Landscape Takes the Lead in Developing Learning Environments:

Storytelling in the Schoolyard



Introductions



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Jennifer Zell, ASLA, PLA Director of Regenerative Design Studio MIG, Inc.

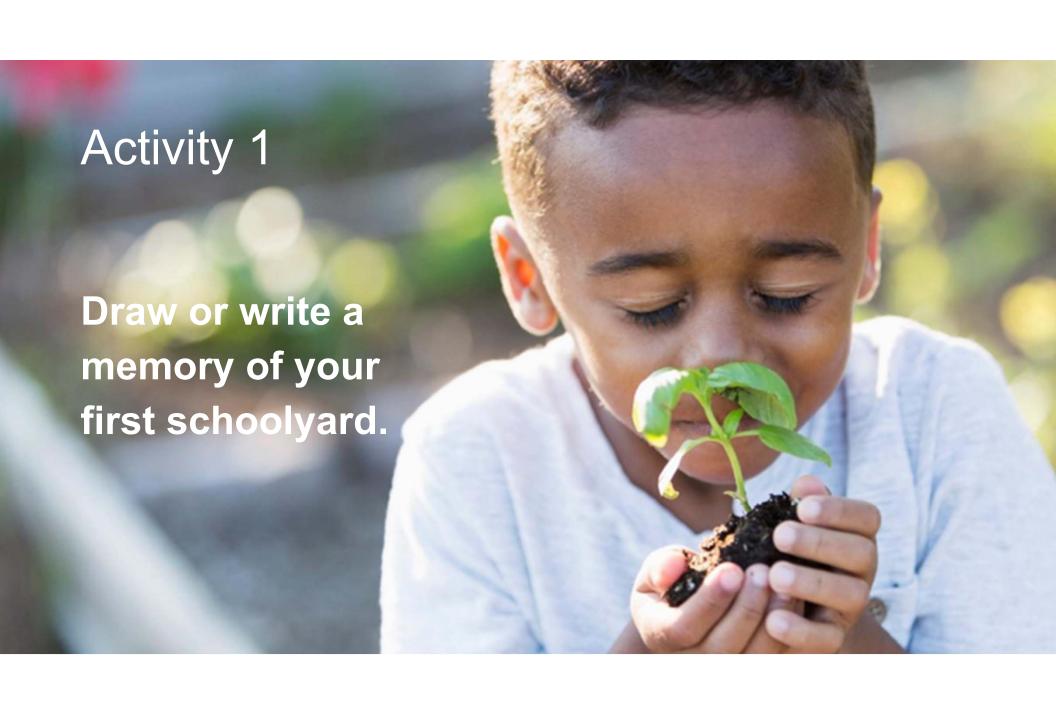


Hongjoo Kim, ASLA, PLA Founder, Principal HKLA, Inc.

Learning Objectives

- 1. Participants will learn different ways of developing outdoor learning environments and green school yards that engage and inspire students.
- 2. Participants will learn how the selection of plants and trees and schoolyard design can provide opportunities for learning nature-based lessons for the teachers and students.
- 3. Participants will learn the value of outdoor learning and connecting with nature.
- 4. Participants will gain knowledge about ways to use story to engage learners of all ages and connect and reflect the school community and culture.







We are LA Unified

- Second-largest school district in the US
- Serve over 400,000 TK-12 students
- 710 square miles
- Includes the City of LA and part of 25 other cities and areas in LA County
- Over 1500 schools and centers
- Over 83,000 students are learning to speak English proficiently
- Students speak English and 154 languages
- Over 78,000 employees

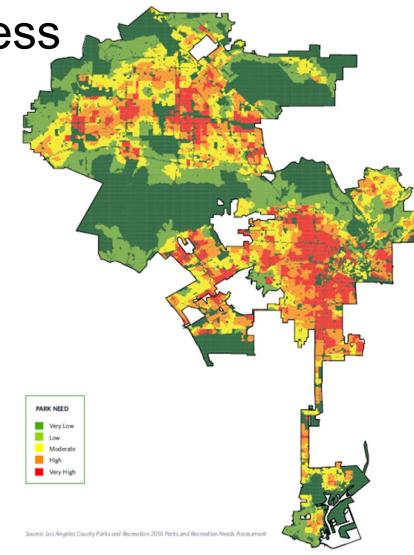




Park Needs and Park Access

 Roughly 4 out of 10 Angelenos do not live within walking distance of a park or open space.

- Residents in low-income communities generally have less access to open space in Los Angeles and suffer from poorer health outcomes.
- In the United States today, more than 1 in 3 children are overweight or obese.
- In LA County, 71.3% of children 6-17 years old do not obtain the recommended amount of exercise each week.



Green Schoolyards For All

Green Schools for All Resolution (September 2022) adopts the standard of 30% green/natural space for all District schools.

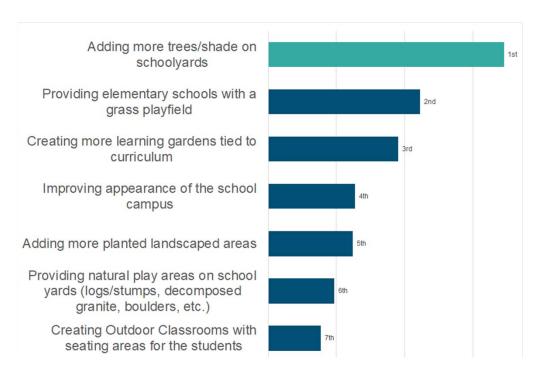
- Over 600 District schools do not meet the Resolution's goal ~ 80% of all schools.
- Approx. 15 Million sq. ft. (350 acres) of paved schoolyard areas need to be upgraded to green/natural space.

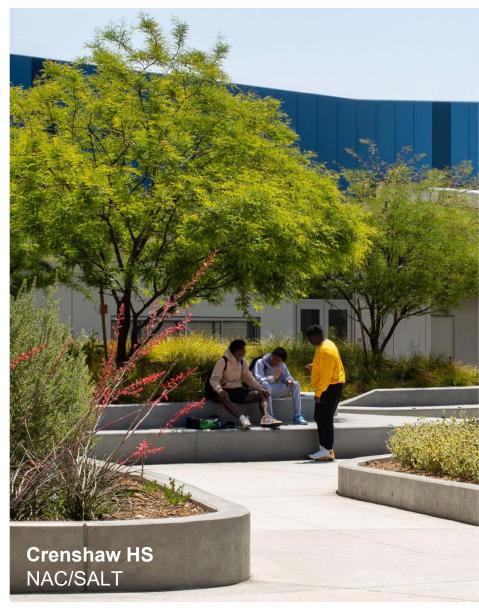
Green Schoolyards for All Plan

- Focus on elementary schools with less than 10% green/natural schoolyards.
- 216 elementary schools ~ 27% of all District Schools.
- Include goal of 20% shading of schoolyard from trees

Community Input

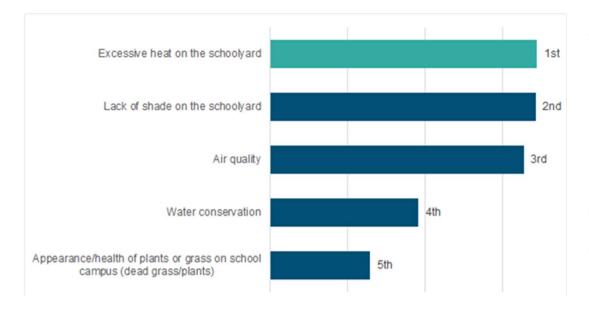
Which do you feel the District should focus on when greening schoolyards?





Community Input

When it comes to climate-related concerns for students on a school campus, which of the following are most important to you?





The Lesson of the Mulberry Tree

A physical facility manifestation of integrated project-based interdisciplinary outdoor learning and environmental education.

Historically in California, elementary schools have a mulberry tree on their sites in support of a silkworm project.

Still a current LAUSD Design Standard.

Standard science focused unit:

- silkworms' dependence on mulberry trees
- how they create silk
- their life cycle
- may also integrate math, history, etc.







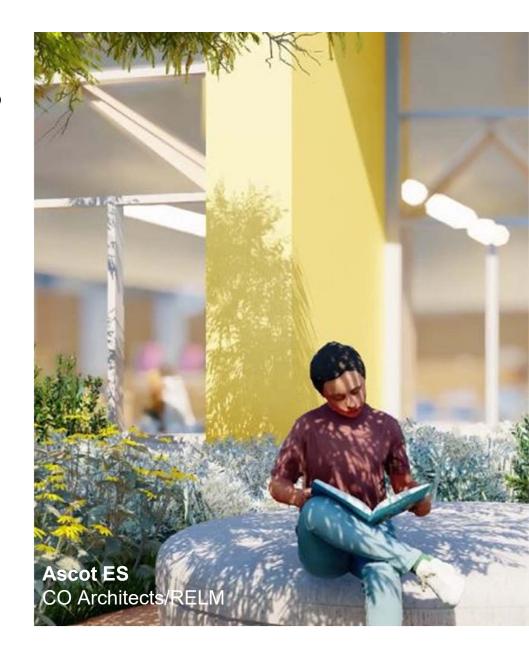
Green Schoolyard Projects

- Over 60 active projects in design and construction
 - 15 GSY Upgrades
 - 29 PACEUPs
 - 16 Major Projects with new GSY
- Our progress (data collected for 104 projects)
 - Increasing permeable Schoolyard from 560,000 sf to over 2 M sf
 - Increase number of trees from 3,500 to over 6,000



Planning for Success

- Join We must be ALL-IN. We need our entire community: architects, landscape architects, maintenance, teachers, students, families, partners
- Maintain We need a plan for Maintenance of Green Schoolyards
- Teach We need to align with Instruction and make nature-based learning accessible and engaging
- Joy We need our Landscape Architects to share their love for nature



Shenandoah Elementary School



Main Play Yard (A)

Outdoor Reading/ Classroom B

Outdoor Platform (C)

Assembly Area (D)

Lunch Shelter (E)

Lunch Queuing Area (F)

Makerspace Yard **G**

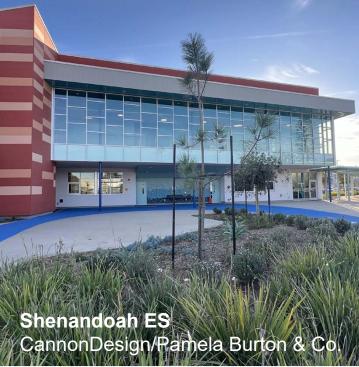
Kindergarten Play Yard H

Field (I

Instructional Garden J

Main Campus Entry (K)

Outdoor Waiting (L)



All-in

- Over 90 architects and landscape architects joined us at a site visit to Shenandoah ES
- Toured with LA, project team
- Lessons Learned
- Creating a Community



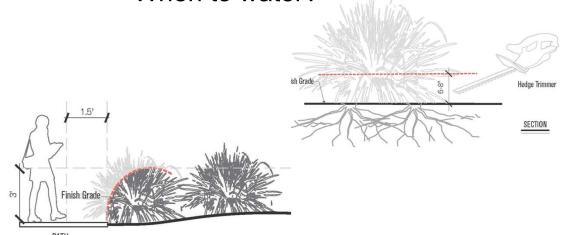




Landscape Manual

- The problem of Maintenance
 - Not enough funding
- Training
 - Learning about native plants
 - What is a weed?
 - How to prune?

When to water?





Aligning with Instruction

Input from all Disciplines, including:

Science, STEAM, Outdoor Education, Physical Education, Social & Emotional Learning, Library Services, Arts, Special Education, Food Services, CTE/Linked Learning

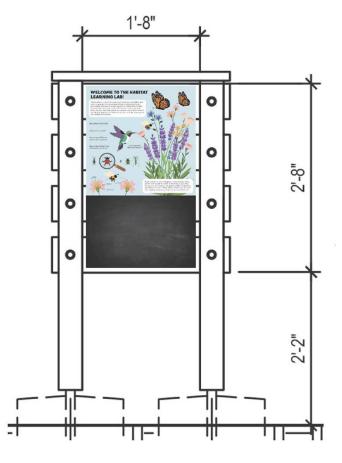
Green schoolyards provide:

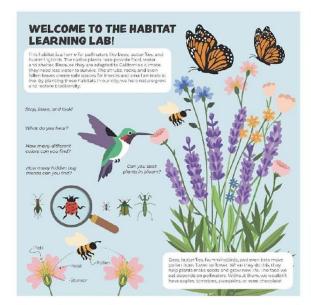
- Nature-based learning experiences and investigation
- Places for movement and physical education
- Places for relaxation and mindfulness meditation
- Break-out spaces for making and creating
- Support for cooperative and collaborative projects
- Classroom spaces for instruction
- Gathering spaces for presentation and performances
- Opportunities to learn career skills including gardening and farming
- Opportunities to build environmental stewardship

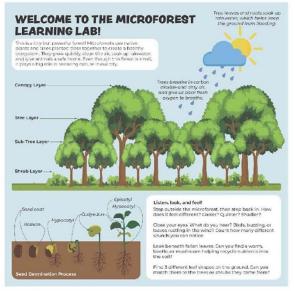




Signage











Landscape Takes the Lead in Developing Learning Environments



LA are in it because they love nature



They want everyone else to love nature, too



Let's listen to them



Why does nature bring you joy?

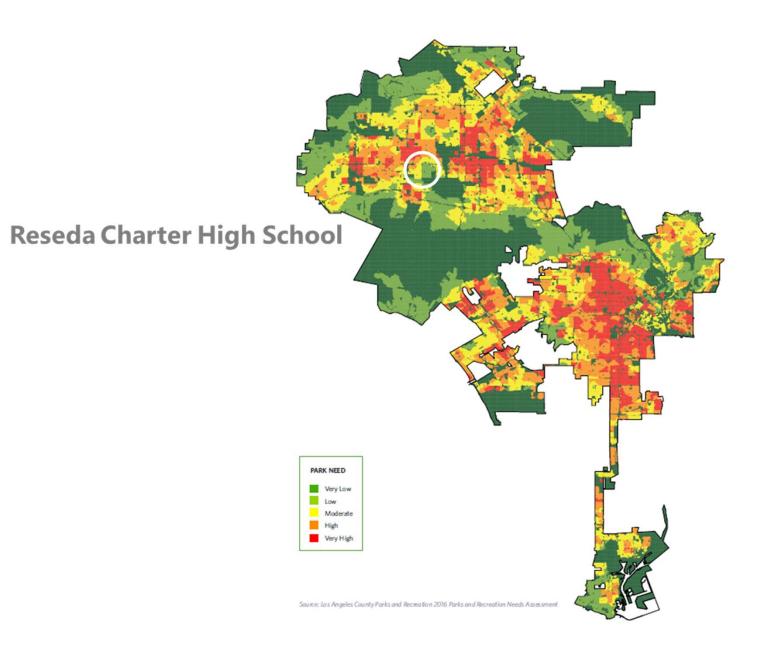


What stories does nature tell you?

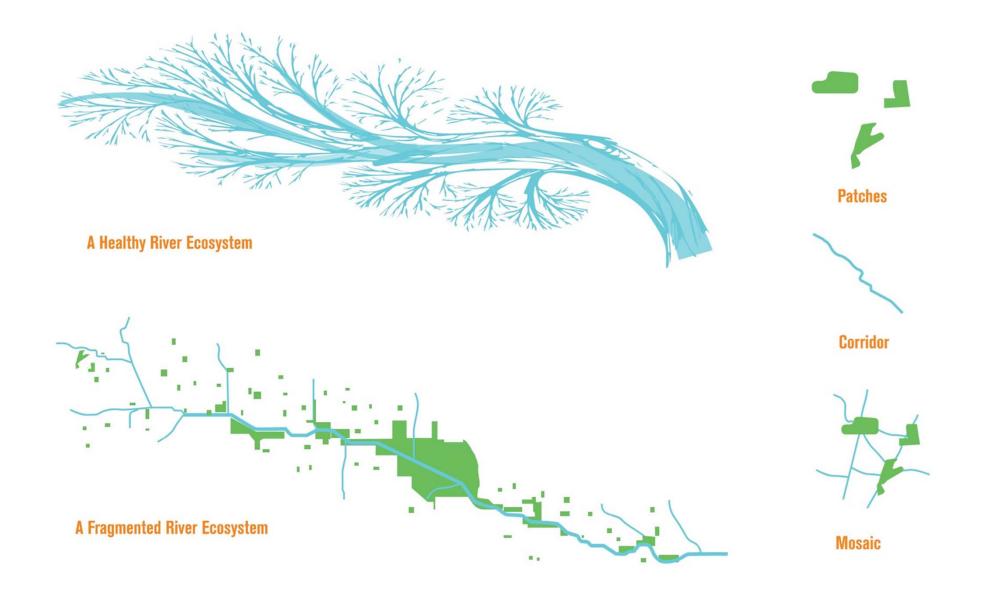


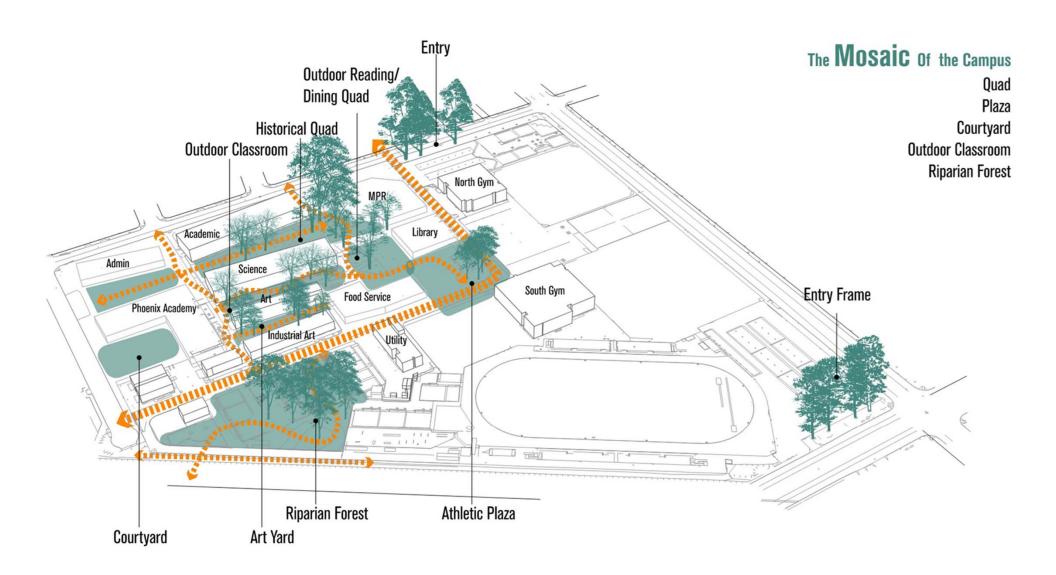
SETTING CHARACTERS PLOT PROBLEM RESOLUTION

SETTING

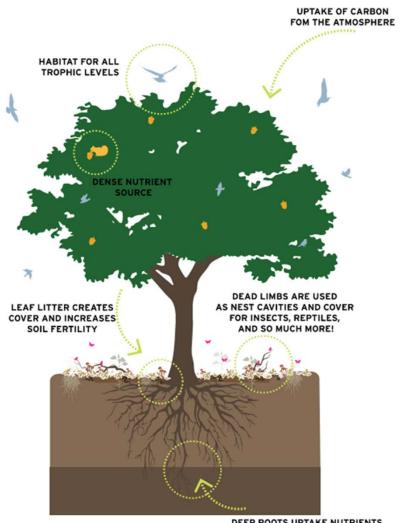




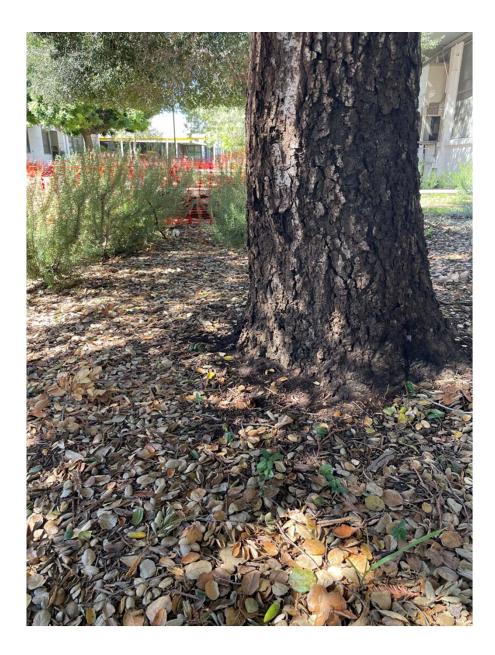




CHARACTERS



DEEP ROOTS UPTAKE NUTRIENTS FROM SUBSOIL AND MAKE IT AVAILABLE TO THE REST OF THE ECOSYSTEM

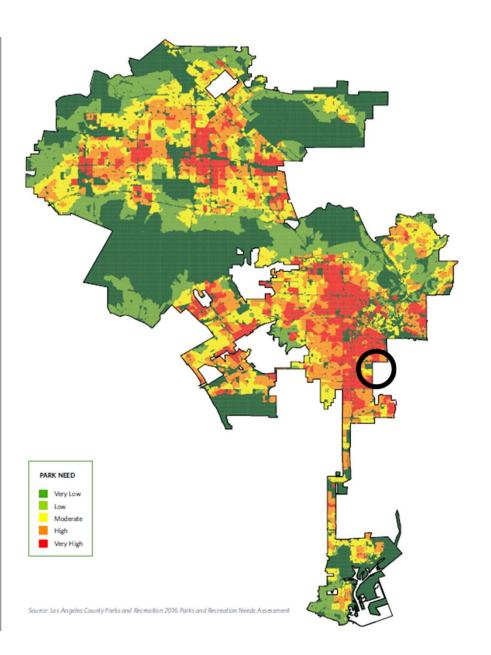


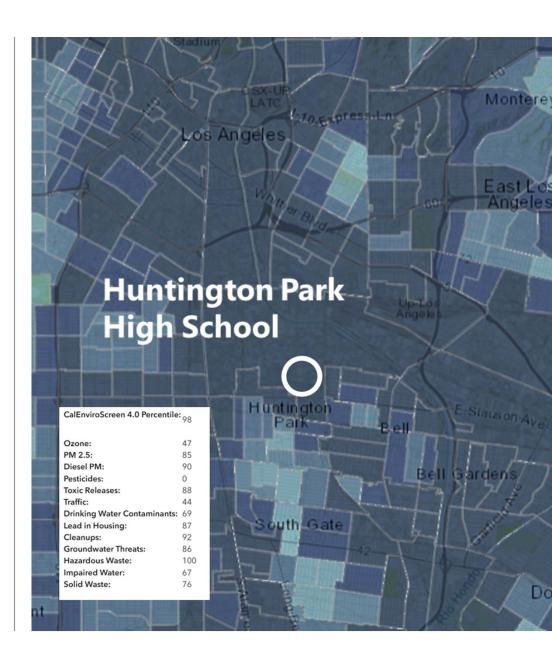


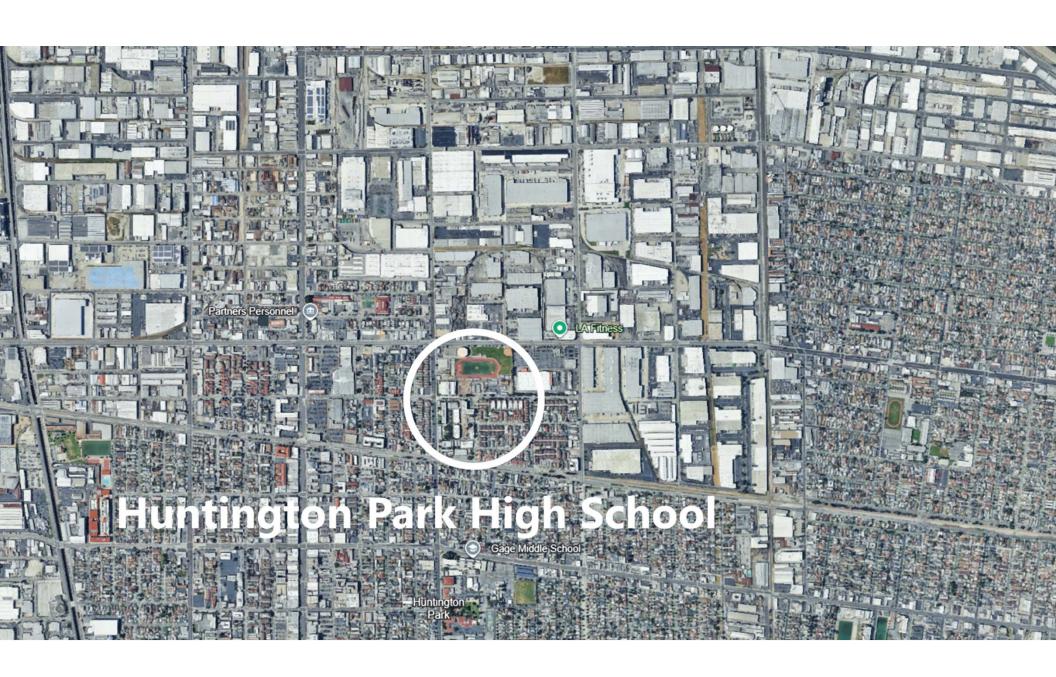




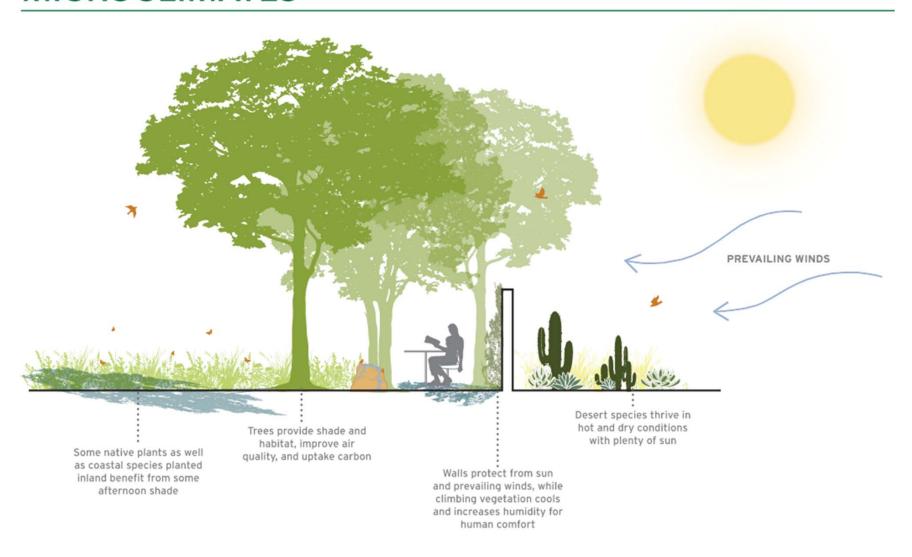
PLOT PROBLEM



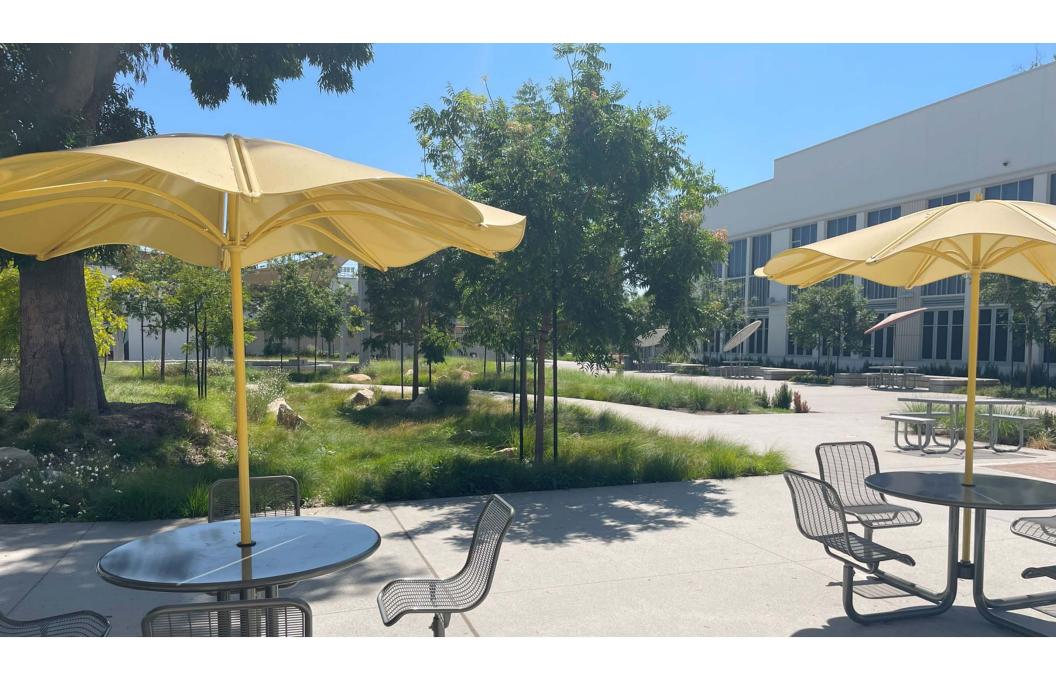




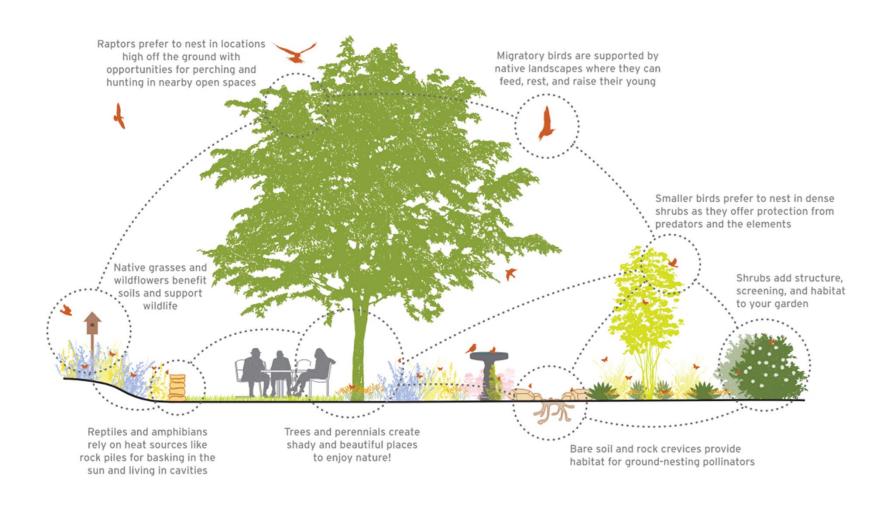
MICROCLIMATES







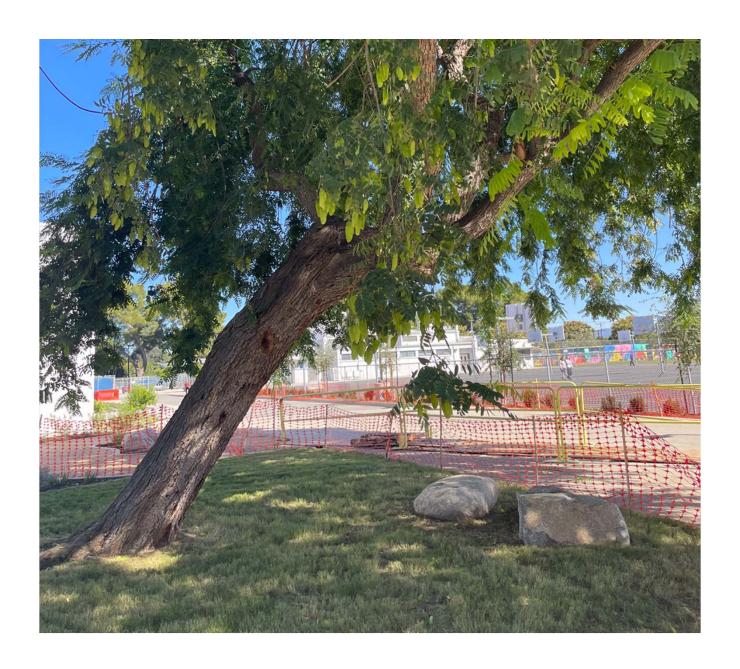
HABITAT STRUCTURE

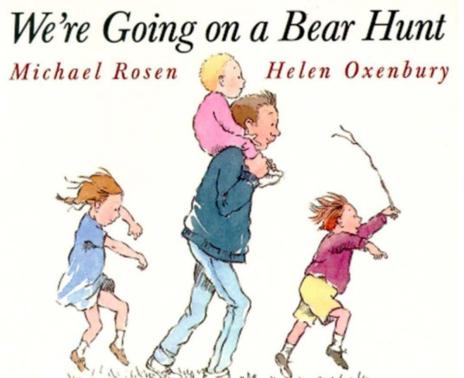






RESOLUTION



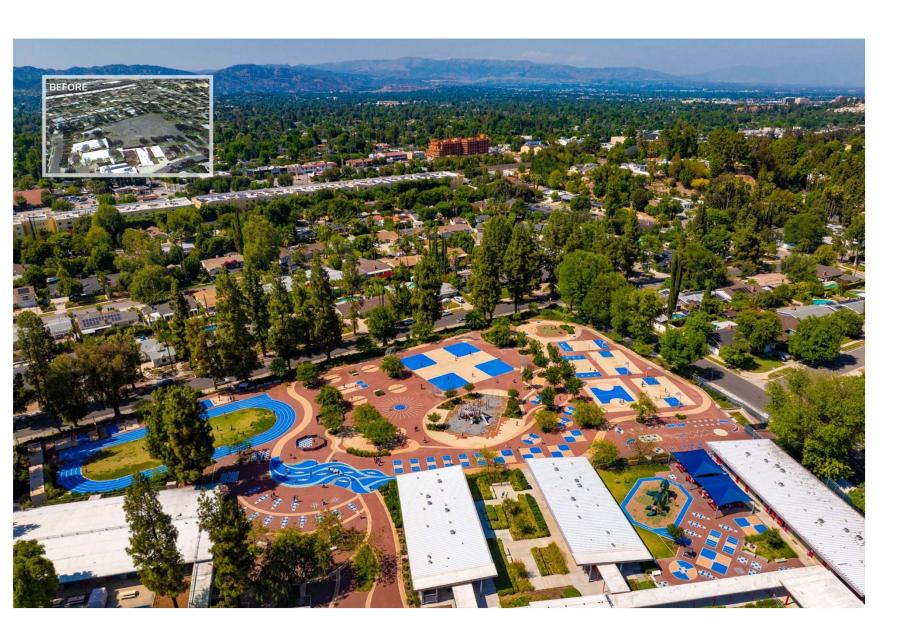






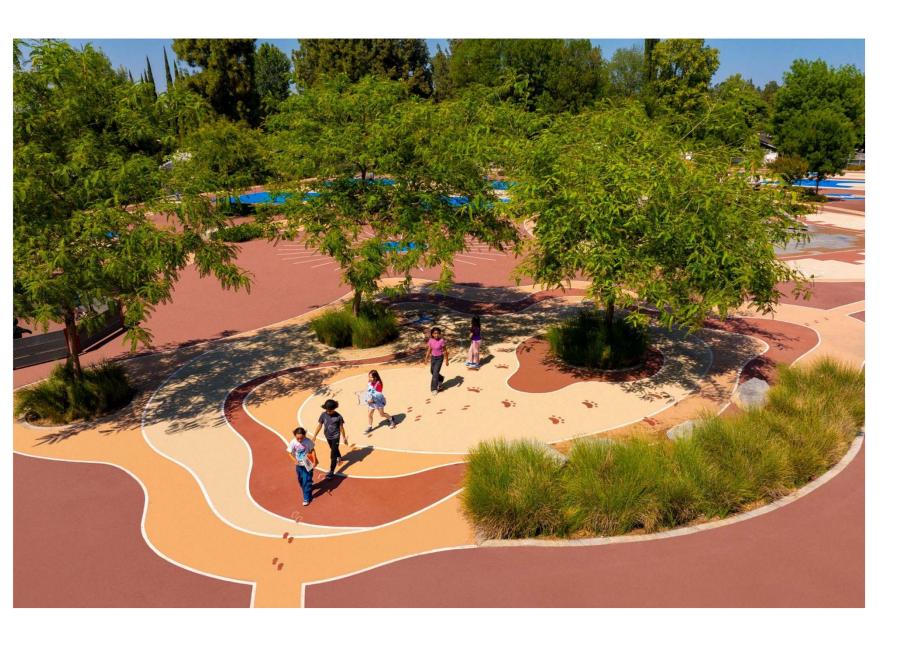






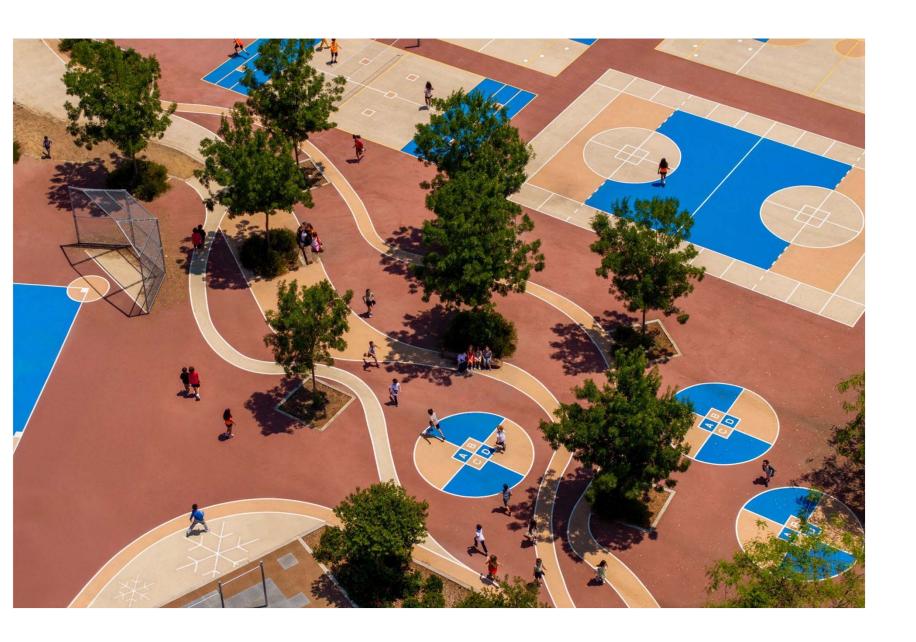












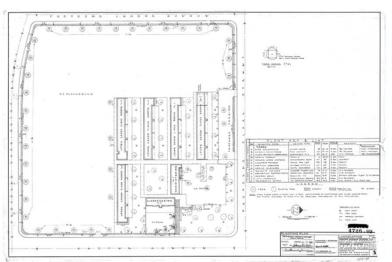


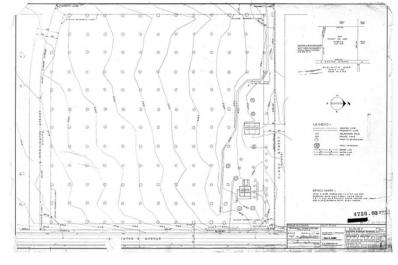
DESIGN NARRATIVE

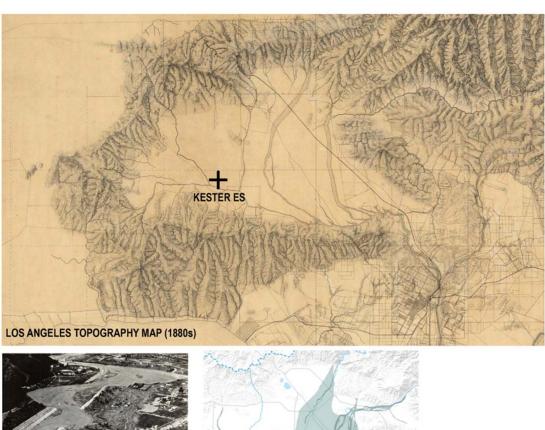
The outdoor environment at Kester Elementary School serves as a living canvas that intertwines the site's ecological history with its architectural heritage.

This design juxtaposes the organic, meandering forms of the pre-channelized Los Angeles River and its wetlands with the rectilinear, grid-based design language of Richard Neutra, who emphasized harmony between built environments and nature.

By overlaying organic patterns reminiscent of historical waterways onto the school's existing grid layout, the design aims to educate and inspire students about the importance of environmental stewardship and the interconnectedness of natural and built environments.









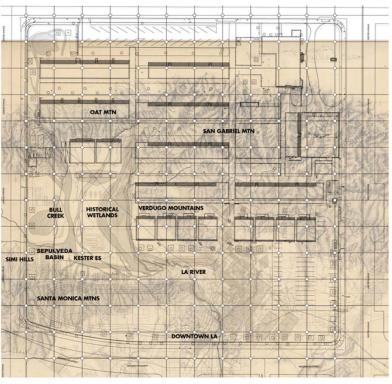
This aerial view of the 1938 flood from above Victory Blvd, shows breaches in paved levees in and below a sharp curve in channel alignment. Source: USACE, 1938.



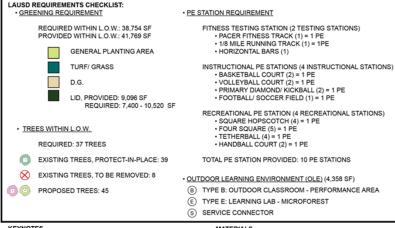
Areas Subject to Inundation Historical Wetlands Historical River Paths (1815-1889) LA Watershed

Current LA River Path









KEYNOTES		MATERIALS	
	LIMIT OF WORK (L.O.W.)		AC PAVING WITH COLOR COATING, SR SUNBAKED CL
	FIRE LANE		AC PAVING WITH COLOR COATING, SR FAWN
	60' X 60' PAVED OPEN SPACE		AC PAVING WITH COLOR COATING, SR TERRA COTTA
	PRE-K/KINDER DISPERSAL AREA		AC PAVING WITH COLOR COATING, SR SAFETY BLUE
	1-5 DISPERSAL AREA		AC PAVING SEAFOAM
	OLE DISPERSAL AREA		CONCRETE PAVING (BETWEEN AC PAVING AND DG)
	NON-CERTIFIED BUILDING 20' OFFSET ZONE		D.G.
1	AMPHITHEATER	16	PRIMARY DIAMOND/KICKBALL
2	OUTDOOR STAGE	17	AIRPLANE HOPSCOTCH
3	RETAINING WALL	18	SOCCER FIELD
4	ADA ACCESSIBLE RAMP	19	TETHERBALL
(5)	PROPOSED PLANTING AREA	20	BASKETBALL COURT
6	ENLARGED EXISTING TREE WELL	21)	VOLLEYBALL COURT
7	PACER FITNESS TRACK	22)	FOUR SQUARE
8	TRACK/50 M DASH	23)	HORIZONTAL BAR
9	TRASH ENCLOSURE	24)	PICK UP/DROP OFF AREA
10	RELOCATED CONTAINERS	25)	MULBERRY TREE
11)	BERM	26)	RESTROOM
12	ACTIVITY STATION	27)	DRINKING FOUNTAIN
13	HANDBALL COURT	28)	EXISTING RAISED PLANTER
14)	LID (TYP.)	29	EXISTING SINK
15)	1/8 MILE RUNNING TRACK		

BEFORE (CURRENT), GSY CALCS (PROVIDED IN GSY VIEWER)

CURRENT SCHOOLYARD SF: 233,033 SF

CURRENT GREEN/NATURAL, SF: 38,611 SF

CURRENT GREEN/NATURAL, SF: 72,925 SF

CURRENT GREEN/NATURAL, %: 17%

CURRENT GREEN/NATURAL, %: 31.3%

CURRENT # OF TREES: 119

CURRENT # OF TREES: 145,741 SF

CURRENT TREE SHADE, SF: 45,741 SF

CURRENT TREE SHADE, SF: 68,150 SF

CURRENT TREE SHADE, %: 19.6%

CURRENT TREE SHADE, %: 29.2%



P-22 STORY

P-22 was a famous mountain lion who gained celebrity status for living in Los Angeles's Griffith Park after crossing two major freeways, the 101 and 405. His story became a symbol of wildlife conservation and led to public support for building the Wallis Annenberg Wildlife Crossing, which is intended to connect isolated habitats. After living in the city for about a decade, he was euthanized in December 2022 due to age, disease, and injuries from a car collision.

Journey to Griffith Park: P-22, initially from the Santa Monica Mountains, crossed the 405 and 101 freeways to find a new home in Griffith Park, a relatively small territory for a mountain lion.

Urban celebrity: He became a local icon, known as the "Brad Pitt of the mountain lion world," with his life documented through doorbell cameras and radio collars. His presence, living in proximity to humans, captivated the public.

Inspiration for conservation: His unique story raised awareness about the challenges urban wildlife face, particularly habitat fragmentation caused by freeways. This inspired the movement to build the Wallis Annenberg Wildlife Crossing, the world's largest wildlife overpass, to help other animals travel safely between mountain lion populations.

Later life and death: P-22's health declined, and he was captured in December 2022 after an encounter with a car. An examination at the San Diego Zoo revealed he had multiple illnesses and injuries, leading authorities to humanely euthanize him.

Legacy: P-22's legacy continues through efforts like the Wallis Annenberg Wildlife Crossing and public awareness campaigns. His story is remembered through events, museum exhibits, and murals, with people continuing to support his cause and celebrate his life.









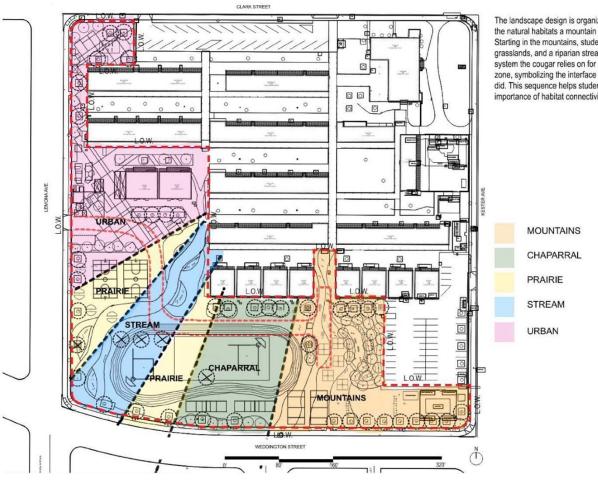
"COUGAR PATH"

Our elementary school landscape design is inspired by the mountain lion, a symbol of resilience and ecological balance in Southern California. At the heart of the story is P-22, the iconic cougar who crossed two major freeways to reach Griffith Park. His journey highlights the challenges wildlife face in navigating fragmented habitats and inspires our design's central theme: reconnection.

The site features a stream-inspired learning corridor, designed as a dry arroyo that mimics natural water flow and riparian ecosystems. This space serves as both stormwater infrastructure and an outdoor classroom, guiding students through the story of water and its role in sustaining life. Native plants like mulefat, sycamores, and rushes support biodiversity and create daily sensory experiences.

Surrounding the stream, the planting zones reflect local foothill ecologies—coastal sage scrub, chaparral, and oak woodland—bringing ecological restoration into the learning environment. Shaded paths curve through the site like wildlife corridors, encouraging movement, exploration, and reflection.

This landscape tells a living story—of mountain lions, like P-22, navigating an urban world, and of students growing in a space where nature is both teacher and companion. It's a tribute to ecological resilience, wildlife connectivity, and the importance of designing with nature in mind.



The landscape design is organized into a series of ecozones that mirror the natural habitats a mountain lion moves through in Southern California. Starting in the mountains, students journey through chaparral, prairie grasslands, and a riparian stream zone, each representing a key ecological system the cougar relies on for survival. The path culminates in an urban zone, symbolizing the interface where wildlife and city life meet—just as P-22 did. This sequence helps students understand ecological transitions and the importance of habitat connectivity.





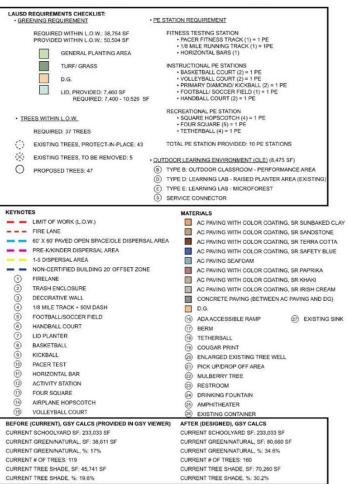




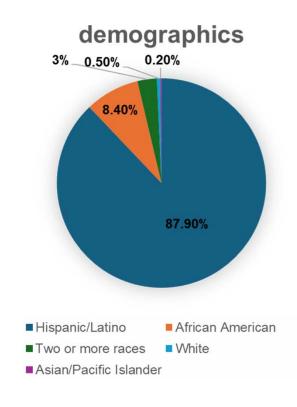


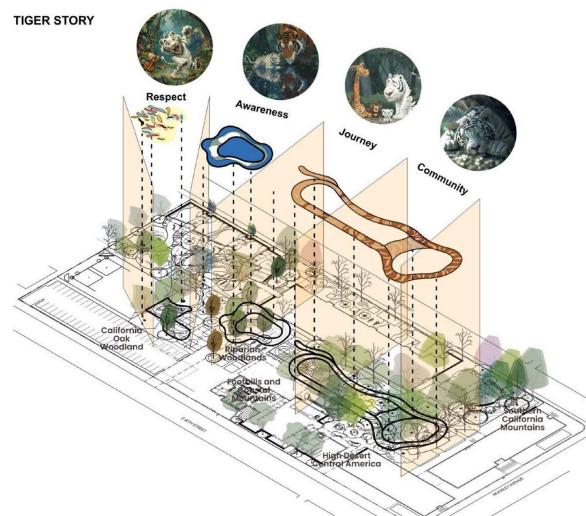






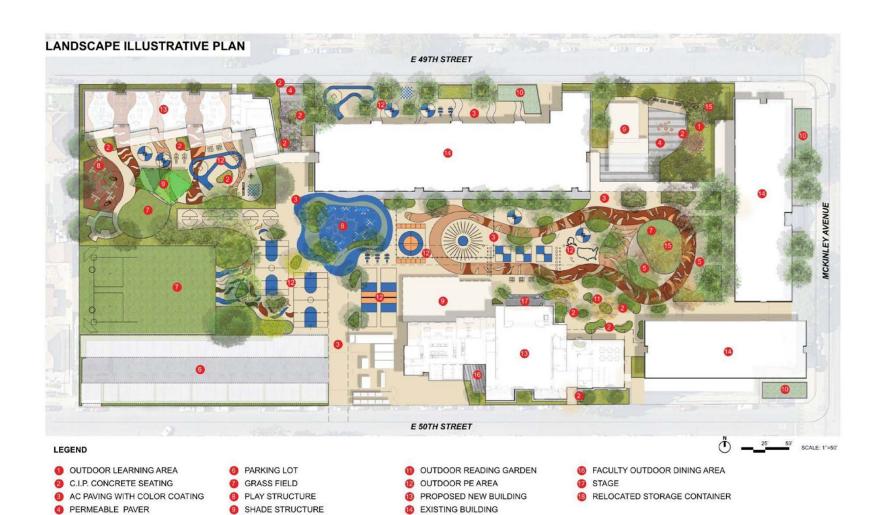








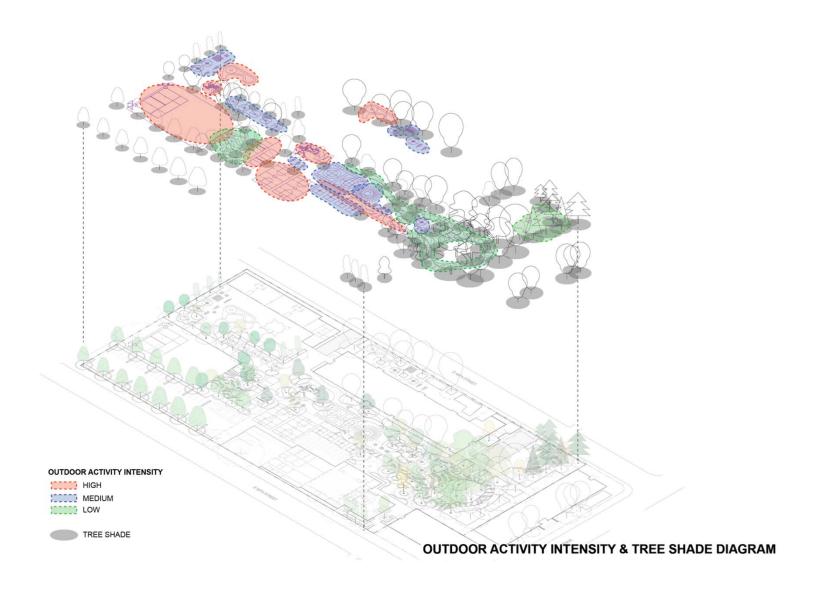
One day a tiger woke up without his stripes, going all around he felt lost saying he wasn't a tiger because a tiger has stripes. He tried to be a monkey, but he couldn't climb trees like they did. Then he tried to be a giraffe, but his neck wasn't that long. He thought maybe it could be a lion, but he didn't have a nice mane. A wolf couldn't be either because it didn't know how to howl, nor an elephant because it didn't have a trunk. An old tiger had been watching his spiral all day when he told him come here let's go to the river, the older tiger took the younger one to see his reflection, telling him he had looked everywhere for his stripes except looking within himself. The old tiger told him it doesn't matter if you have stripes or not that is not what makes you a tiger but what's within and how you feel that does.



(B) BERM

6 DG PAVING

BIOSWALE PLANTER



NORTHEAST OUTDOOR LEARNING - "FOREST" AREA **KEY PLAN** Type "A" Outdoor Classroom -Group Learning Area Type "B" Outdoor Classroom -Performance Area Type "C" Learning Lab -Habitat Planting Area Type "D" Learning Lab -Raised Planter Area Type "F" Learning Lab -Active Play Area



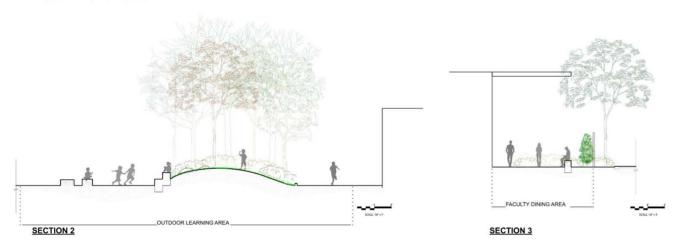


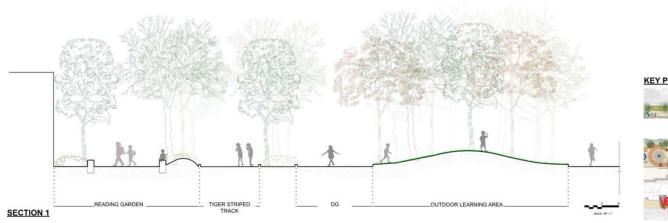
KINDERGARTEN & EX. OAK TREES





LANDSCAPE SECTIONS

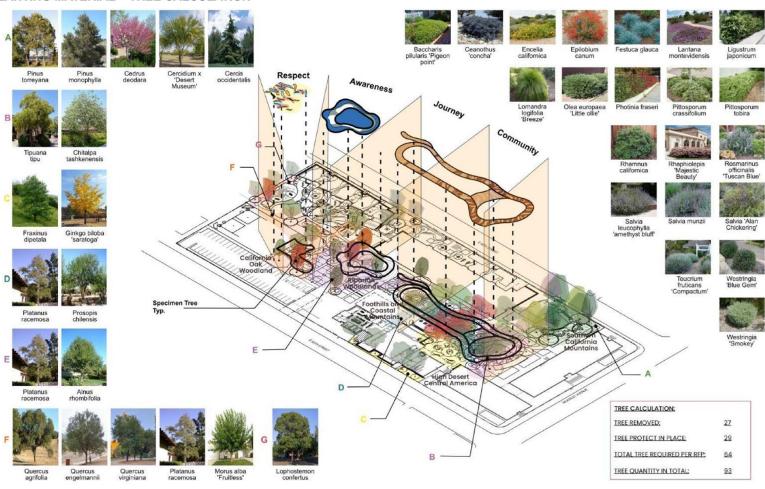








PLANTING MATERIAL + TREE CALCULATION





Call to Action

Call to Action

- Engage with Landscape Architects on your projects as your partner in creating engaging and inspiring learning environments
- 2. Observe students playing and learning outside in a natural setting; incorporate what you observe into your project design.
- 3. Engage with instruction regarding nature-based and outdoor learning.