



San Francisco  
**Water  
Power  
Sewer**

Services of the San Francisco  
Public Utilities Commission

**SEWER  
SYSTEM**

IMPROVEMENT PROGRAM  
Grey. Green. Clean.

04.18.16

# Sewer System Improvement Program Overview

Karen Kubick, Wastewater Enterprise Capital Program Director

Civic Design Review



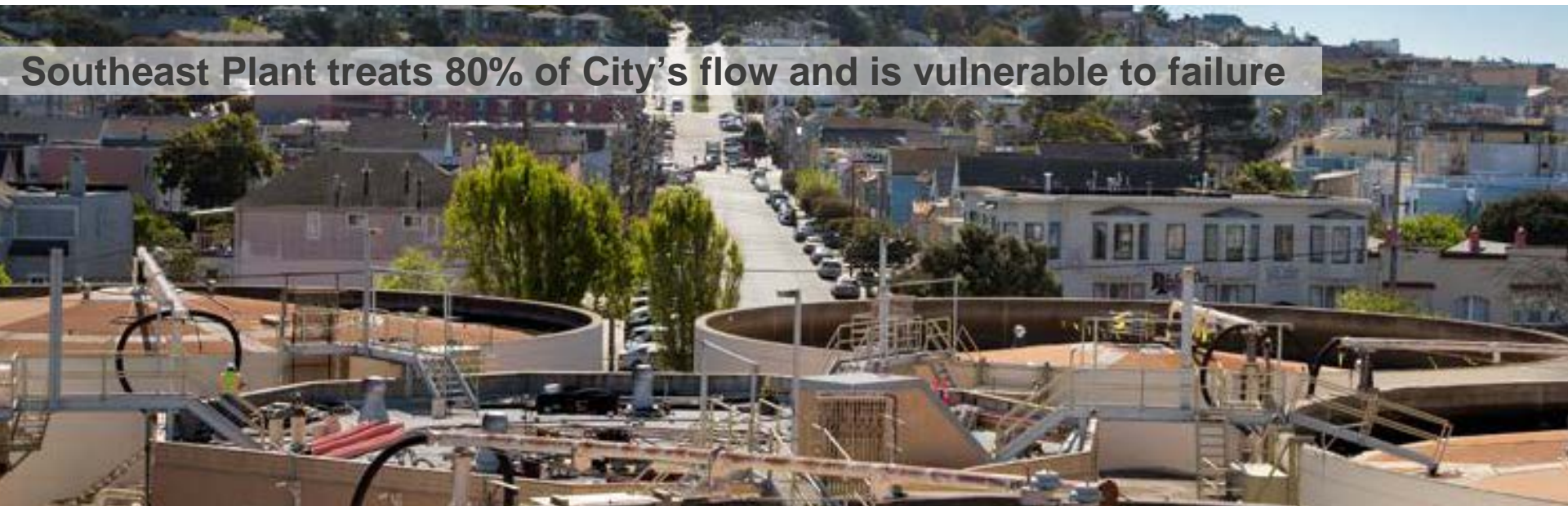
# Some of Our Priority Challenges



**Aging Infrastructure**



**Climate Change**



**Southeast Plant treats 80% of City's flow and is vulnerable to failure**



# Our Combined Sewer System

**49** Square Miles in SF  
**800,000+** SF Population  
**3** Treatment Facilities  
**1,000+** Miles of Pipes  
**40 Billion** Gallons Treated/Year  
**100-Year-Old** System

North Point Wet Weather Facility



WESTSIDE

BAYSIDE



Southeast Treatment Plant



Oceanside Treatment Plant



# SSIP's Levels of Service Goals



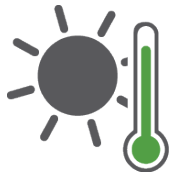
Provide a Compliant, Reliable, Resilient, & Flexible System that can **Respond to Catastrophic Events**



Integrate Green & Grey Infrastructure to **Manage Stormwater** and **Minimize Flooding**



Provide **Benefits** to Impacted **Communities**



Modify the System to **Adapt to Climate Change**



Achieve **Economic & Environmental Sustainability**



Maintain **Ratepayer Affordability**



# Sewer System Improvement Program (SSIP)

**Grey.**



**SYSTEM AND SEISMIC  
RELIABILITY &  
REDUNDANCY**

**Green.**



**INNOVATIVE  
STORMWATER  
MANAGEMENT SOLUTIONS**

**Clean.**



**PROTECTING PUBLIC  
HEALTH  
& THE ENVIRONMENT**



# SSIP Phase I Projects

## Southeast Treatment Plant Upgrades





# Southeast Treatment Plant





# Southeast Treatment Plant

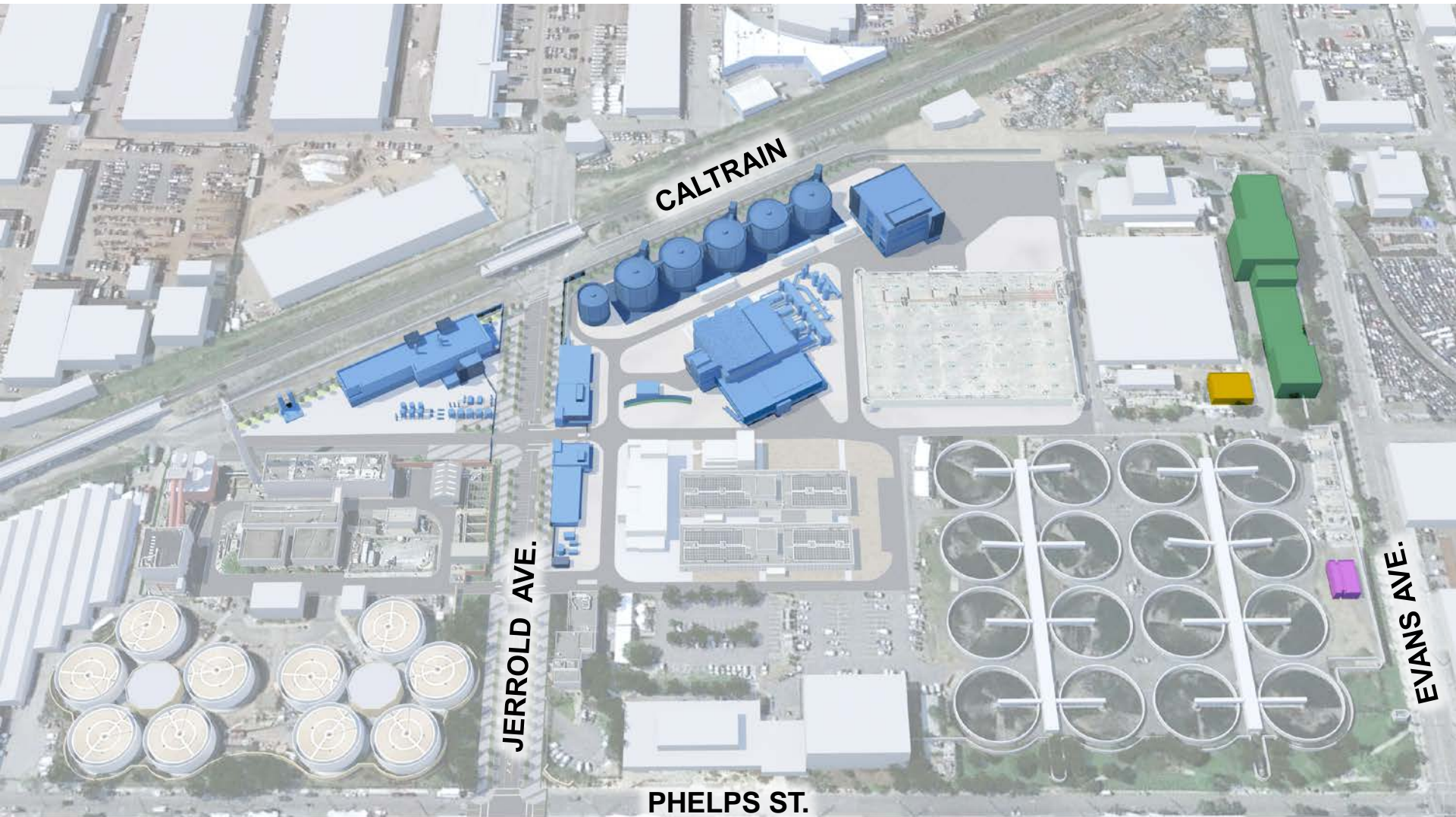




# Southeast Treatment Plant





# Proposed SEP Facilities



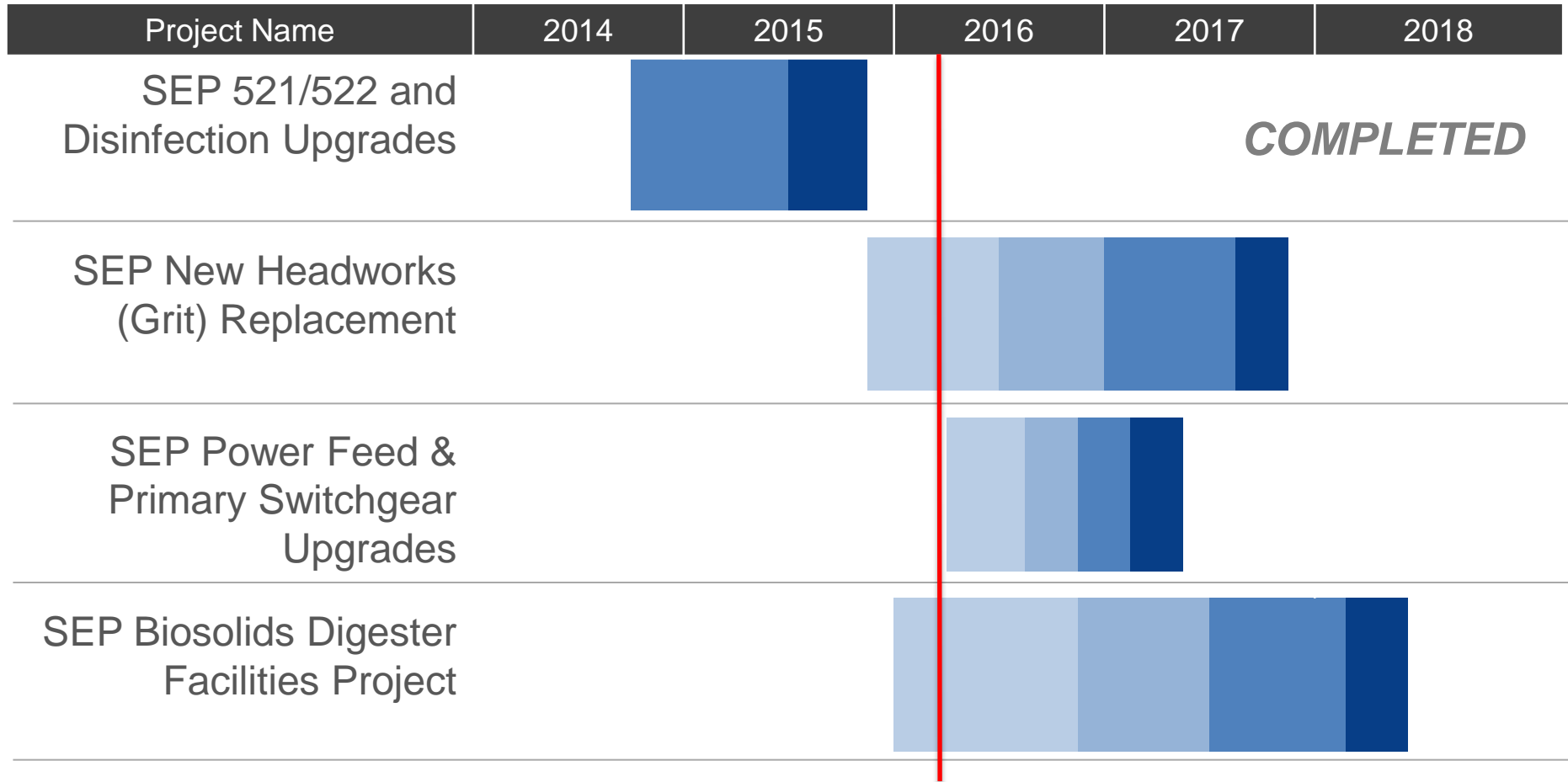
## LEGEND

-  SEP 521/522 & Disinfection Upgrades
-  Headworks Facility

-  Power Feed & Primary Switchgear Upgrades
-  Biosolids Digester Facilities Project (BDFP)

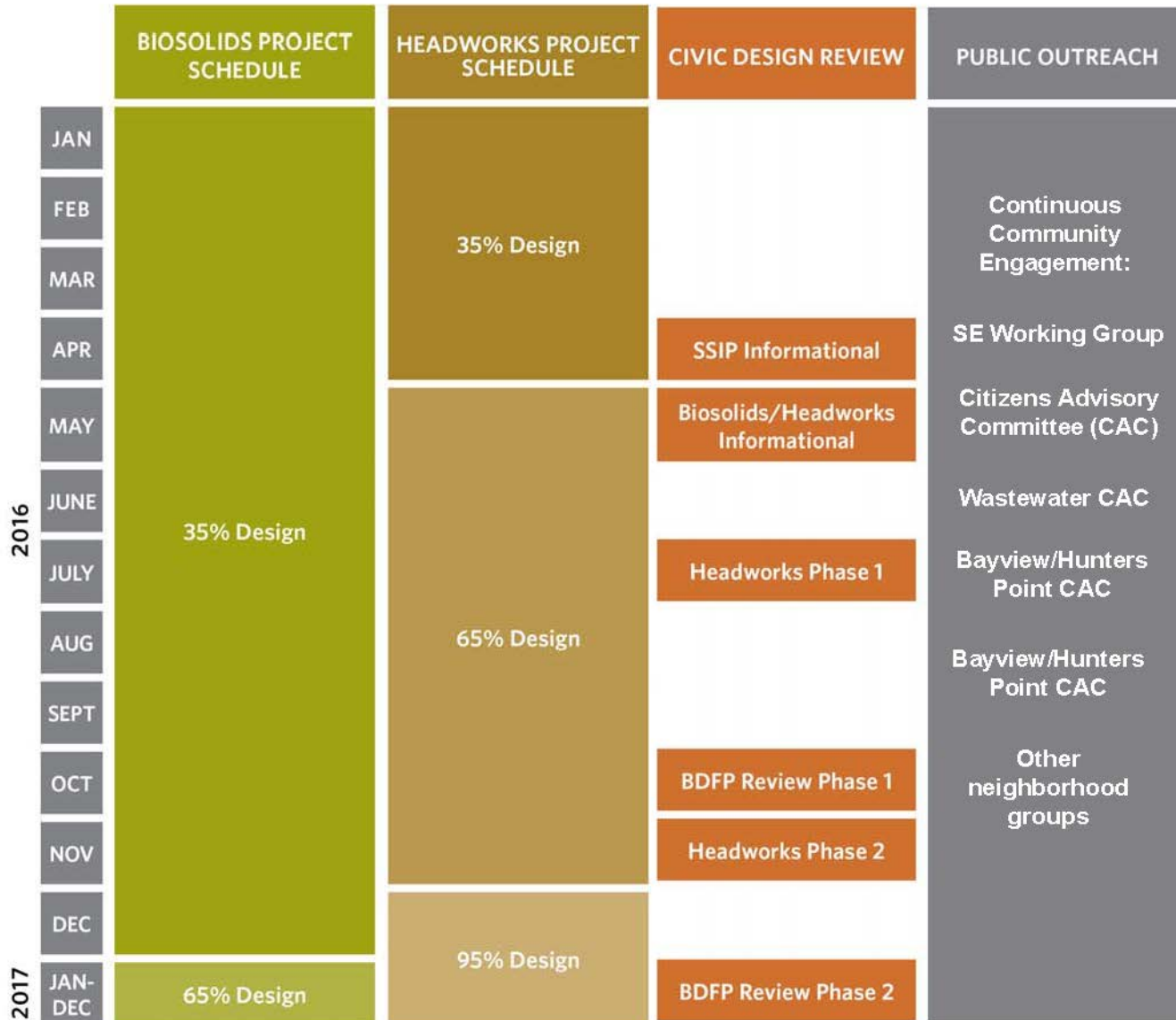


# SEP Design Schedules





# Next Steps/Forward Calendar for 2016





# 2% Allocated for Arts from SSIP Phase 1 SEP Projects \$5.3M

1. Biosolids Digester Facilities Project.....\$3.5M
2. SEP New Headworks (Grit) Replacement...\$1.4M
3. SEP 521/522 and Disinfection Upgrades....\$0.1M
4. SEP Power Feed and Primary Switchgear  
Upgrades.....\$0.3M

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**\$5.3M**





San Francisco  
Water Power Sewer

# Questions



[sfwater.org/ssip](https://sfwater.org/ssip)  
[ssip@sfwater.org](mailto:ssip@sfwater.org)





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Water  
Power  
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# SEP FUTURE

## Campus Design Guidelines





# SEP Campus: What Defines a Campus?

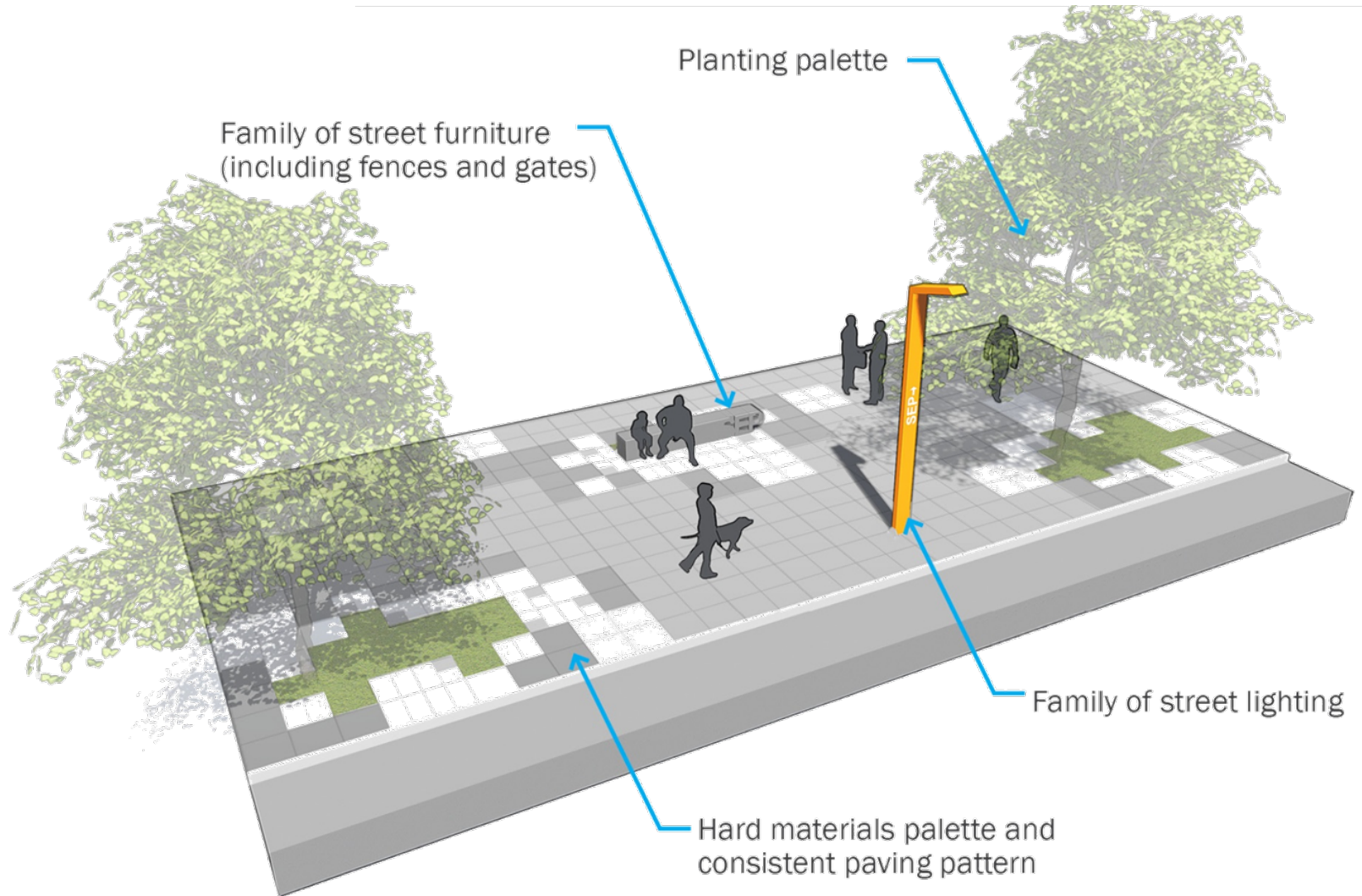
- Buildings with a shared identity in an open space network
- Consistent use of materials and elements
- Planning to promote walking and cycling
- Coordinated outdoor program
- Sense of “diversity within unity”



Buildings organized in an open space network  
Loyola Marymount University Campus, L.A.



# SEP Campus: Consistency



# SEP Campus: Identity

## TECHNOLOGY

process



Bold Colors



Legible Message



Illumination



Industrial Texture

## COMMUNITY

people



Educational Spaces



Flexible Spaces



Inclusive Program



Engaging Architecture

## ECOLOGY

place



Managed Urban Ecology



Coordinated Landscape



Stormwater Management

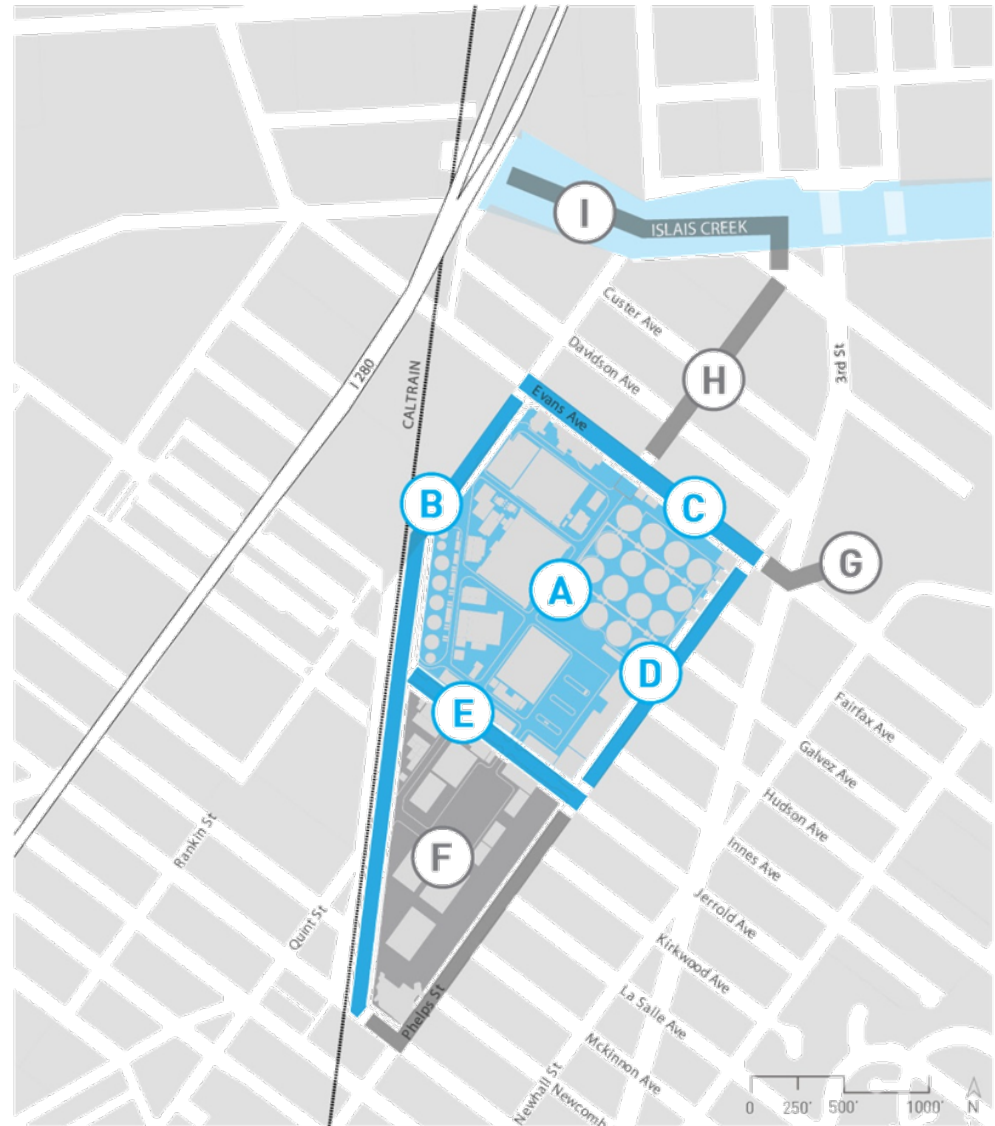


Interpretive Elements



# SEP Campus: Zone by Zone Approach

- A** SEP NORTH CAMPUS
- B** CAL TRAIN + I-280
- C** EVANS AVE
- D** PHELPS ST
- E** JERROLD AVE



\*Zones in gray will be developed in Phase 2 of the Guidelines

# ZONE C: EVANS AVE.

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# Zone C: Evans Ave.



Operations



Access + Security



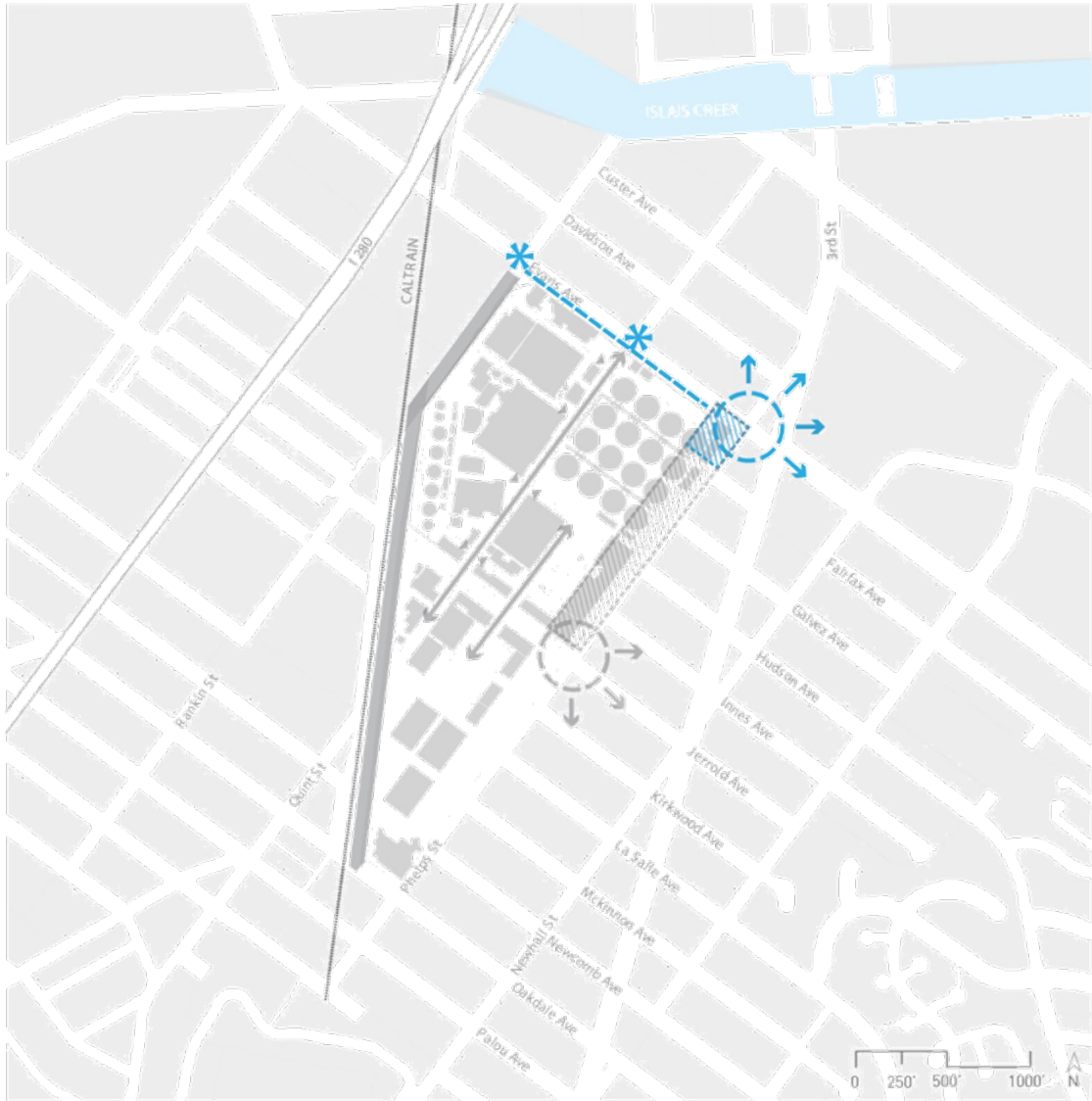
SEP  
Identity



Pedestrian  
Safety

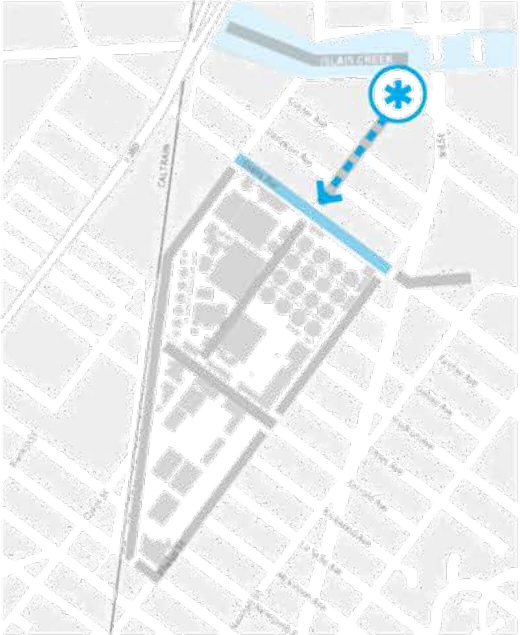


Connectivity



Zone C concept diagram

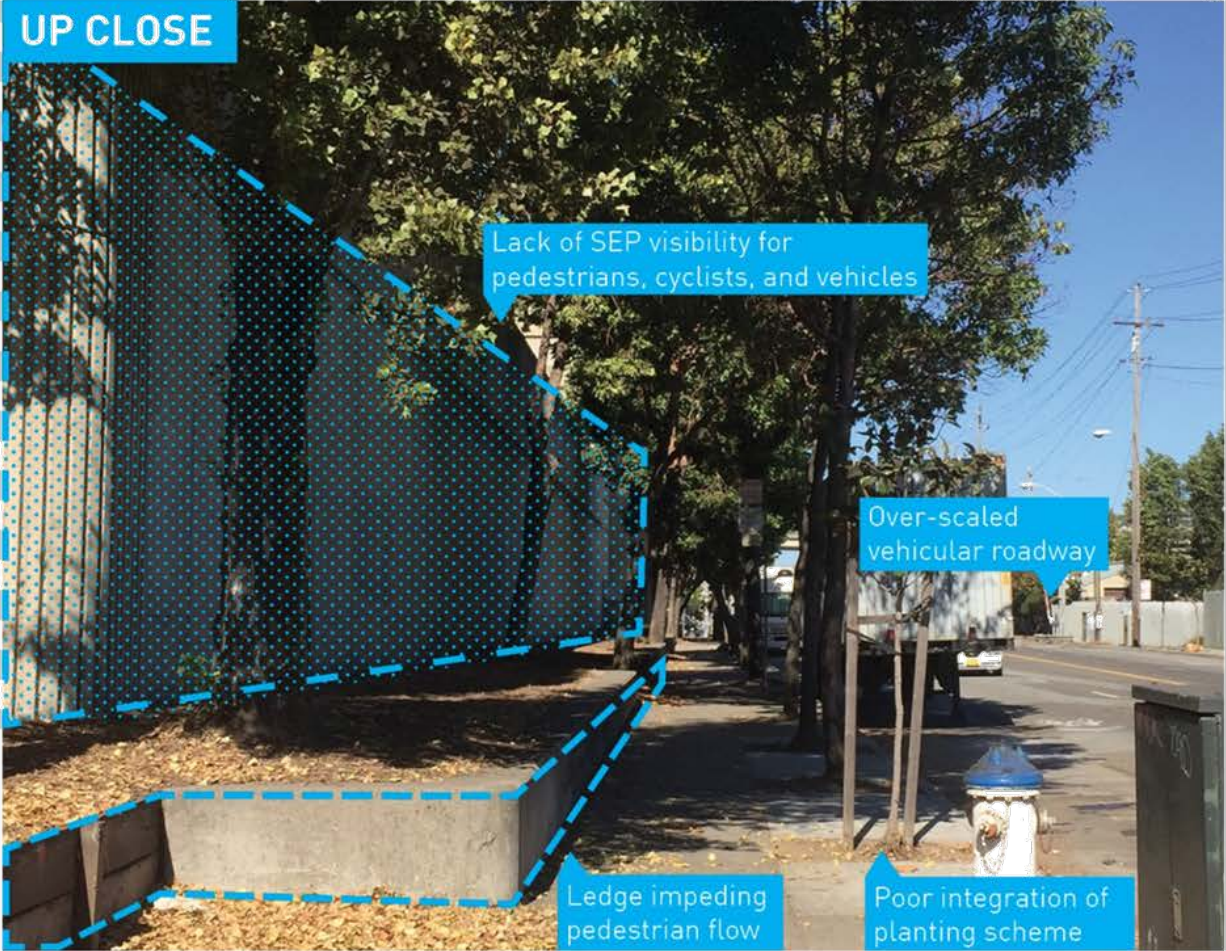
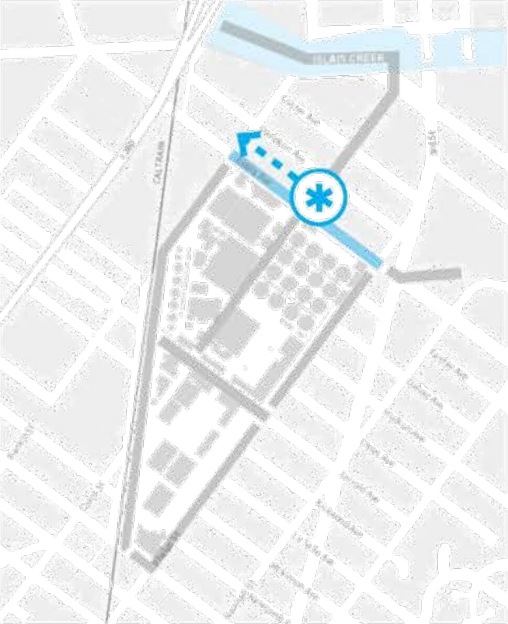
# Zone C: Evans Ave. | Site Observations



Quint St.



# Zone C: Evans Ave. | Site Observations



Evans Ave.



# Zone C: Evans Ave. | Identity & Visual Expression



Quint St.

**MAKE THE SEP VISIBLE**

**Incorporate Sculptural Wayfinding**



Masayoshi Signage, Japan

**Maintain Legibility from a Distance**



NY Times Print Office, NY



Evans Ave.

**UTILIZE THE PERIMETER**

**Reference Industrial Texture**



Hello House, Australia

**Create Opportunities for Discovery**



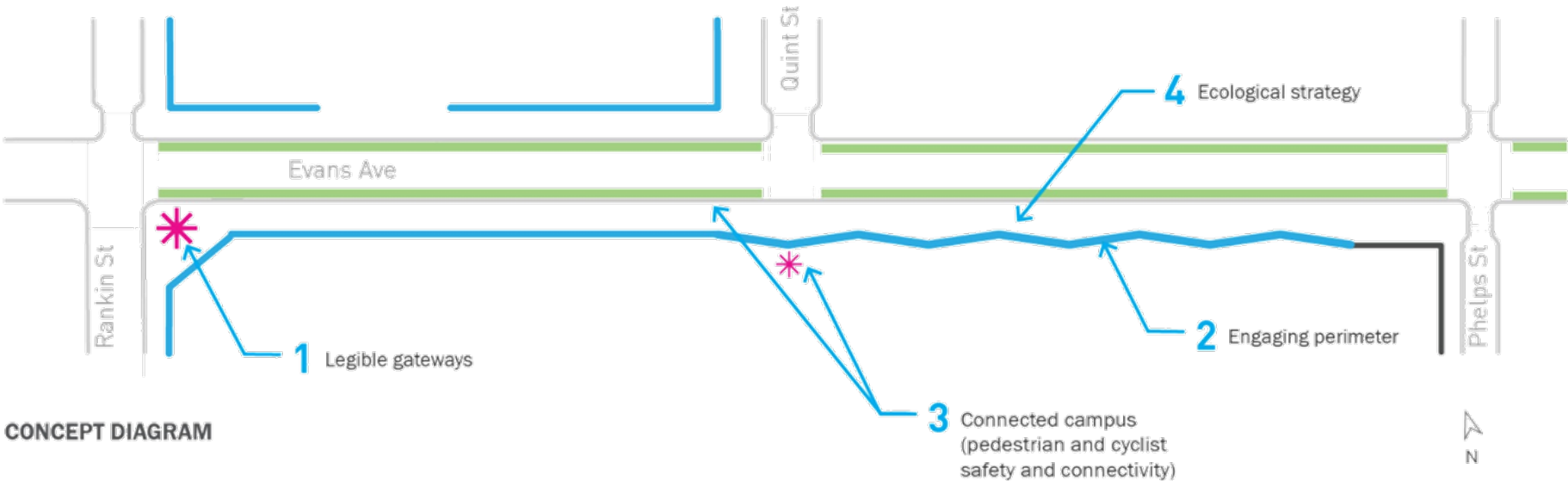
Sansiri Living Gallery, Bangkok, Thailand



# Zone C: Evans Ave.



KEY PLAN



CONCEPT DIAGRAM

# Zone C: Evans Ave. | Identity & Visual Expression

## Precedent Studies

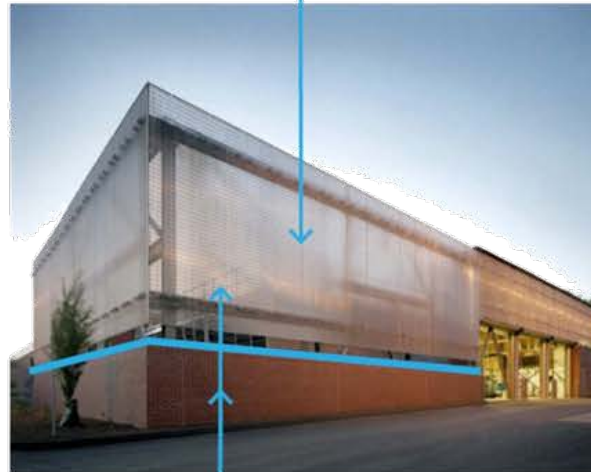
Visually dynamic and three-dimensional. Effective from a distance and close-up



Blends screen (upper level) and solid wall (lower level)

Simple and uniform use of materials with a sculptural approach

Two different materials used to break the volume horizontally in a bold move



Upper level screen makes the overall volume seem lighter

Brick provides a rich yet simple response at a pedestrian scale

Visually dynamic and three-dimensional. Effective from a distance and close-up



Screen used to break the volume into horizontal bands of varying width



# Zone C: Evans Ave. | Identity & Visual Expression

## Precedent Studies

Screen used to break volume  
Subtle change in color integrates wayfinding/branding



Active ground level

Color used to break volume in a bold move



Upper level screen makes the overall volume seem lighter

Active ground level

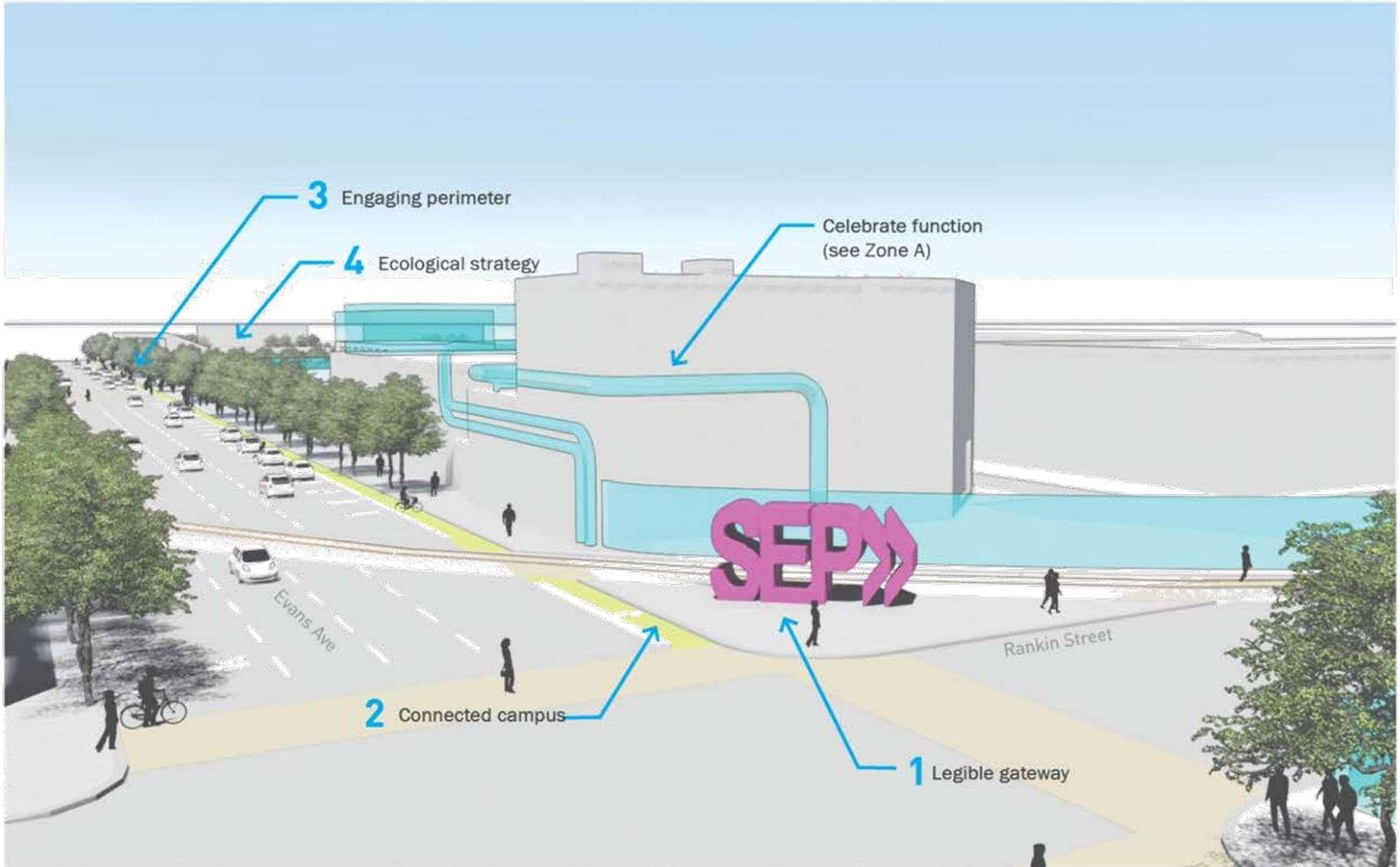
Visually dynamic and three-dimensional. Effective from a distance and close-up



Upper level screen makes the overall volume seem lighter

Screen colour and translucency used to break volume horizontally and create visual interest

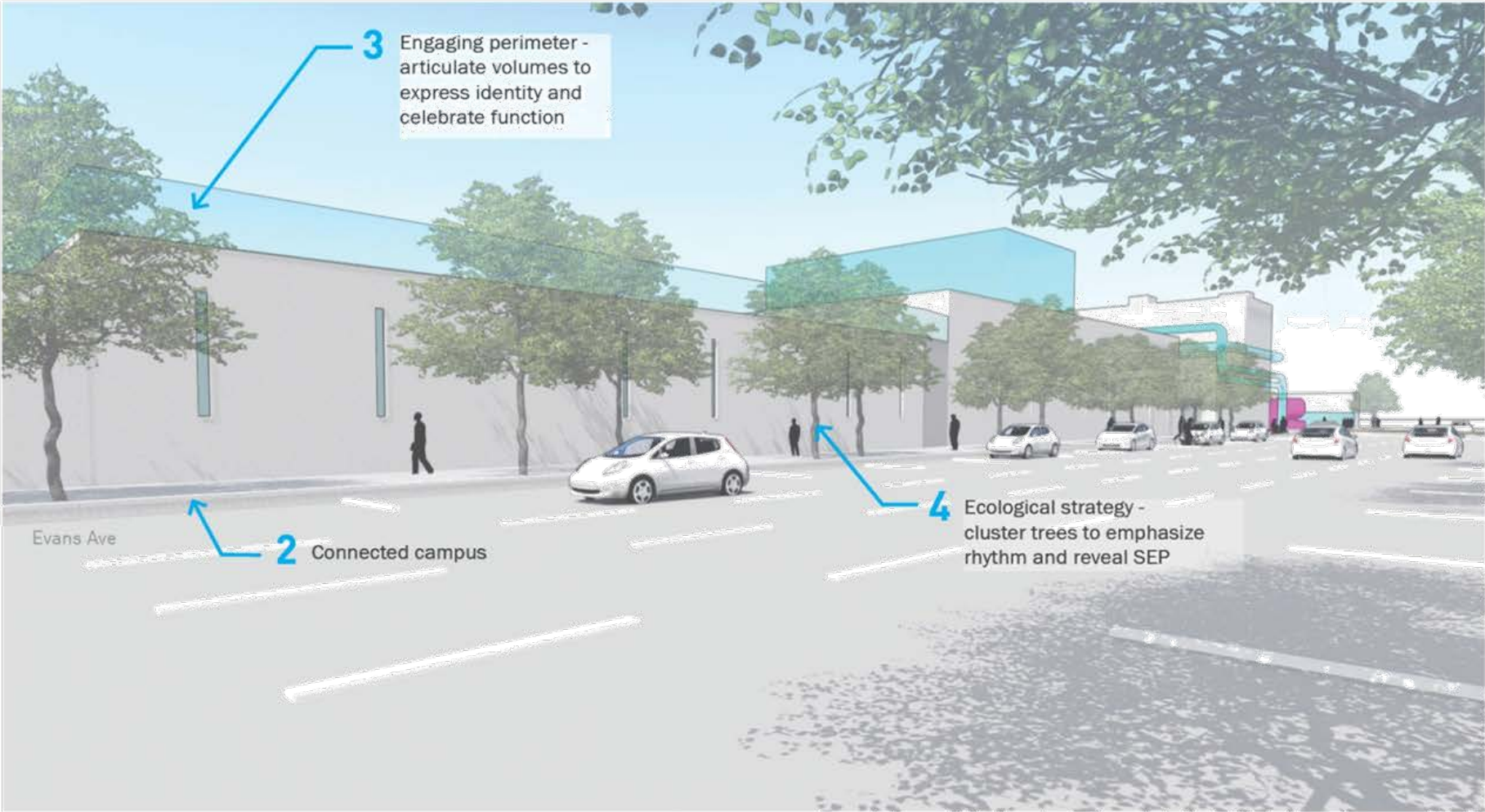
# Zone C: Evans Ave.



ILLUSTRATIVE VIEW (Evans Ave. and Rankin St.)

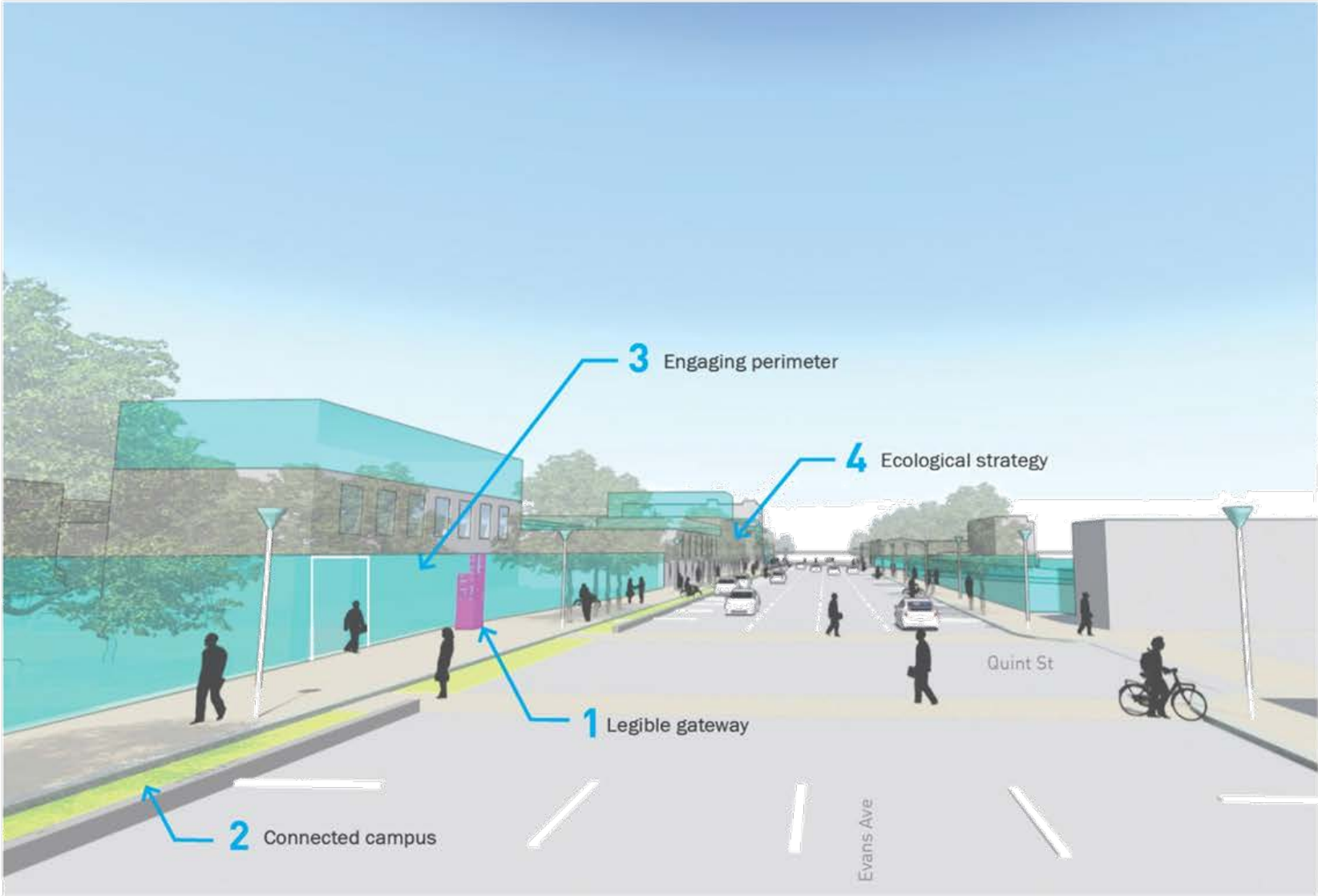


# Zone C: Evans Ave.



ILLUSTRATIVE VIEW (Evans Ave.)

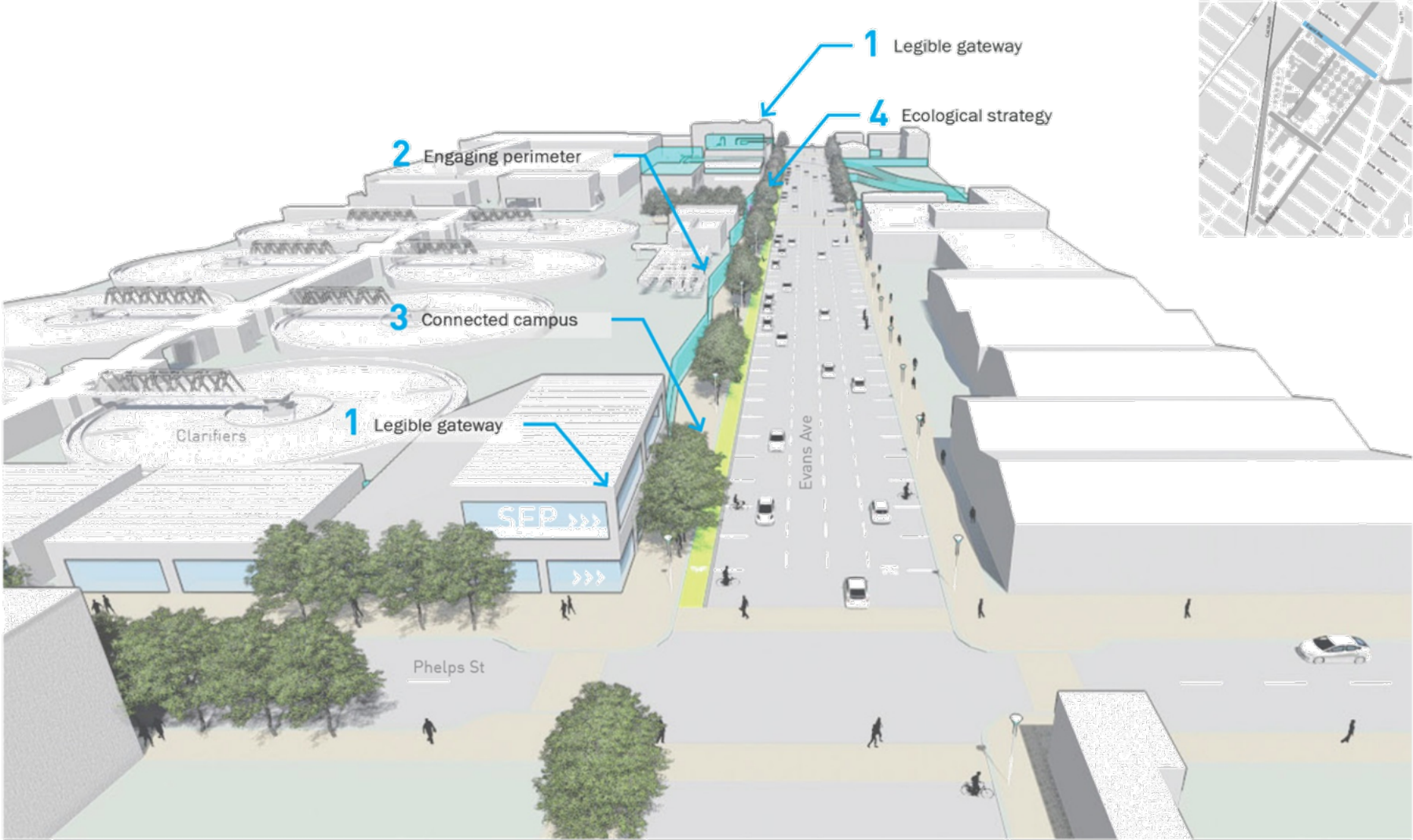
# Zone C: Evans Ave.



ILLUSTRATIVE VIEW (Evans Ave. and Quint St.)



# Zone C: Evans Ave.



ILLUSTRATIVE VIEW (Phelps Street and Evans Avenue)

# ZONE E: JERROLD AVE.

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# Zone E: Jerrold Ave.



Operations



Access + Security



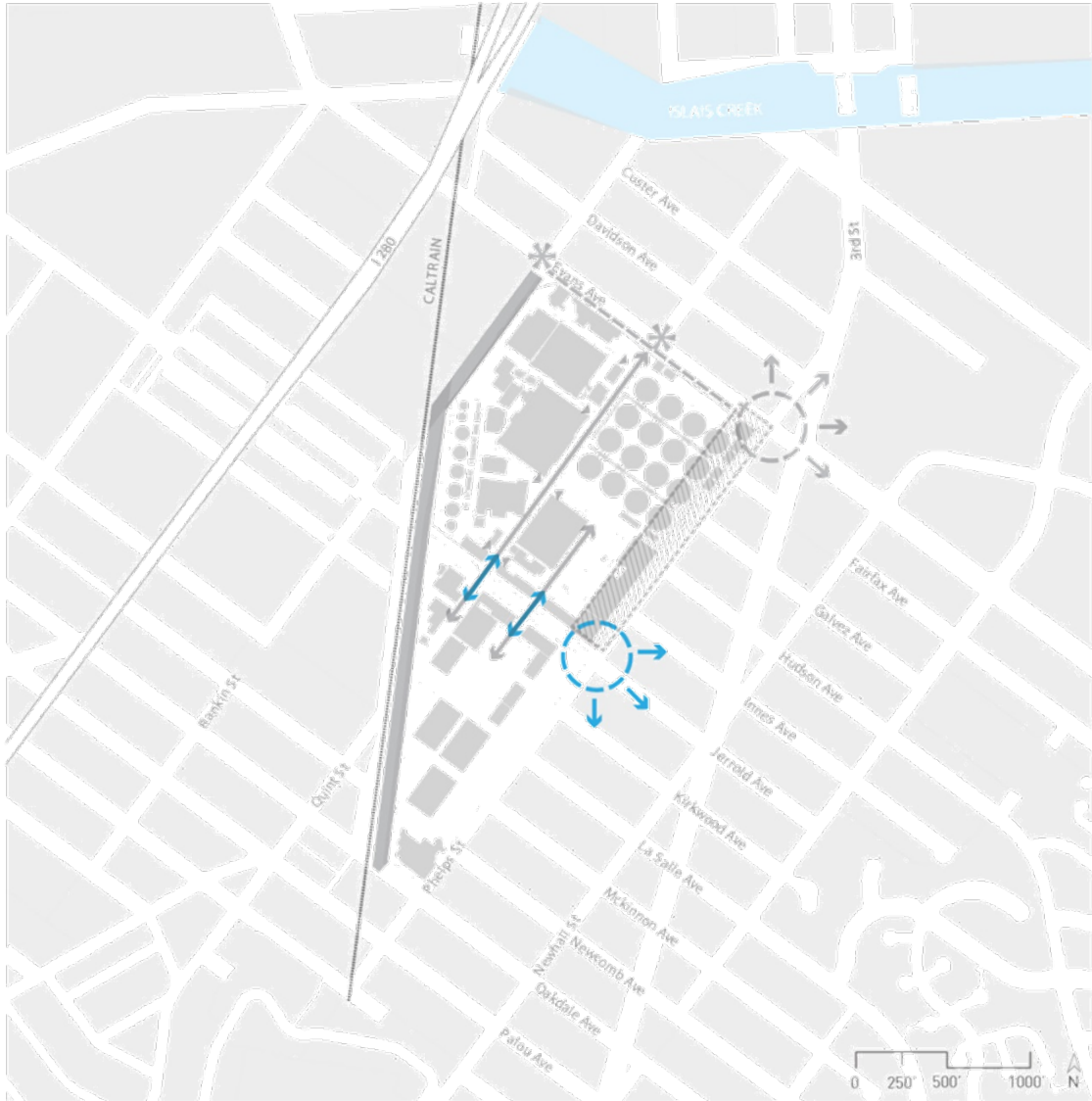
Identity



Pedestrian Safety

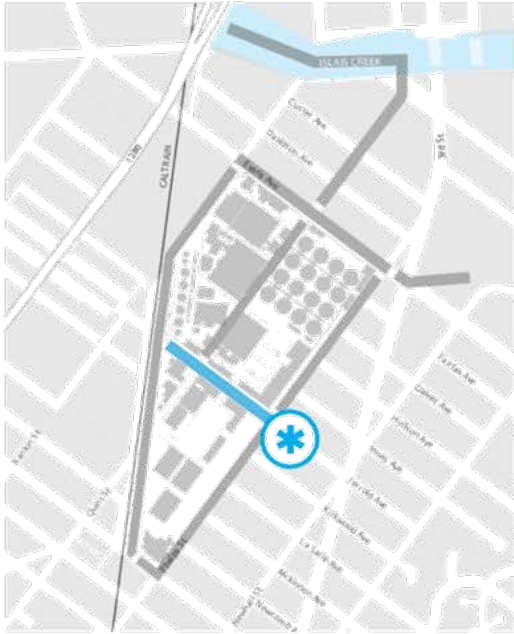


Connectivity (Local)



Zone E concept diagram

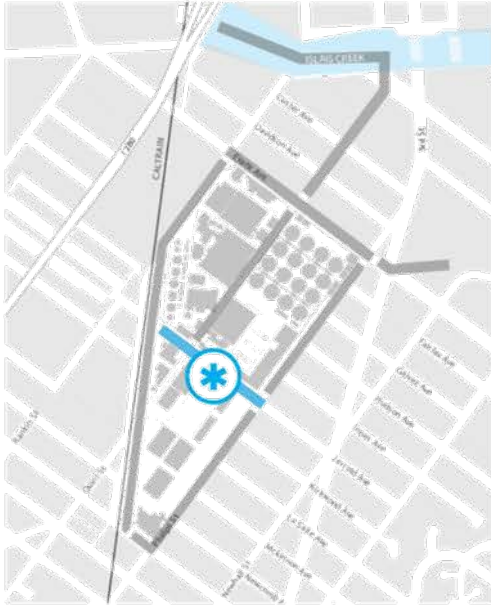
# Zone E: Jerrold Ave. | Site Observations



Jerrold Ave. + Phelps St.



# Zone E: Jerrold Ave. | Site Observations



Jerrold Ave.

# Zone E: Jerrold Ave. | Identity & Visual Expression

## DISTANT VIEW



Quint St.

EMBRACE THE STREET

## Programming



Future factories, Barcelona, Spain

## Safety and Connectivity



Bell St. Seattle

## UP CLOSE



Evans Ave.

LEGIBLE ENTRANCES

## Legibility and Wayfinding



Refurbished factory, Poland

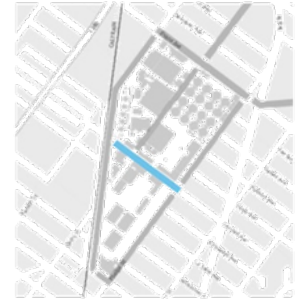
## Engaging Gateway



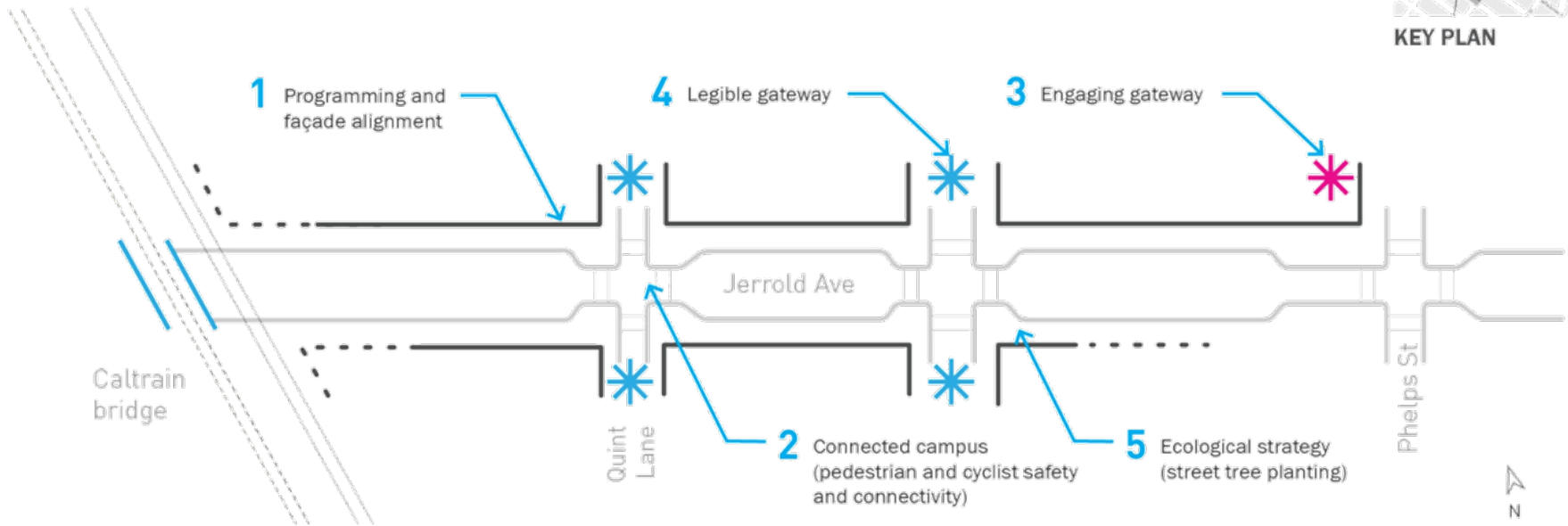
Water treatment facility, Portland



# Zone E: Jerrold Ave.

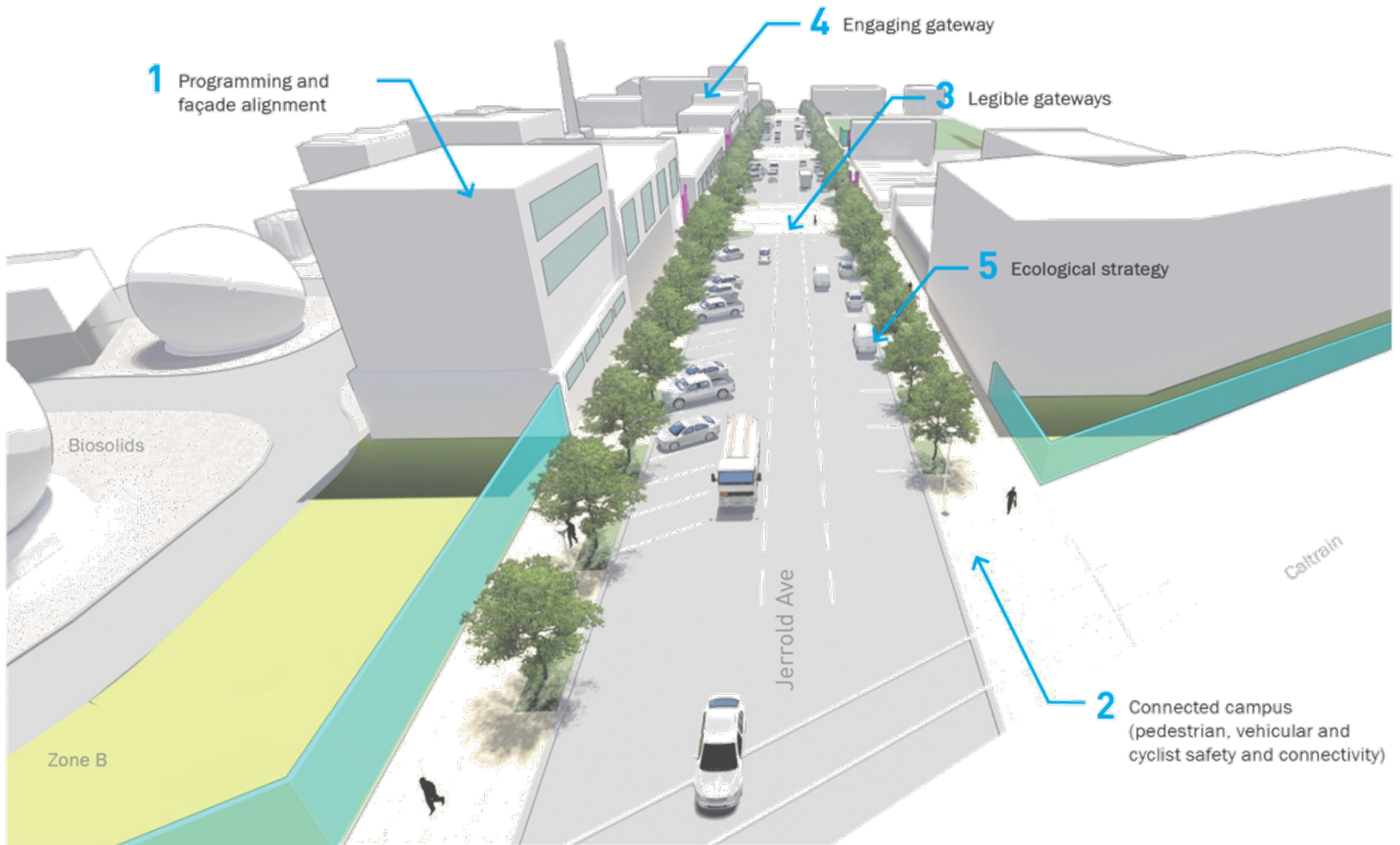


KEY PLAN



CONCEPT DIAGRAM

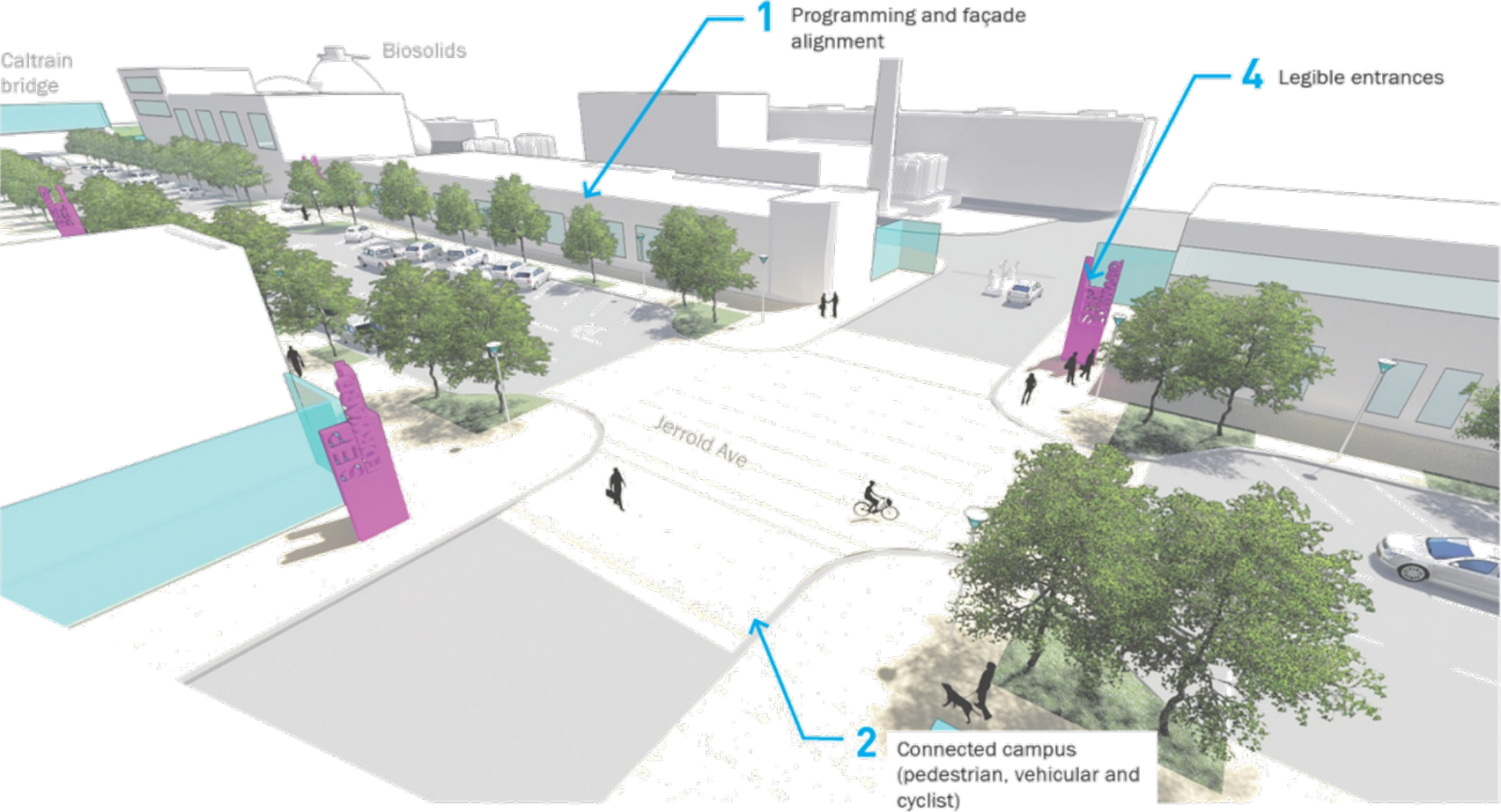
# Zone E: Jerrold Ave.



ILLUSTRATIVE VIEW (Jerrold Ave. and Caltrain)

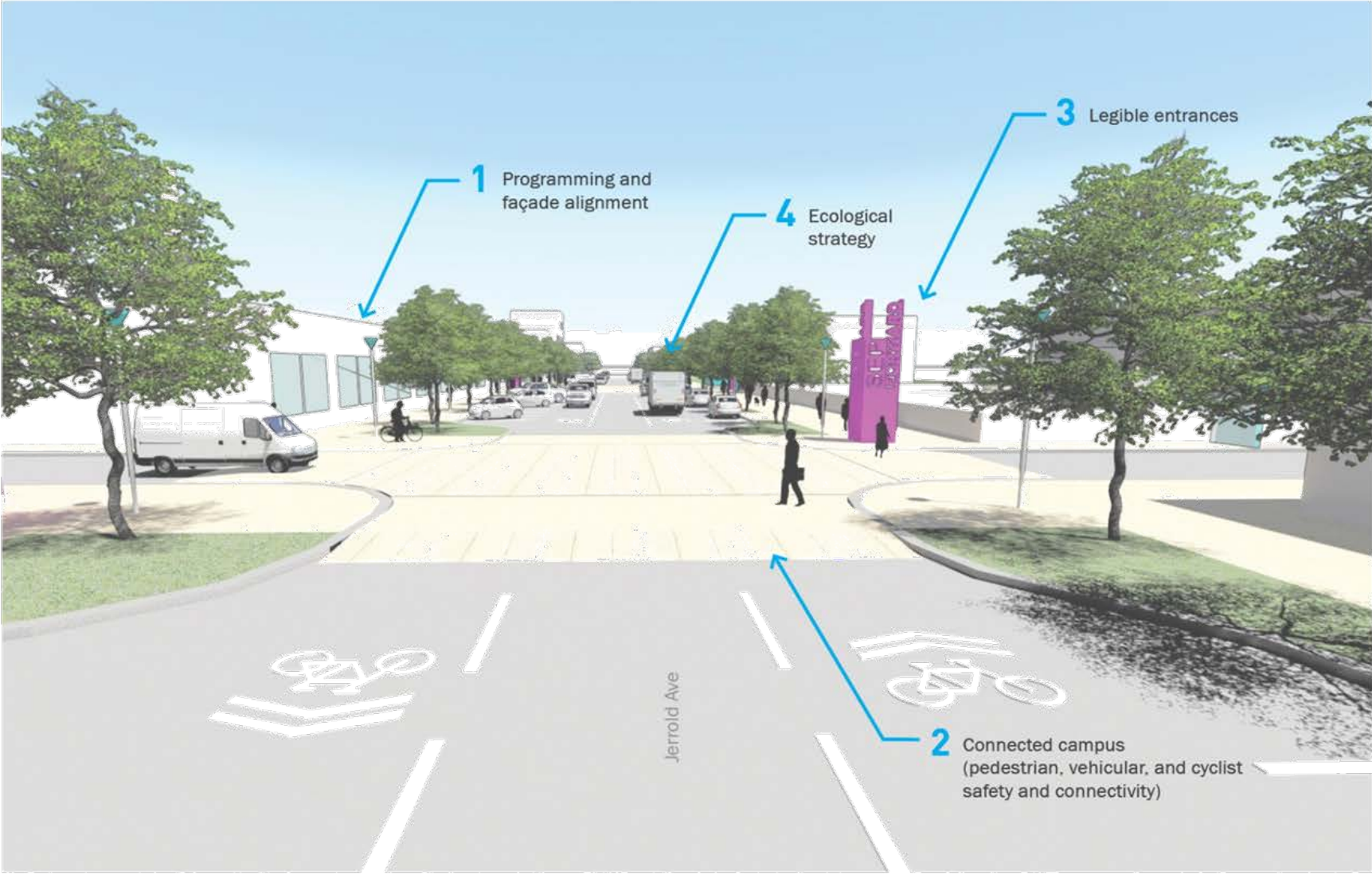


# Zone E: Jerrold Ave.



ILLUSTRATIVE VIEW (Jerrold Ave. gateways)

# Zone E: Jerrold Ave.

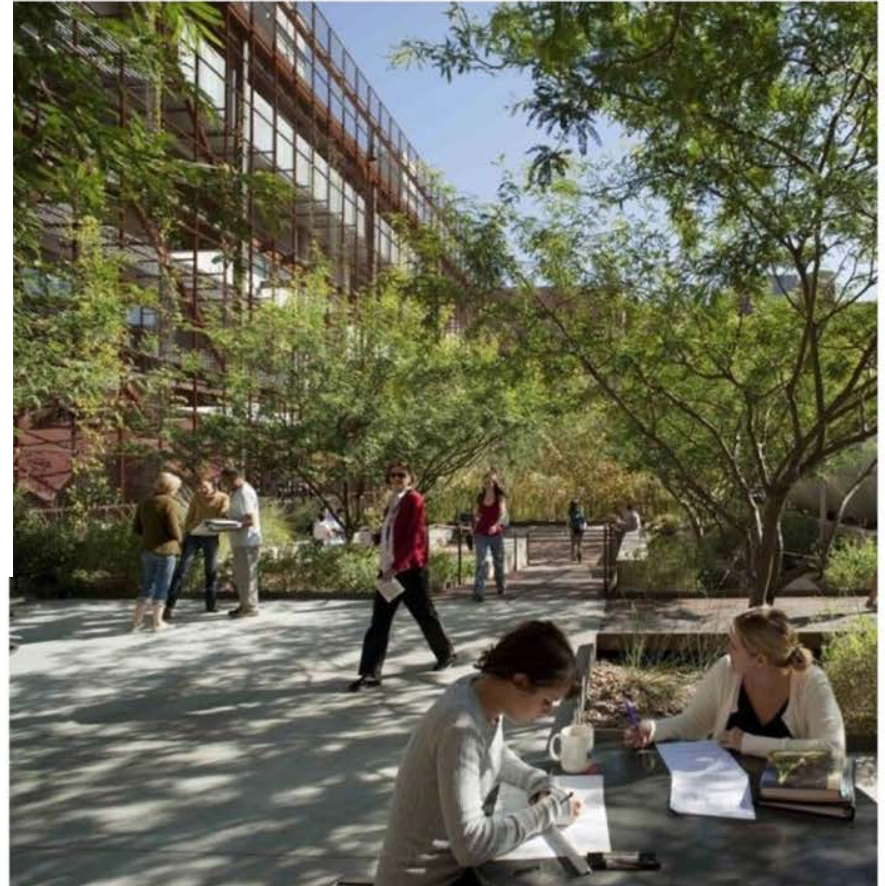


ILLUSTRATIVE VIEW (Jerrold Ave.)



# SEP Campus: Way Forward

- Design guidelines as a process
- Internal coordination through regular meetings with design teams
- Project-focused presentations for CDR



Promoting collaboration through programming.  
Arizona State University Campus.



**SEWER  
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IMPROVEMENT PROGRAM  
Grey. Green. Clean.

# THANK YOU.

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[sfwater.org/ssip](https://sfwater.org/ssip)

[ssip@sfwater.org](mailto:ssip@sfwater.org)

[sfwater.org](https://sfwater.org)



# ZONE ©

EVANS AVE.

# ZONE E

JERROLD AVE.