

**IBHS FIRE RESILIENCE
DESIGN COMPETITION
SUBMISSION**
UC Berkeley 2024

TIER 1 (LEAST EXPENSIVE OR DO IT YOURSELF)

- REGRADE AND REPLACE EXISTING LANDSCAPING WITHIN A 5’ PERIMETER FROM THE BUILDING ENVELOPE WITH CRUSHED GRANITE OR HIGH POROSITY GRAVEL
- REMOVE ALL TREES WITH TRUNKS INSIDE THE 5’ PERIMETER AND TRIM ALL BRANCHES OVERHANGING ROOFS, PORCHES, OR OUTDOOR SEATING AREAS
- PRUNE ALL PLANTS AND REMOVE DETRITUS LIKE LEAVES AND STICKS FROM PROPERTY
- REPLACE FENCING/GATES TOUCHING HOUSING WITH METAL GATE
- ARRANGE THE FOLLOWING DROUGHT AND FIRE RESISTANT PLANTS AROUND 5’ ZONE PERIMETER BETWEEN LARGE TREES AND BUILDINGS AND ALONG WOOD PORCHES:
 - MONKEY FLOWER OR CALIFORNIA LILAC IN FULL OR PARTIAL SUN AREAS
 - WILD STRAWBERRY IN SHADED AREAS

TIER 2 (MORE EXPENSIVE MATERIALS OR LABOR)

- COMPLETE TIER 1 IN ADDITION TO THE BELOW SUGGESTIONS (SUBSTITUTE CRUSHED GRANITE OR GRAVEL WITH PERMEABLE PAVERS)
- INCORPORATE MEDIUM-SIZED NATIVE ROCK BOULDERS WITHIN THE 5’ ZONE
- ENCLOSE THE BASE OF THE PORCH AND OUTDOOR SEATING AREAS WITH NON COMBUSTIBLE MATERIALS (METAL MESH OR SIDING)
- RELOCATE OR REMOVE MATURE TREES OR SAPLINGS WITHIN 6’ OF ANOTHER TREE

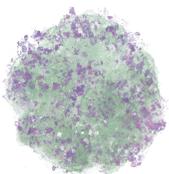
TIER 3 (MOST EXPENSIVE MATERIALS OR PROFESSIONAL LABOR)

- COMPLETE TIER 2 IN ADDITION TO THE BELOW SUGGESTIONS
- REPLACE LOWER 1’ OF VINYL OR WOOD SIDING OF THE BUILDING WITH STONE, BRICK, CONCRETE, OR STUCCO SIDING
- REPLACE EXISTING NON FIRE-SAFE TREES WITH THE FOLLOWING TREE TYPES:
 - CALIFORNIA SYCAMORE IN FULL OR PARTIAL SUN AREAS
 - COAST LIVE OAK IN SHADED AREAS
- REPLACE ROOF WITH CLASS A SLATE, CLAY, METALLIC, OR ASPHALT SHINGLES

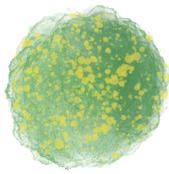
MATERIALS REQUIRED & COST ESTIMATE

- TIER 1 - 10-15 PLANTS (\$30 EACH, \$300-450 TOTAL)
- TIER 1 - ESTIMATED 600 CUBIC FEET OF GRAVEL OR PAVERS (\$1200-5000)
- TIER 2 - 5-10, 2-5’ BOULDERS (\$100 EACH, \$1000-3000 TOTAL)
- TIER 2 - ESTIMATED 30 SQUARE FEET OF 0.028” OPENING METAL MESH (\$200)
- TIER 3 - ESTIMATED 250 SQUARE FEET OF BRICK (\$750)
- TIER 3 - MATURE LIVE OAK AND SYCAMORE TREES (\$1500 EACH)
- TIER 3 - ROOF REPLACEMENT (\$15000+)

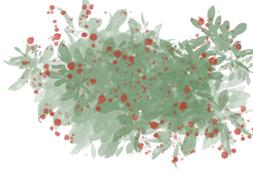
PLANT KEY



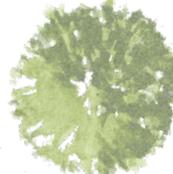
CALIFORNIA LILAC
Ceanothus arboreus



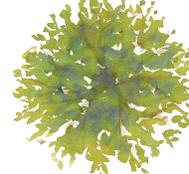
MONKEY FLOWER
Mimulus aurantiacus



WILD STRAWBERRY
Fragaria vesca



COAST LIVE OAK
Quercus agrifolia



CALIFORNIA SYCAMORE
Platanus racemosa

**IBHS FIRE RESILIENCE
DESIGN COMPETITION
UC Berkeley 2024**

CONSTRUCTION DETAILS

S0

DATE: 1/28/2024

DRAWN BY:

SCALE: N/A

GATE AND PAVER DESIGN

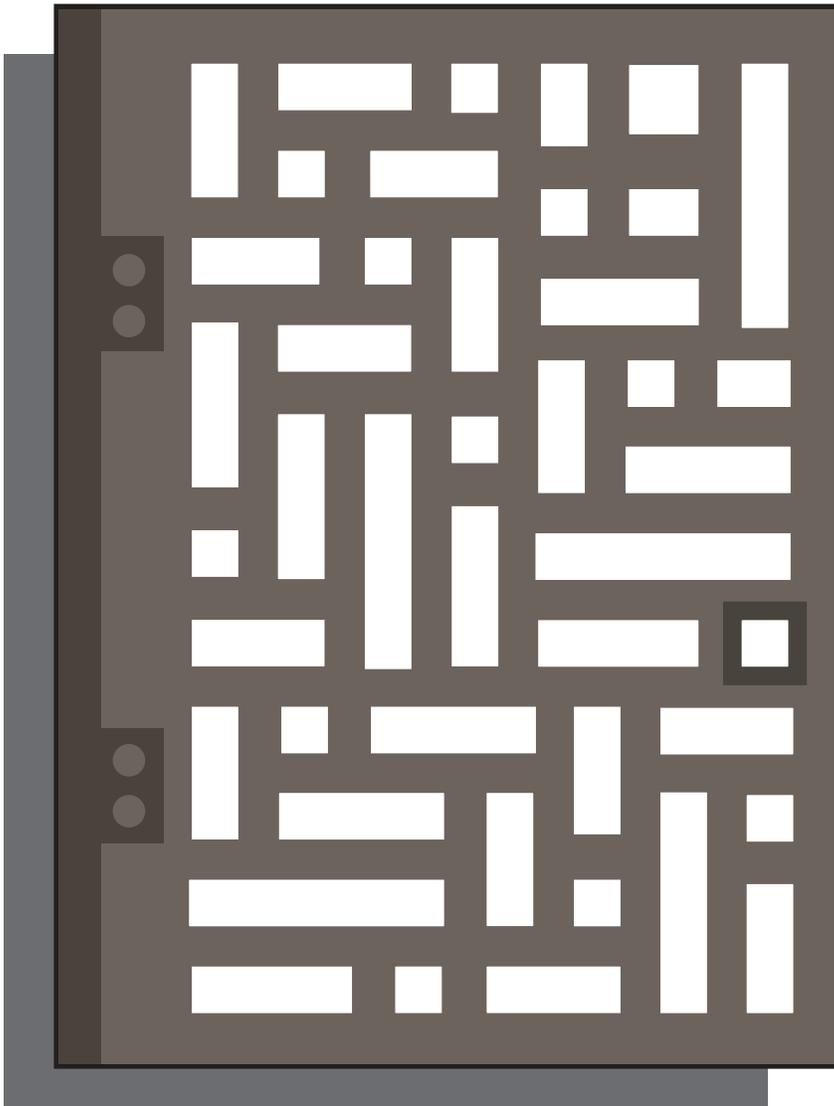
METAL GATE

- 12 GAUGE STEEL WITH NATURAL RUST PATINA POWDER COAT
- PATTERN SCALABLE FROM 45"X60" TO CUSTOM OPENING SIZE
- OPEN LATTICE STRUCTURE ALLOWS EMBERS TO PASS BUT NOT ACCUMULATE

PERMEABLE PAVERS

- ANY COMMERCIALLY AVAILABLE PERMEABLE PAVER FILLED WITH 3/4" CRUSHED STONE GRAVEL
- HIGH POROSITY GRAVEL AND PERMEABLE CONCRETE MIMICS NATURAL STORMWATER RUNOFF TO REDUCE FLOODING AND WASTED WATER
- REDUCES EROSION AND A BUILDUP UP OF FLAMMABLE BIOMASS

45"



24"

60"



**IBHS FIRE RESILIENCE
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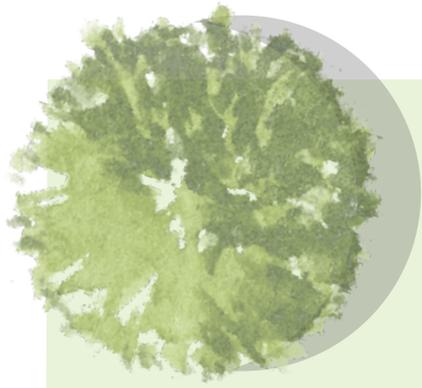
METAL GATE DESIGN

S1

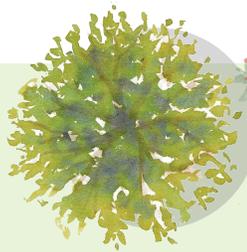
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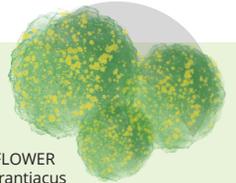
COAST LIVE OAK
Quercus agrifolia



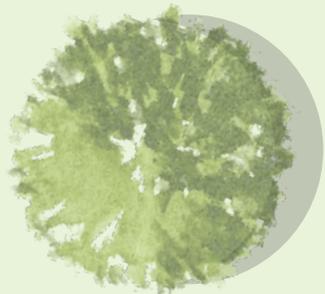
CALIFORNIA SYCAMORE
Platanus racemosa



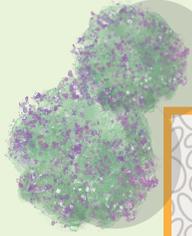
WILD STRAWBERRY
Fragaria vesca



MONKEY FLOWER
Mimulus aurantiacus



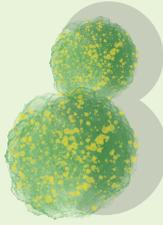
COAST LIVE OAK
Quercus agrifolia



CALIFORNIA LILAC
Ceanothus arboreus

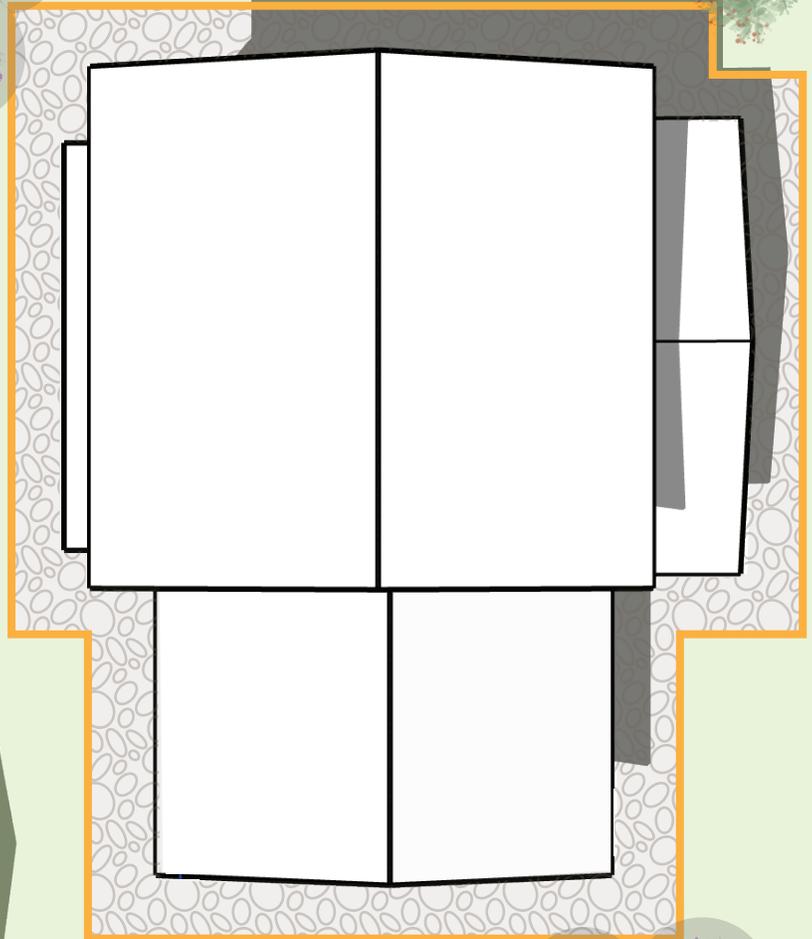


WILD STRAWBERRY
Fragaria vesca

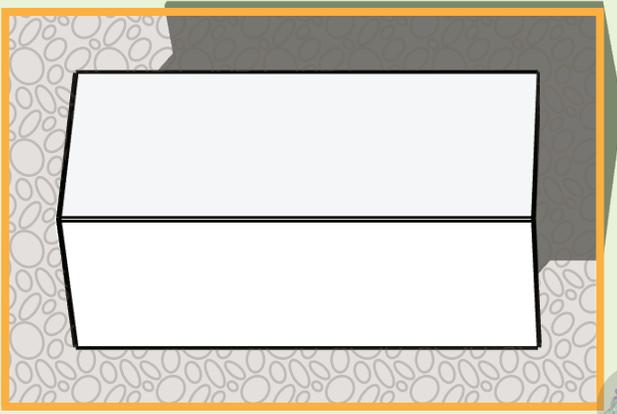


MONKEY FLOWER
Mimulus aurantiacus

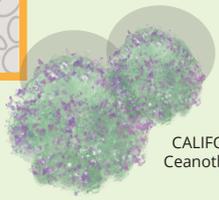
CRUSHED GRANITE
4" depth



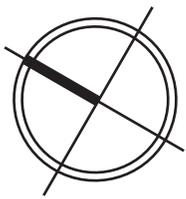
CRUSHED GRANITE
4" depth



CALIFORNIA LILAC
Ceanothus arboreus



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— 0-5' Zero Zone

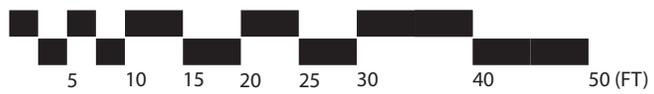
TIER 1 PLAN VIEW

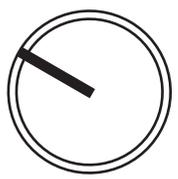
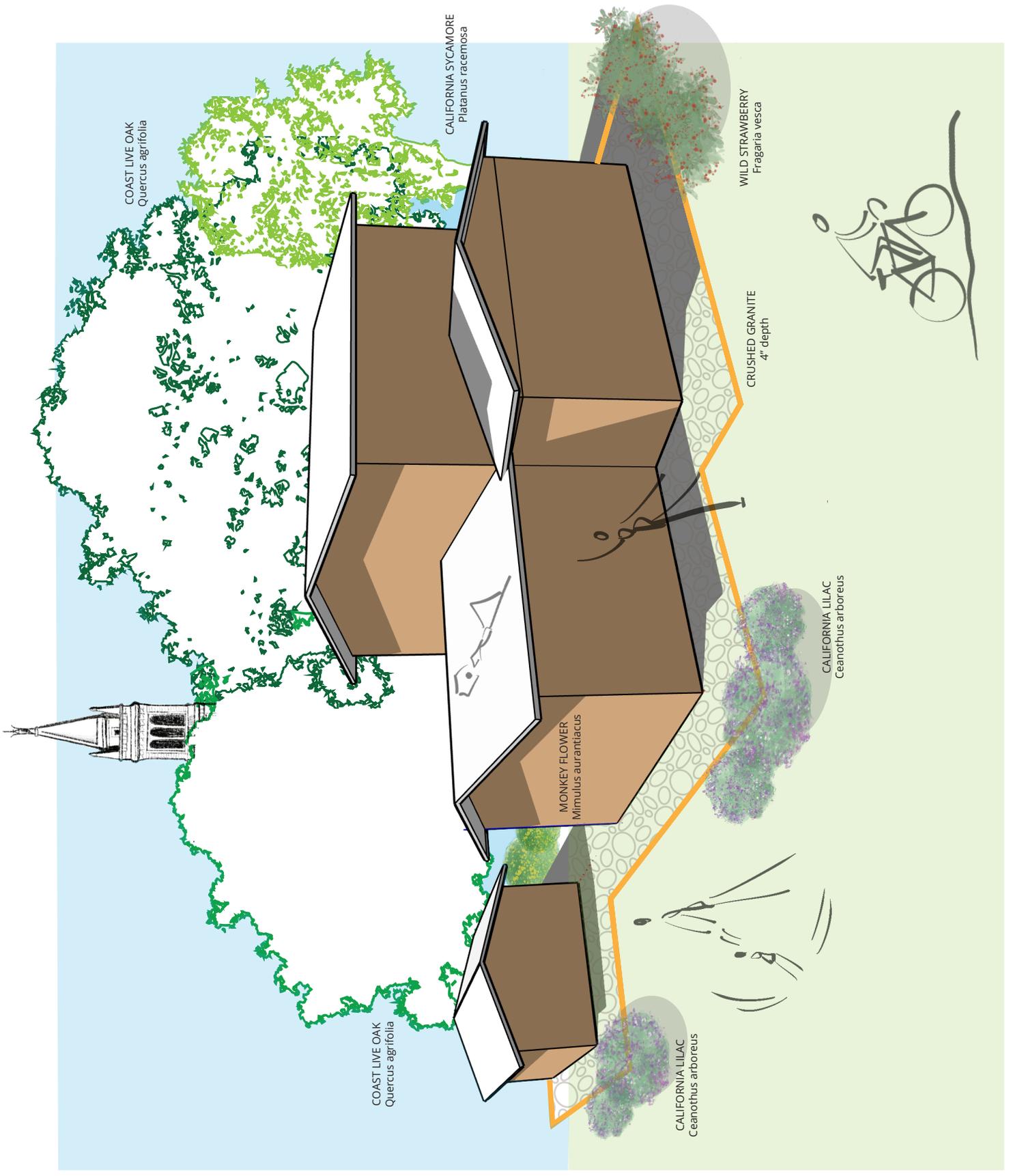
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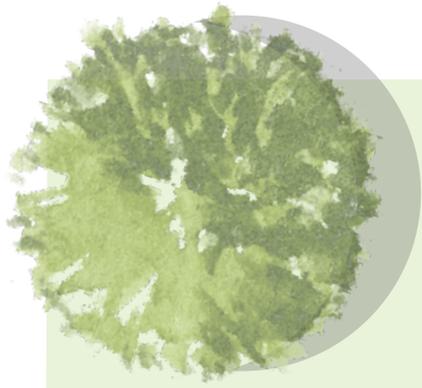
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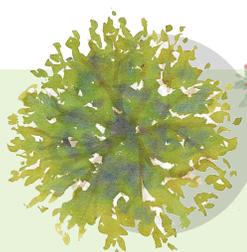


— 0-5' Zero Zone

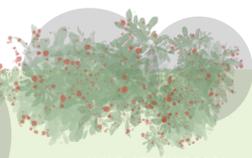
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DATE: 1/28/2024	DRAWN BY:	
SCALE:		



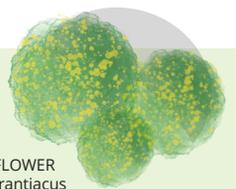
COAST LIVE OAK
Quercus agrifolia



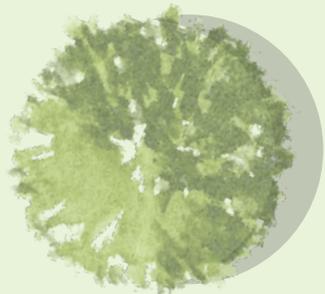
CALIFORNIA SYCAMORE
Platanus racemosa



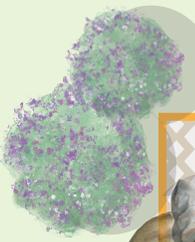
WILD STRAWBERRY
Fragaria vesca



MONKEY FLOWER
Mimulus aurantiacus



COAST LIVE OAK
Quercus agrifolia

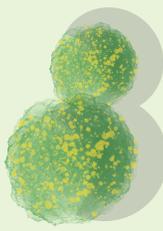
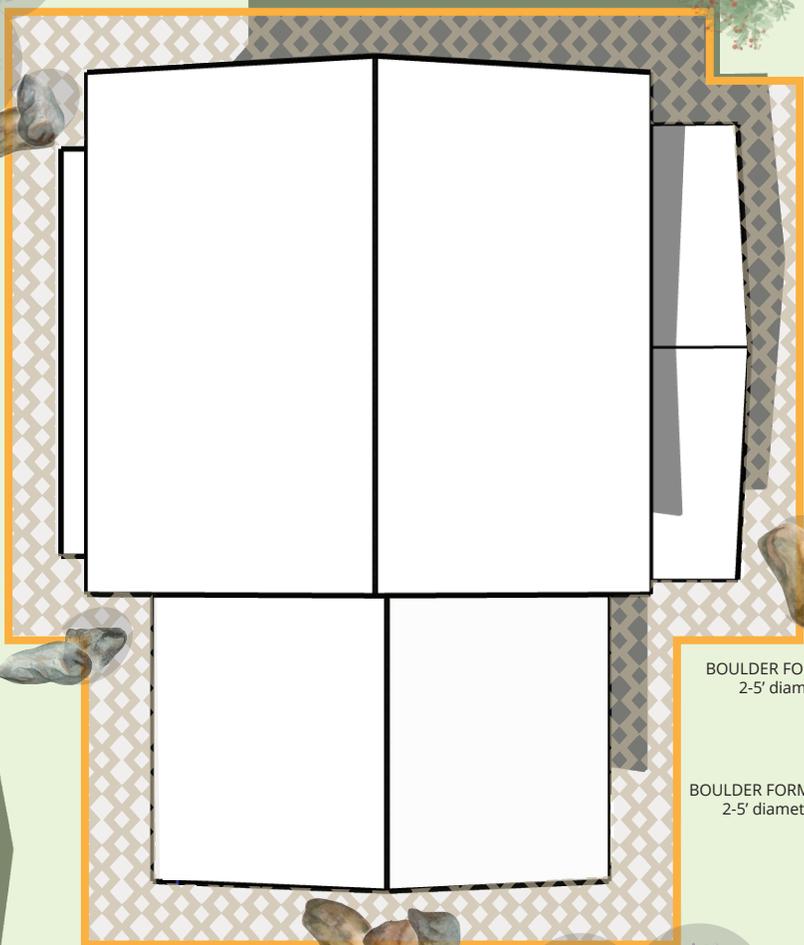


CALIFORNIA LILAC
Ceanothus arboreus

WILD STRAWBERRY
Fragaria vesca



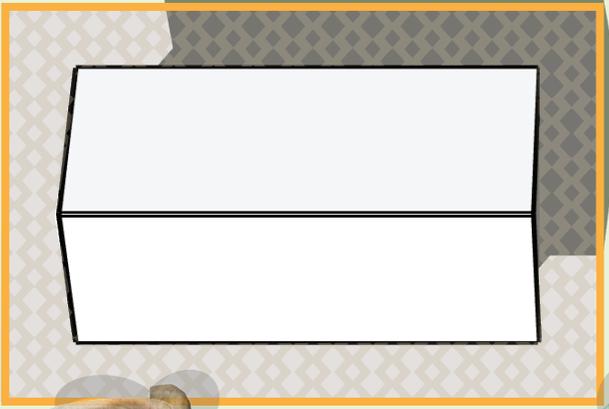
BOULDER FORMATION
2-5' diameter



MONKEY FLOWER
Mimulus aurantiacus

PERMEABLE PAVERS
gaps filled with gravel

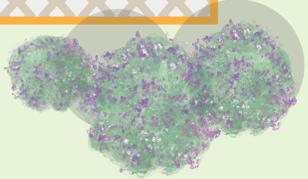
BOULDER FORMATION
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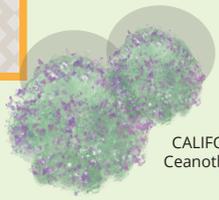
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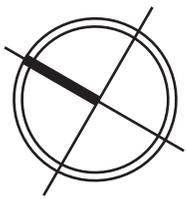
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Ceanothus arboreus

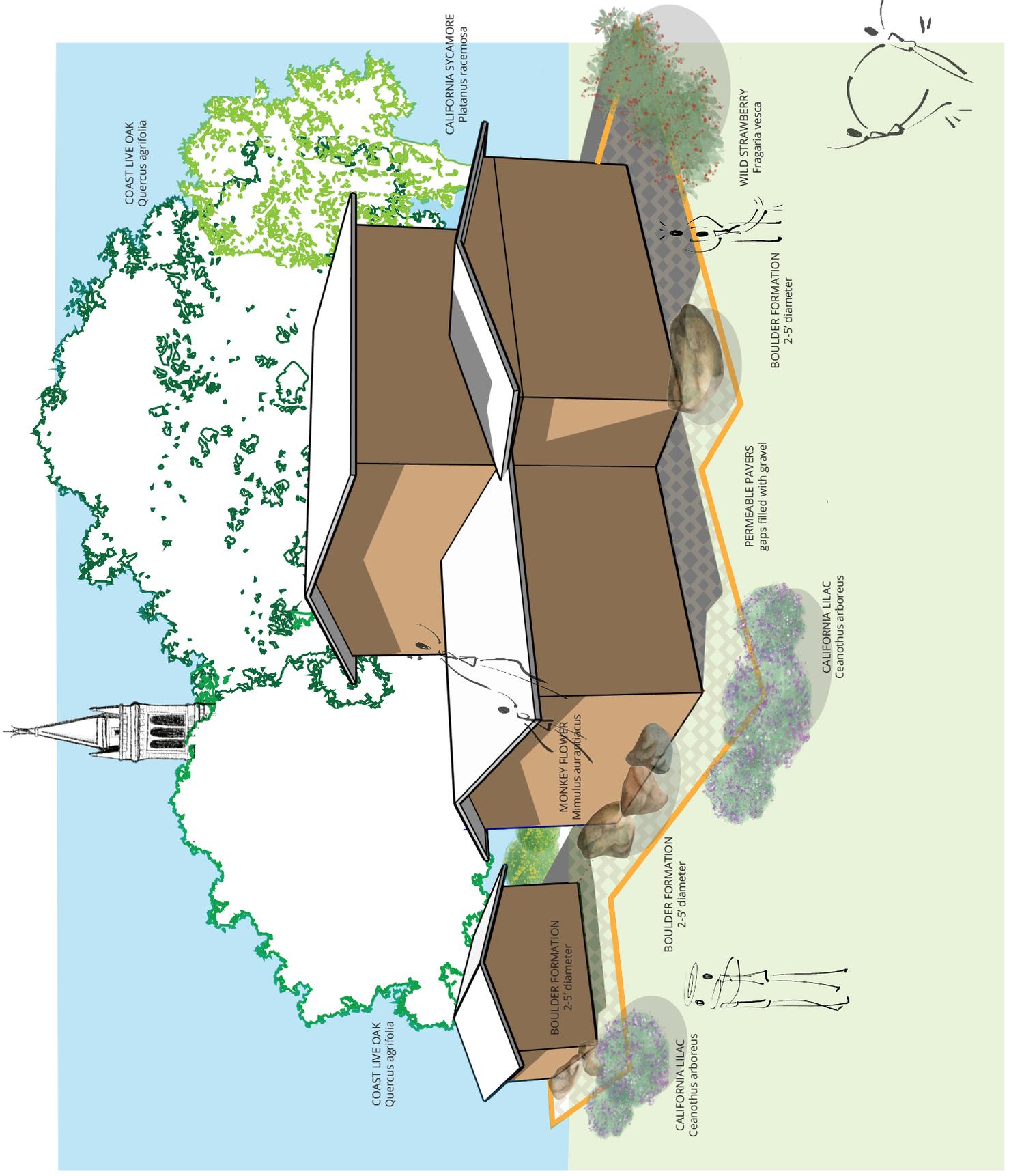


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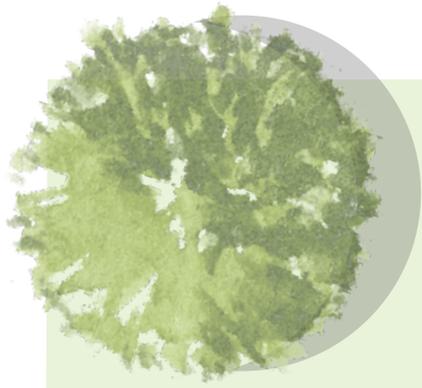
— 0-5' Zero Zone

TIER 2 PLAN VIEW		S4
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SCALE:		

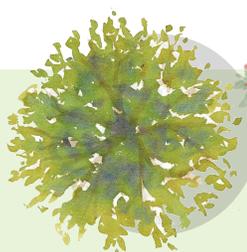


— 0-5' Zero Zone

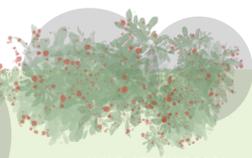
TIER 2 ISOMETRIC VIEW		S5
DATE: 1/28/2024	DRAWN BY:	
SCALE:		



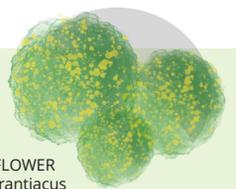
COAST LIVE OAK
Quercus agrifolia



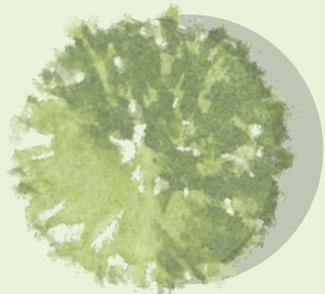
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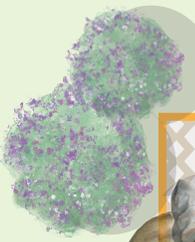
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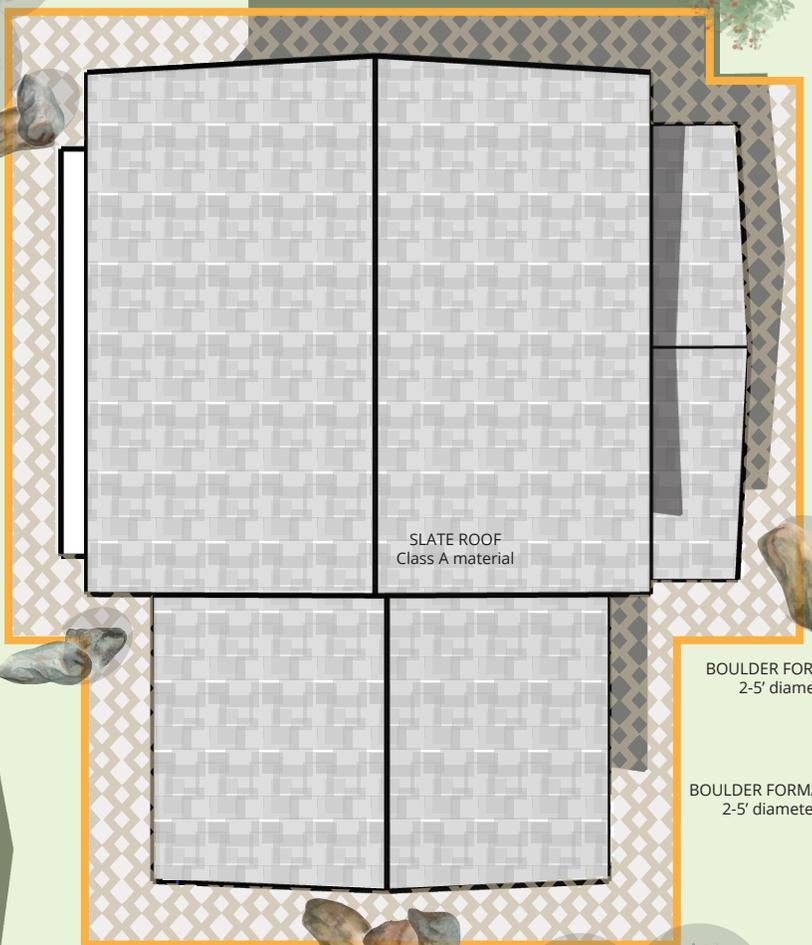


CALIFORNIA LILAC
Ceanothus arboreus



WILD STRAWBERRY
Fragaria vesca

BOULDER FORMATION
2-5' diameter

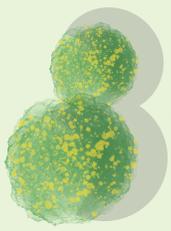


SLATE ROOF
Class A material

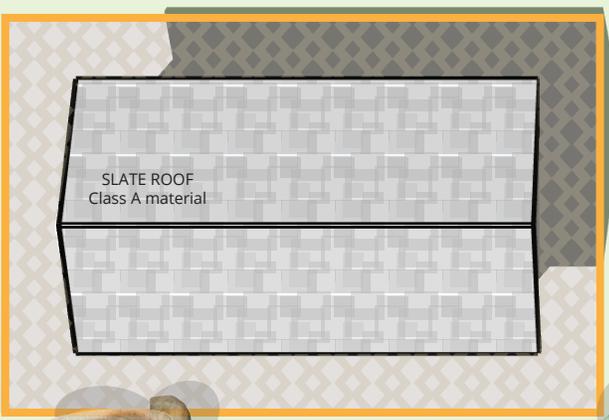
PERMEABLE PAVERS
gaps filled with gravel

BOULDER FORMATION
2-5' diameter

BOULDER FORMATION
2-5' diameter



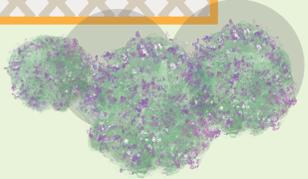
MONKEY FLOWER
Mimulus aurantiacus



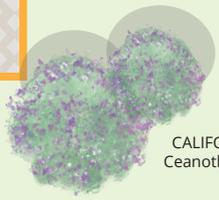
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Class A material

PERMEABLE PAVERS
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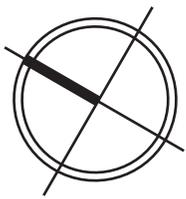
BOULDER FORMATION
2-5' diameter



CALIFORNIA LILAC
Ceanothus arboreus



CALIFORNIA LILAC
Ceanothus arboreus



— 0-5' Zero Zone

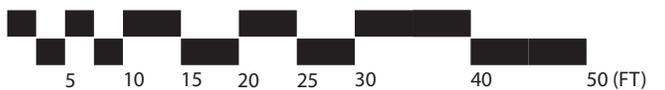
TIER 3 PLAN VIEW

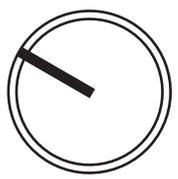
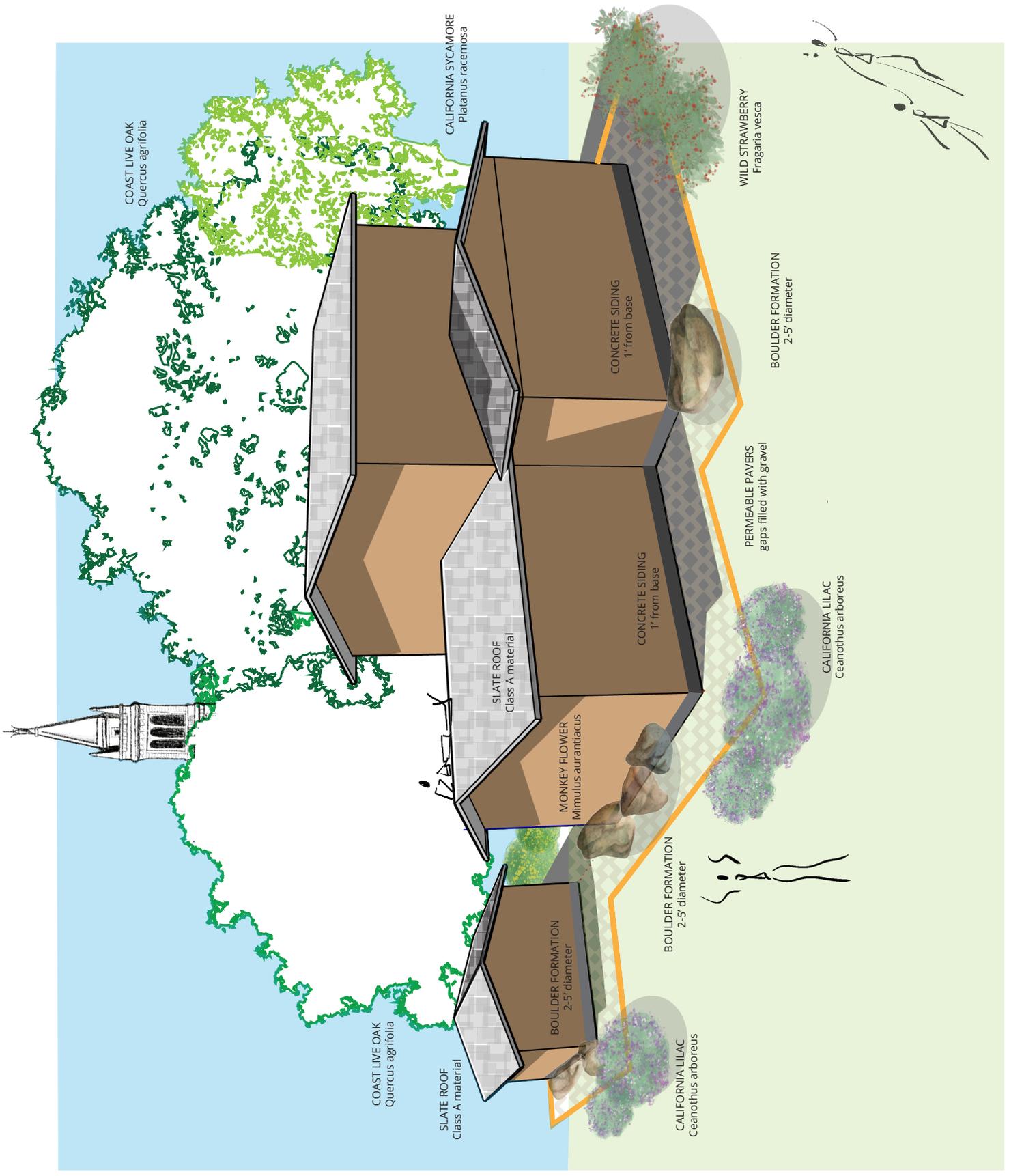
S6

DATE: 1/28/2024

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SCALE:





— 0-5' Zero Zone

TIER 2 ISOMETRIC VIEW		S7
DATE: 1/28/2024	DRAWN BY:	
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