

Trails to Peaceful Sustainability
Restoring Elephant Hill for the Future of El Sereno



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Capstone Project Summer 2020
UCLA Extension Landscape Architecture Program
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Personal Statement

Having lived in Echo Park for nearly 15 years I was lucky enough that I lived within walking distance to Elysian park. I always felt so lucky to have access to that open space in the middle of the city. There were many different reasons to venture along the trail there. Sometimes I would go to contemplate, meet a friend for a hike, use the trail as an exercise routine, and, I remember gathering on one of the grassy knolls there with many friends after 911. For me, I see open natural spaces as a valuable opportunity to connect either with yourself, friends, or nature.

Acknowledgments:

Special thanks to Elva Yanez who led a grass roots campaign against developers to save Elephant Hill from being bulldozed into luxury homes. Thank you for taking the time to tell me your story.

Also to Brian Baldauf of the Mountains Recreation and Conservation Authority who provided me with information and insight into the project.



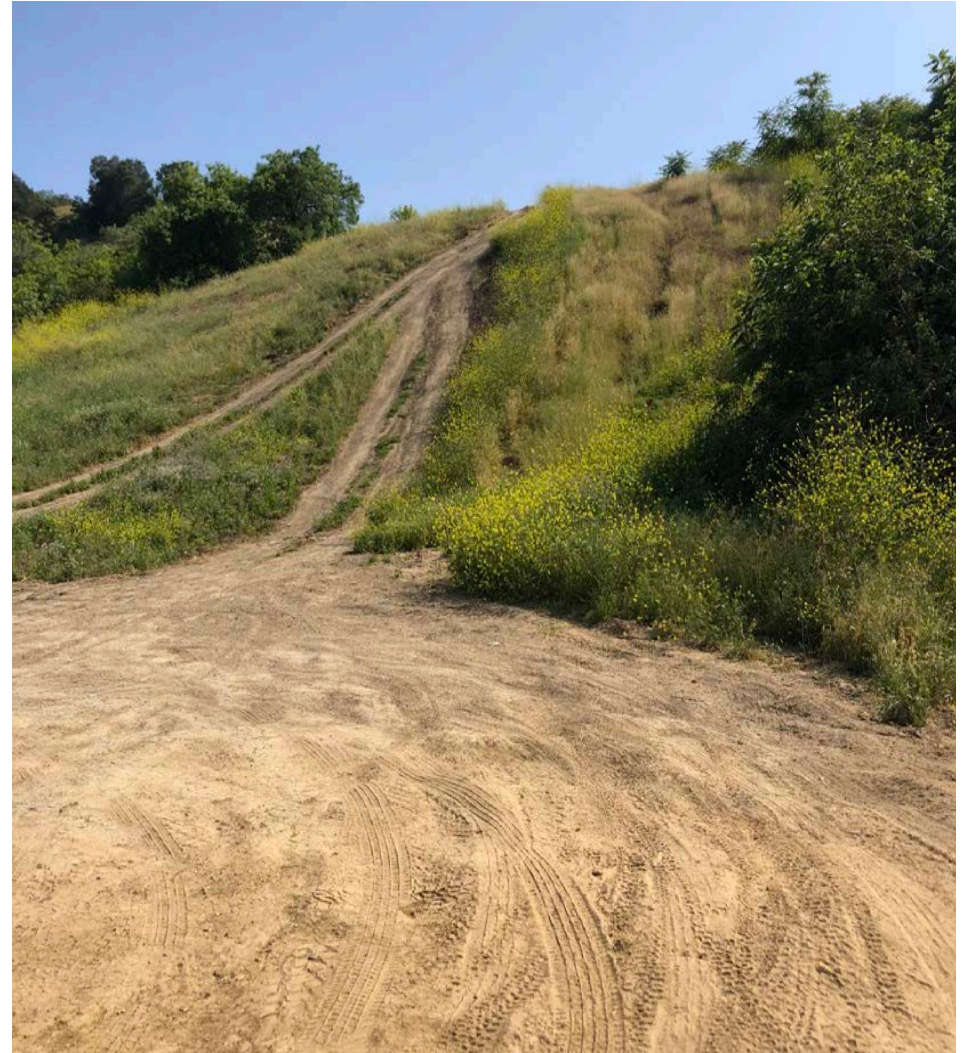
Table Of Contents

Statement	1	Design Metaphor	28
Justification	2-3	Preliminary Concepts	29-34
Goals and Objectives	4	Final Illustrative Plan	35
Site Location/Vacinity Map	5	Detail: Pullman St. Entrance	36-38
Site Adjacencies	6-7	Detail: Picnic/Nature Viewing	39-42
Site Boundary	8	Detail: Bridge/Bioswale	43-46
Users and Stakeholders	9	Detail: Grand Stairs	47-48
Activities/Elements	10	Detail: Nature Center	49-53
Methodology	11-13	Conlusion	54-55
Case Studies	14-15	Plant Palette	56-60
Site Analysis	16-23	Wildlife	61
Opportunities	24-25	Boards	62-65
Constraints	26-27	References	66-67

STATEMENT

This project will transform Elephant Hill, an underdeveloped and neglected natural area, into a passive recreational park through the use of landscape architectural and restoration

principles. The proposed park will provide opportunities for connection and recreation, and will also re-establish a more native landscape that will reduce erosion and fire risk, and provide wildlife habitat.



JUSTIFICATION

Elephant Hill is one of the largest underdeveloped natural areas remaining in Northeast Los Angeles. It covers 110 acres of open, steep hillside and presents an opportunity to be preserved. It is surrounded by a neighborhood of single family homes in the community of El Sereno.

Proposed housing developments on EH have been fought and opposed by the local community for decades in order to protect it as open space. In 2008, after a long battle between the community and developers, the City of Los Angeles acquired 20 acres of Elephant Hill to be zoned as open space.

As part of the city's general plan for open space, the community can:

- Provide opportunities for recreation and education;
- Preserve scenic, cultural or historic values;
- Conserve or preserve natural resources or ecologically important areas;
- Provide or preserve lands for managed production of natural resources;
- Protect or provide for the public health and safety;
- Enhance the economic base of the City;
- Preserve or create community scale identity; and
- Buffer or define activity areas.

Limited amounts of open space where people can

experience the outdoors and nature are becoming more precious and valuable for people in growing cities and many times these natural open spaces become the primary connection people have with nature. Development in urban regions has grown at a steady rate of 13% every year since 2000 (Pew Research Center).

Creating a passive recreational open space park on EH would give people the access and opportunity for better physical health. It would allow access to hiking, biking and exercise. Studies have shown that nature reduces stress and promotes relaxation. Living near a



park, especially a park that has many natural features, improves people's mental health. Trees and greenery in neighborhoods keep the temperature cooler while areas of concrete and buildings heat up. Open space also maintains and supports wildlife habitat. Preserved open spaces also strengthens local economies by attracting businesses and residents.

Ecologically, Elephant Hill "exhibits a high degree of disturbance generally, but nonetheless support a relict natural community which has been widely lost in the region, including globally-rare species and habitats" -(Ecological Assessment of Northeast Los Angeles Open Space by Dan Cooper)

The importance of restoring and preserving the disturbed ecosystems of EH would be restoring wildlife populations, mitigating climate change through carbon sequestration, helping threatened and endangered species, improving the aesthetics of the site, protecting biodiversity, enhancing water and air quality, and decreasing storm water run-off.

Based on the Los Angeles County-wide Comprehensive Park & Recreation Needs Assessment, prior to the acquisition of this park, in the area around EH, there is 0.91 park acres per 1,000 people available to residents. The average for the county is 3.3. In the same study, EH was rated as having poor infrastructure.

According to Trust for Public Land, Los Angeles' "park

score" ranks 74th out of 100 major cities in the U.S. The score is based on park acres, facilities and investment, and resident access to local parks. Los Angeles has a median of 3.3 acres of park space per 1,000 people, well below the median of 6.8 acres per 1,000 people in other high-density U.S. cities.



GOALS AND OBJECTIVES:

1. Create a Passive Regional Open Space that is **safe** and **accessible**.

- Develop **trails** on Elephant Hill in order to make the site walkable and **accessible**.
- Develop a park environment that people feel **safe** to be in by providing wayfinding devices and **signage**, informing visitors of the site, it's **history**, and the importance of its **wildlife** community.

2. **Restore** and **preserve** Elephant Hill, one of the last and largest natural areas in northeast Los Angeles.

- **Restoring** and enhancing sustainable plant communities on the site such as **coastal sage scrub** and **walnut woodland** in order to keep intact the wild **nature** people can enjoy and experience.

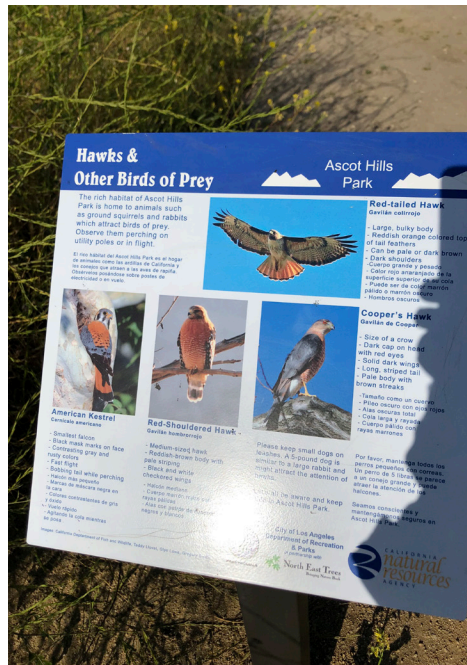
3. To create a **sustainable** environment that connects people to the natural world.

- Provide **education** and **recreation** for the people in the surrounding communities while also incorporating protection and **preservation** of **wildlife habitat**

ACCESS



EDUCATION



NATIVE PLANTS

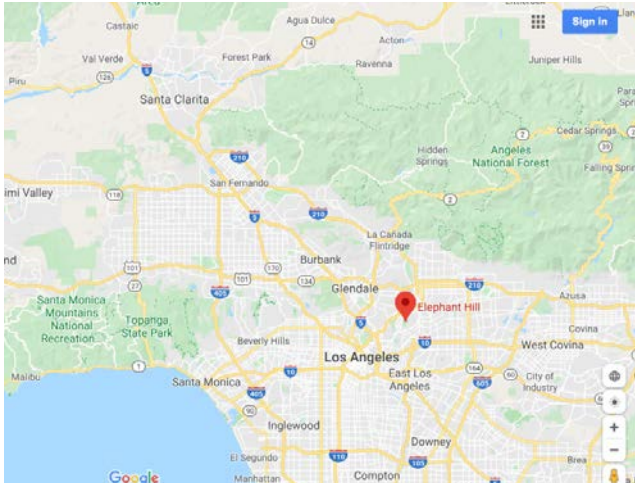


WILDLIFE



https://www.allaboutbirds.org/guide/Red-tailed_Hawk/id

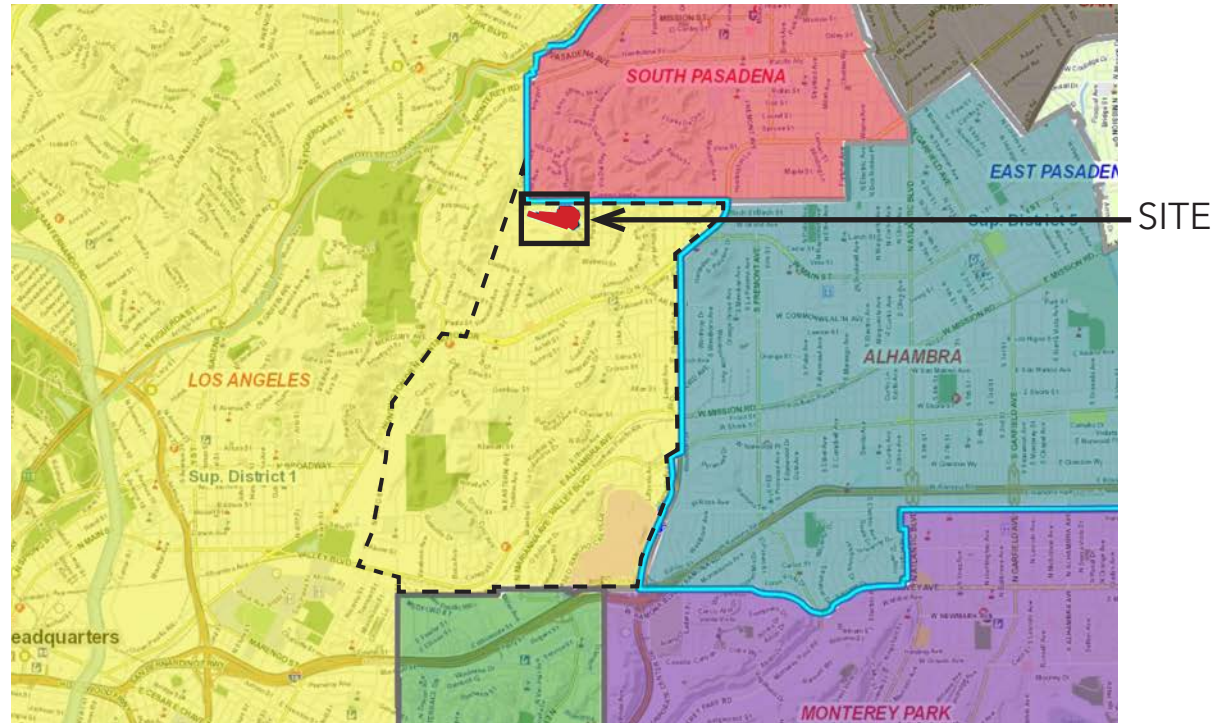
LOCATION:



5 miles — ↑

Elephant Hill is located 7 miles Northeast of downtown Los Angeles in the 4.1 square mile community of El Sereno.

VICINITY MAP:



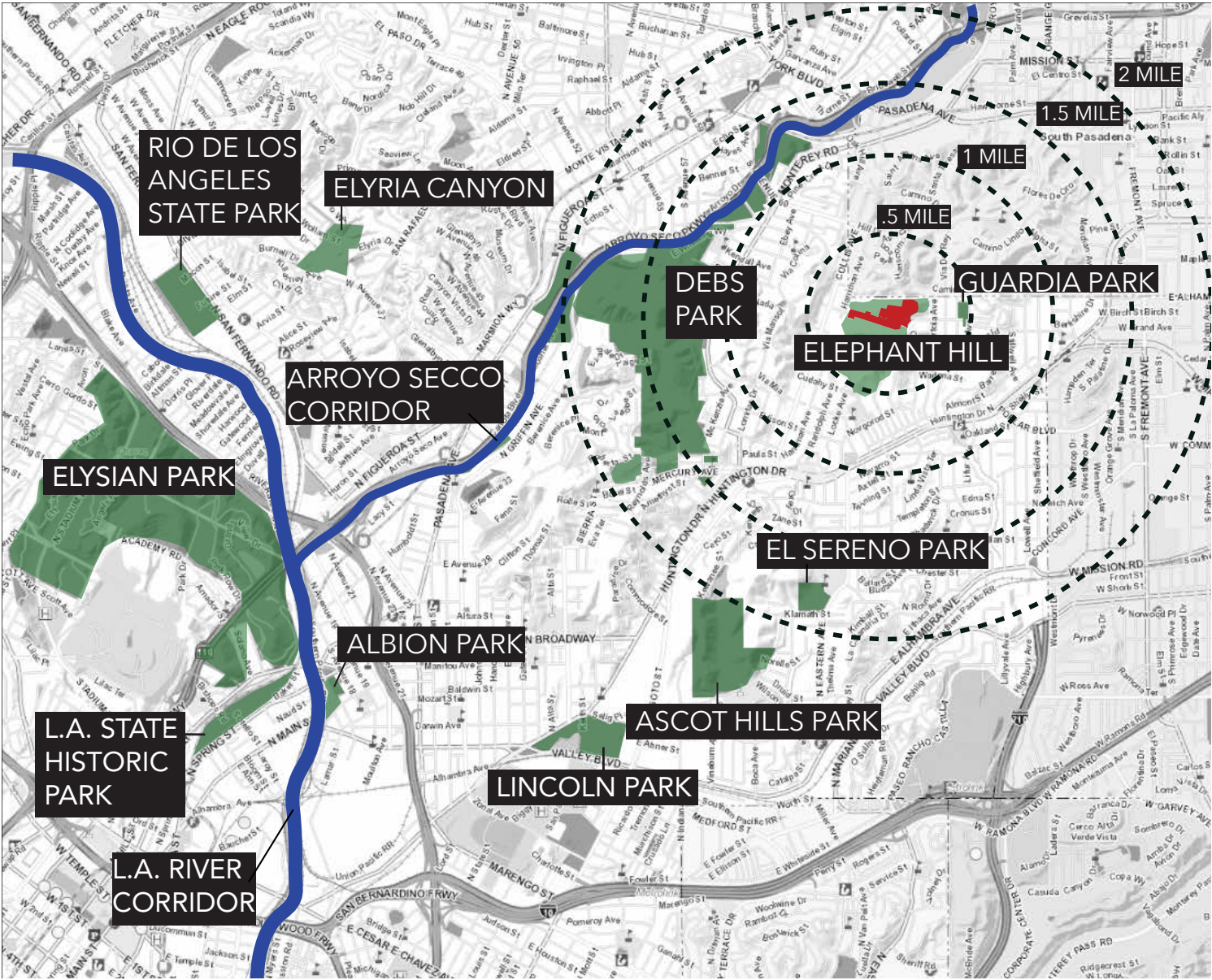
LEGEND

 SITE	 LOS ANGELES	 ALHAMBRA
 EL SERENO	 S. PASADENA	 SAN MARINO
 MONTEREY PARK	 EAST LOS ANGELES	

Neighboring communities:

Alhambra, Boyle Heights, East Los Angeles, Lincoln Heights, Montecito Heights, Monterey Park and South Pasadena.
Council District 14 (Los Angeles)

ADJACENT WILDLIFE CORRIDORS



Elephant Hill lies approximately one mile southeast of the Arroyo Seco watershed. The watershed extends from the Angeles National Forest in the San Gabriel mountains until it connects with the Los Angeles River. Both the Arroyo Seco corridor and the L.A. River corridor are major areas that support wildlife habitat and provide food and shelter for native and migrating birds of the Pacific Flyway. All this is being threatened by habitat loss, water shortages, diminishing food sources, and climate change.

LEGEND

- Surrounding Parks
 - Project Site
 - .5 mile radius
 - Watershed Corridors
- 1 mile

ADJACENT SCHOOLS AND PARKS

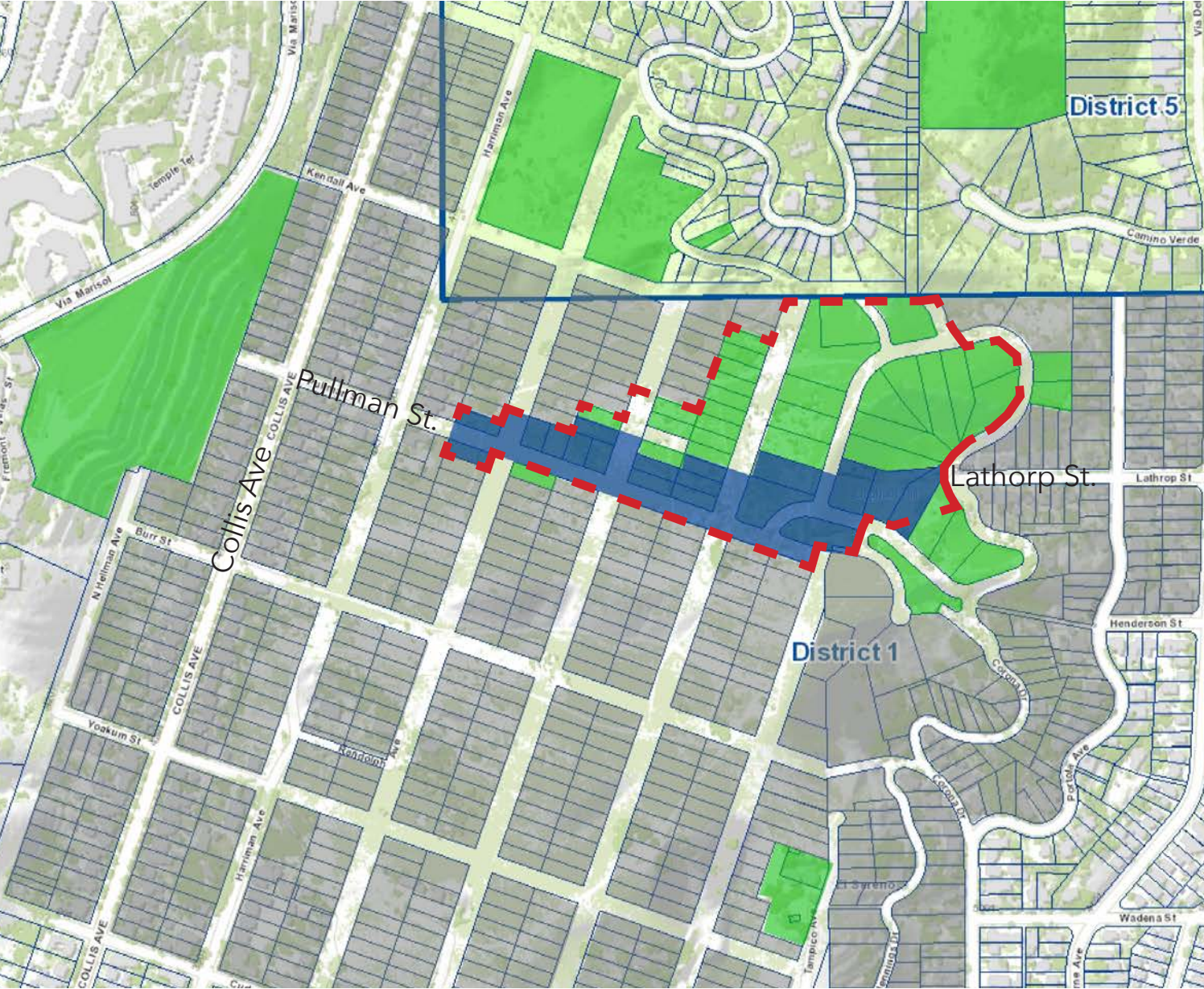


Nearby open space parks such as Debs Park (which is host to an audubon center), and Ascot Hills Park are planting native plants to support the biodiverse wildlife habitat that exists in these areas. This will also reduce the risk of wildfires, and create a more climate-resistant community.

The restoration and preservation of Elephant Hill would become another fragment of open space that would support wildlife habitat and increase the biodiversity along the Arroyo Seco Corridor.



MAP OF SITE



Many of the parcels that make up Elephant Hill are still privately owned. For the project site, I propose to utilize 5 acres owned by the Mountains Recreation and Conservation Authority, combined with 15 acres that are zoned as L.A. City open space. The combination of the 2 areas will make up the boundary of the site for this project.

LEGEND

- MRCA
- PRIVATE
- PUBLIC OPEN SPACE
- PROJECT SITE BOUNDARY

USERS

El Sereno has a population of 48,000 people

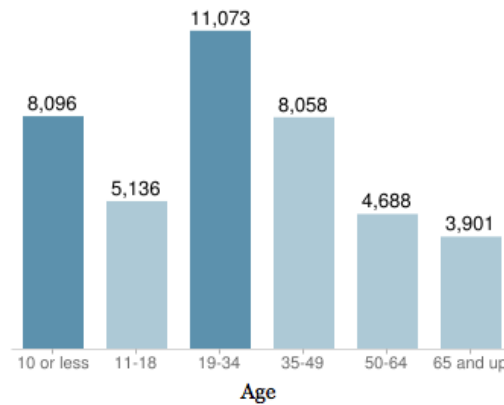
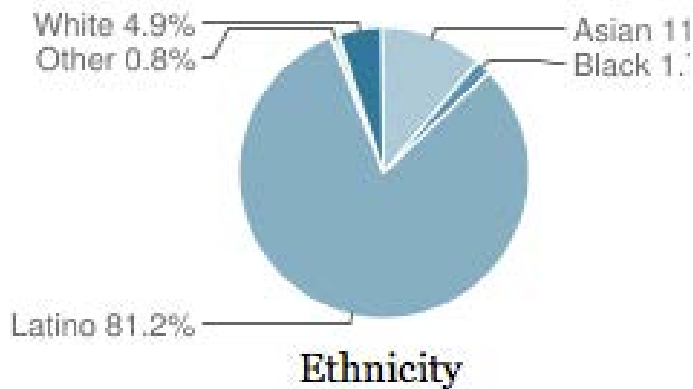
Median House Hold Income is \$50,000

Median Age - 34

Families, Couples, Children, Adults, Single People, Hikers, Bikers, Bird Watchers, Nature Enthusiasts.

359 Students from El Sereno Elementary school

Stakeholders: Mountains Recreation Conservation Authority and the City of Los Angeles

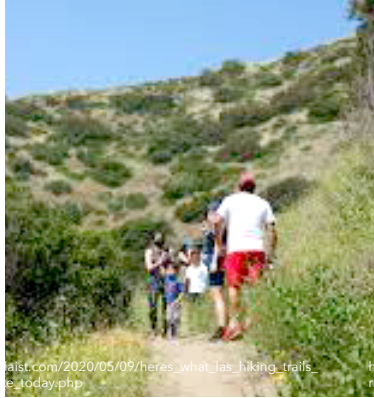


Kids 10 and under as well as adults 18-34 make up 30% of the population in El Sereno. These would be the biggest users of the park.



ACTIVITIES

Hiking



Jogging



Education



Picnic/Respite



Bird Watching



Play



Biking



ELEMENTS

- Flexible space for outdoor use (800sq ft.)
- Play area for children 40' x 40' (1600 sq.ft.)
- Seating area(s) and benches (6' -8' long) picnic area up to 1000 - 2000 sq.ft.
- Trash Receptacles (3'tall)

- Bioswales (dry creek) storm water management
- Viewing areas along vistas (300-400sq. ft.)
- Nature center (3000 sq ft.)
- Signage with information about the site. Educational as well as informative
- Trails to serve bikers/hikers 8' - 15'

DESIGN METHODOLOGY

Restoration Principles

- **Assess the site.**
 - What are current conditions of the site?
 - What is causing disturbance?
 - Identify methods for reversing the disturbance
- **Remove sources of disturbance.**
 - Remove toxic materials, causes of erosion
 - Eradicate invasive species
- **Restore vegetation.**
 - Re-vegetation or seeding of a site using native species suited to local environmental conditions.
- **Monitor and maintain.**
 - Monitoring the site is critical to determine whether goals are being met. Ideally, restoration projects will eventually hope to achieve a self-sustaining ecosystem

Elephant hill, is covered with invasive non-native annual grasses that have taken over the hill. These non-native invasive species are highly flammable and have shallow rooting systems which lead to erosion control problems for the slopes. Previous discing fuel management practices by the city of Los Angeles have led to a highly disturbed soil. As a result of repeated discing and the lack of native plants with their deep roots to stabilize the soil, the slopes on EH have become highly erosive.

"Ecological restoration, when implemented effectively and sustainably, contributes to protecting biodiversity; improving human health and wellbeing; increasing food and water security; delivering goods, services, and economic prosperity; and supporting climate change mitigation, resilience, and adaptation " -The Society for Ecological Restoration



DESIGN METHODOLOGY

Best Practices guiding trail alignment and design: (Alta Planning + Design)

Successful trails are well designed and remain functional with little ongoing maintenance. A well built trail will be influenced by principles such as:

- Trail Geometry (steepness and orientation)
- Drainage Provisions
- Geology and Soils
- Intended Use

Grade: Sustainable trails should have a sustained gradient of 12% or less with only short segments that reach 15%-20%. For bike trails, 15% grades are difficult to travel uphill.

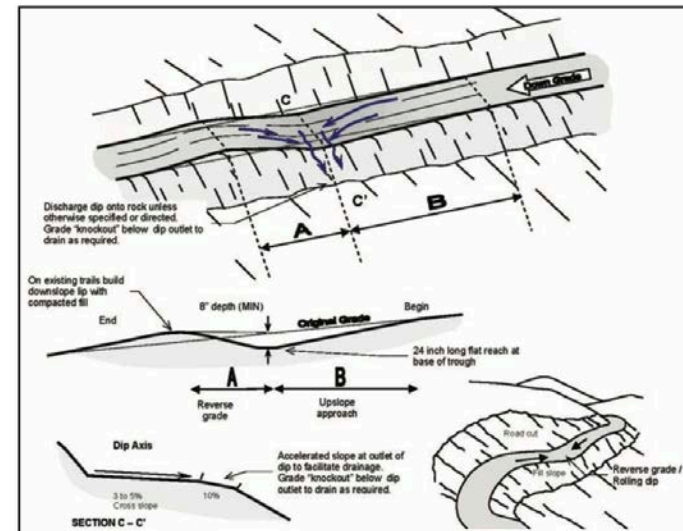
Fall-Line Orientation: A trail should avoid a fall line orientation - a route that drops directly down the hillside. This is the path that water will flow. Trails should have a gradient no steeper than 1/2 the side-slope gradient.

Drainage: Natural drainage patterns are one of the most important elements to keep a trail sustainable. Drain dips should be developed along the trail every 100' - 175'. This will prevent water accumulation and erosion along the trail.

Switchbacks: Trails should be developed to avoid or minimize the use of switchbacks. People often cut the switchback leading to erosion problems. An area that requires a switchback should use a wide, broad turn that should be made around vegetation to block the visibility of the two legs of trail.

Swales and Valley Bottoms: This is where water will drain. Trails will get muddy and decay. These areas should be avoided.

OHV Use Prevention: Trails should avoid aligning with OHV trails. Vehicles can damage hiking and biking trails. Hiking and bike trails should discourage encroachment of vehicles by utilizing barriers and trail width if necessary.



(Alta Planning + Design)

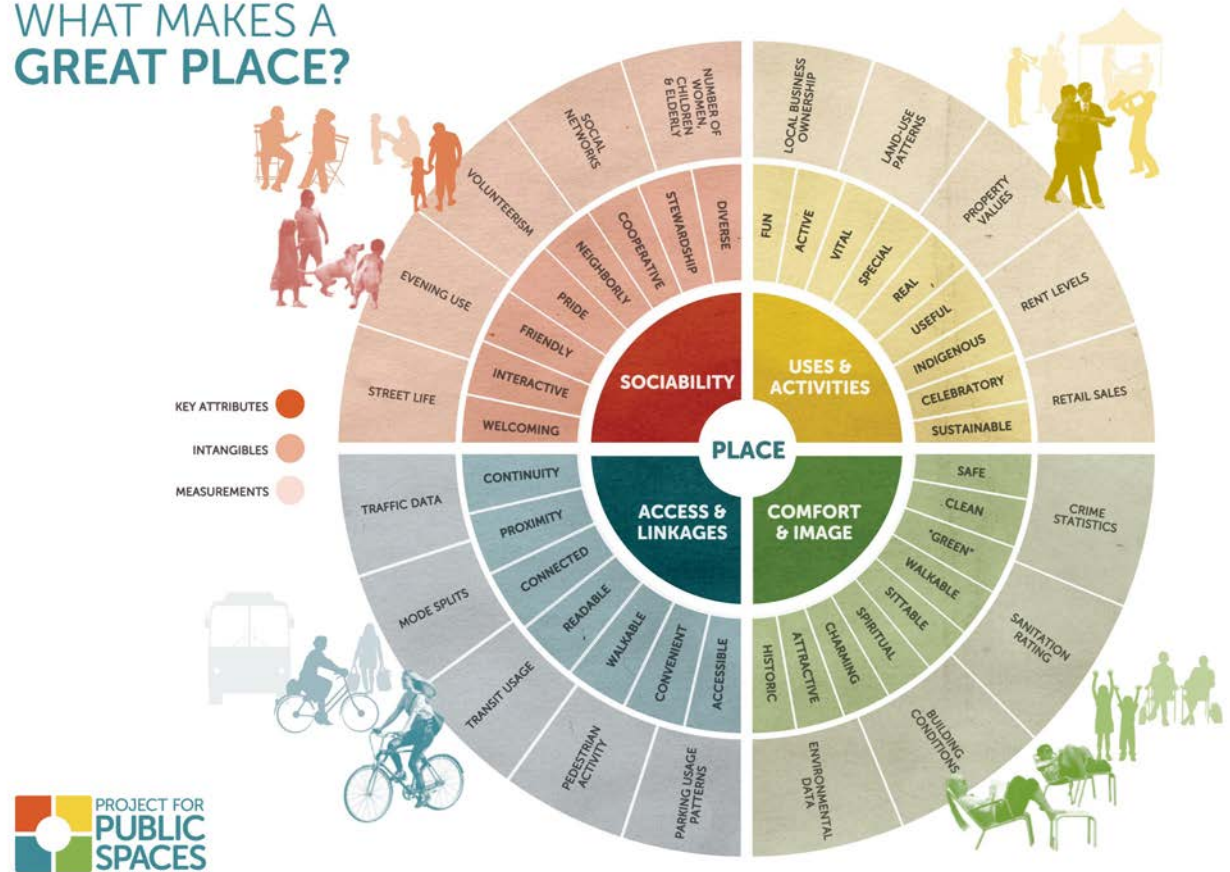
DESIGN METHODOLOGY

Project for Public Spaces

PPS has found that successful places generally share the following four qualities:

- The space is **accessible** and connects to its surroundings.
- People are engaged in **activities** there. These are the reasons why people visit the space in the first place.
- The space is **comfortable** and has a good image. This includes perceptions about safety and cleanliness.
- It is a **sociable** place: one where people meet each other and take people when they come to visit. When people see friends, meet and greet their neighbors, and

WHAT MAKES A GREAT PLACE?



feel comfortable interacting with strangers, they tend to feel a stronger sense of place or attachment to their community.

CASE STUDY

Vista Hermosa Park

- Provides passive recreation in a dense working class neighborhood and access to nature and its restorative qualities.
- Features a re-created habitat in the middle of the city made up of California native riparian, and drought tolerant plants
- Provides a natural play area, a system of trails, and picnic areas.
- Sustainable features include permeable paving, drought tollerant plants, and a 30,000 gallon rain water harvesting cistern to irrigate the park.



Personal Photo



Personal Photo

CASE STUDY

Debs Park and Audubon Center

- Regional park that provides educational and volunteer activities for the community.
- Serves as a community hub for environmental justice and advocacy work in Los Angeles and across the Audubon network.
- Their mission is to inspire people to experience, understand and care for the local, natural world.
- Restoration of the landscape with native plants for birds and other wildlife in the park are a priority.

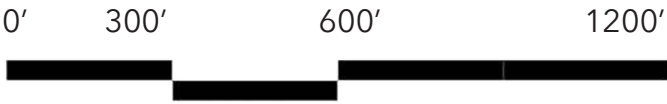


SITE



LEGEND

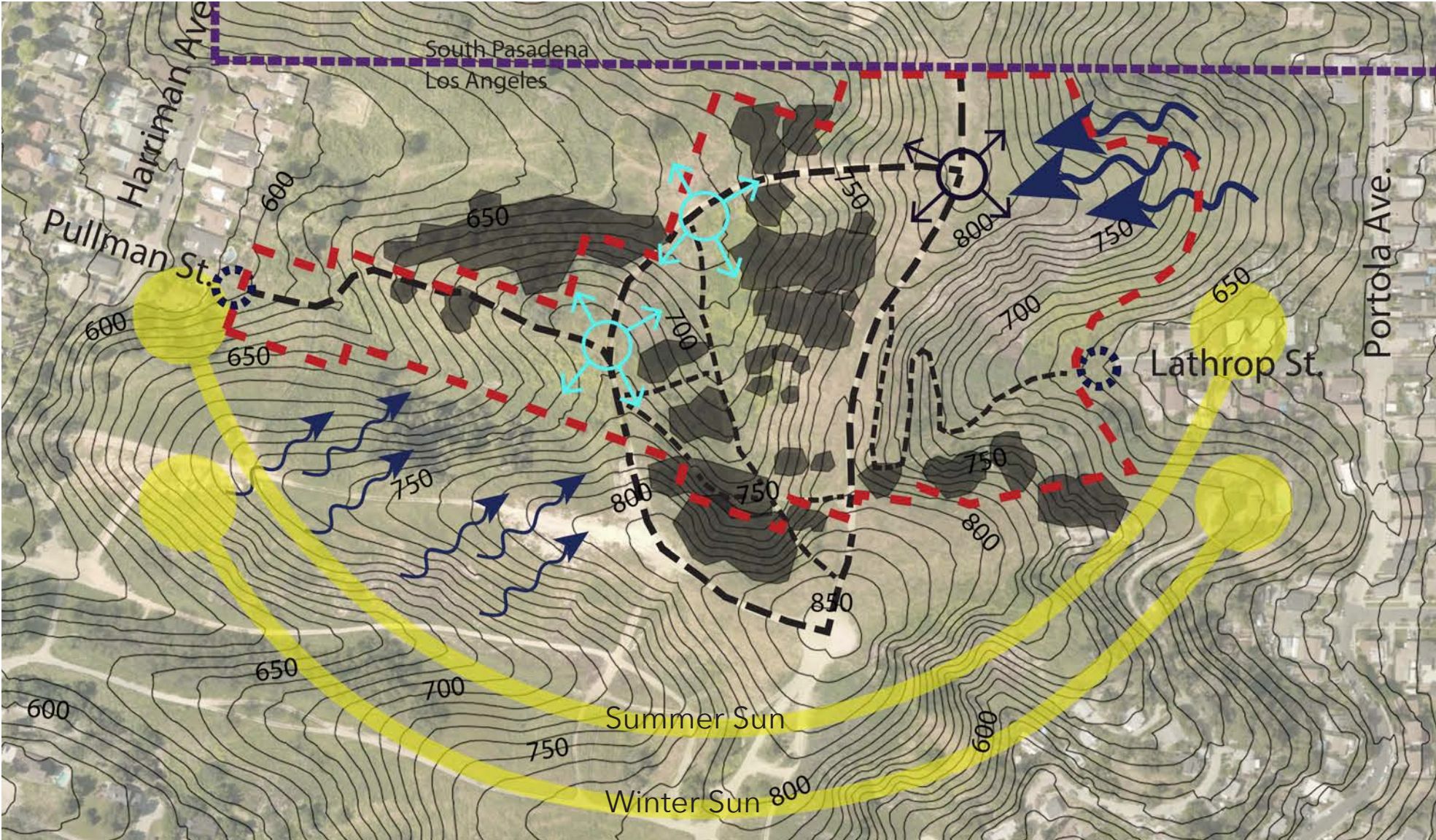
- - - - - Site
- L.A./South Pasadena Border



The site is 15 Acres of steep hillside and is part of the Repetto Hills that extend from Elysian Park. The site is considered an underdeveloped, disturbed, natural area.

The site connects two sides of the hill to a residential neighborhood via Pullman St. on the west and Lathrop St. on the east.

SITE ANALYSIS



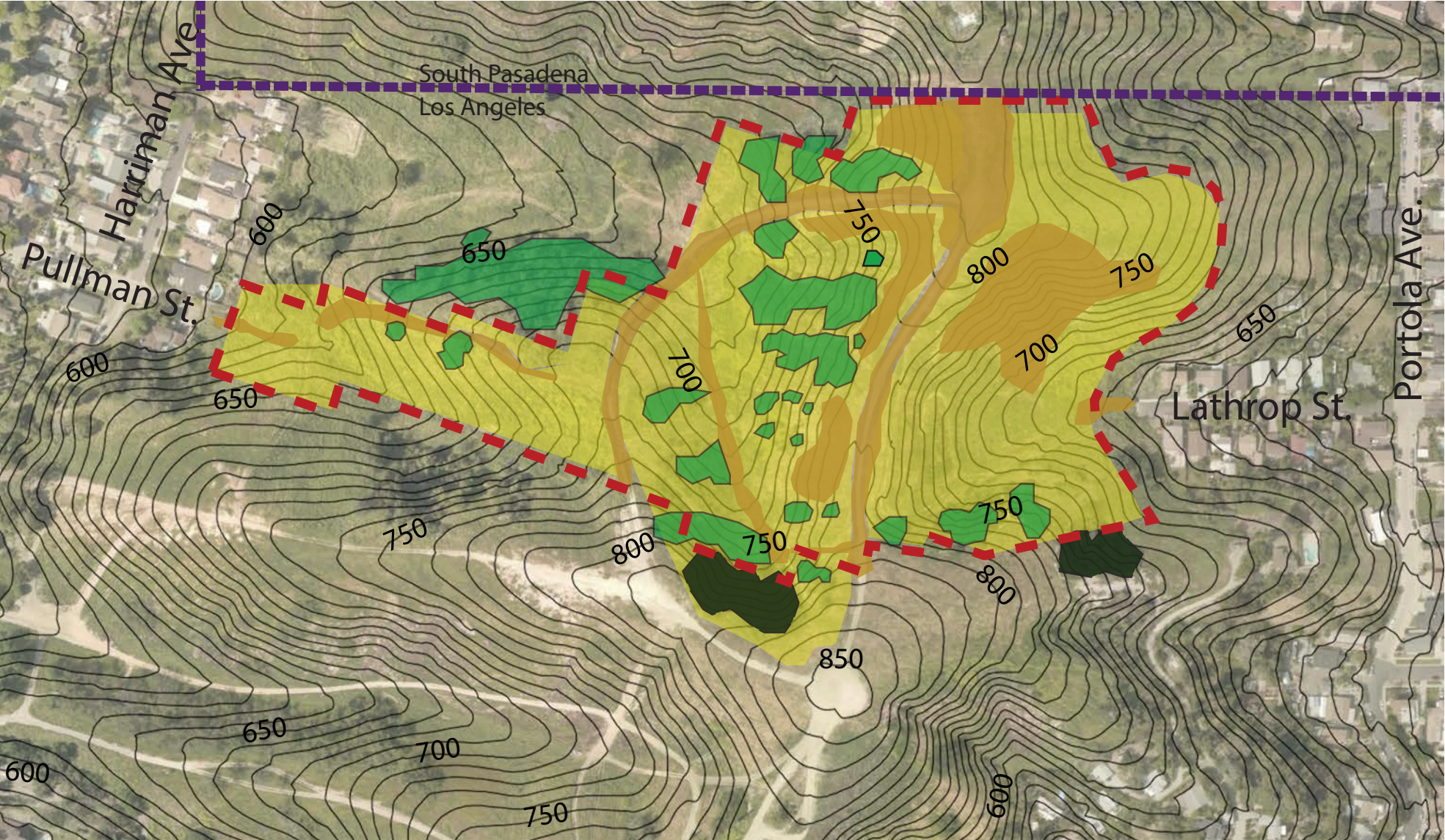
LEGEND

- Site
- Existing Primary Circulation
- Secondary Circulation
- L.A./South Pasadena Border
- Coastal Winds
- Seasonal Santa Ana Winds
- Access
- Shade
- City/Mountain Views
- Nature Views



Sunset Climate Zone: 21
Average Precipitation is 14.93 in. per year.
Wet winters and long dry summers.

Existing Trees/Erosion/Invasive Plant Species



LEGEND

--- Site

--- L.A./South Pasadena Border

Existing Walnut Trees

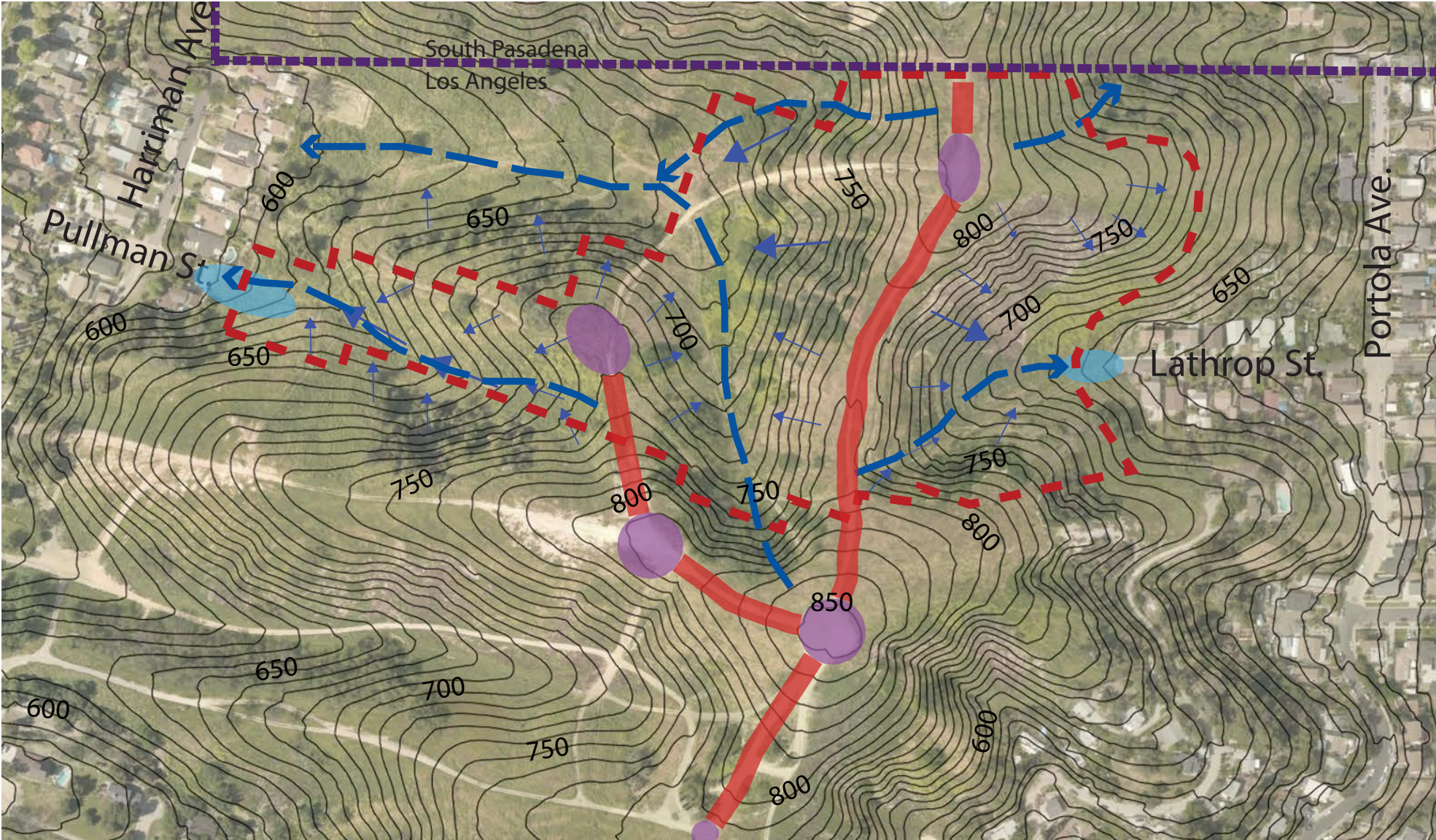
Existing Coast Live Oak Trees

Non-Native Invasive Annual Grasses

Areas of Erosion



Water Flow



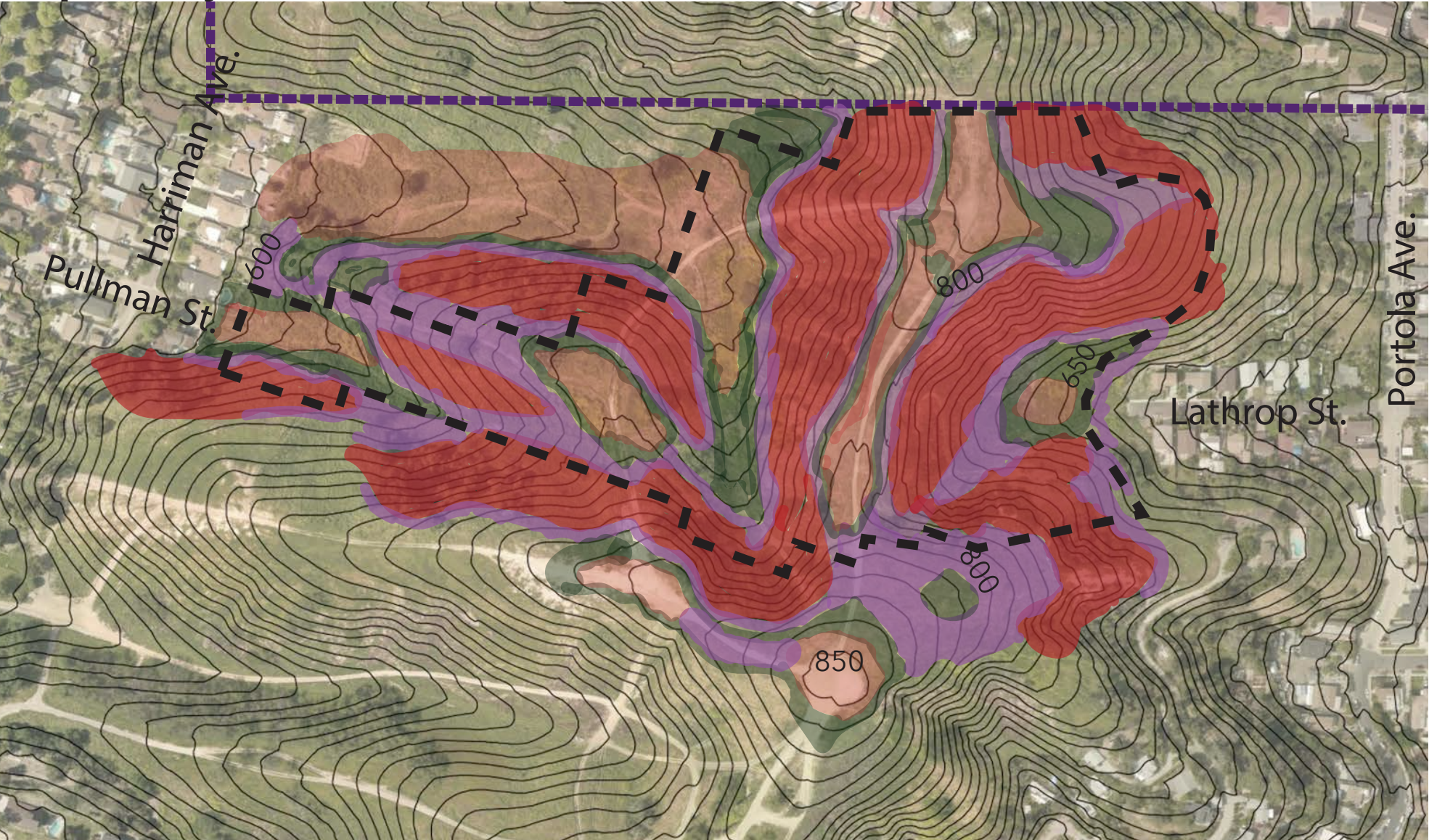
LEGEND

- Site
- L.A./South Pasadena Border
- Swale Line
- Flooding Issues During Major Storm Events

- Ridge Line
- Vista
- Water Flow



Slope Study

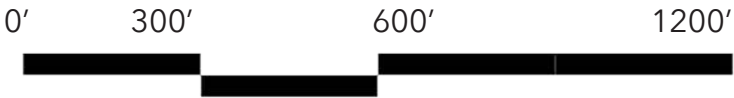


LEGEND

- Site
- L.A./South Pasadena Border

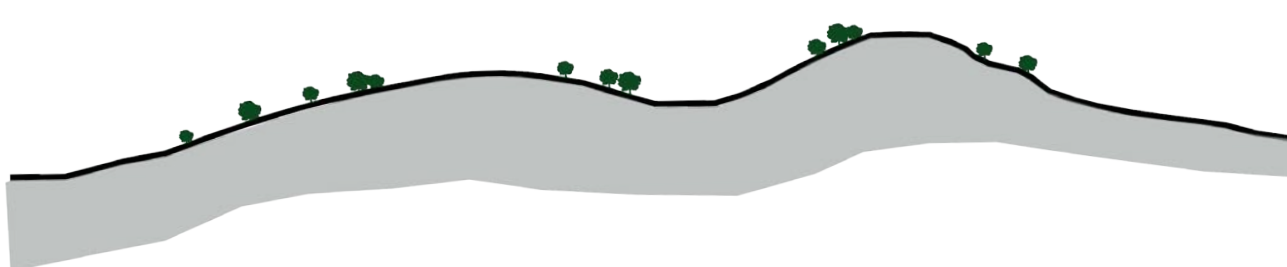
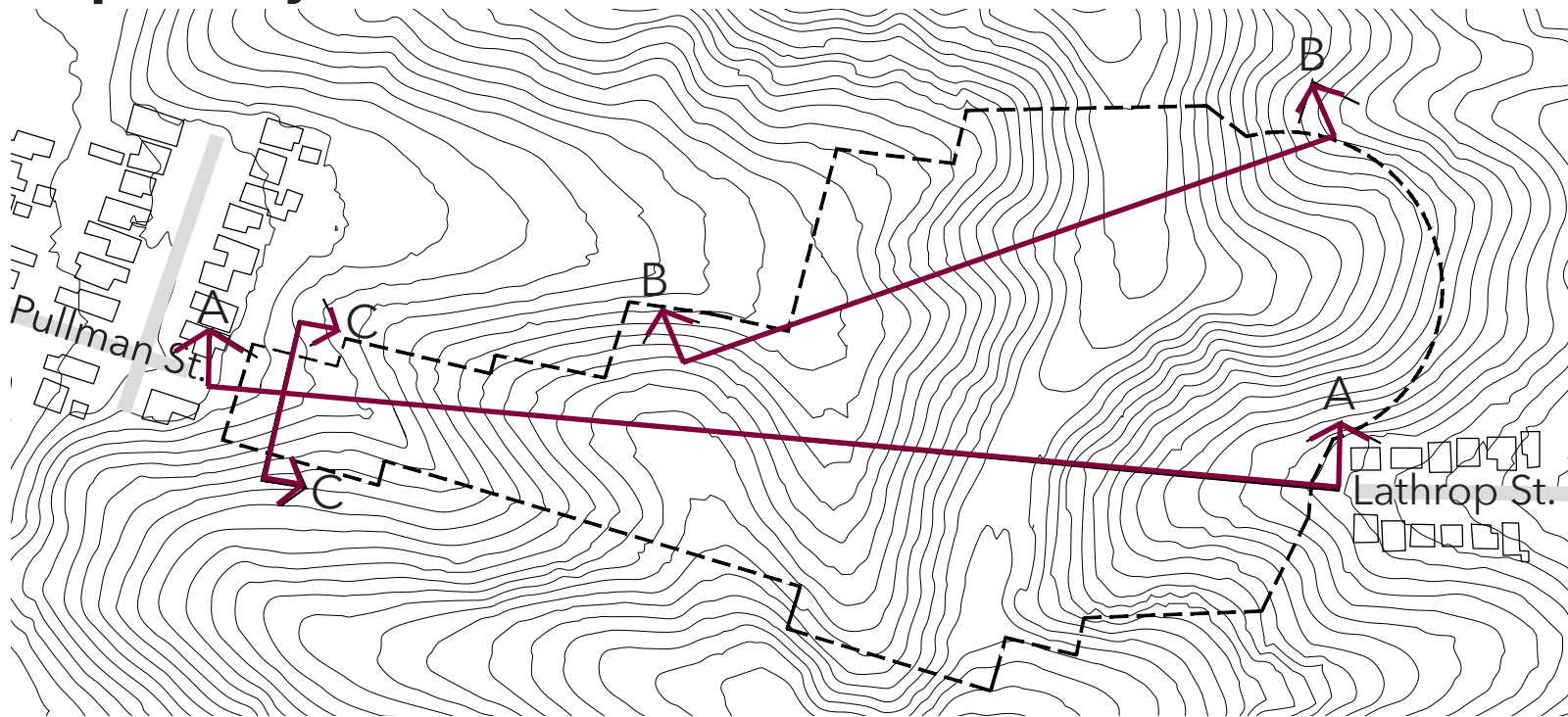
Slope Study

Light Pink	0 - 8%
Light Green	9 - 11%
Purple	12 - 20%
Red	20% - <

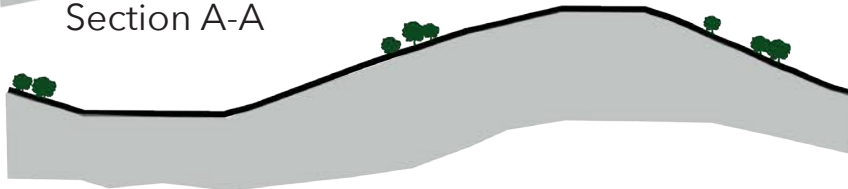


This slope study shows that more than 1/2 of the terrain have slopes greater than 20% leaving limited areas that are flat. This makes circulation on the site difficult.

Slope Study



Section A-A

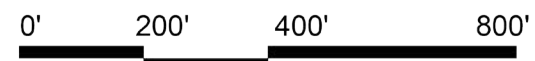


Section B-B



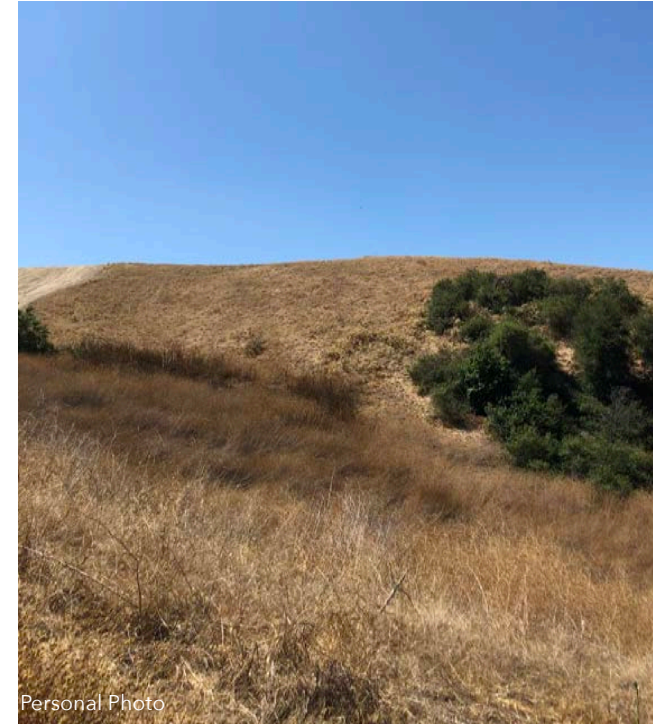
Section C-C

These existing cross sections through the site show the areas that are the flattest, and will be the areas best suited for programming the space, i.e. placement of picnic areas, the nature play area, or the nature center.



Major Constraint: Black Mustard (*Brassica nigra*)

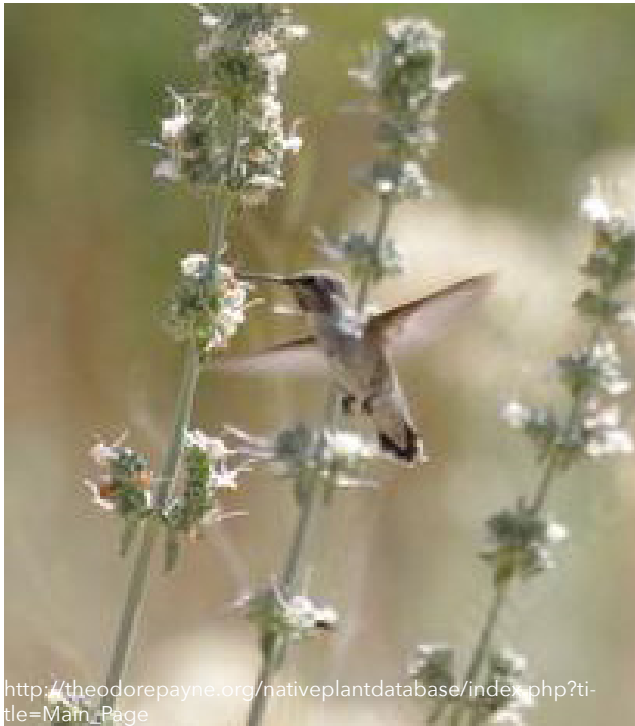
- Invasive annual plant native to the middle east and southern Europe
- Common in Southern California and has become associated with coastal sage scrub.
- Flourishes in disturbed areas such as areas that have been cleared for fire management



- Fields of mustard transform native habitats into annual grasslands which increase the frequency of fires in chaparral and coastal sage scrub.
- A single plant can produce thousands of seeds. It is almost impossible to get rid of them.
- Fast growing, dry up quickly, and become fuel for fires.

Coastal Sage Scrub Restoration

- Vegetation type that is only found in southern California
- Home to over 400 native plant species, 150 bird species, and 100-200 butterfly species.
- Only 10-30% of the original Coastal Sage Scrub remains today.



http://theodorepayne.org/nativeplantdatabase/index.php?title=Main_Page
White sage (*Salvia apiana*)

- This unique ecosystem consists of drought-tolerant and evergreen species and annual plants



<https://www.laspilatas.com/nature-of-california/plants/100--asclepias-fascicularis>
Narrowleaf Milkweed (*Asclepias fascicularis*)

- Located in a biodiversity hot spot which means that a large number of plant and animal species live in a small area



http://theodorepayne.org/nativeplantdatabase/index.php?title=Main_Page
Toyon (*Heteromeles arbutifolia*)

- Currently, many efforts are being made to restore the habitat that has been lost to fire and development. This will help reduce fire frequency, erosion, and the invasion of non-native plants and provide connectivity between existing habitat fragments.

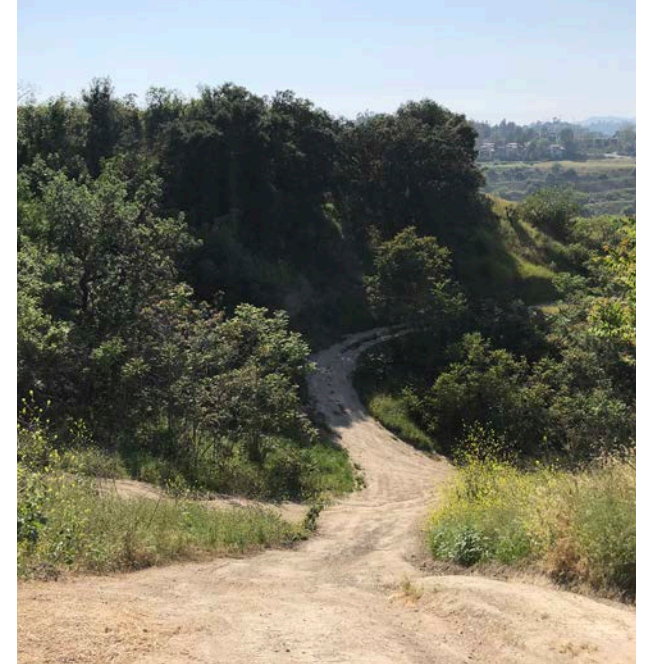
OPPORTUNITIES



RESTORE NATIVE PLANT COMMUNITY



PRESERVE WILDLIFE HABITAT



EXPLORE NATURE



0' 300' 600' 1200'



OPPORTUNITIES



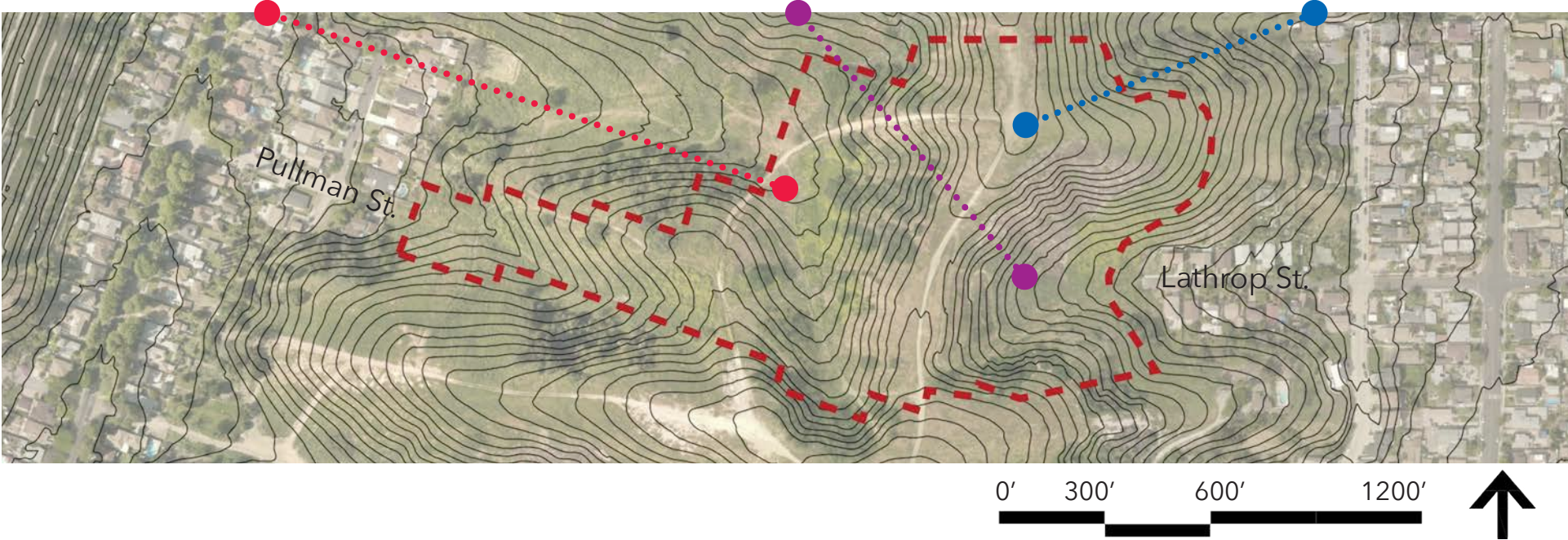
BIOSWALES ALONG SWALE LINES



CREATE A NATURE CENTER



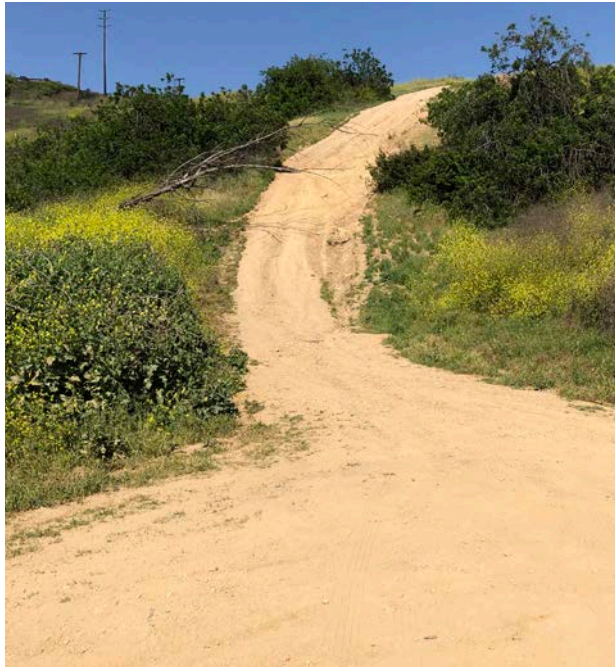
EXPERIENCE CITY VIEWS



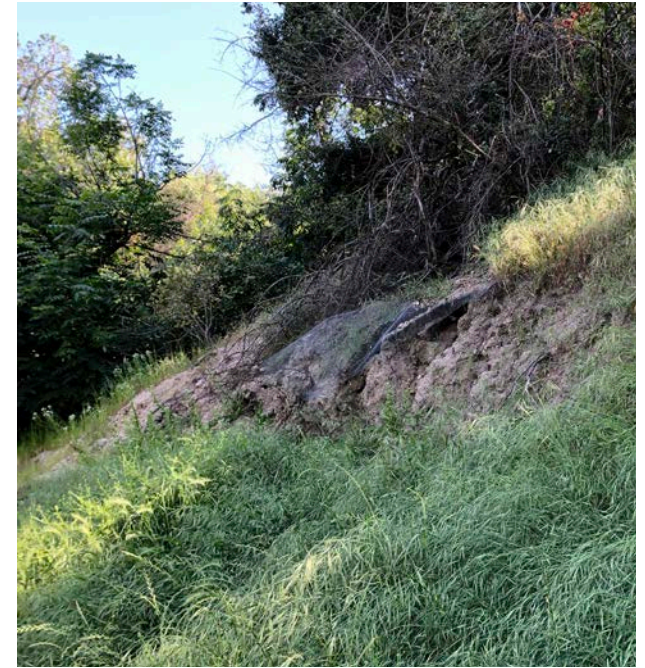
CONSTRAINTS



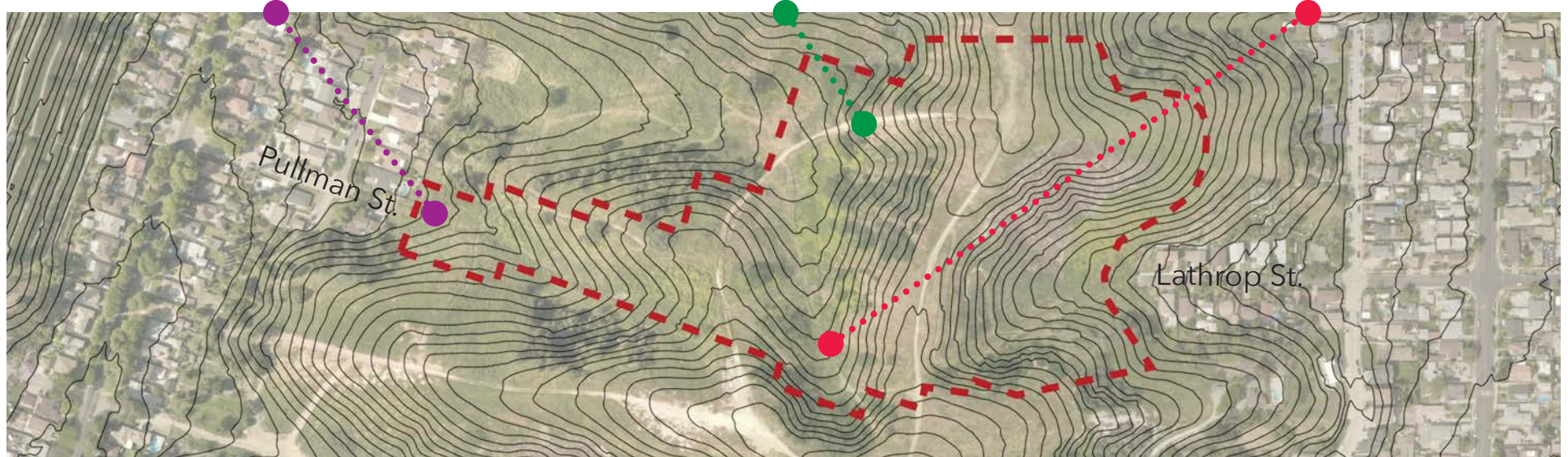
STORM WATER/FLOODING



STEEP TERRAIN: HARD TO WALK



EROSION



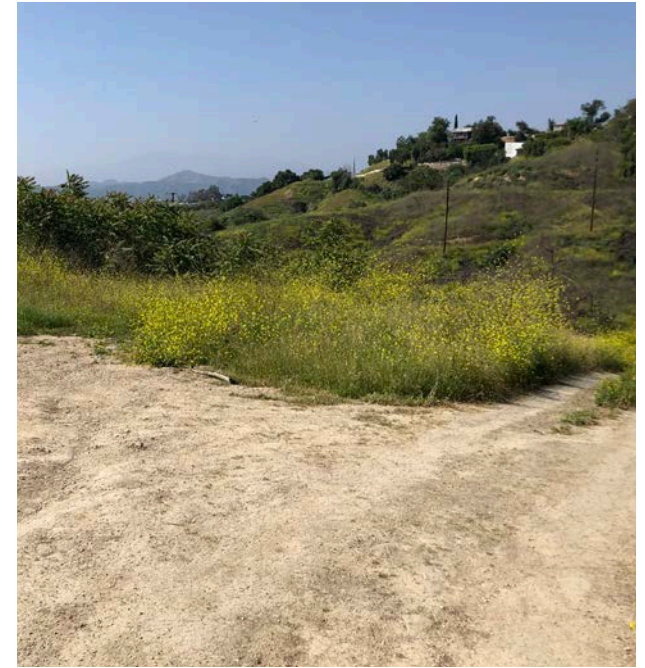
CONSTRAINTS



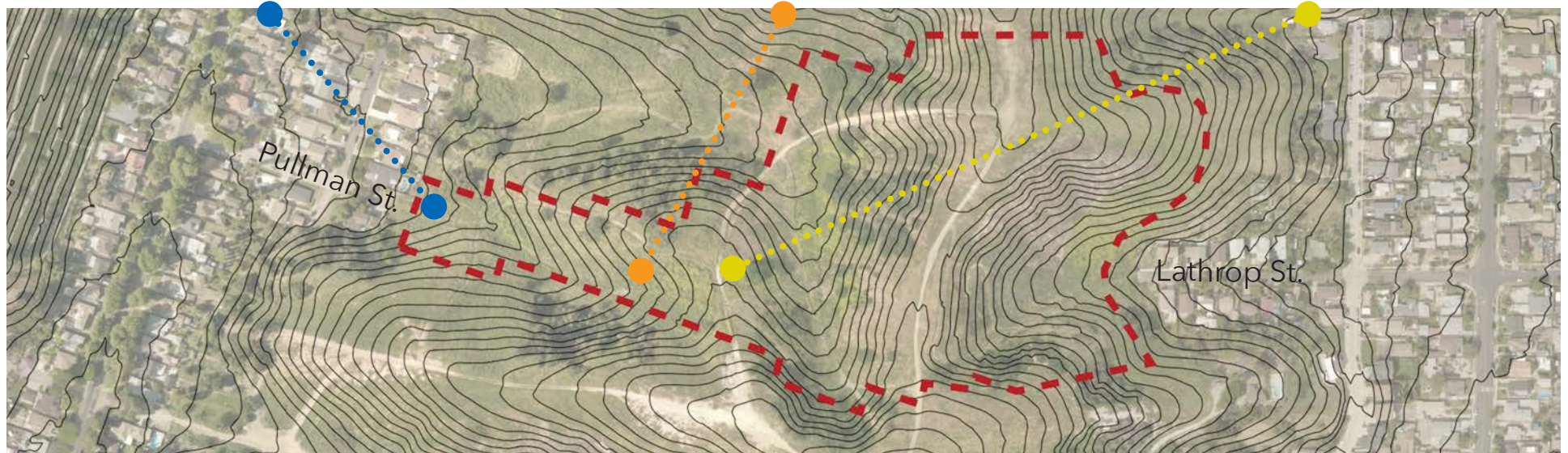
DISCONNECTED



INVASIVE PLANTS/FIRE HAZARD



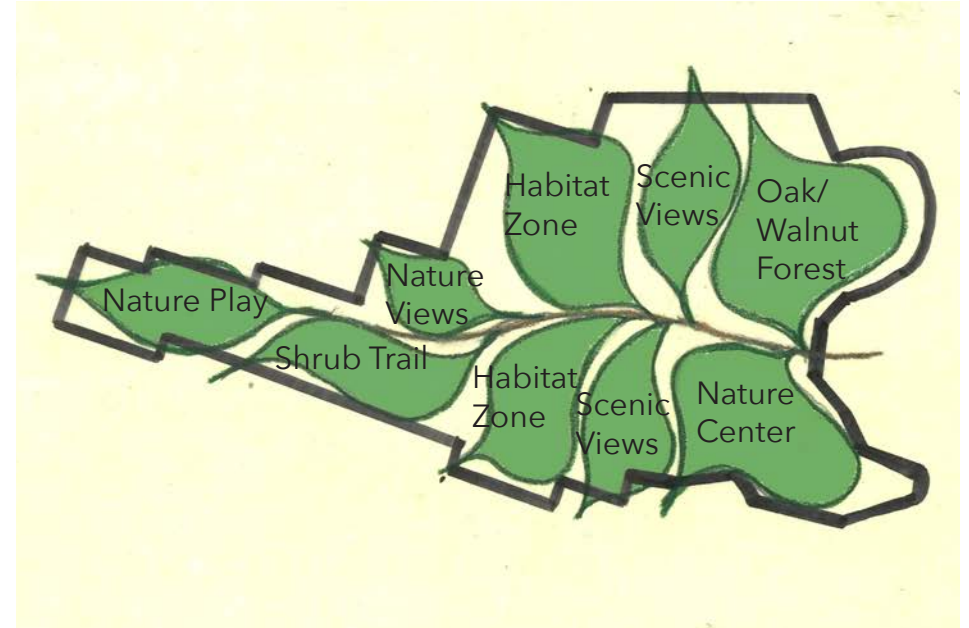
NO SIGNS OR WAYFINDING



Design Metaphor - Walnut Tree



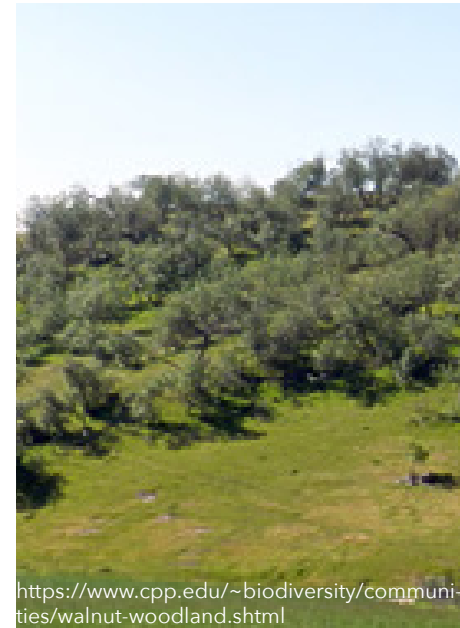
The leaves as different zones of the site



Shelter for Birds and Animals



Provide Food

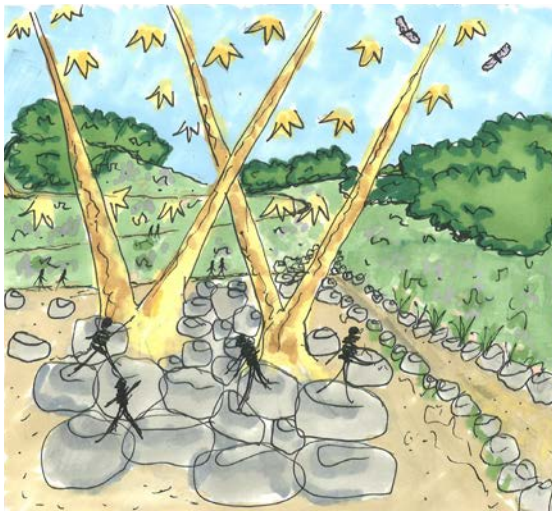
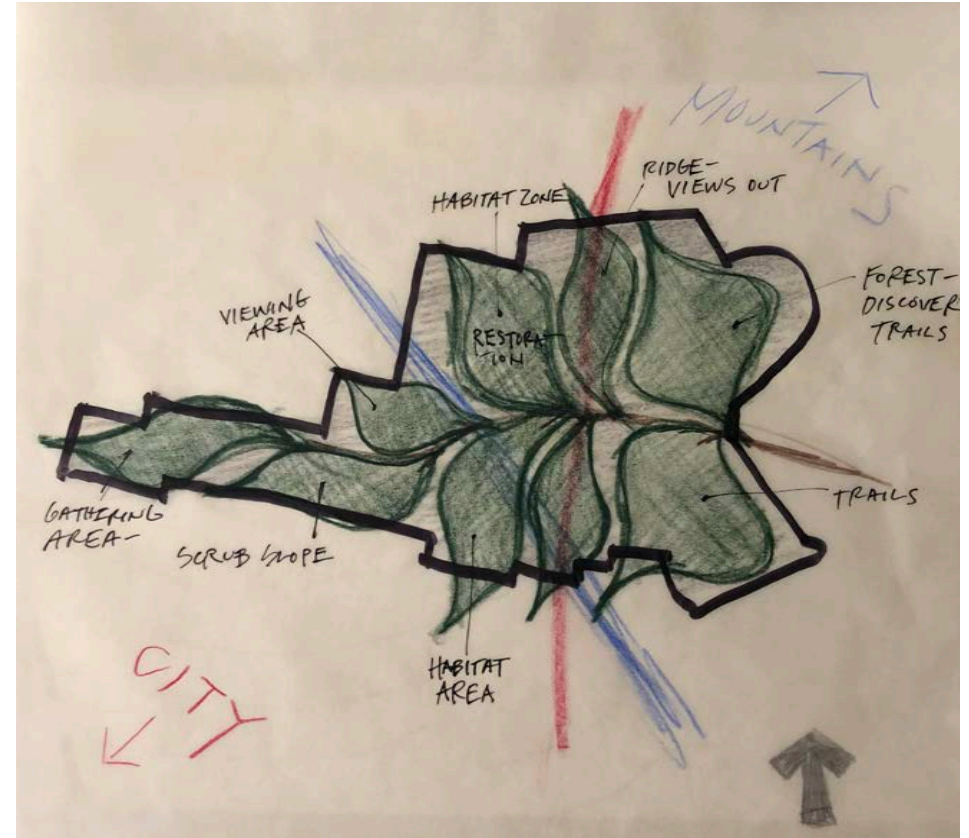
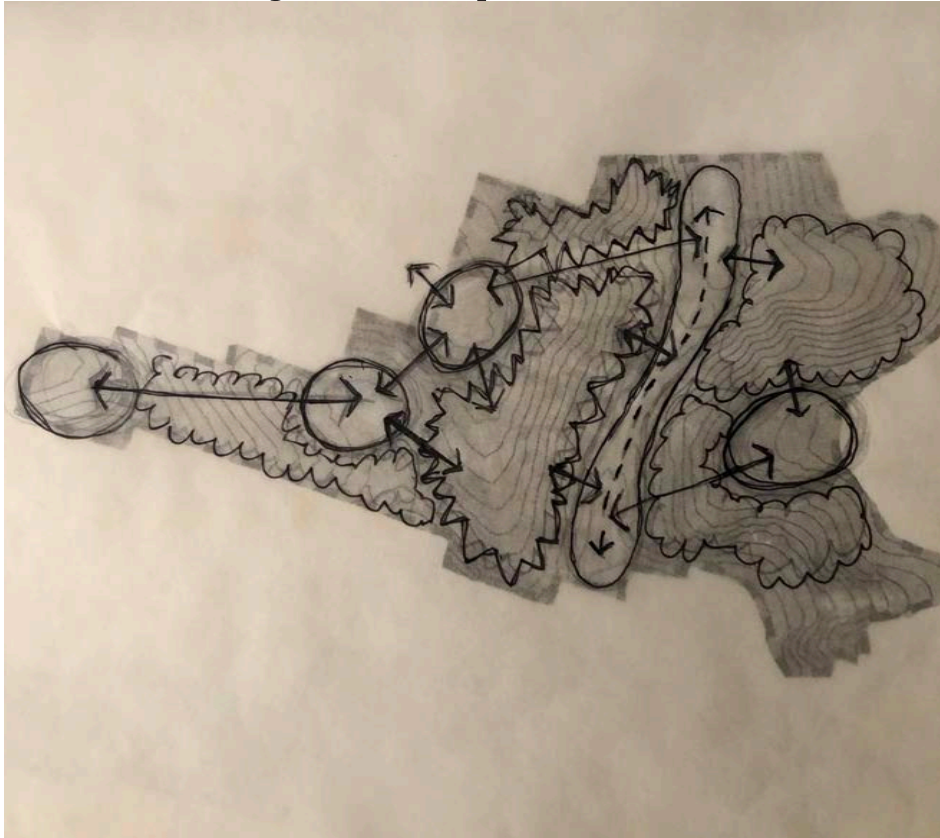


Stabilize Slopes



Re-Birth

Preliminary Concepts



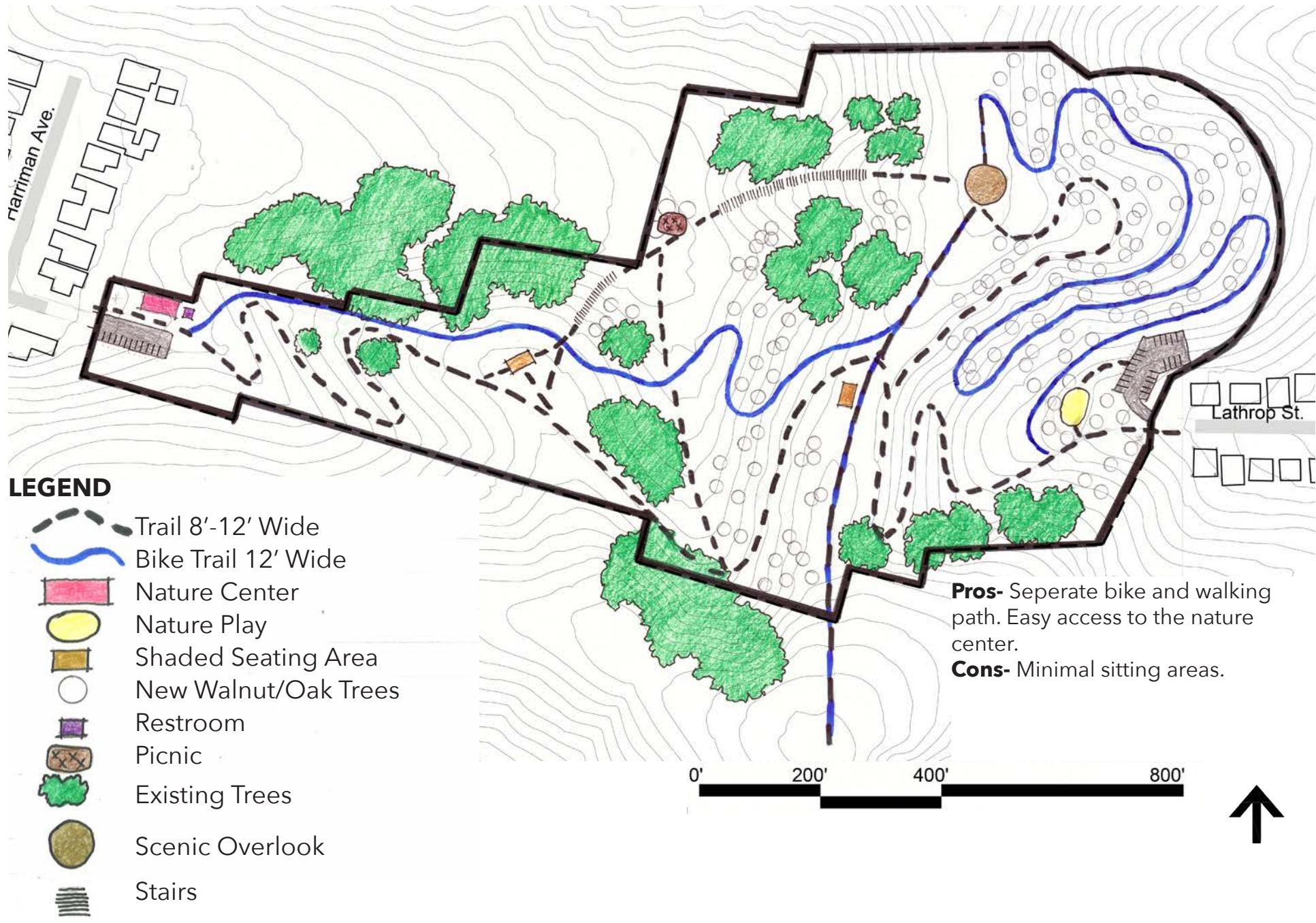
CONCEPT PLAN 1



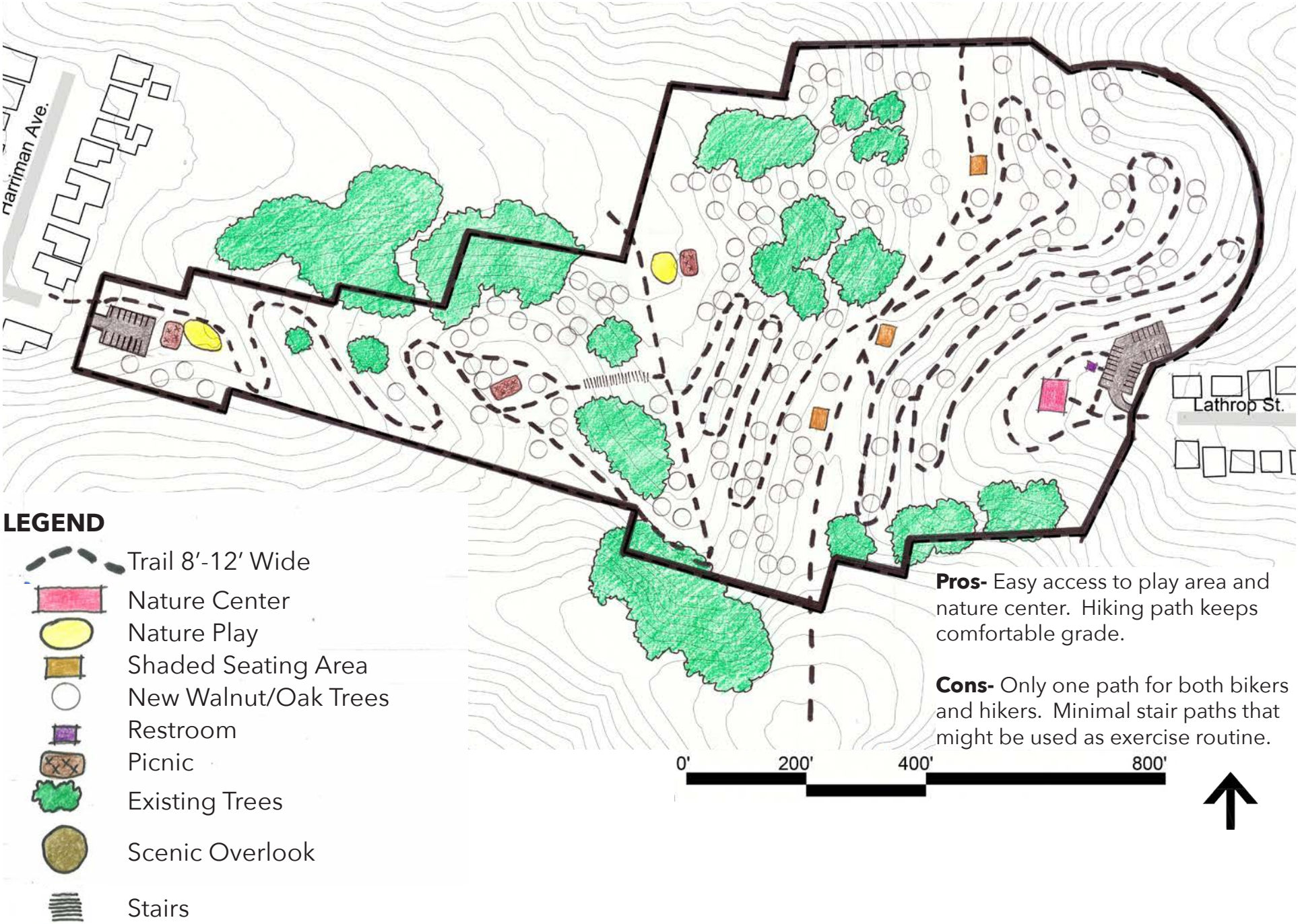
CONCEPT PLAN 2



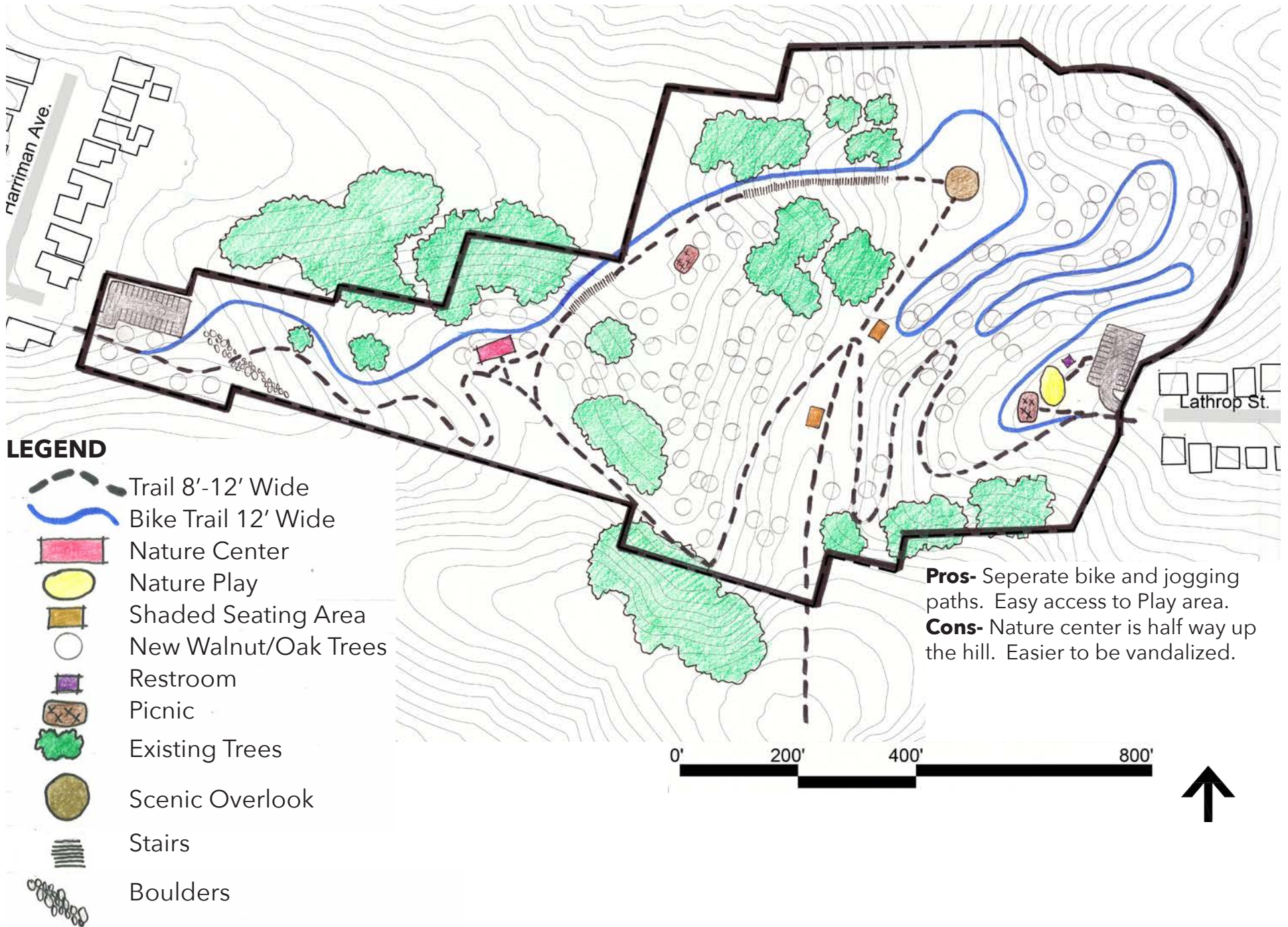
CONCEPT PLAN 3



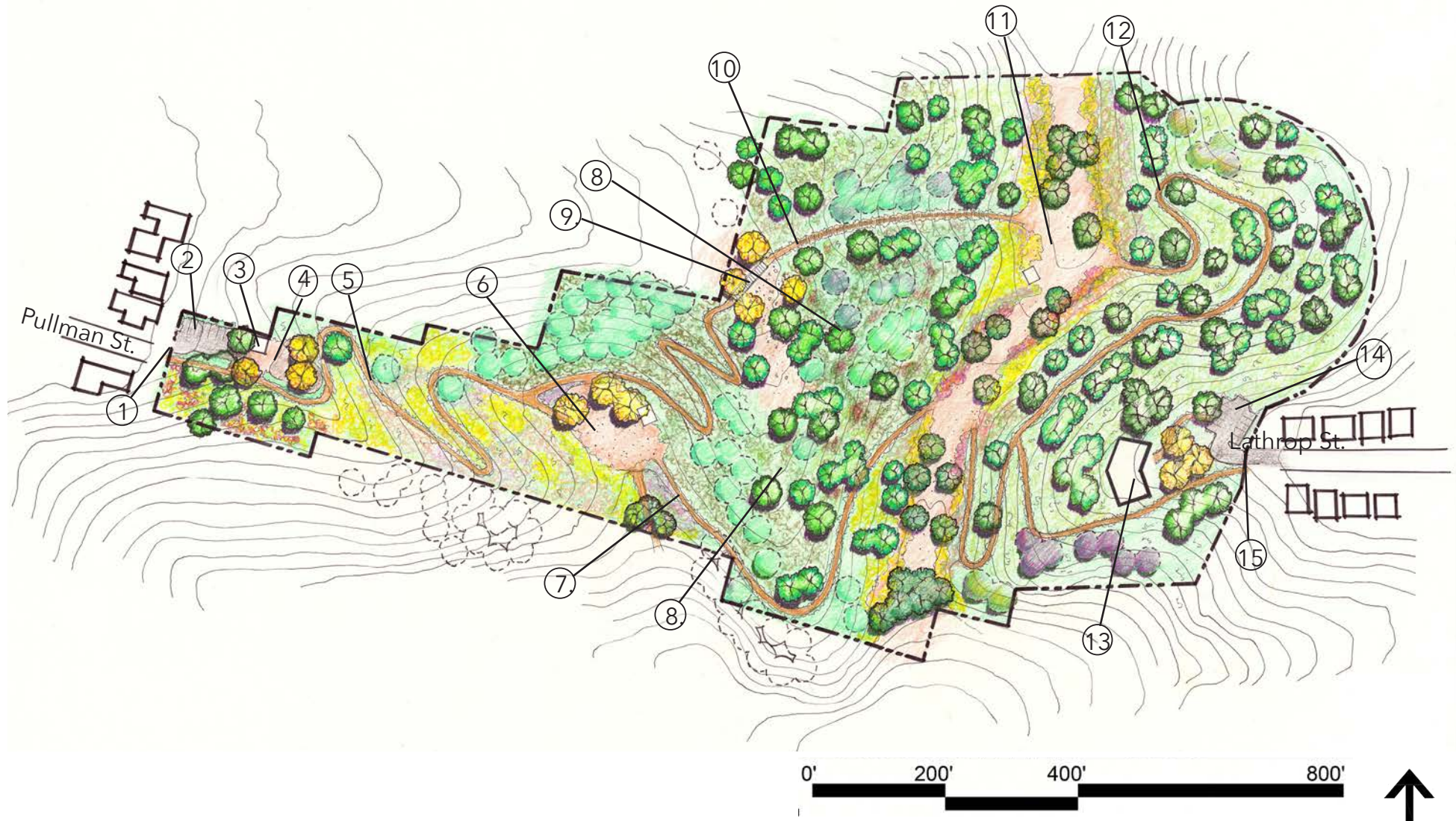
CONCEPT PLAN 4



CONCEPT PLAN 5



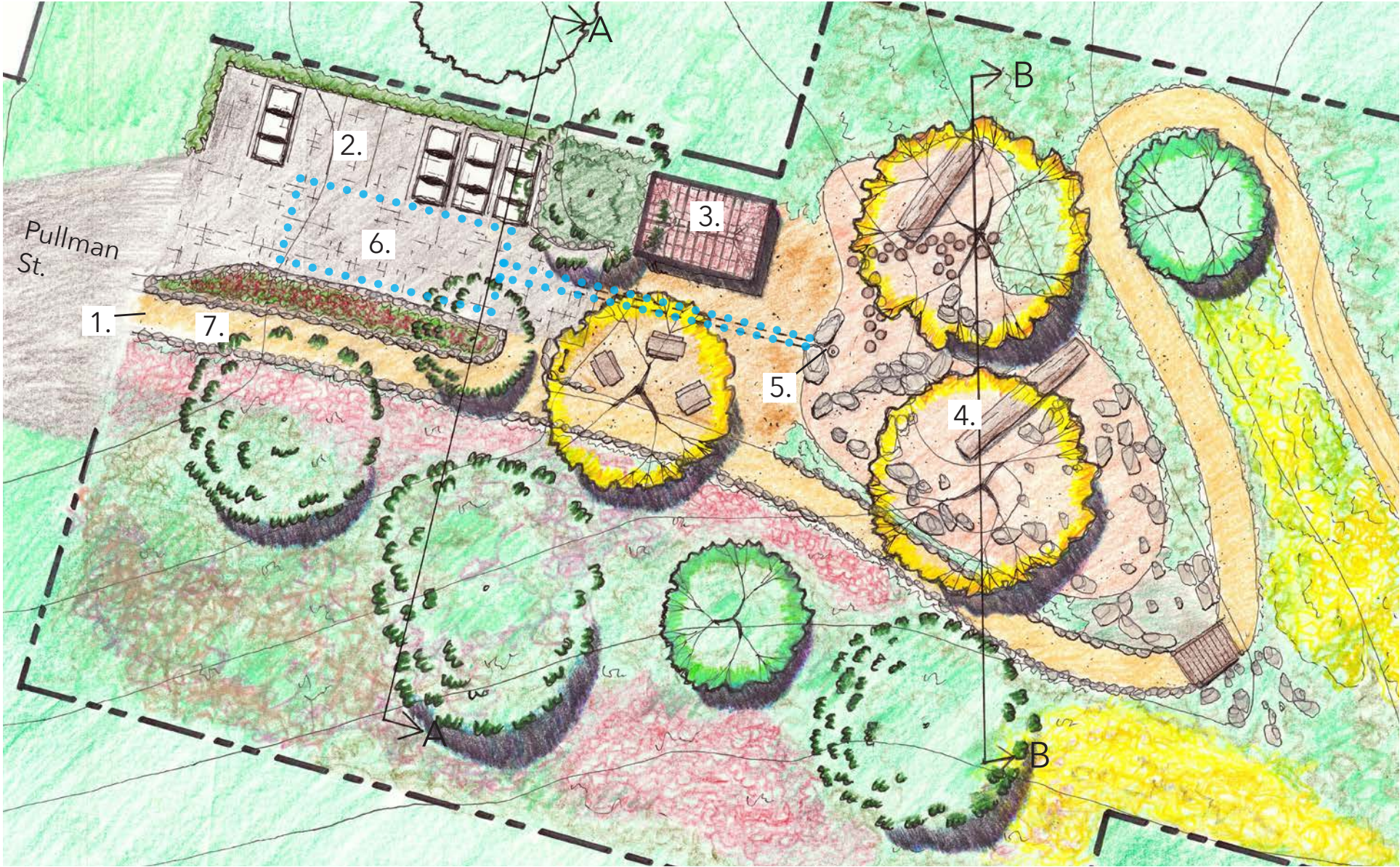
Illustrative Plan



Legend

- | | | |
|------------------------------------|-----------------------------------|------------------------------------|
| ① Pullman St. Entrance | ⑥ Wildlife Viewing/Picnic Area | ⑪ Scenic Overlook |
| ② Parking Lot (permeable material) | ⑦ Wildlife Trail | ⑫ Oak/Walnut Forest Trail |
| ③ Restrooms | ⑧ Preserved Wildlife Habitat Area | ⑬ Nature Center |
| ④ Nature Play Area | ⑨ Crossroads Bridge | ⑭ Parking Lot (permeable material) |
| ⑤ California Shrub Trail | ⑩ Stairway to Heaven | ⑮ Lathrop St. Entrance |

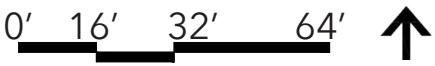
Enlargement: Pullman St. Entrance



Legend

- 1. Entrance
- 2. Parking Lot (permeable material)
- 3. Restroom
- 4. Nature Play Area/Bioswale

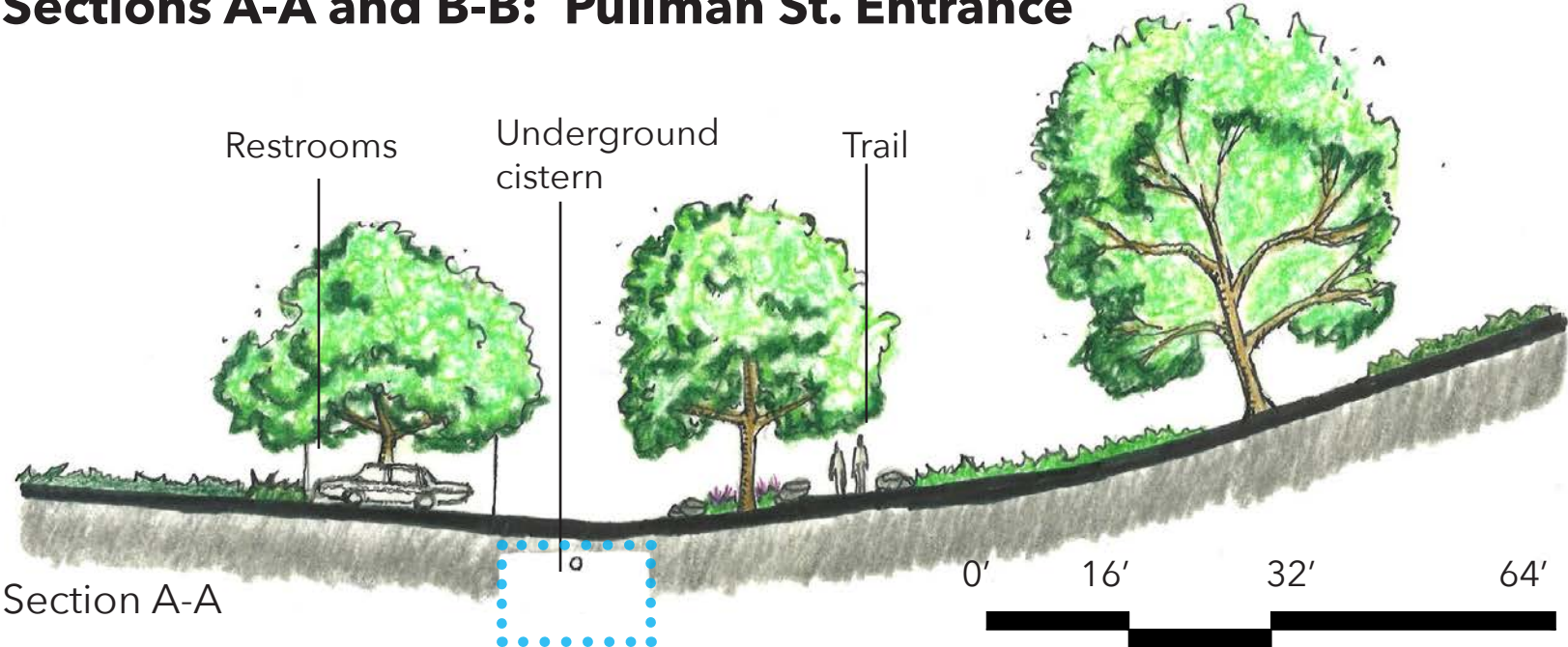
- 5. Drainage inlet from bioswale to connect to underground cistern
- 6. Underground cistern
- 7. Decomposed granite path/trail



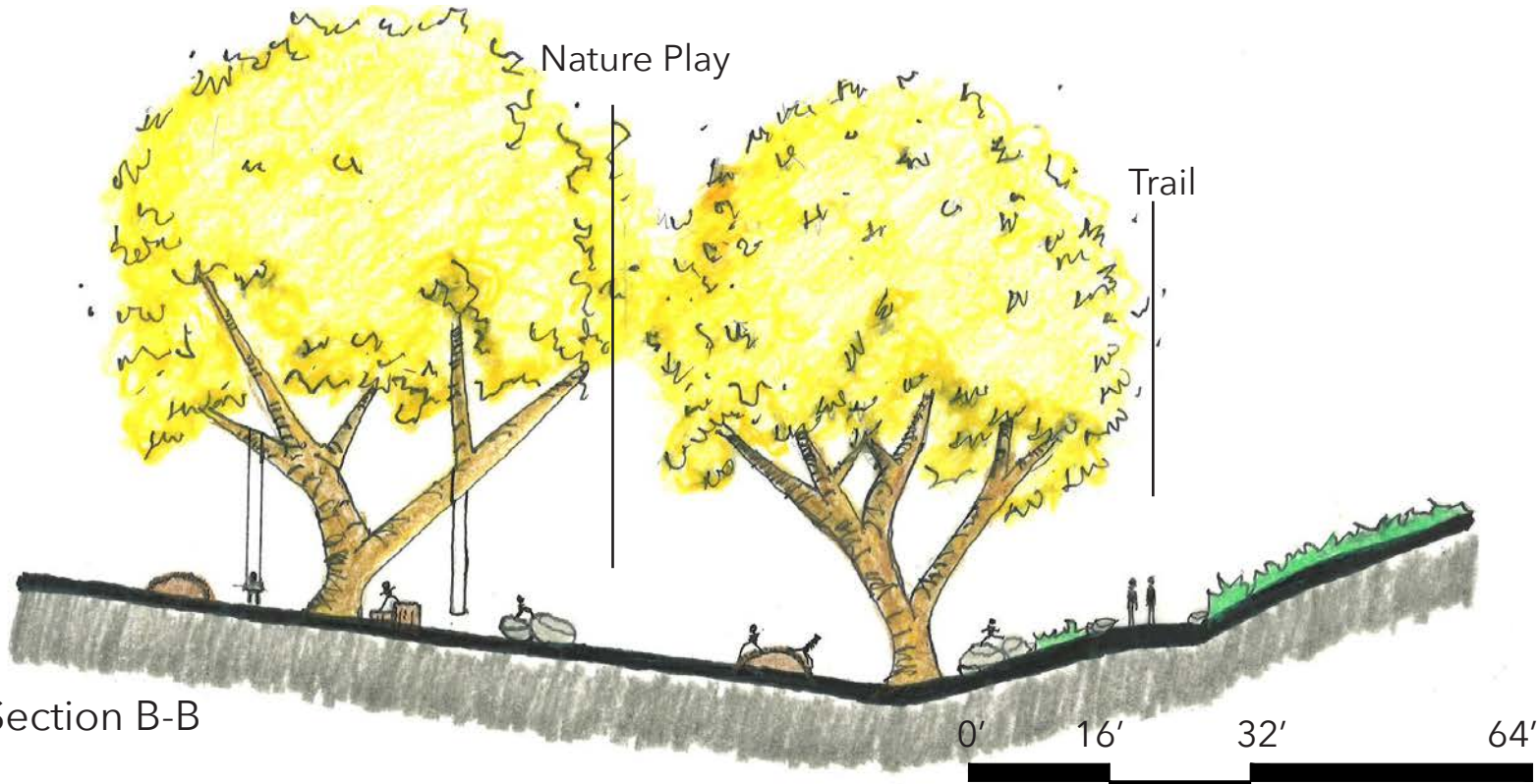
Key Map



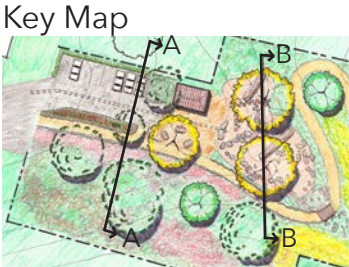
Sections A-A and B-B: Pullman St. Entrance



Section A-A



Section B-B



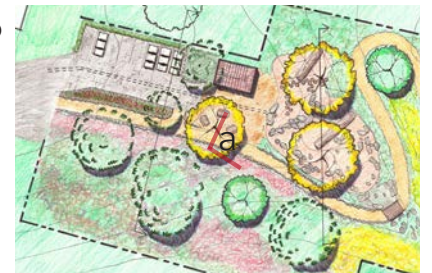
Perspective: Pullman St. Entrance



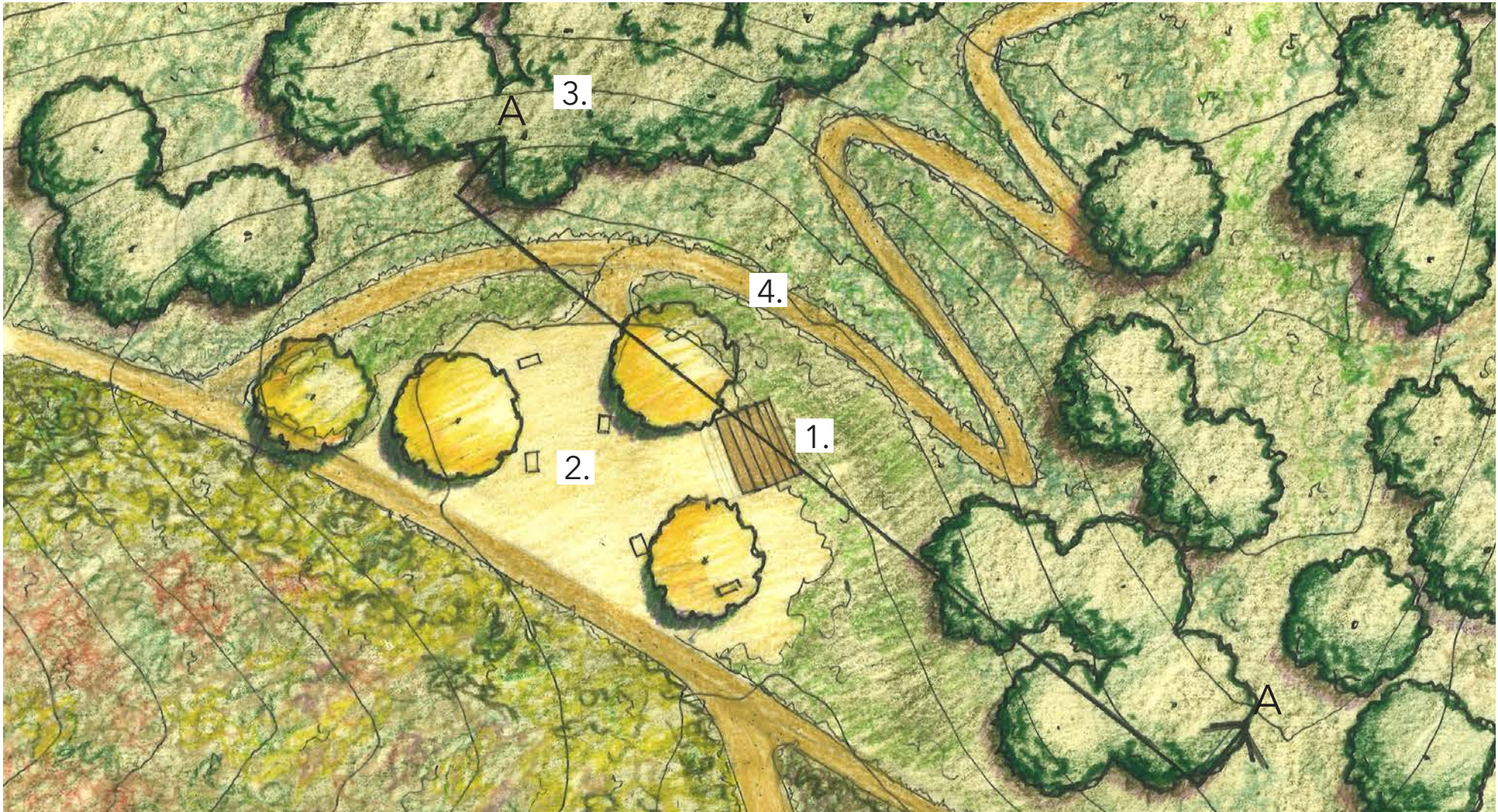
Nature Play/Bioswale Area and Trail

The nature play area is located at the main entrance on Pullman St. for easy access to parents and kids. The nature play area will also act as a bioswale in the wet months of the year and harvest storm water into an underground cistern below the parking lot. This water will be used to irrigate the plants and trees on site.

Key Map



Enlargement: Picnic/Nature Viewing Deck



Legend

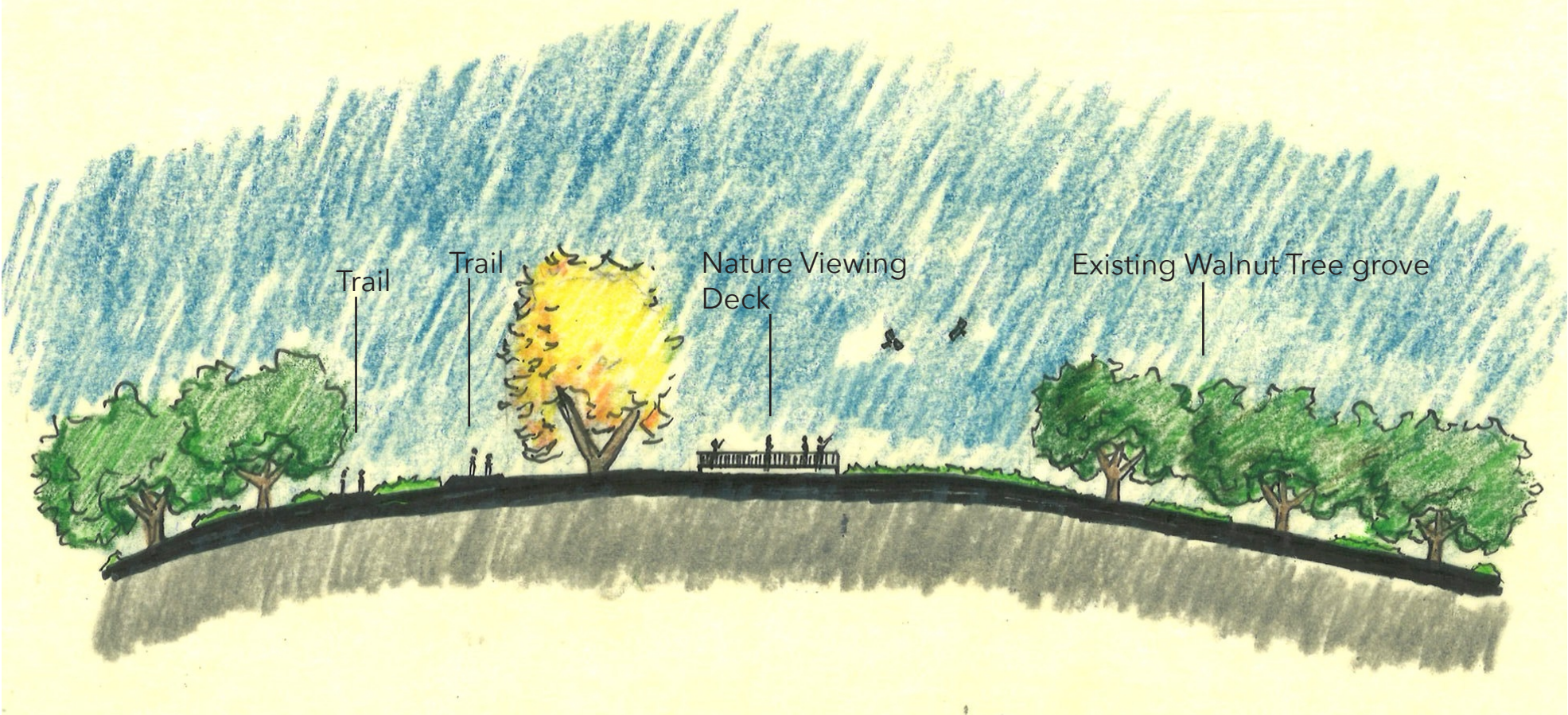
- 1. Bird watching and nature viewing deck
- 2. Picnic Area
- 3. Existing Walnut Tree grove
- 4. Trail down to bridge



Key Map



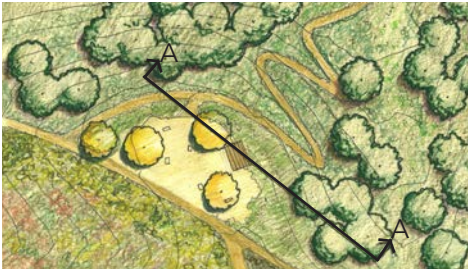
Sections A-A



Section A-A



Inspiration



Key Map

Perspective a:



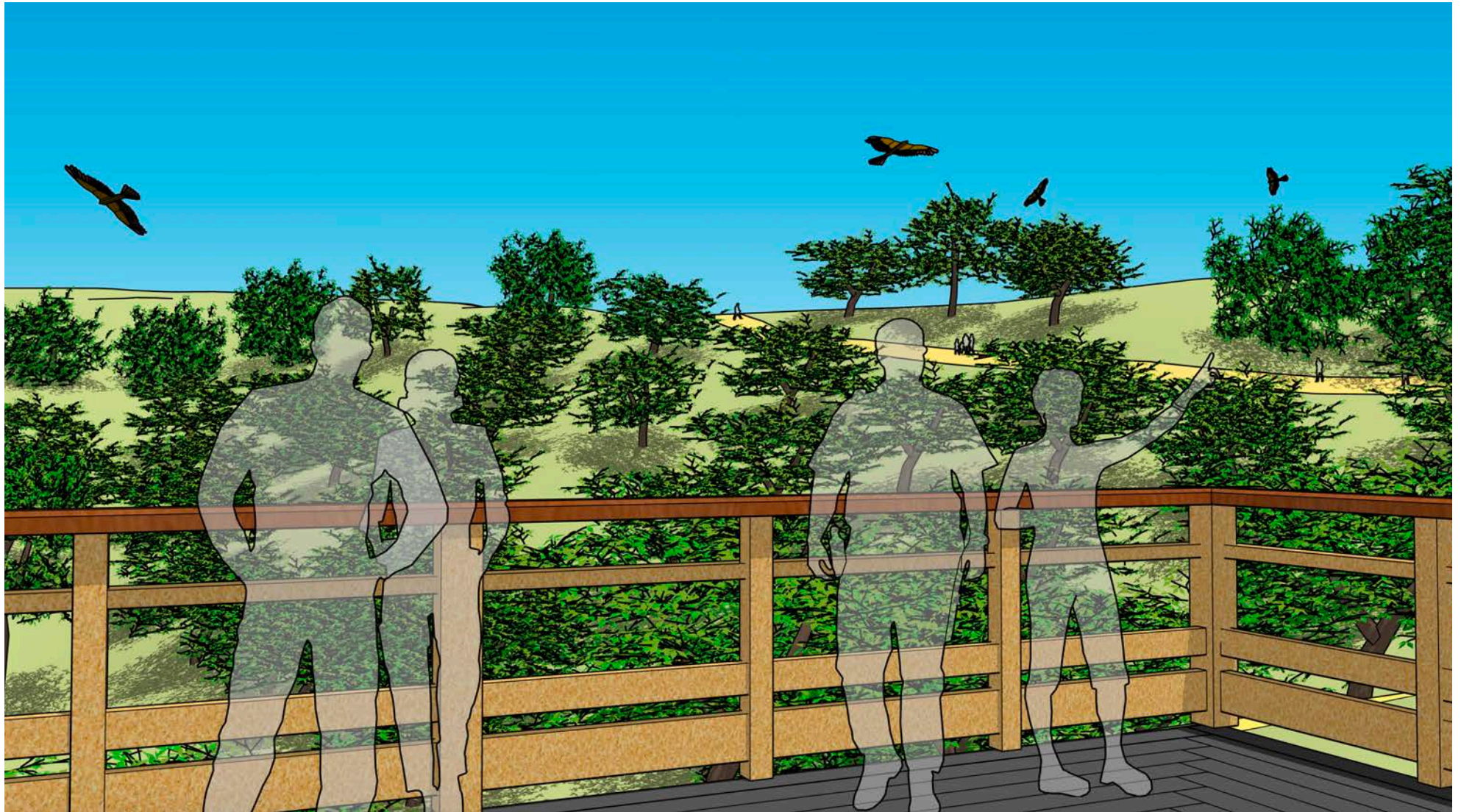
a. Trails/Picnic/Education/Viewing Deck

Half way up the hill is a picnic/gathering area with California Sycamore shade trees. This area is a vista where four trails intersect. Educational signage provides insight into the surrounding wildlife and native plant landscape. The area presents the opportunity to observe the birds and wildlife on a viewing deck that looks into the preserved wildlife habitat zone.



Key Map

Perspective b:



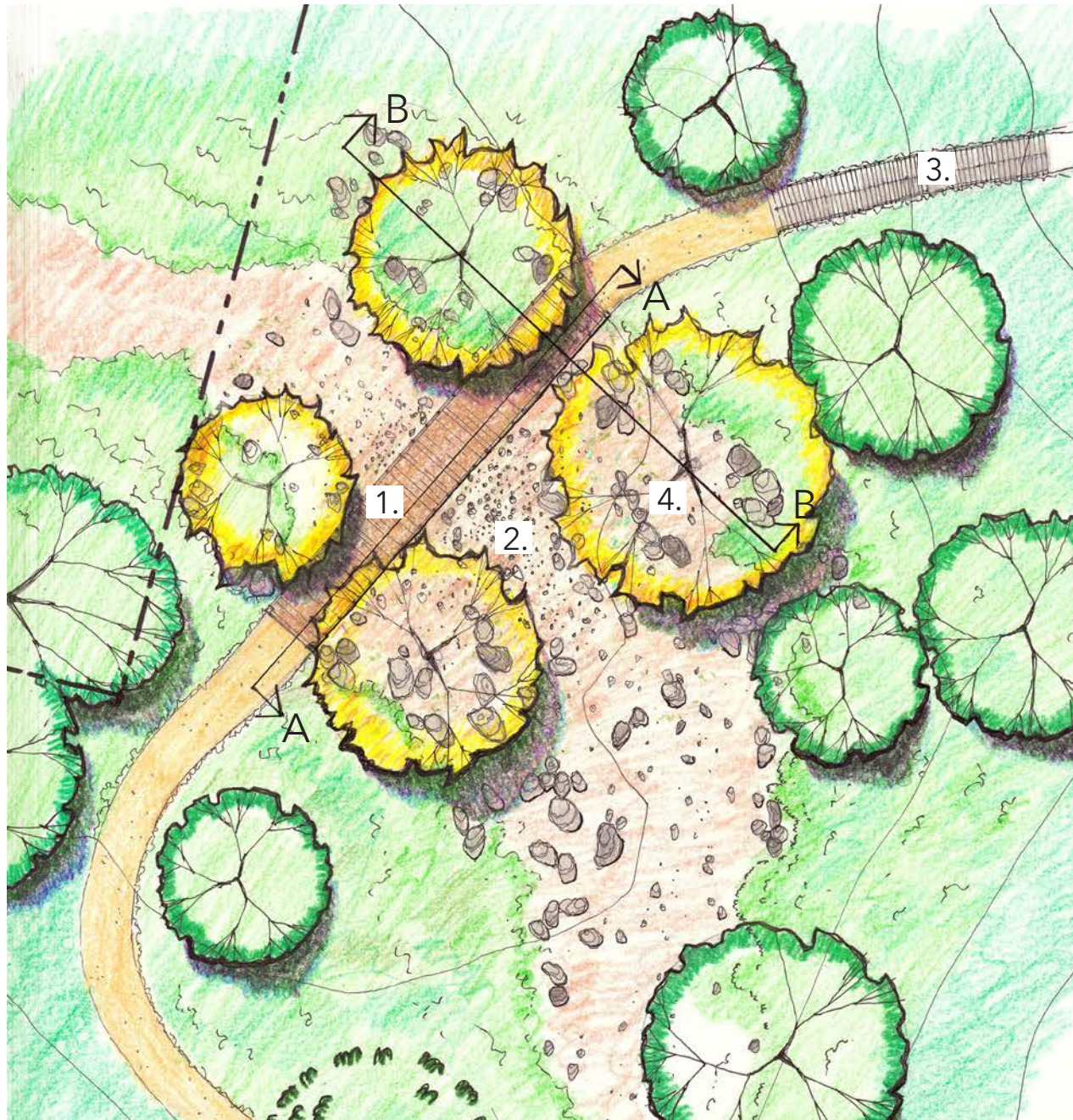
b. Nature Viewing Deck

People watching as Red-tailed Hawks fly overhead.



Key Map

Enlargement: Bridge and Bioswale



Legend

- 1. Bridge
- 2. Bio Swale
- 3. Stairs
- 4. *Platanus racemosa* (California Sycamore)

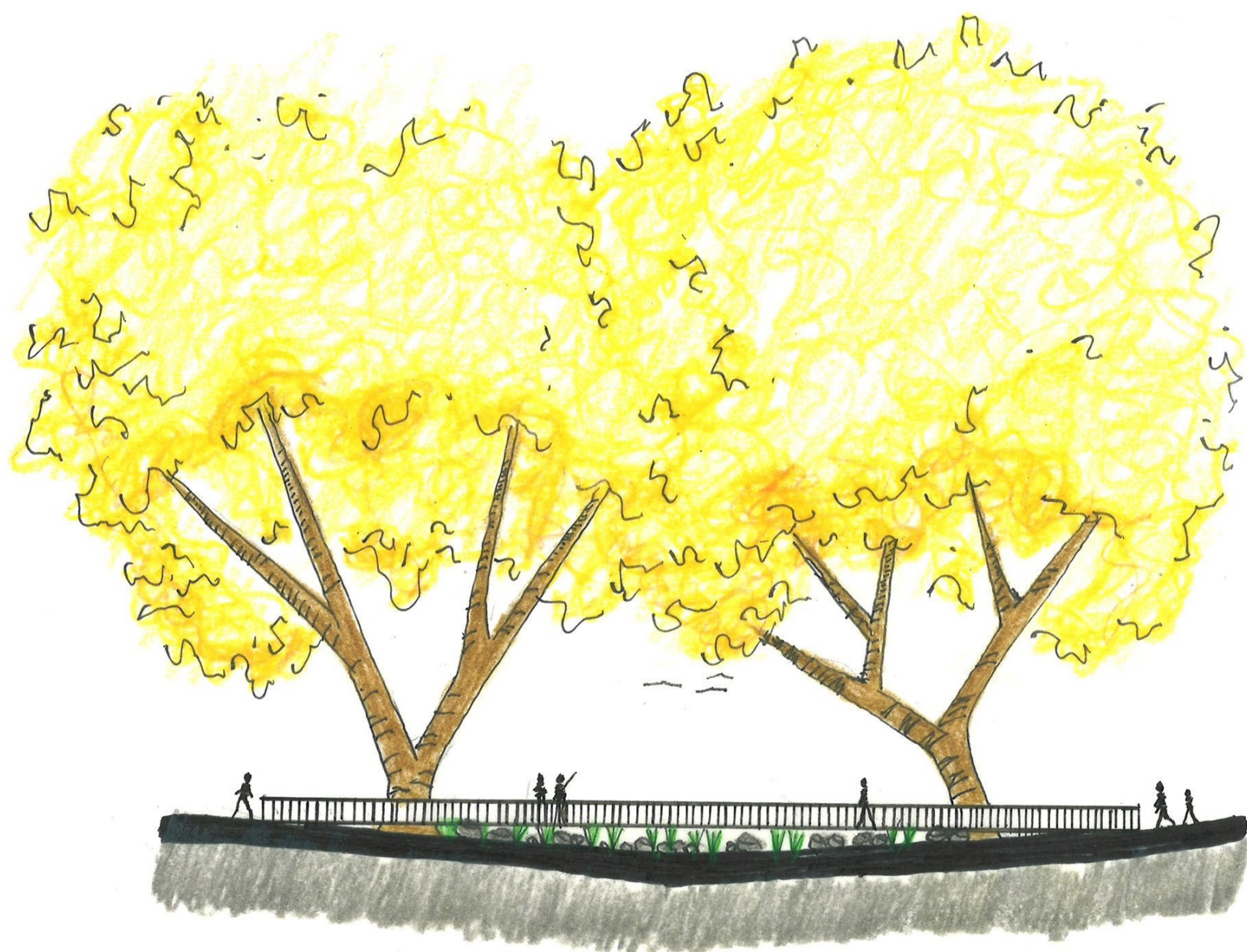


Key Map



0' 16' 32' 64' ↑

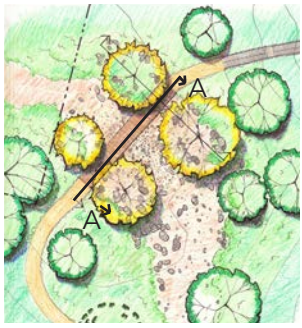
Section A-A



Section A-A



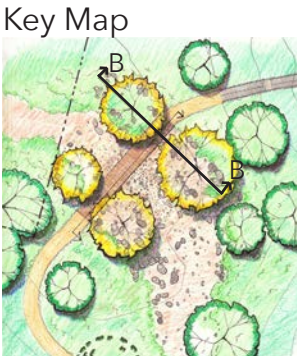
Key Map



Section B-B



Section B-B



Perspective: Bridge



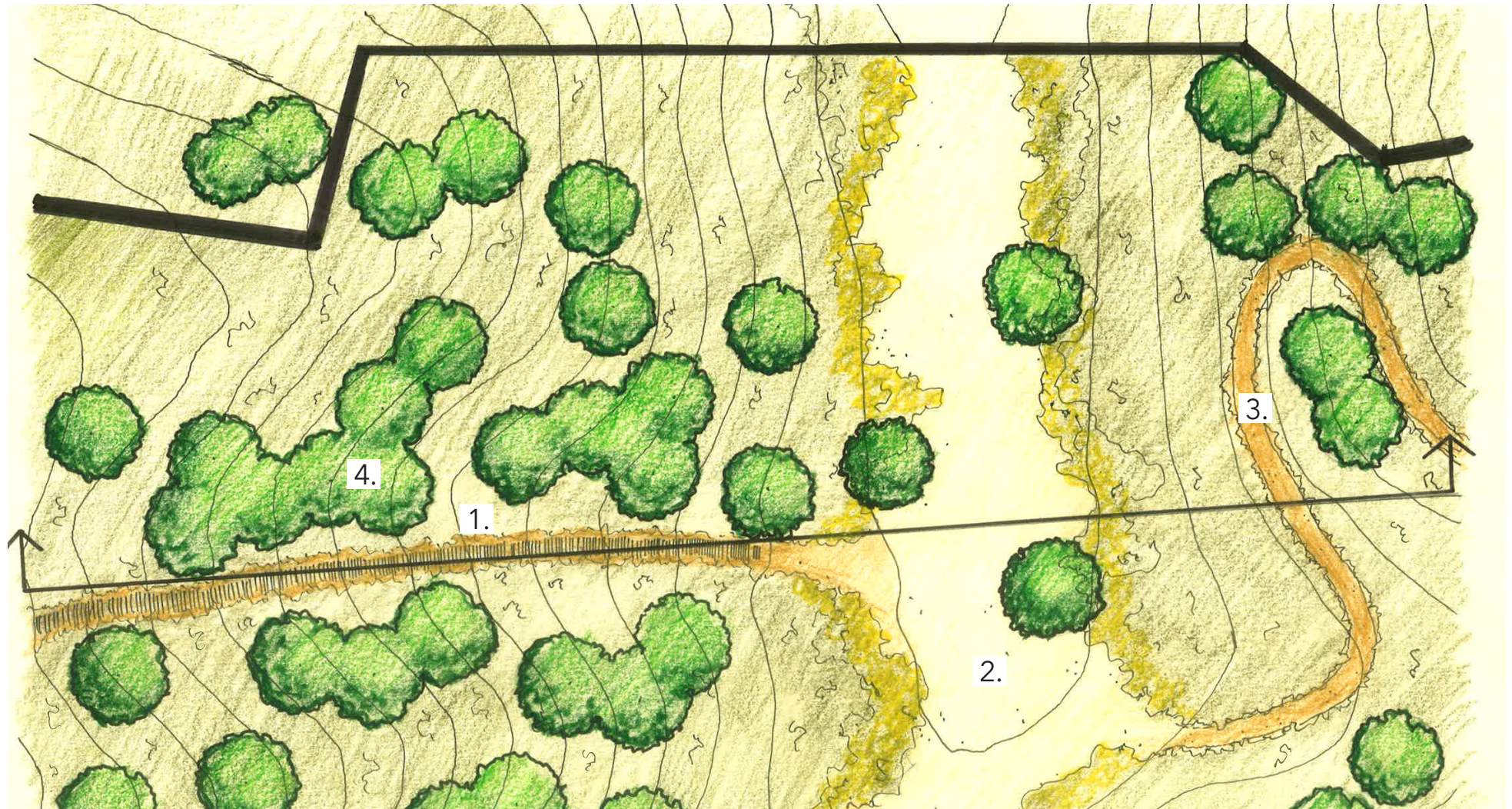
a. View from bridge into bioswale and wildlife habitat zone

A bioswale will slow down the flow of water as it makes its way down the hills. The bioswale will help create habitat for wildlife and recharge the ground water while also creating an esthetically pleasing landscape for people to enjoy.

Key Map



Enlargement: Grand Stairs



Legend

- 1. Grand Stairs
- 2. Scenic Overlook
- 3. Walnut/Oak trail
- 4. Existing Walnut Grove

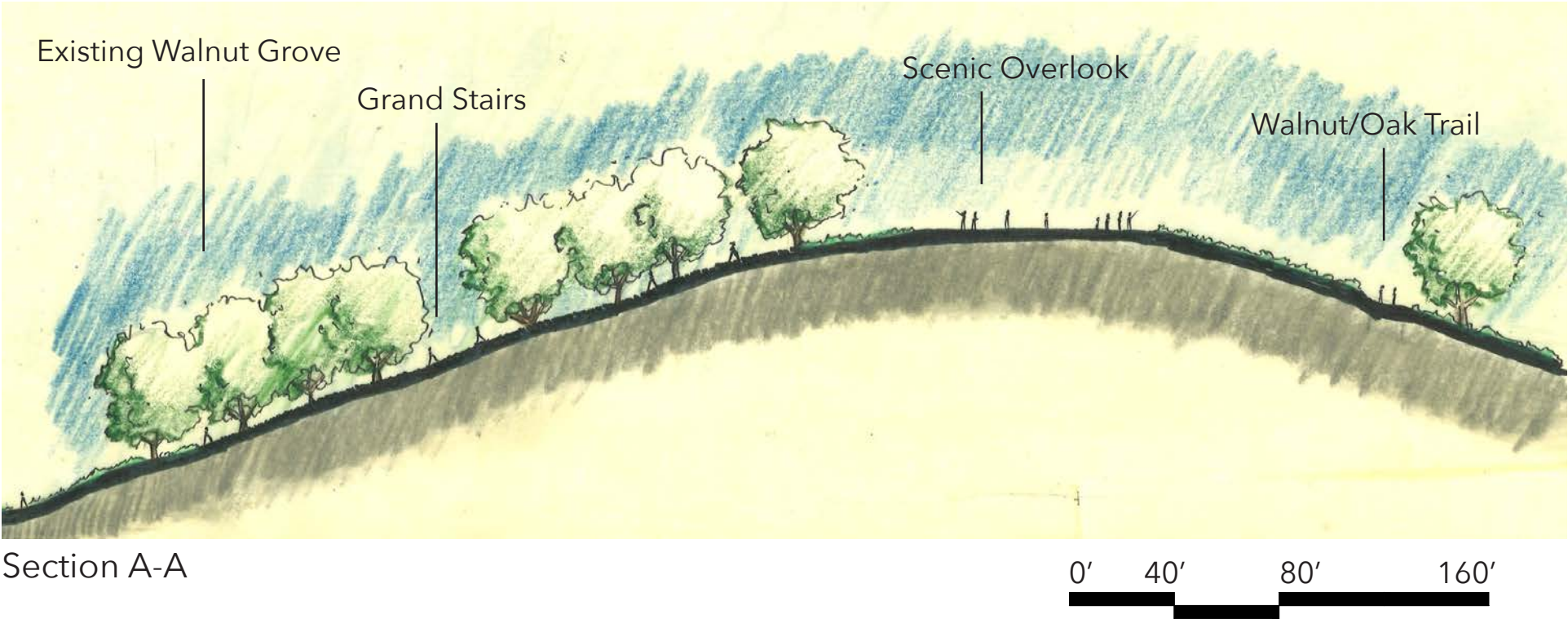
Inspired by the stairs at The Baldwin Hills Scenic Overlook, one of the roads that has a fall-line orientation has now been transformed into a grand stair taking people to the top of the hill.



Key Map



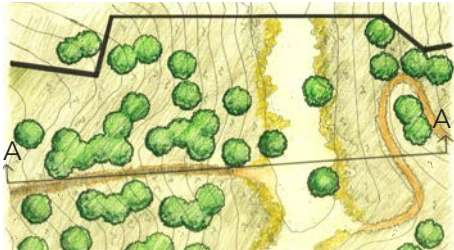
Section A-A



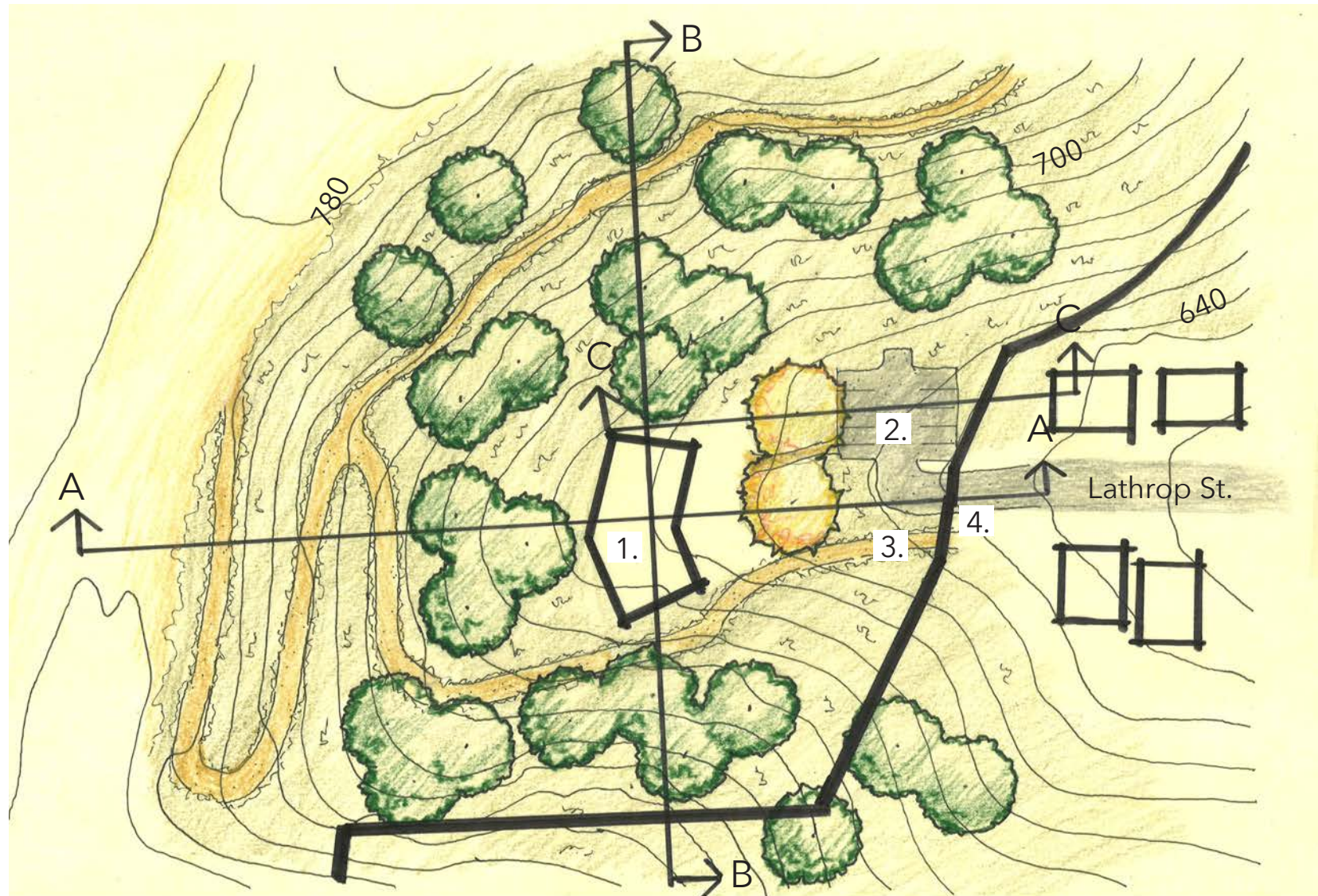
Baldwin Hills Scenic Overlook

Elephant hill has never been developed. Because of this, illegal offroading has become an ongoing disturbance, not only of the landscape, but for people that want to hike. The stairs will provide a great opportunity for excersise while at the same time preventing illegal off-roading.

Key Map



Enlargement: Entrance at Lathrop St. and Nature Center

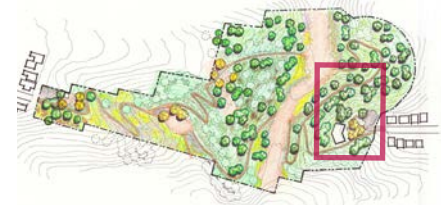


Legend

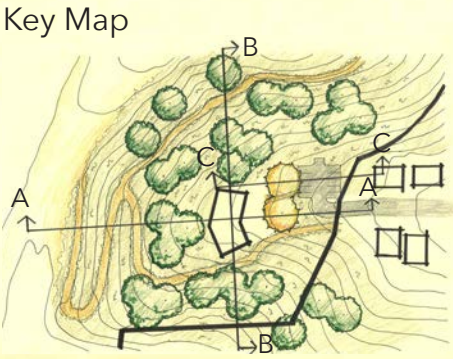
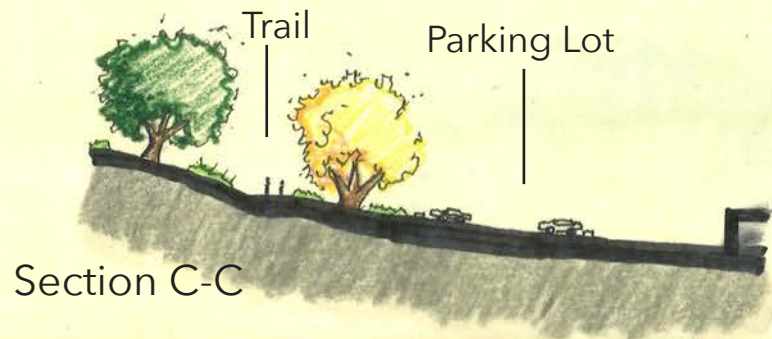
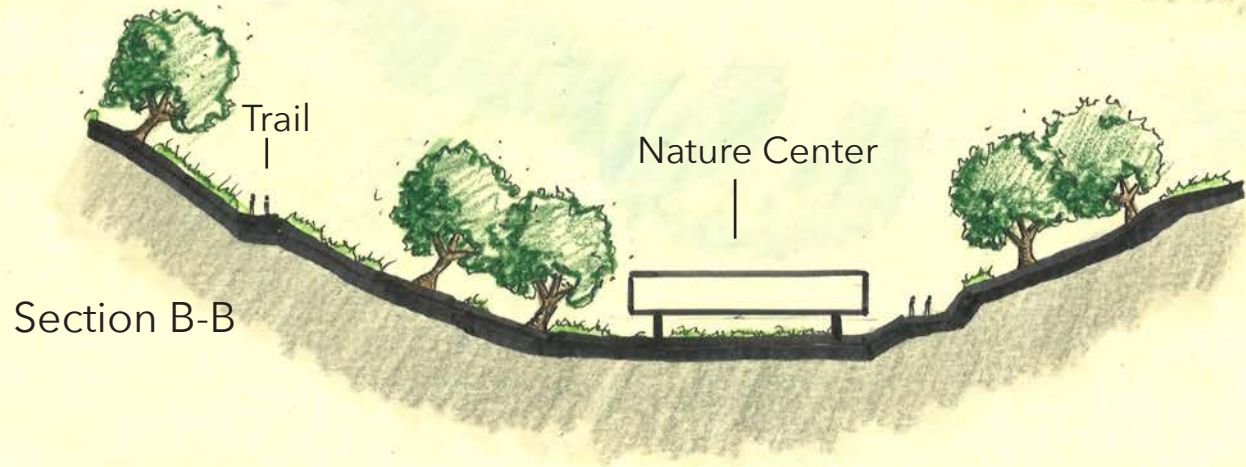
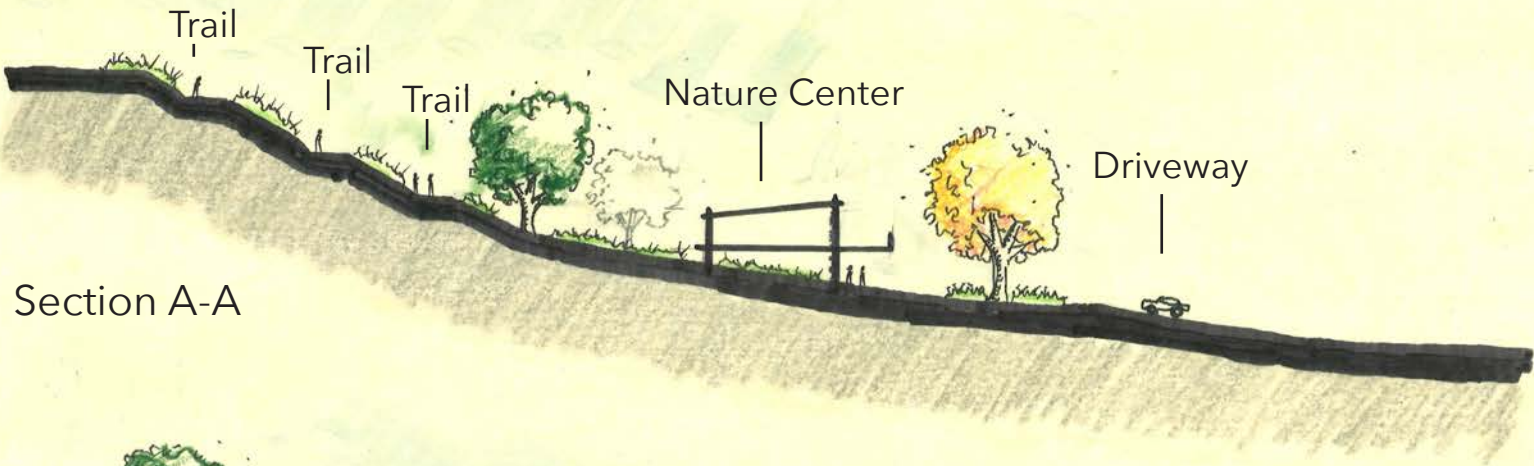
- 1. Nature Center
- 2. Parking Lot (permeable material)
- 3. Trail
- 4. Entrance

0' 50' 100' 200'

Key Map



Sections: Nature Center



Perspective: Nature Center

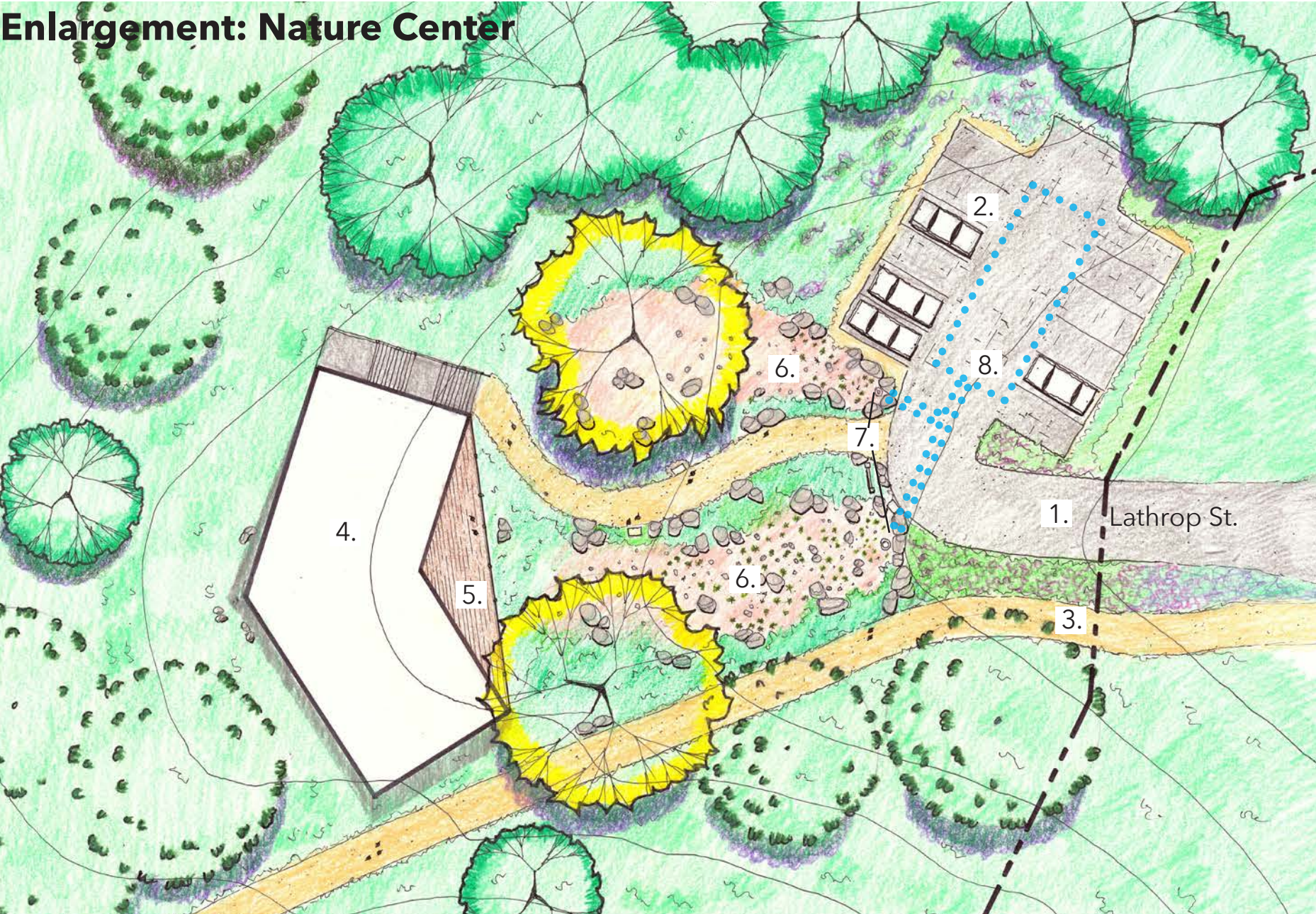


a. Nature Center/Trails/Parking Lot

Key Map



Enlargement: Nature Center



- Legend**
- 1. Vehicular Entrance
 - 2. Parking Lot (permeable material)
 - 3. Trail
 - 4. Nature Center

- 5. Outdoor Deck
- 6. Bioswale
- 7. Drainage inlet from bioswale to connect to underground cistern
- 8. Underground Cistern



Perspective: Biowale/Nature Center



a. Bioswale/Trails/Nature Center

The bioswale will harvest stormwater into an underground cistern located below the parking lot. The water will be used to irrigate the plants and trees on site.



Conclusion



The design has given the site a sense of place and is now accessible with defined entrances and walkable trails. The use of native plants, with their branches, deep root structures, and leaf litter will help reduce the impact of rainfall on the surface and reduce erosion and fire risk in the park. Restoration with native plants will increase the biodiversity which is critical for keeping ecosystems healthy and balanced. Landscapes that are more diverse are more resilient to drought, disease, pests, pollution, and other factors. Native plants also provide food and shelter for local and migrating wildlife habitat.

The design includes passive recreation for visitors with a nature play area, picnic area, trails, and nature observation opportunities.

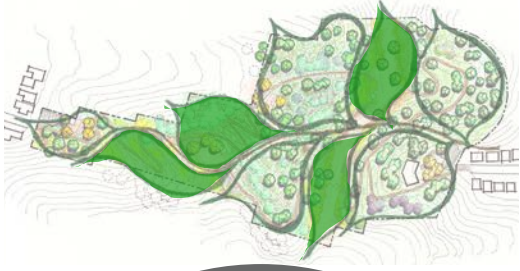
The design incorporates educational signage of the sites wildlife and restoration process and its importance to a more healthy and sustainable world. The nature center provides opportunities for education, connection, and volunteer activities for surrounding communities.

The site will increase its ability to clean and cool the air with approximately 200 new trees on site.

The park will save potable water by harvesting rain water into cisterns to irrigate new plants and trees on site.

The site encourages physical activity along the parks new trails and grand stair which lead to improved health and wellbeing.

Plant Palette Hot and South Facing Slopes



Eriogonum fasciculatum
California Buckwheat



Epilobium canum
California Fuchsia



Salvia mellifera
Black Sage



Artemisia californica
California Sagebrush



Salvia apiana White Sage



Malosma laurina Laurel Sumac



Asclepias fascicularis
Narrowleaf Milkweed



Baccharis pilularis
Coyote Brush



Encelia californica
Coast Sunflower



Lotus scoparius
Deerweed



Prunus ilicifolia
Holly-Leaved Cherry



Romneya coulteri
Matilija Poppy



Eschscholzia californica
California Poppy



Ehrendorferia chrysantha
Ear Drops



Quercus agrifolia
Coast Live Oak



Salvia clevelandii Blue Sage



Juglans californica
Southern California
Black Walnut



Lupinus concinnus
Elegant Lupine



Stipa pulchra
Purple Needlegrass



Monardella antonina
Butterfly Mint Bush

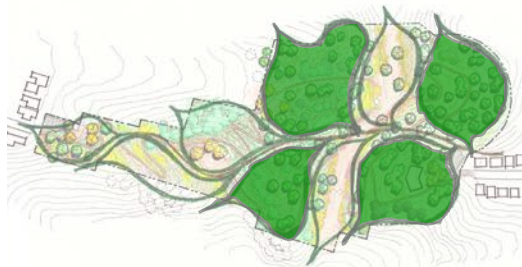


Cercocarpus betuloides
Mountain Mahogany



Platanus racemosa
California Sycamore

Plant Palette Habitat Restoration Zone: Includes North/East Facing Slopes



Diplacus aurantiacus
Sticky Monkey Flower



Symphoricarpos mollis
Creeping Snowberry



Pholistoma auritum
Blue Fiestaflower



Heteromeles arbutifolia
Toyon



Keckiella cordifolia
Climbing Penstemon



Clarkia unguiculata
Mountain Garland



Juglans californica
Southern California Black Walnut



Sambucus mexicana
Mexican Elderberry



Rhus integrifolia
Lemonade Berry



Ribes viburnifolium
Catalina Currant



Rhus ovata
Sugar Bush



Rhamnus californica
Coffeeberry



Salvia spathacea
Hummingbird Sage



Ribes speciosum
Fuchsia Flowering Gooseberry



Adenostoma fasciculatum
Chamise



Elymus condensatus
Giant Wild Rye



Quercus agrifolia
Coast Live oak



Lonicera hispidula
California Honeysuckle

Plant Palette for Bioswales and Riparian Zones



Platanus racemosa Ca. Sycamore



Juncus patens
Elk Blue



Achillea millefolium
Common Yarrow



Juncus patens Common Rush



Mimulus guttatus Seep Monkey Flower



Muhlenbersia rigans
Deer Grass

Wildlife



Mourning dove



Anna's hummingbird



Nuttall's woodpecker



Acmon blue



Red-tailed hawk



Desert cottontail



Botta's pocket gopher



Coyote



Cabbage Butterfly



Southern alligator lizard

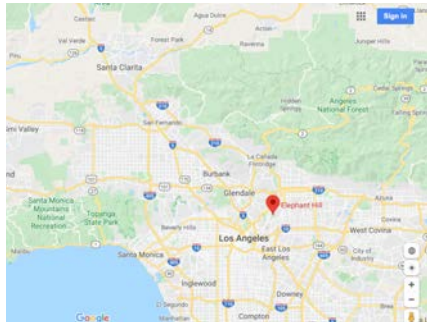


Western screech owl



Marine Blue Butterfly

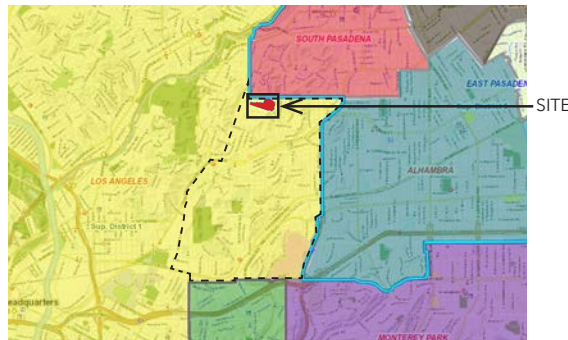
LOCATION:



5 miles — ↑

Elephant Hill is located 7 miles Northeast of downtown Los Angeles in the 4.1 square mile community of El Sereno.

VICINITY MAP:



LEGEND

6019 FT. — ↑	LOS ANGELES	ALHAMBRA
EL SERENO	S. PASADENA	SAN MARINO
MONTEREY PARK	EAST LOS ANGELES	

Neighboring communities:

Alhambra, Boyle Heights, East Los Angeles, Lincoln Heights, Montecito Heights, Monterey Park and South Pasadena. Council District 14 (Los Angeles)

STATEMENT:

This project will transform Elephant Hill, an underdeveloped and neglected natural area, into a passive recreational park through the use of landscape architectural and restoration principles. The proposed park will provide opportunities for connection and recreation and will also re-establish a more native landscape that will reduce erosion and fire risk and provide wildlife habitat.



GOALS AND OBJECTIVES:

1. Create a Passive Regional Open Space that is **safe** and **accessible**.

- Develop **trails** on Elephant Hill in order to make the site walkable and **accessible**.
- Develop a park environment that people feel **safe** to be in by providing wayfinding devices and **signage**, informing visitors of the site, it's **history**, and the importance of its **wildlife** community.

2. **Restore** and **preserve** Elephant Hill, one of the last and largest natural areas in northeast Los Angeles.

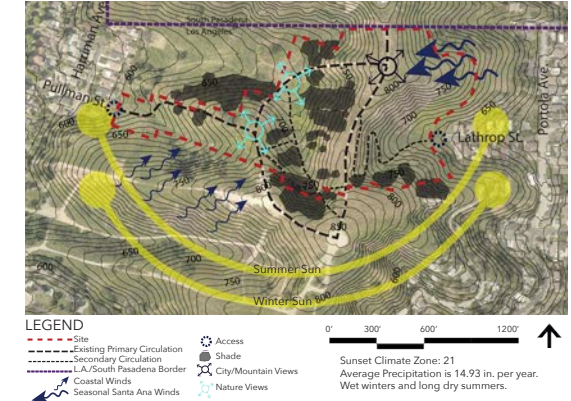
- **Restoring** and enhancing sustainable plant communities on the site such as **coastal sage scrub** and **walnut woodland** in order to keep intact the wild **nature** people can enjoy and experience.

3. To create a **sustainable** environment that connects people to the natural world.

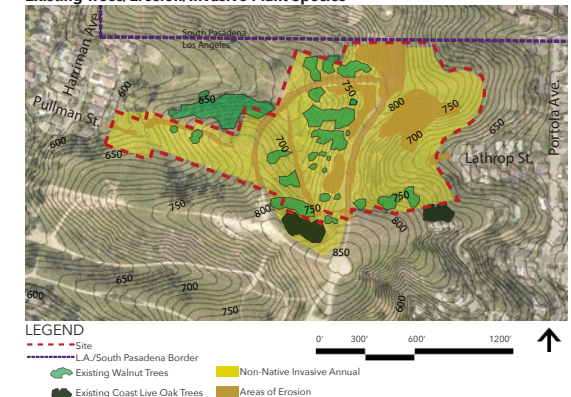
- Provide **education** and **recreation** for the people in the surrounding communities while also incorporating protection and **preservation** of **wildlife habitat**

SITE ANALYSIS:

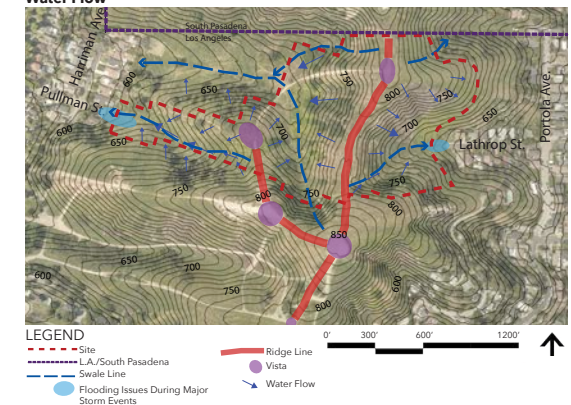
Climate



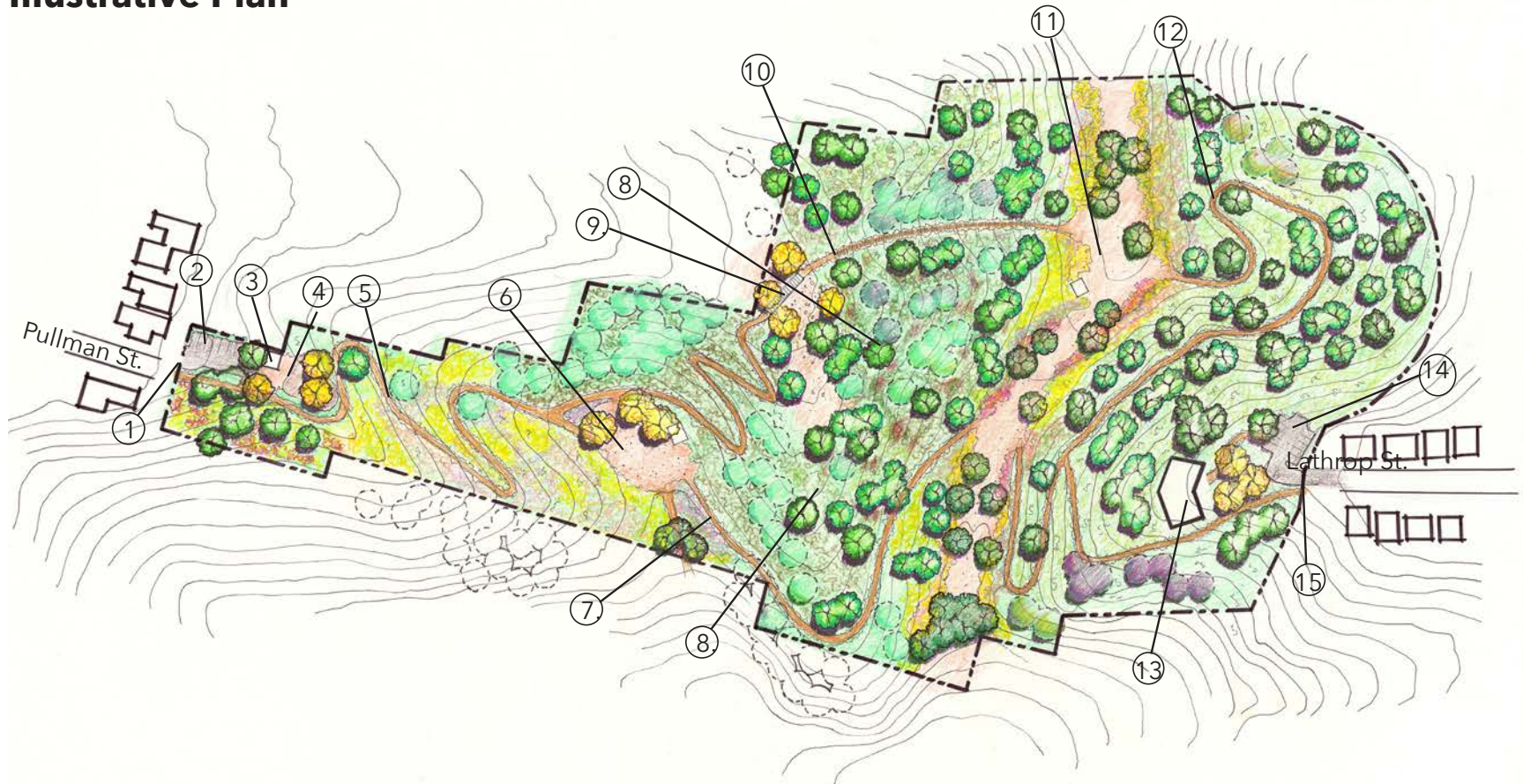
Existing Trees/Erosion/Invasive Plant Species



Water Flow



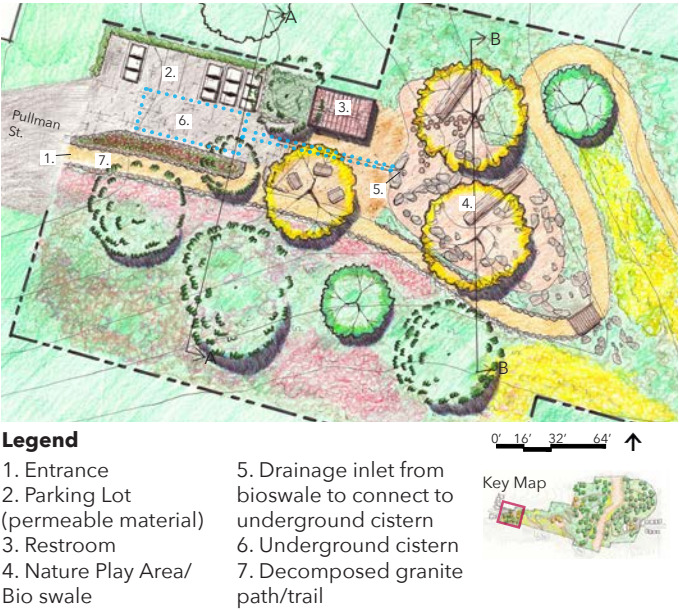
Illustrative Plan



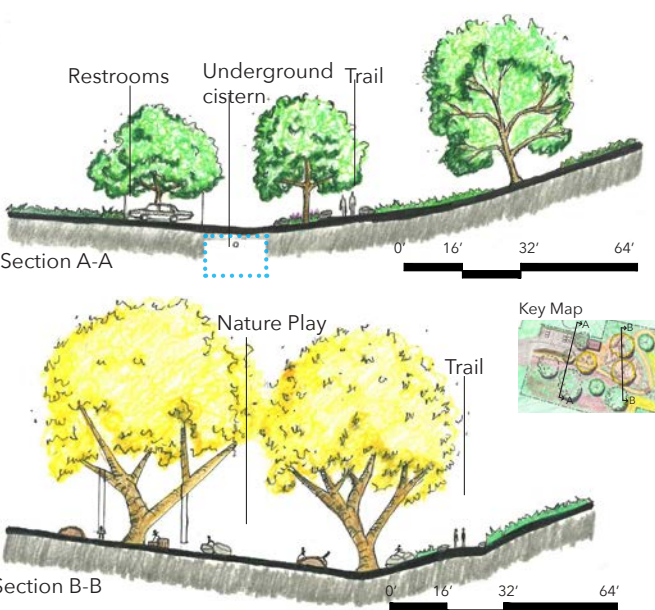
Legend

- | | | |
|------------------------------------|-----------------------------------|------------------------------------|
| ① Pullman St. Entrance | ⑥ Wildlife Viewing/Picnic Area | ⑪ Scenic Overlook |
| ② Parking Lot (permeable material) | ⑦ Wildlife Trail | ⑫ Oak/Walnut Forest Trail |
| ③ Restrooms | ⑧ Preserved Wildlife Habitat Area | ⑬ Nature Center |
| ④ Nature Play Area | ⑨ Crossroads Bridge | ⑭ Parking Lot (permeable material) |
| ⑤ California Shrub Trail | ⑩ Stairway to Heaven | ⑮ Lathrop St. Entrance |

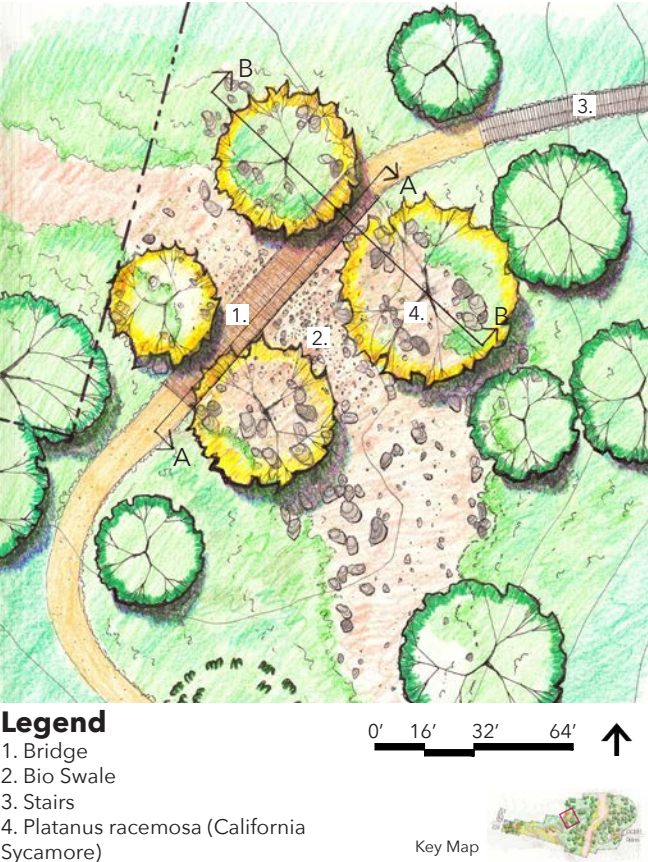
Enlargement: Pullman St. Entrance



Sections A-A and B-B: Pullman St. Entrance



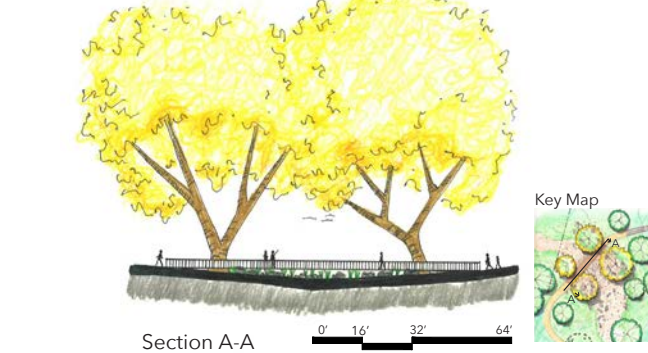
Enlargement: Bridge and Bioswale



Perspective: Pullman St. Entrance



Section A-A



Perspective: Bridge



a. View from bridge into bioswale and wildlife habitat zone

Key Map



Enlargement: Nature Center



Legend

1. Vehicular Entrance
2. Parking Lot (permeable material)
3. Trail
4. Nature Center
5. Outdoor Deck
6. Bioswale
7. Drainage inlet from bioswale to connect to underground cistern
8. Cistern

0' 16' 32' 64'

Key Map

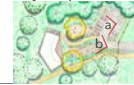


Perspective b: Biowsale/Nature Center



a. Bioswale/Trails/Nature Center

Key Map



Perspective a: Nature Center



a. Nature Center/Trails/Parking Lot

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