Ballona Creek Bike Path
Greening the Greenway
Project Location & Timeline
Project Location
Greening the Greenway
Existing Elements
Existing Elements
Steller Dr. to Higuera St.

- Stormwater Drain
- Palms
- Planted Area
- Concrete Slope Wall

Legend:
- View
- Existing Palm
- Existing Tree
- Current
- Creek

Scale: 1" = 80'

1. Stormwater Drain
2. Concrete Slope Wall

2023.01.18 P.9
Existing Elements
Higuera St. to Hetzler Rd.

- **Trees**
- **Palms**
- **Existing Tree**
- **Existing Palm**
- **Concrete Slope Wall**
- **Planted Area**
- **Stormwater Drain**
- **Oil Pipe** (Above Ground)

Flow Direction

Limit of Work

Scale: 1" = 80'

View
Existing Palm
Existing Tree
Current
Oil Pipe
Stormwater Infrastructure
Existing Elements
Irving Pl. to Duquesne Ave. Entrance

- Concrete Slope Wall
- Planted Area
- Palms
- Entrance/Exit
- Trees
- Stormwater Drain

- Limit of Work: JEFFERSON to LINCOLN, MADISON to LUCERNE
- Flow Direction: N
- Scale: 1" = 80'

1. Entrance/Exit
2. Stormwater Drain
3. Existing Tree

Existing Palm
Existing Tree
Circulation
Stormwater Infrastructure
Existing Sections

Typical Section of Path with Planted Area

- Private
- Public
- Wall
- Planted Area
- Concrete Slope Wall
- Bike Path

Scale: 1" = 10'

0' TO 37'-3" (VARIES)
12'-3" TO 23'-6" (VARIES)
9' TO 11'-6" (VARIES)

Freeboard
Max. WS +16"
+14"

+0'
Existing Sections

Typical Section of Path without Planted Area
Existing Sections

Typical Section of Path at Entries

- Bike Path
- Concrete Slope Wall
- Wall
- Bike Path Entrance/Exit

Scale: 1" = 10'
Grant Proposal Goals
Grant Proposal & Goals
Original Grant Details

Culver City’s Mobility & Traffic Engineering Division applied for a grant from the Baldwin Hills Conservancy in August of 2020. Culver City met the various environmental goals of the grant, such as improving the watershed, connecting wildlife habitats, encouraging non-motorized transport, and mitigating climate change. The grant was awarded with the following goals:
Grant Proposal Goals
Greening the Greenway

1. Bike Path Enhancements
   - $192,500

2. Expanded Urban Forest
   - $530,000

3. Solar-Powered Lighting
   - $435,000

4. Permeable Surfacing
   - $1,186,100
Bike Path Enhancements
Improving Safety & Experience

- ADA Accessibility Improvements
- Improve Bike Path Paving & Marking
- Increase Wayfinding Signage
- Community Impact

Improving Bike Path conditions will attract more users. More Bike Path users means less vehicle miles traveled & less air pollution.
Bike Path Enhancements

Improve Bike Path Paving & Marking

Paving Improvements
Bike Path Enhancements

Increase Wayfinding Signage

Recommended Wayfinding Locations
Bike Path Enhancements

Increase Wayfinding Signage

Suggested Park to Playa Map Kiosk & Signage

Possible Mile-Marking Signage
Bike Path Enhancements
Improving Safety & Experience

Existing vs Suggested Wayfinding Signage

Existing vs Possible Underpass Signage
Expand the Urban Forest
Greening the Ballona Creek Community

Drought-Tolerant Plantings

Expand Shade & Reduce UHI Effects

Improve Air Quality & Increase Carbon Storage

Community Impact

Introducing trees beside the Bike Path will make it a more attractive route on days that are increasingly hot due to climate change.
Existing Conditions
Coast Live Oak

Coast Live Oaks (*Quercus agrifolia*) can be found from Mendocino down to Baja California. They are the only native oak that thrives in coastal environments. At maturity, the height of these long-lived ranges from 30’-80’.
River She Oak
River She-Oaks (*Casuarina cunninghamiana*) at maturity can reach heights above 60'. Once established, these Australian natives are known to be fast-growing, drought-tolerant, hardy, and long-lived trees.
Solar-Powered Lighting Options
Increasing Safety & Usability

- **Install Solar-Powered Lighting**
- **Increased Security & Visibility**
- **Reduce Energy Use & Light Pollution**
- **Community Impact**

Added lighting will expand the Bike Path’s usable hours as well as improve user safety & security overall.
3 Solar-Powered Lighting Options
Increasing Safety & Usability

Pole Lighting

<table>
<thead>
<tr>
<th>Model</th>
<th>Green Frog Systems STEALTH-V5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watts</td>
<td>50W</td>
</tr>
<tr>
<td>Lumens</td>
<td>9,350lm</td>
</tr>
<tr>
<td>Light Temp</td>
<td>4000K / 3000K (Optional)</td>
</tr>
<tr>
<td>Dark Sky Compliance</td>
<td>Yes, but does not have formal certification</td>
</tr>
<tr>
<td>Battery</td>
<td>Backup: 54 hours</td>
</tr>
<tr>
<td>Material</td>
<td>Die-cast aluminum chassis with TIGER Drylac ® marine grade powder coating and stainless steel fixtures</td>
</tr>
<tr>
<td>Fixture</td>
<td>2-3/8&quot; OD tenon pole mount bracket</td>
</tr>
<tr>
<td>Mounting</td>
<td>10-26'</td>
</tr>
<tr>
<td>Warranty</td>
<td>10 years (Battery) / 5 years (Unit) / 25 years (Solar Panel)</td>
</tr>
<tr>
<td>HQ</td>
<td>Dallas, TX</td>
</tr>
<tr>
<td>Notes</td>
<td>Approved for Bike Path use by City of LA</td>
</tr>
<tr>
<td>ROM</td>
<td>360° motion sensing</td>
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### Solar-Powered Lighting Options

#### Increasing Safety & Usability

#### Underpass Lighting

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<tr>
<th>Model</th>
<th>Green Frog Systems 50-MSL Solar Shelter Light</th>
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<td>Watts</td>
<td>7W / 15W</td>
</tr>
<tr>
<td>Lumens</td>
<td>1,402lm / 2,805lm</td>
</tr>
<tr>
<td>Light Temp</td>
<td>4000K / 3000K (Optional)</td>
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<tr>
<td>Material</td>
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<tr>
<td>Mounting</td>
<td>Hardware provided by GFS (exact parts TBC)</td>
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<tr>
<td>Warranty</td>
<td>10 years (Battery) / 5 years (Unit) / 25 years (Solar Panel)</td>
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<tr>
<td>HQ</td>
<td>Dallas, TX</td>
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<tr>
<td>Notes</td>
<td>Panel is separate from light and can be placed as desired (in sunny location), then connected to light</td>
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Permeability & Infiltration
Improving Health of the Watershed

Replace Existing PCC Path With Pervious Concrete
Reduce Contaminated Water Runoff
Improve Groundwater Recharge
Community Impact

Introducing permeable surfacing & more paths of infiltration will benefit the entire watershed.
If budget allows, pervious concrete system will be employed.
Permeability & Infiltration
Improving Health of the Watershed

Pervious Concrete: 5 to 8” material depth with a stone reservoir layer. Thicker depth is required compared to standard concrete, resulting in roughly double the cost. Maintenance requires periodic vacuuming to prevent clogging. Requires a 7-day cure for installation.


**Disadvantages:** Higher upfront costs. More texture and surface resistance than conventional concrete.
Conclusion
Greening the Greenway

1. Bike Path Enhancements
2. Expanded Urban Forest
3. Solar-Powered Lighting
4. Permeable Surfacing

= Improved user experience