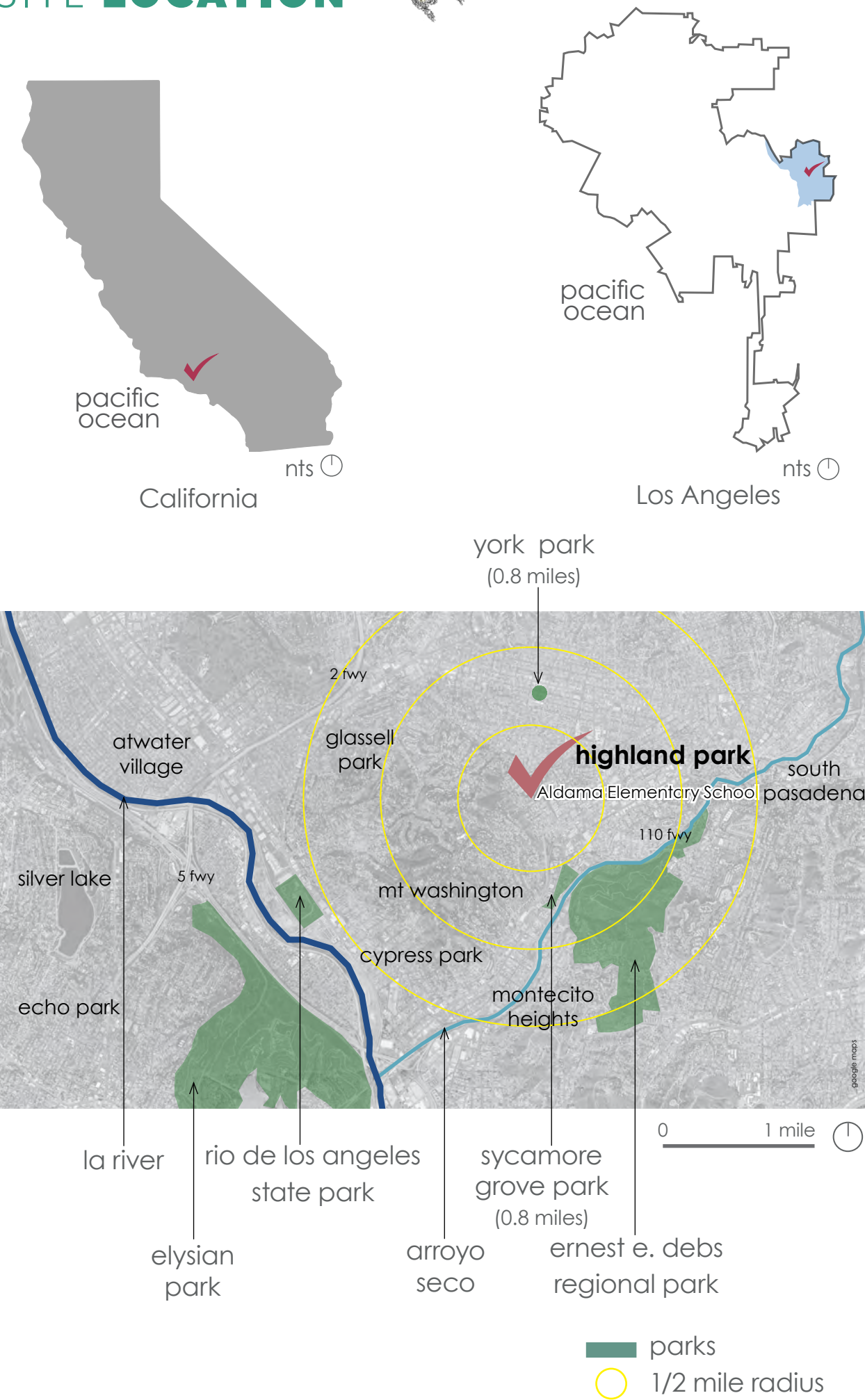
The school's main concerns:

- lack of shade
- abundance of asphalt

Common illness in children due to a sedentary lifestyle:

- stress
- anxiety
- depression
- diabetes
- obesity

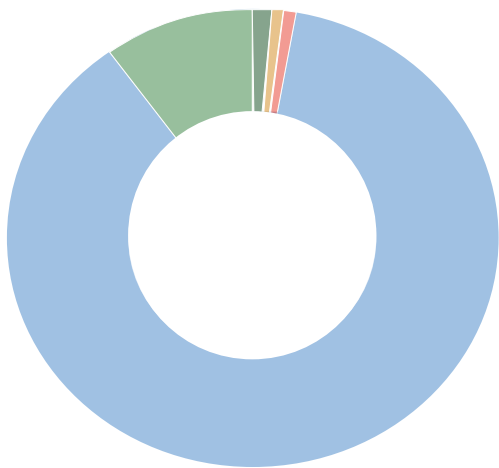
SITE LOCATION



USERS & STAKEHOLDERS

USERS

- student body
- children from 4 - 11 years old
  - 70 % eligible for free lunch
  - 14.9 % chronic absenteeism rate
  - 0 % suspension rate
  - 48.9% English is their second language
  - 9 children enrolled in the special education program

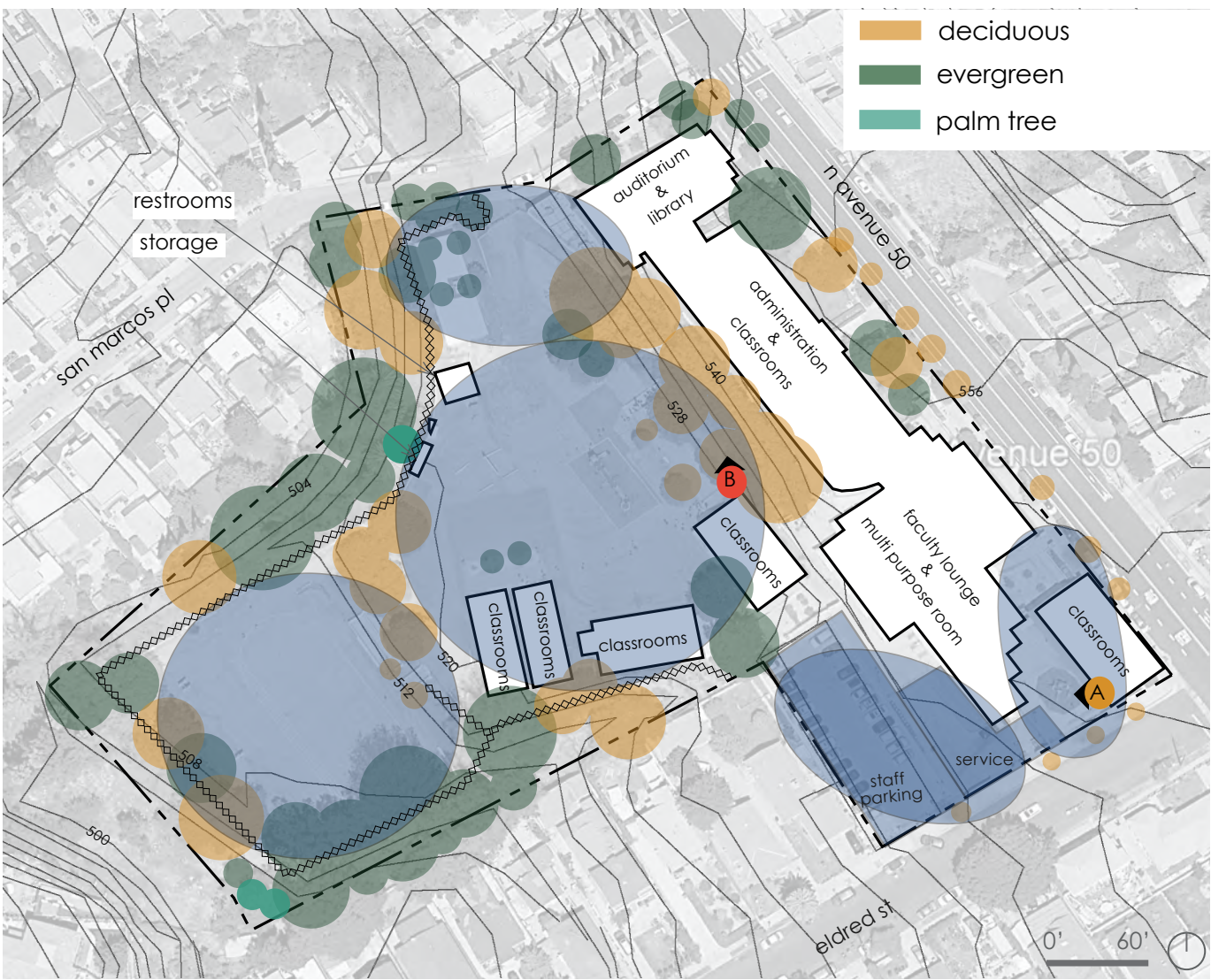
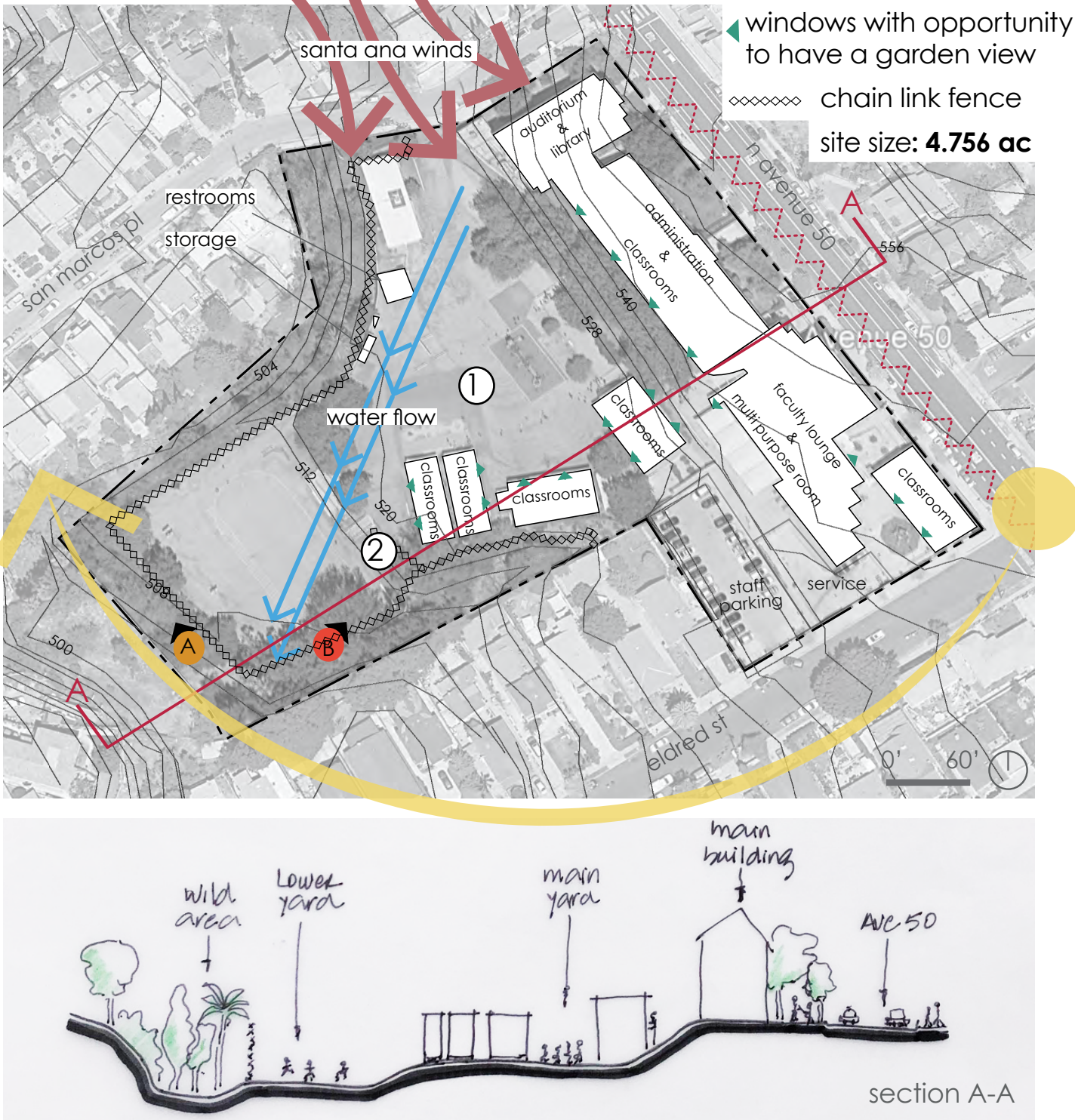


- american indian 0.2%
- asian 1.1%
- african american 0.6%
- filipino 0.8%
- latino 86%
- white 9.8%

teachers  
administration  
staff members  
students families

STAKEHOLDERS

users  
neighborhood community  
city of LA  
the environment



1. Surface cover derived by Council for Watershed Health from visual analysis of 2011 LARIAC 1 ft. imagery, LA County GIS Building roof line, CAMS Street data and school site data provided by LAUSD.



SITE ANALYSIS

NATURAL PHYSICAL FEATURES

- opportunities:
- take advantage of the multi layered terrain
  - add trees to create shade over structures and play areas
  - increase green area by removing asphalt
  - increase children access to green areas
  - decrease overall site temperature



① wild area: mature trees and shrubs, with a dry creek. Children don't have access to the area.



② asphalted slope: opportunity for climbing wall and seating area built in slope

PERMEABLE X IMPERMEABLE DIAGRAM

- 26% of permeable surface
- planted or DG areas
- 74% of impermeable surface
- buildings
  - asphalt or concrete



TREE CANOPY DIAGRAM

29.5 % of school site has tree canopy cover<sup>1</sup>  
ONLY 6.5 % of play area has tree canopy cover<sup>1</sup>

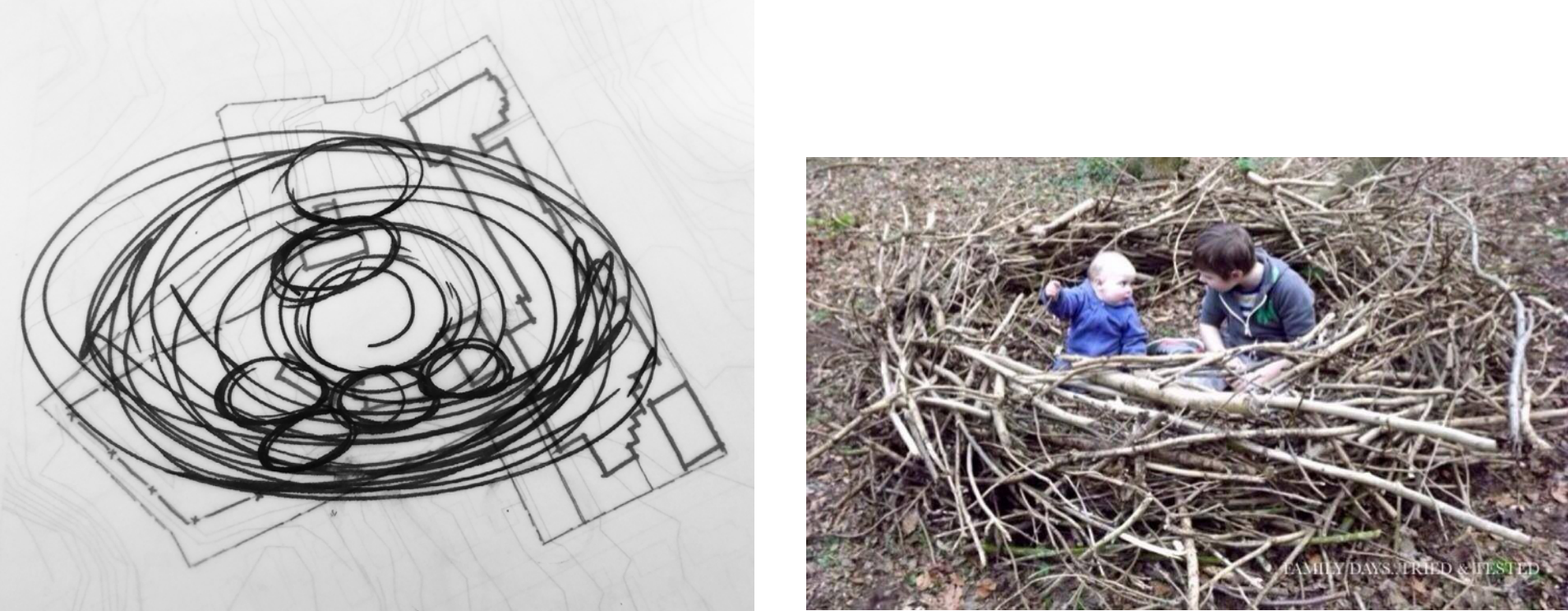


- opportunity to increase tree canopy in areas used by students and staff



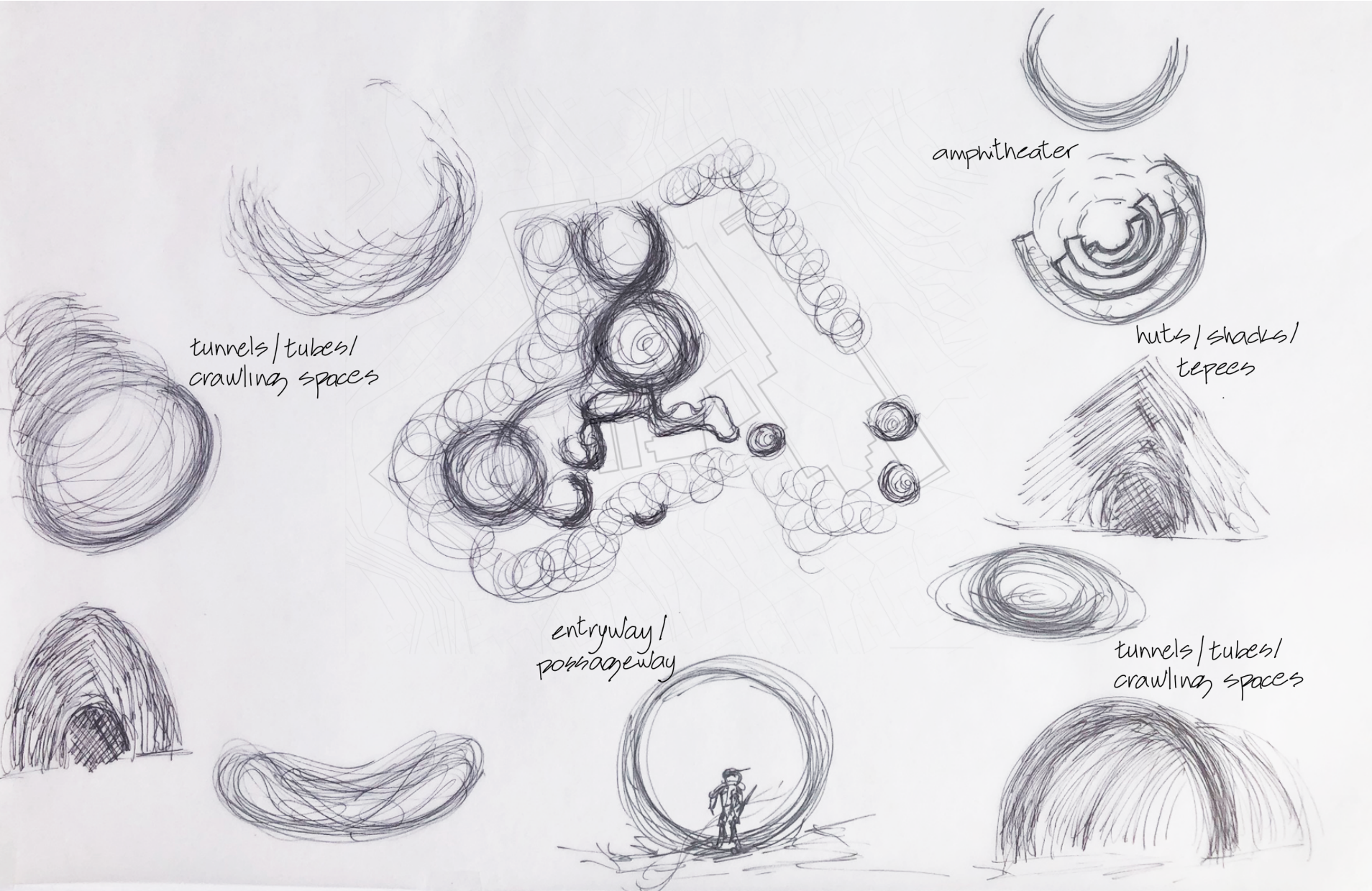
Aldama Elementary School  
is the **HOME** of the hawks

THE HAWKS **NEST** as an inspiration



"...home is our space in the world. It is our first universe. In truth it is a cosmos"  
"...It is a setting for our dreams and day dreams, and memories" *anton brachlana - "the politics of space"*

EXPLORING THE METAPHOR



1. drought tolerant garden w/ bioswale

2. teacher's courtyard

3. etk & special education courtyard
  - sensorial garden
  - shade structure

4. service area & parking
  - permeable surface
  - small trees

5. kindergarten
  - butterfly garden
  - watershed demo
  - amphitheater

6. shaded hang out area

7. climbing wall & amphitheater

8. play apparatus
9. community park

10. grassy main yard / drivable edges

11. outdoor classroom courtyard
  - 12. outdoor classroom
    - vegetable garden
    - native garden
    - small stage & seating

13. wilderness observation deck

14. lower yard:
  - sports court and bleachers
  - amphitheater
  - free play hangout area

15. wild area:
  - trail
  - outdoor classroom
  - watershed demo

FINAL DESIGN CONCEPT



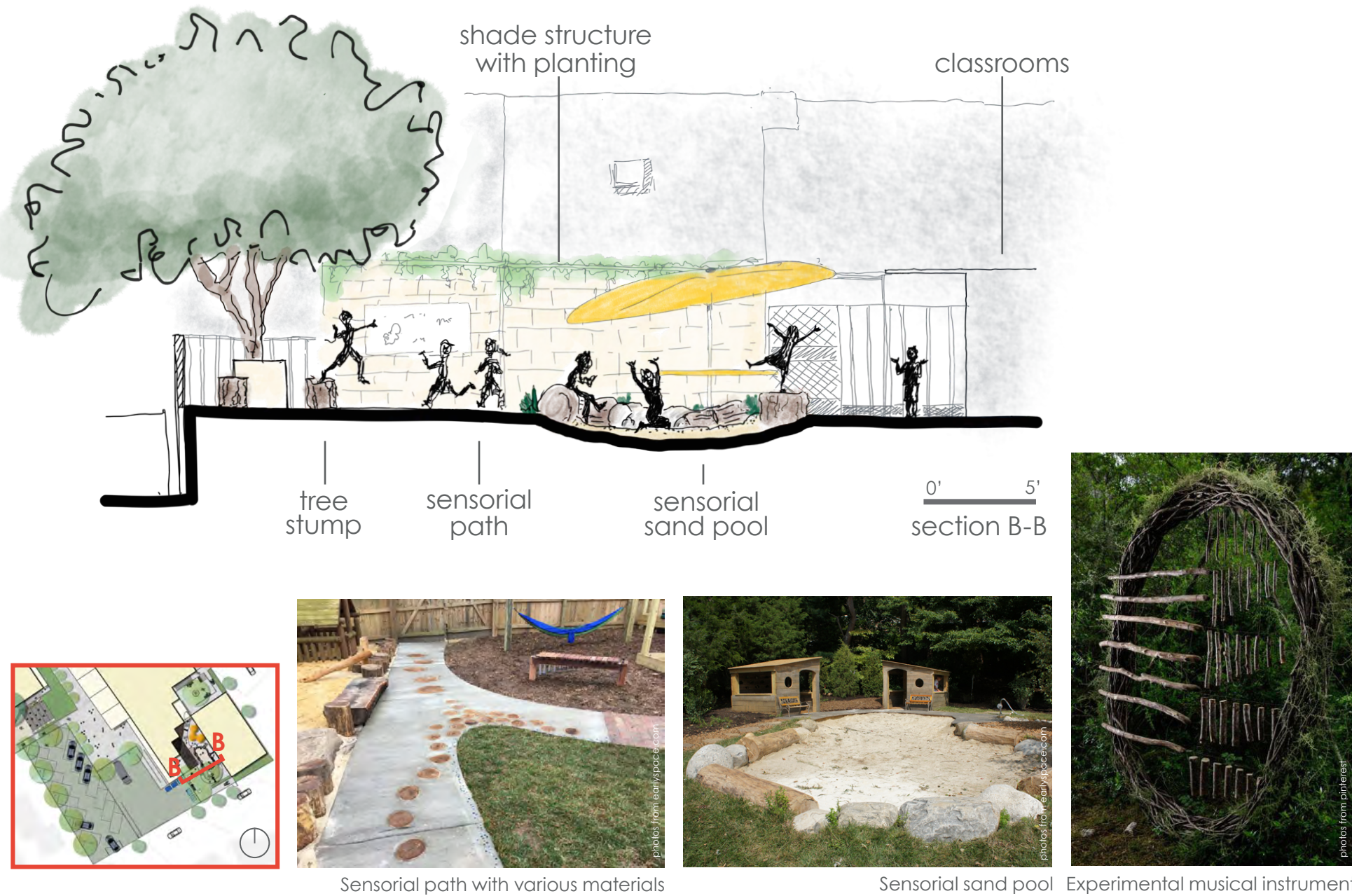
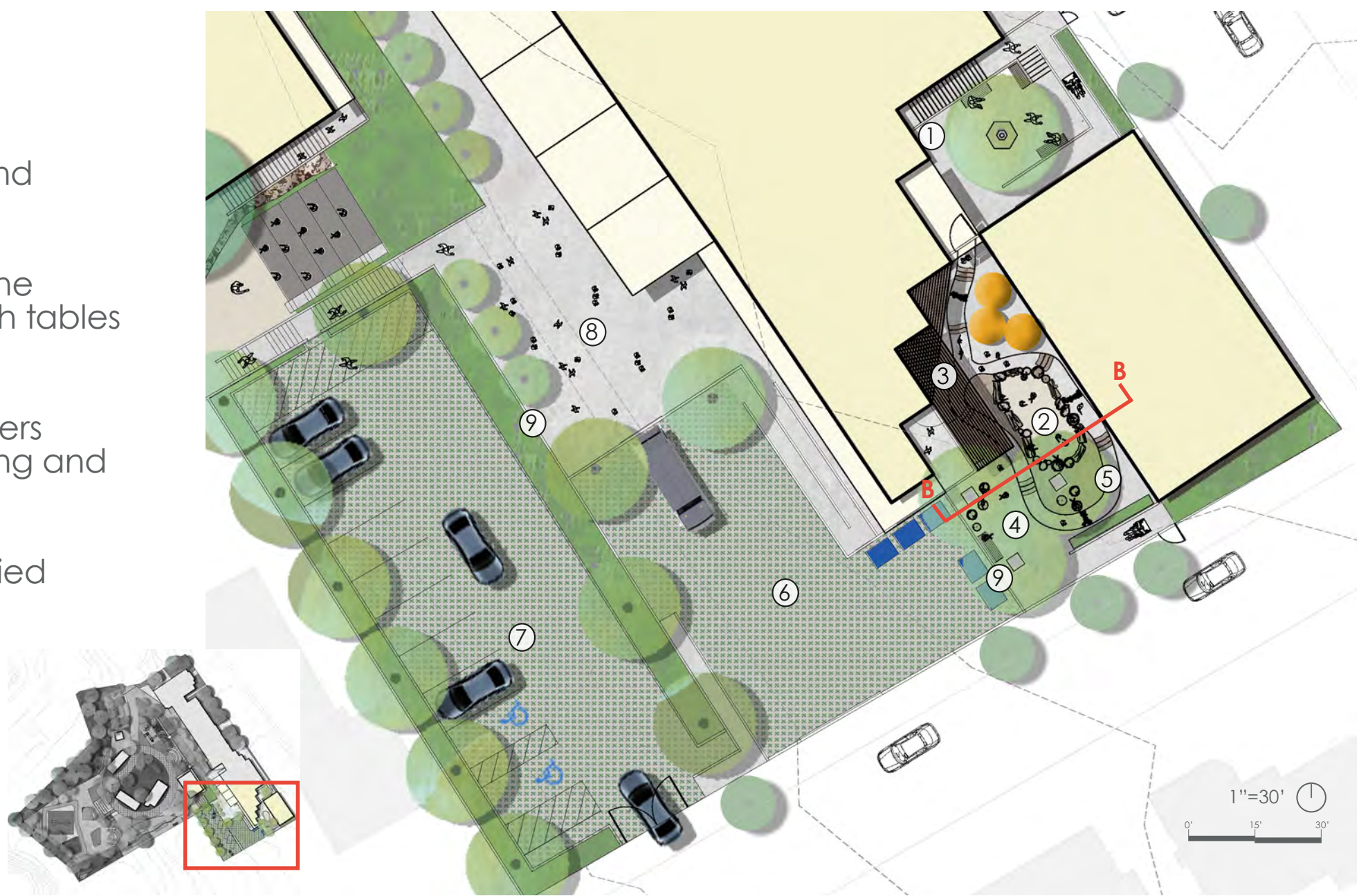


Aldama Elementary School

FINAL DESIGN CONCEPT ENLARGEMENTS

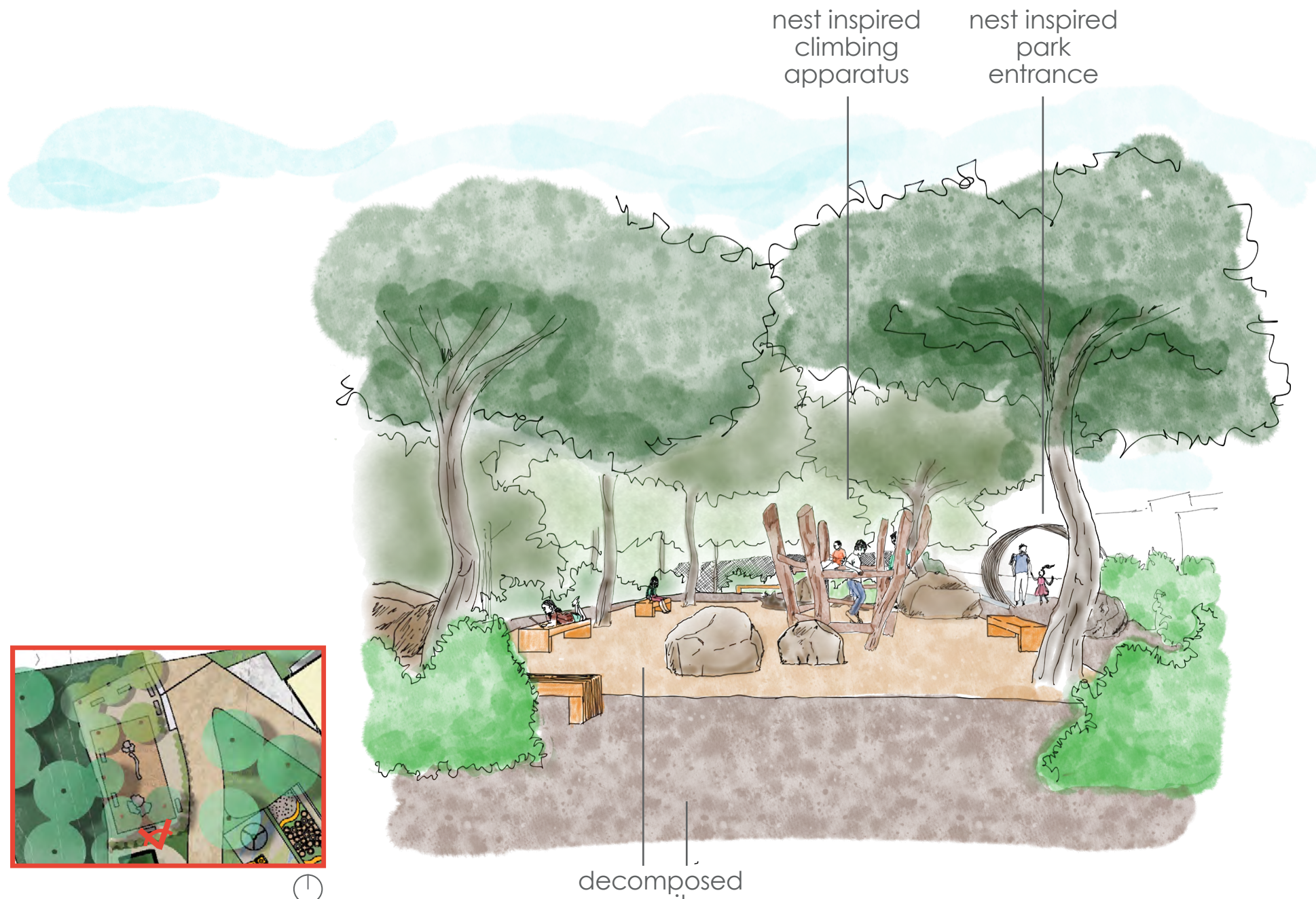
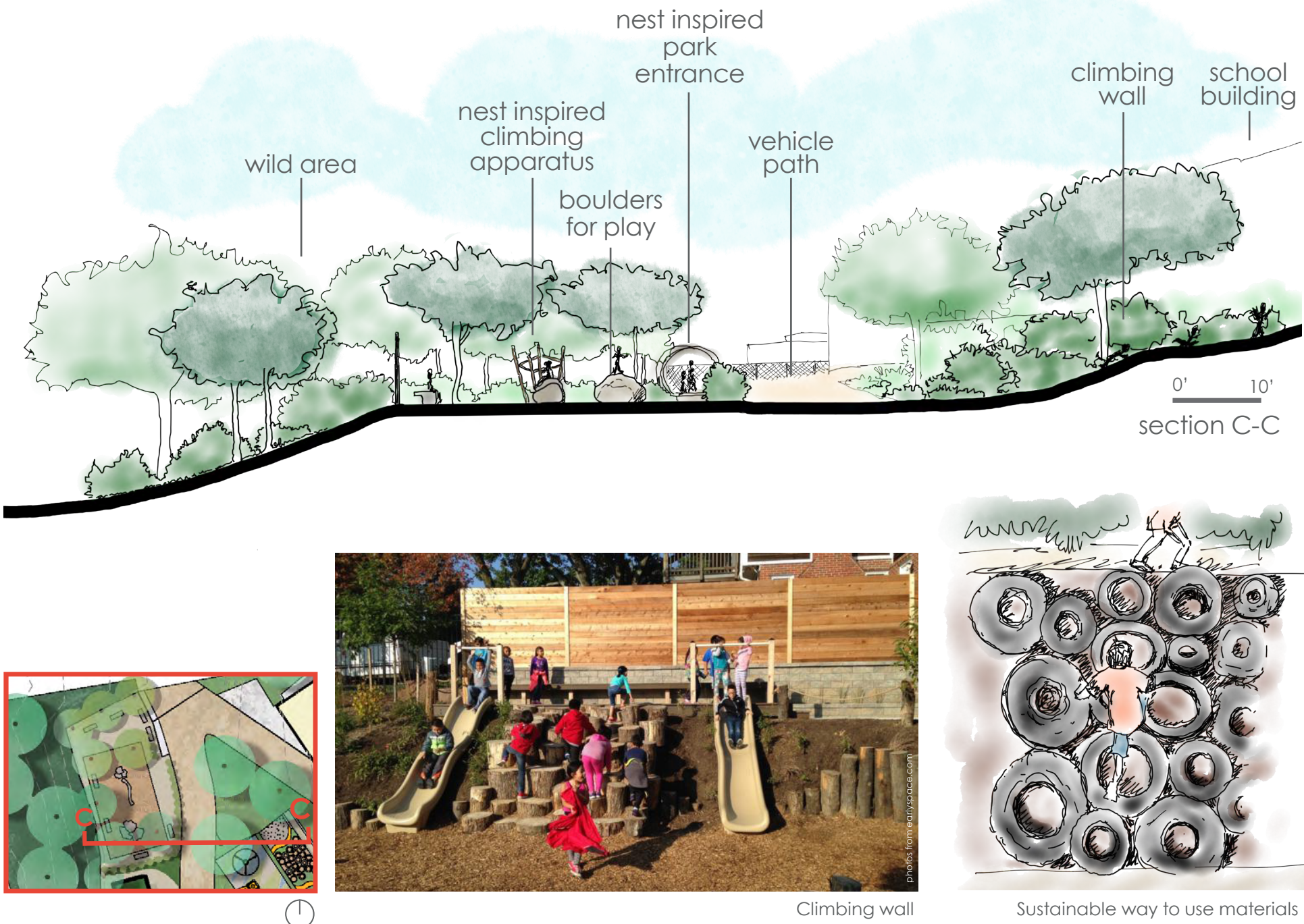
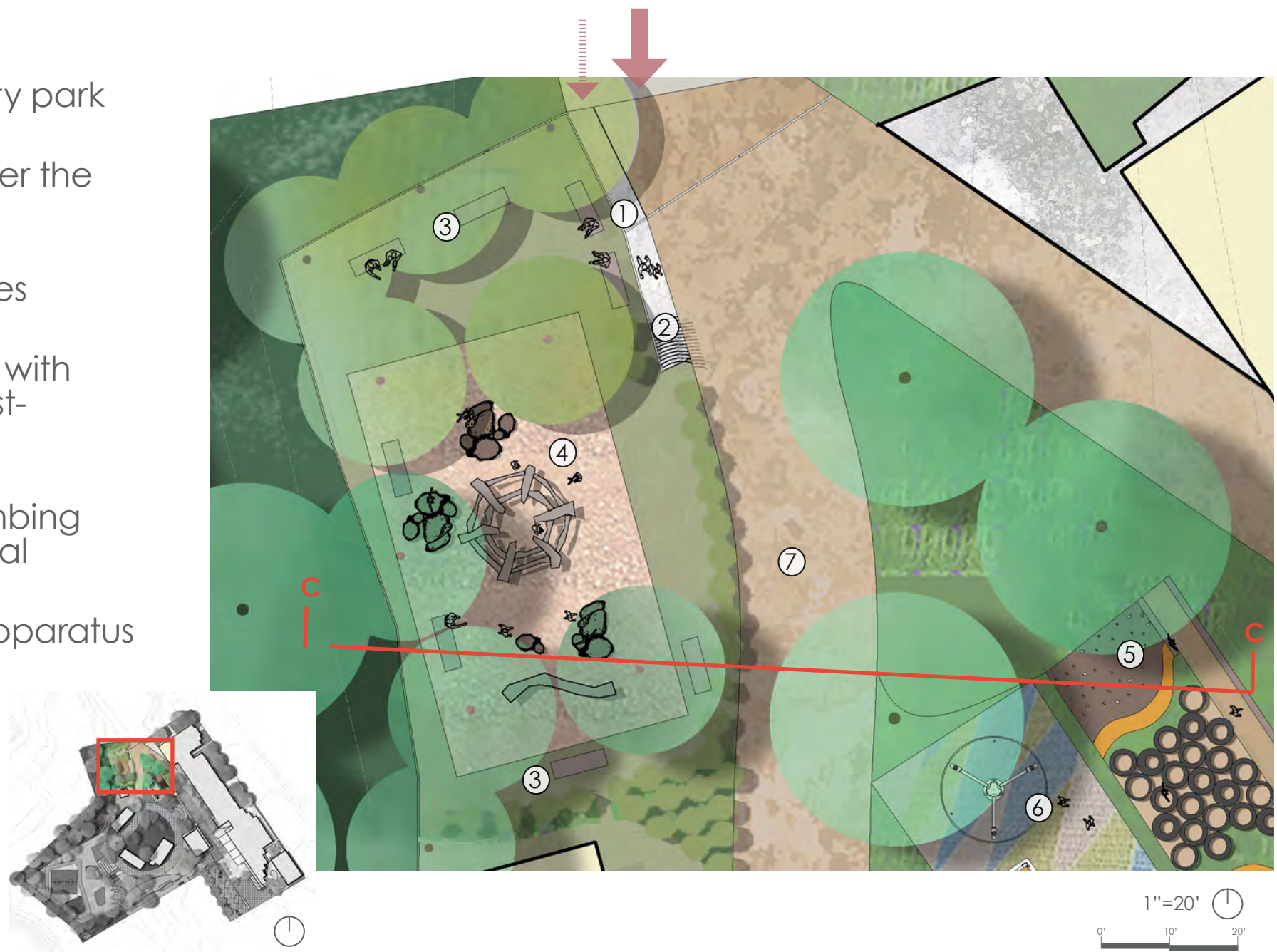
EXPANDED TRANSITIONAL KINDERGARTEN & SPECIAL EDUCATION COURTYARD

- 1. shaded teacher's courtyard
- 2. sensorial sand pool surrounded by tree log and boulders
- 3. overhead trellis with vine growing over an area with tables for outdoor gathering
- 4. small size trees in planters over tree stumps for seating and playing
- 5. sensorial path with varied materials
- 6. service area with grasscrete surface
- 7. shaded parking with grasscrete surface
- 8. luncheon area
- 9. retaining wall



COMMUNITY PARK

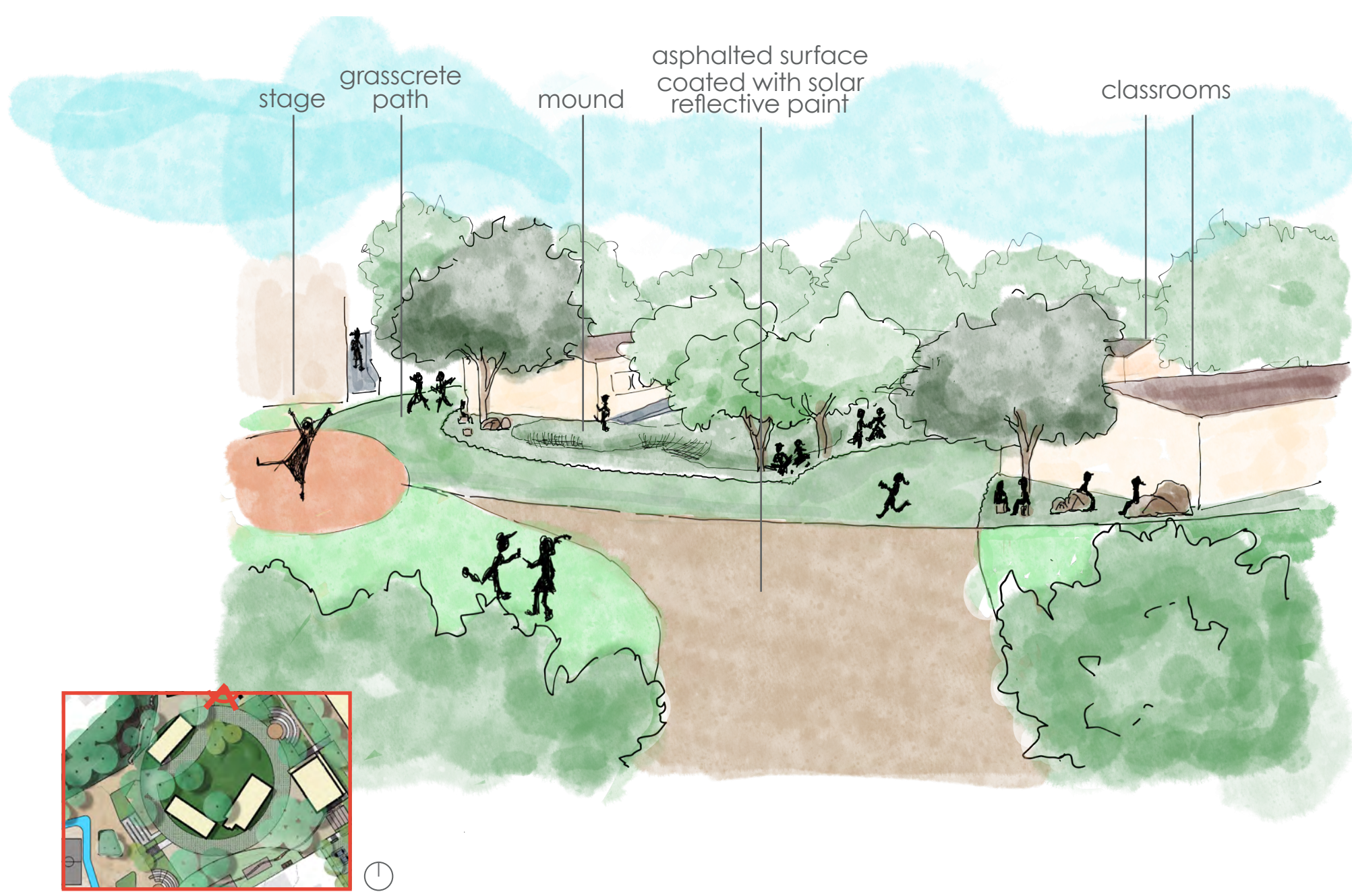
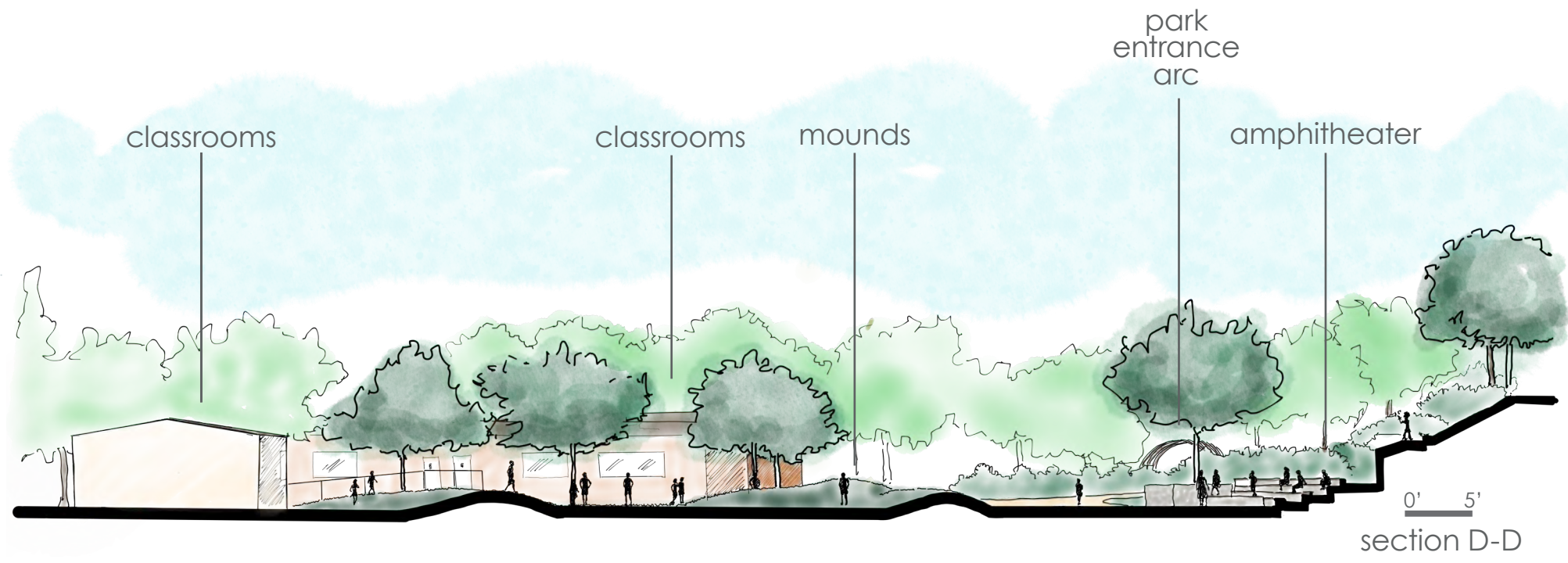
- 1. entrance to community park
- 2. nest inspired arc to enter the park
- 3. seating area under trees
- 4. nature like playground with boulders, stumps and nest-inspired play apparatus
- 5. seating, slide, and climbing wall with recycled material
- 6. existing playground apparatus relocated
- 7. asphalt painted with reflective coating to reduce solar-induced heat build-up





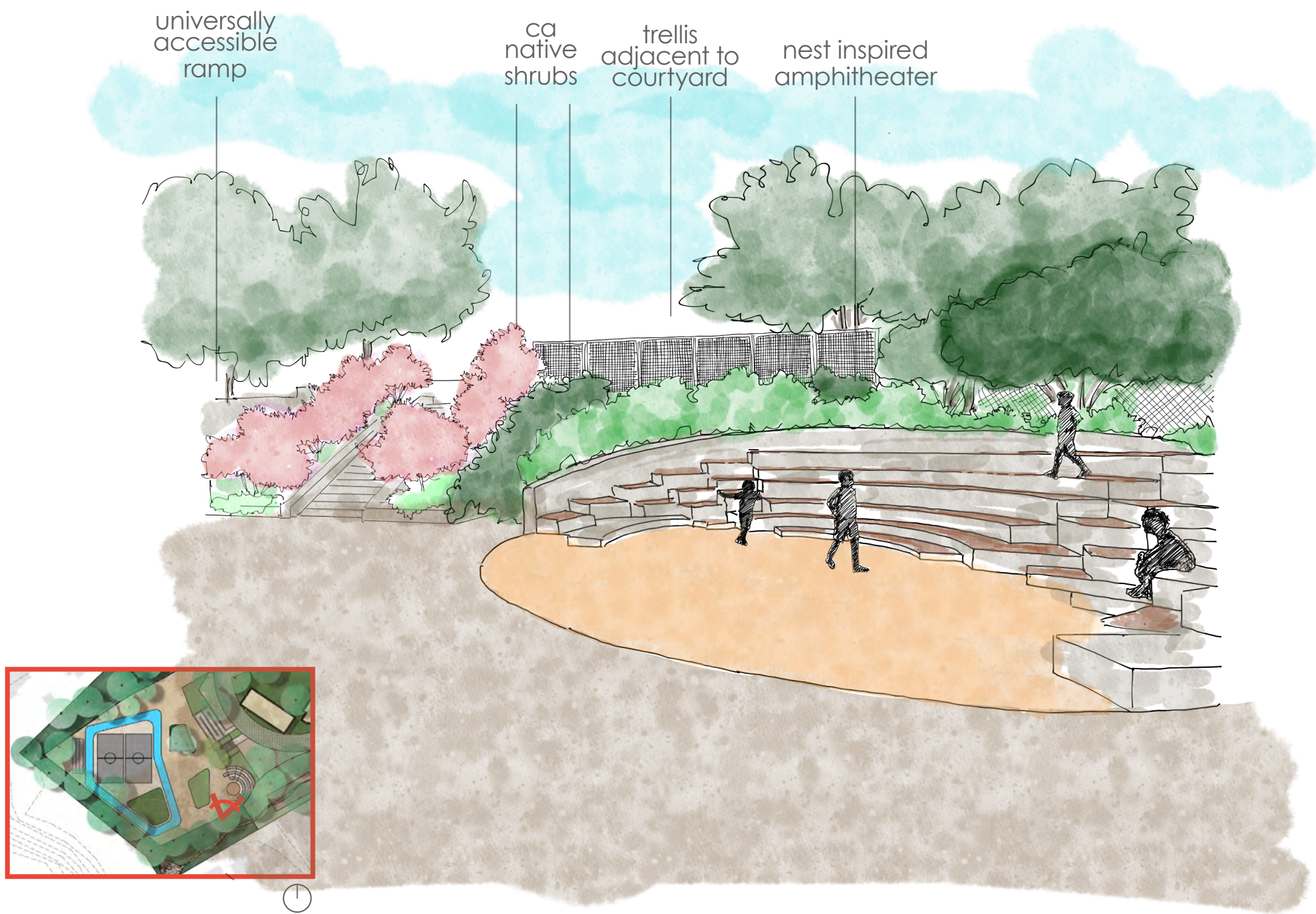
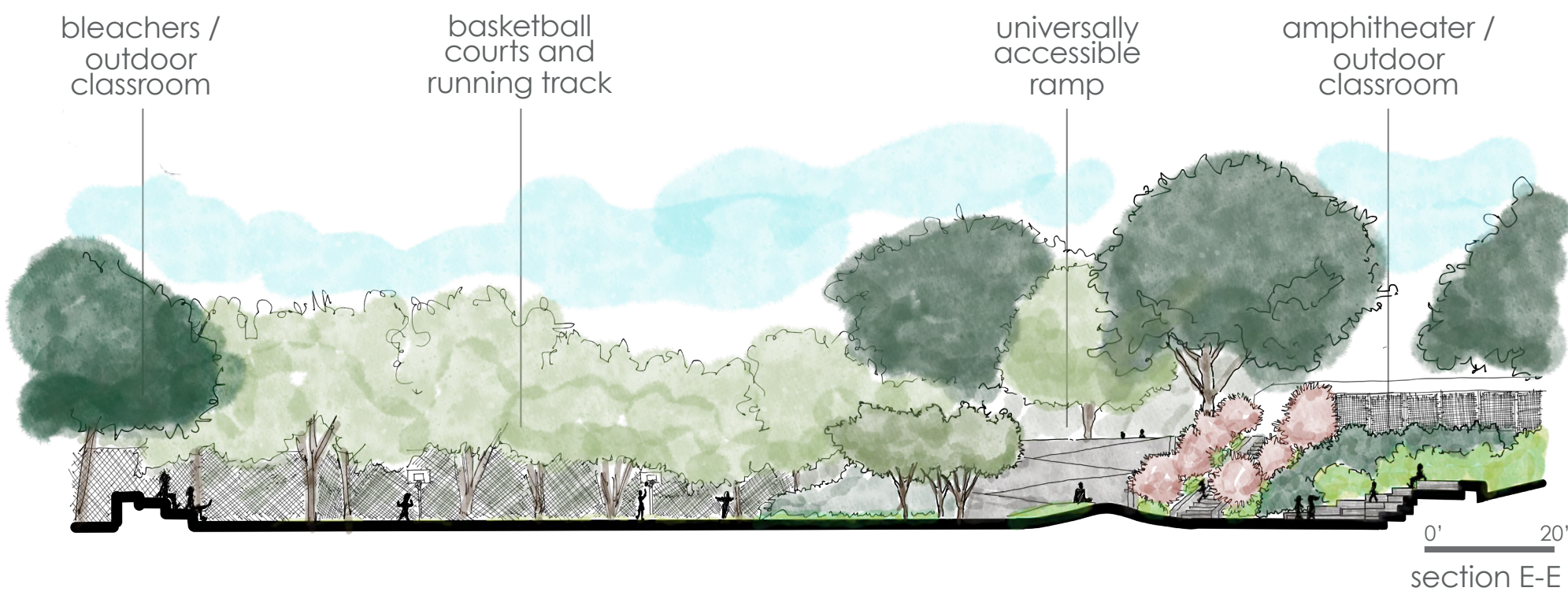
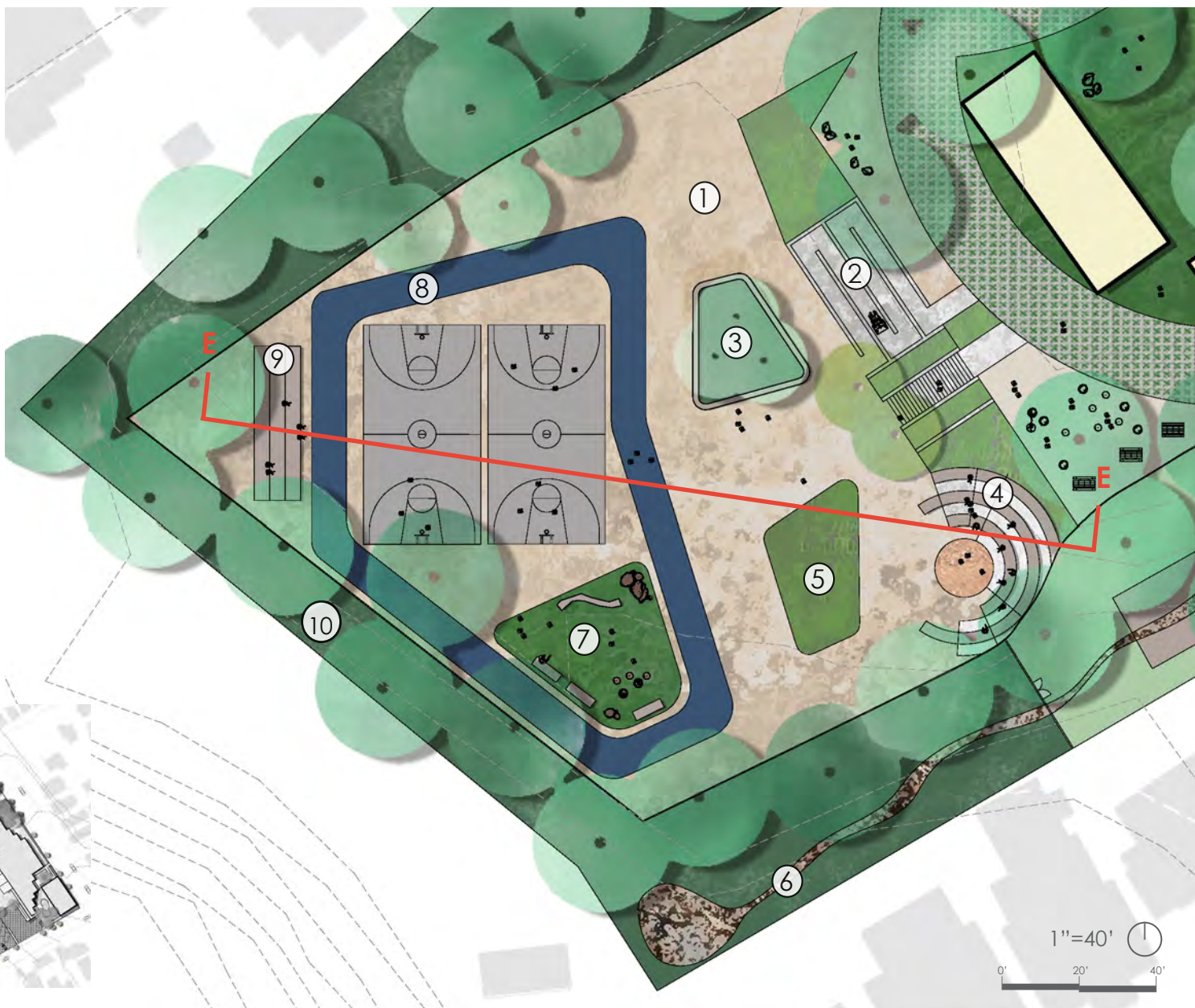
MAIN COURTYARD

- 1. open lawn courtyard with mounds and trees for playing and gathering
- 2. nest inspired amphitheater / outdoor classroom
- 3. courtyards & outdoor classroom with mulch surface
- 4. butterfly garden with amphitheater & outdoor classroom
- 5. edible garden area / compost bins / outdoor classroom
- 6. grasscrete path and emergency vehicles
- 7. courtyard under the trees with asphalted surface with solar reflective paint



LOWER YARD

- 1. asphalted surface painted with reflective paint
- 2. universally accessible ramp
- 3. tree planter with seating
- 4. nest inspired amphitheater / outdoor classroom
- 5. planting area/ mound to give privacy to amphitheater
- 6. watershed demonstration
- 7. hang out lawn area with seating
- 8. running track
- 9. bleachers seats / outdoor classroom
- 10. nature exploration trail with CA native plants and a dry creek





Aldama Elementary School

PERMEABILITY & TREE CANOPY CONCLUSION

PERMEABILITY & TREE CANOPY BEFORE GREENING



- **74%** impermeable surface
- **29.5 %** of school site has tree canopy cover
- **ONLY 6.5 %** of play area has tree canopy cover

PERMEABILITY & TREE CANOPY AFTER GREENING THE YARD



- **25 %** increase of permeable surface
- **30 %** increase of tree canopy
- **29,000 sf** extra wild green area that kids will have access

FINAL DESIGN CONCEPT

