



San Francisco
Water
Power
Sewer

Services of the San Francisco
Public Utilities Commission

**SEWER
SYSTEM**

IMPROVEMENT PROGRAM

Grey. Green. Clean.

SEP Future CAMPUS VISION

November 2016



SEP campus

identity + vision

Confluence of:

- Technology (SEP + innovation)
- Community (learning + engagement)
- Environment (biophysical + built)

Opportunity to:

- exchange information
- make the invisible visible



Sidwell Friends School, Washington, D.C.

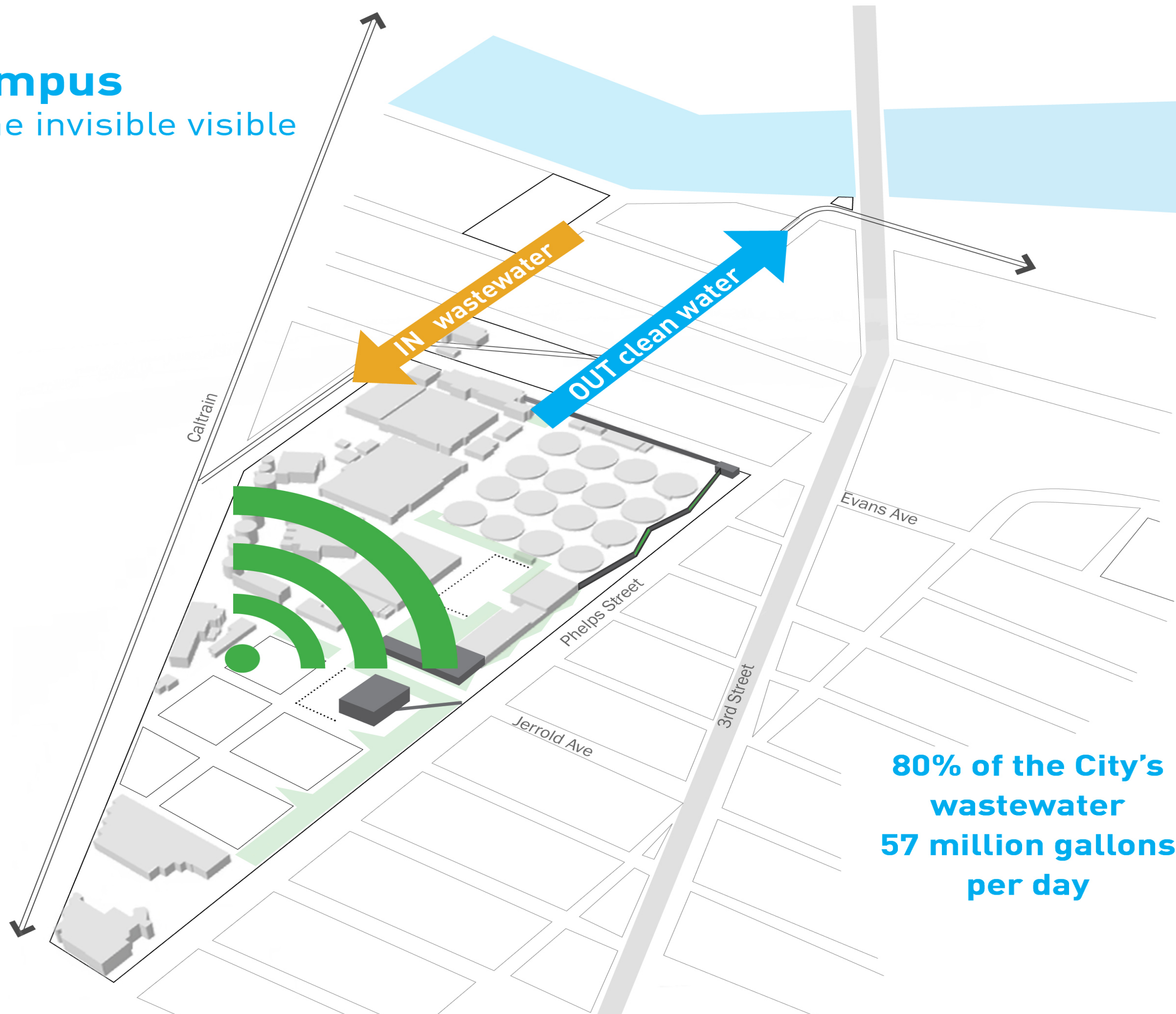
SEP campus

making the invisible visible



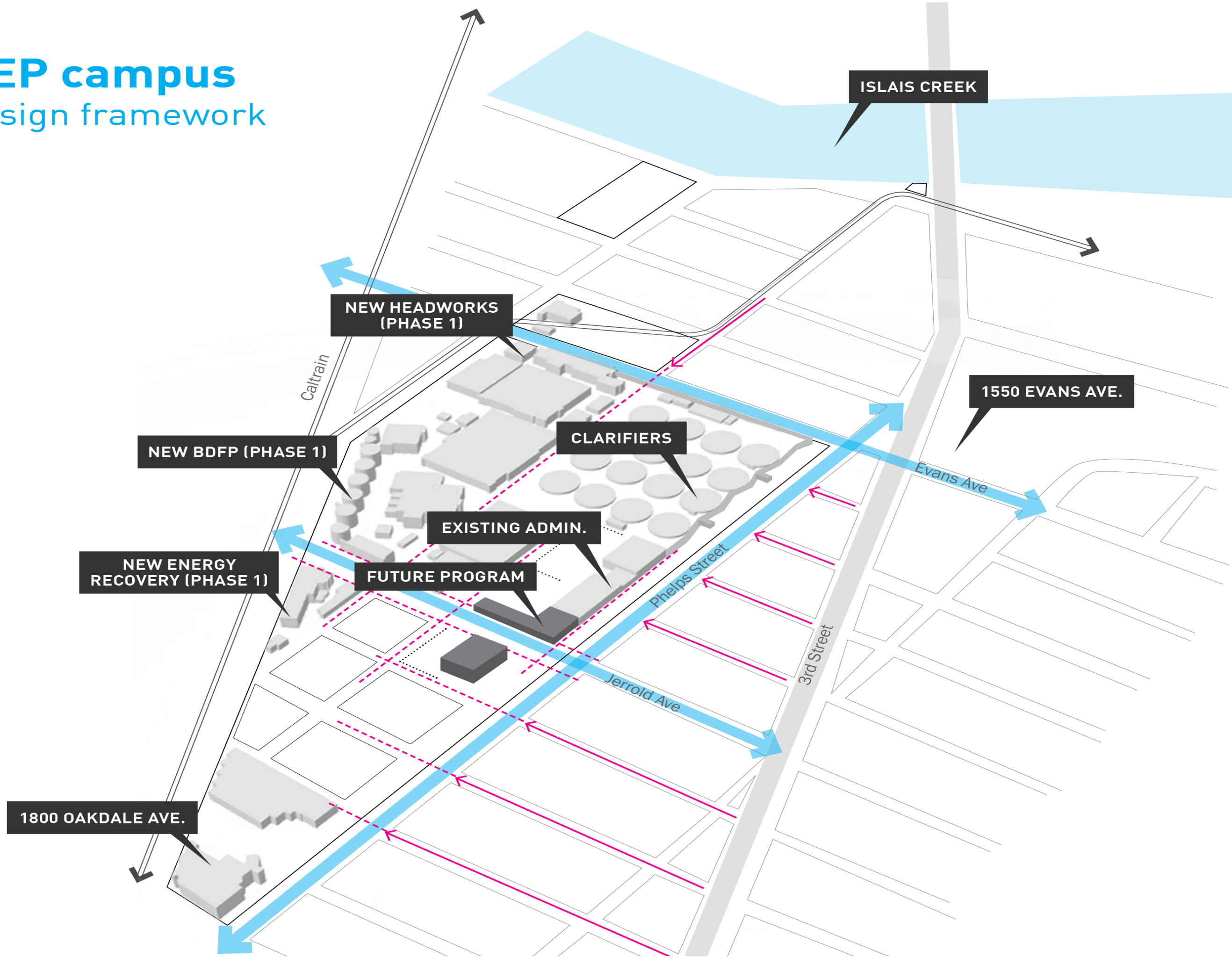
SEP campus

making the invisible visible

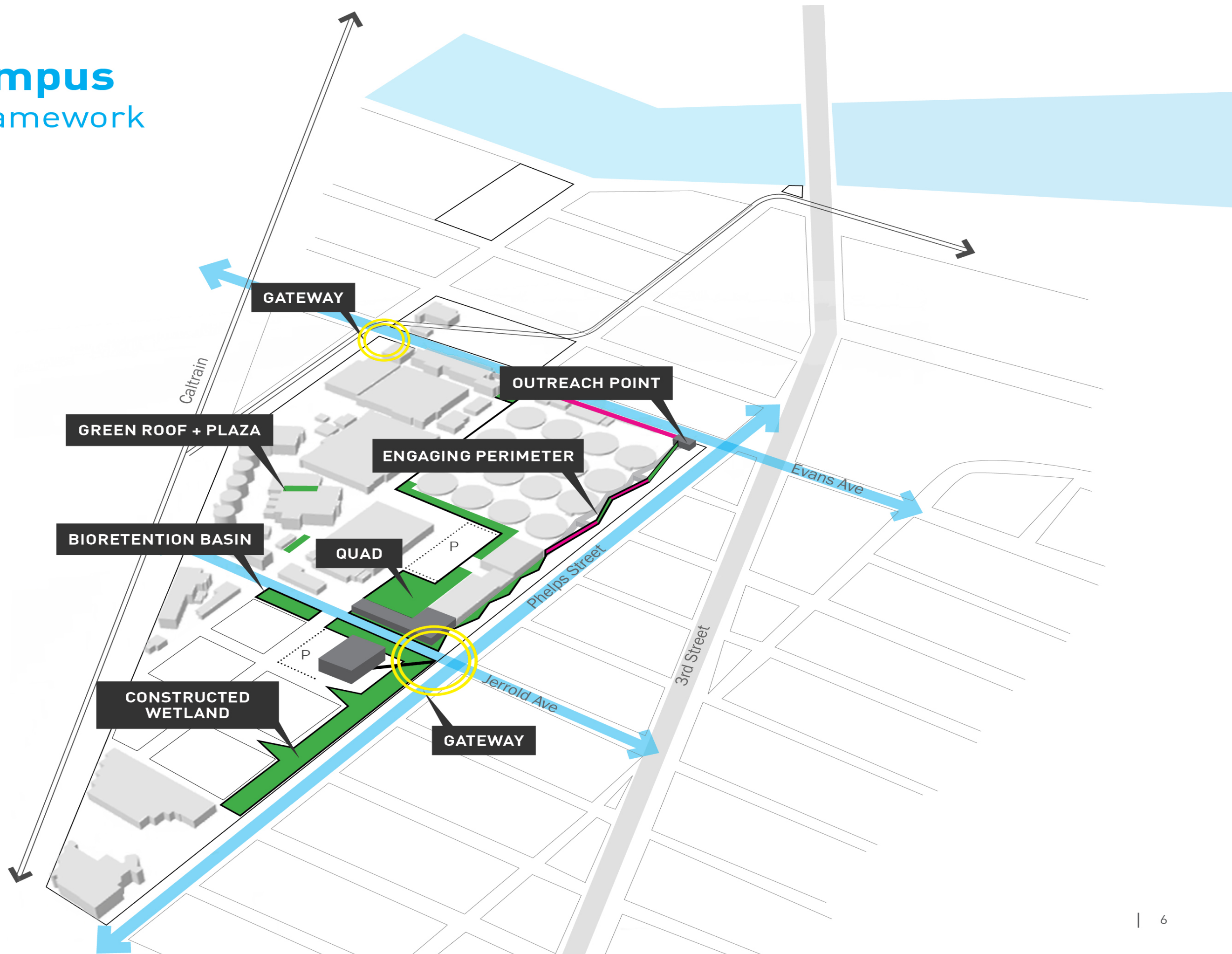


**80% of the City's
wastewater
57 million gallons
per day**

SEP campus design framework

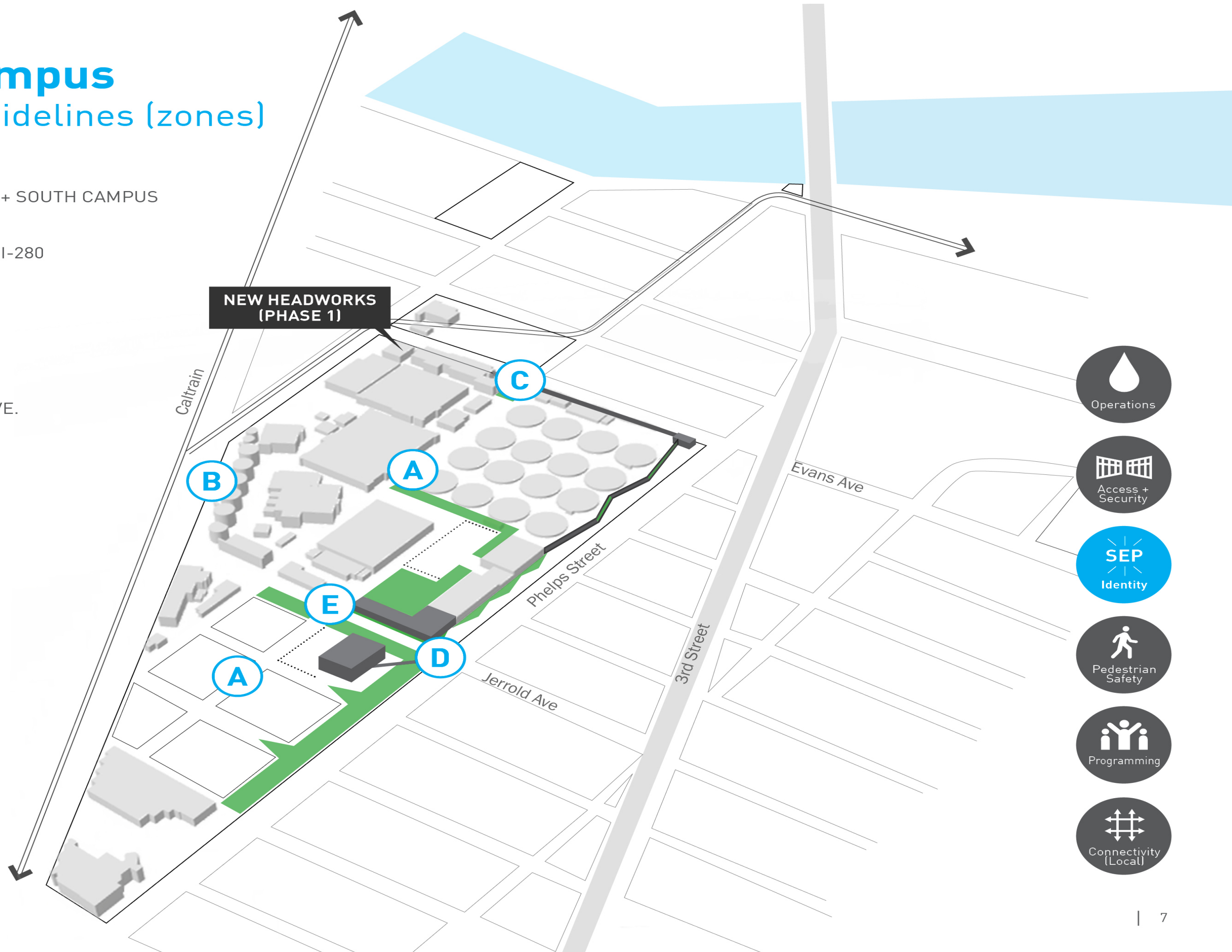


SEP campus design framework



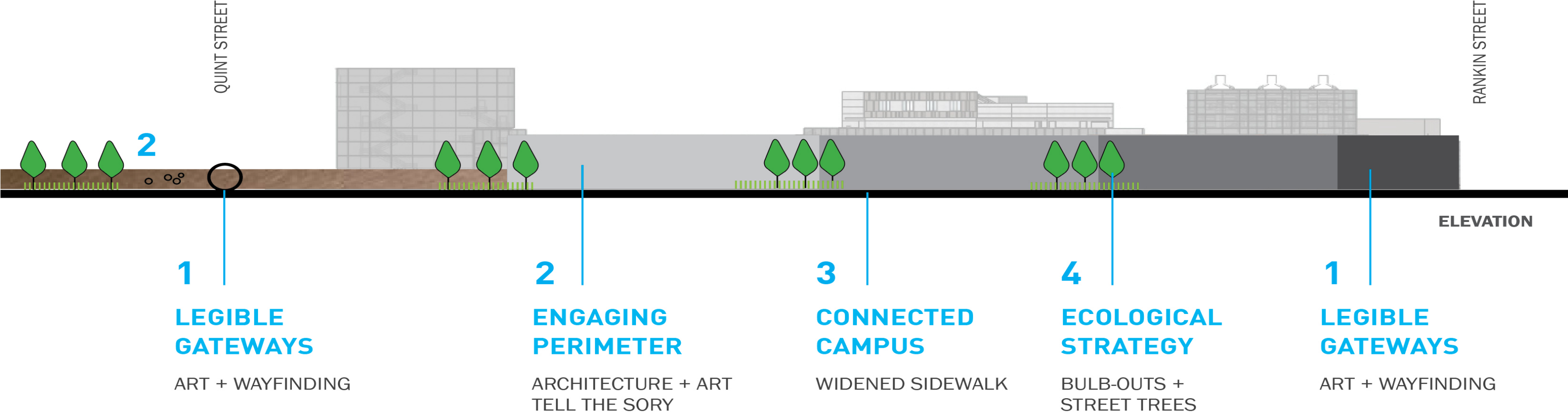
SEP campus design guidelines (zones)

- A** SEP NORTH + SOUTH CAMPUS
- B** CALTRAIN + I-280
- C** EVANS AVE.
- D** PHELPS ST.
- E** JERROLD AVE.



SEP campus

Evans Ave - Zone C

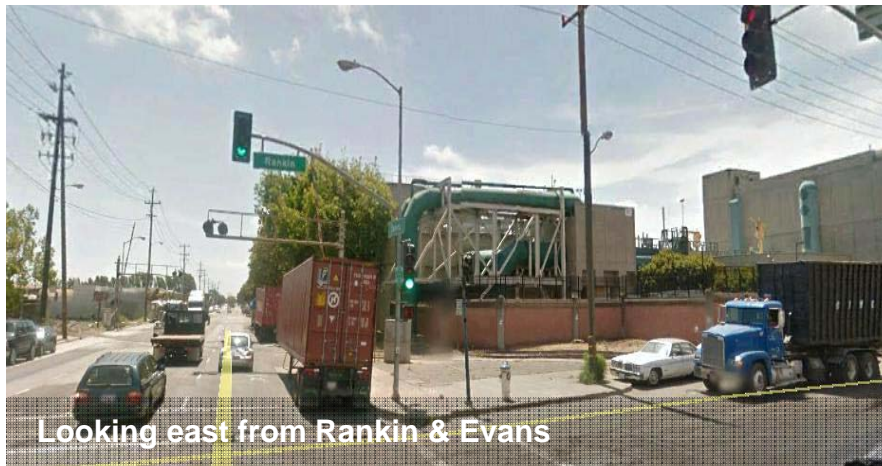




Civic Design Review

SEP 020 Headworks Project
November 14th 2016

Existing Conditions



Looking east from Rankin & Evans



Looking west along Evans



Looking west along Evans at Rankin



Looking west at load out bay inside plant



Looking east at load out bay inside plant



Industrial Uses

Project Site

3rd Street
Commercial
Corridor

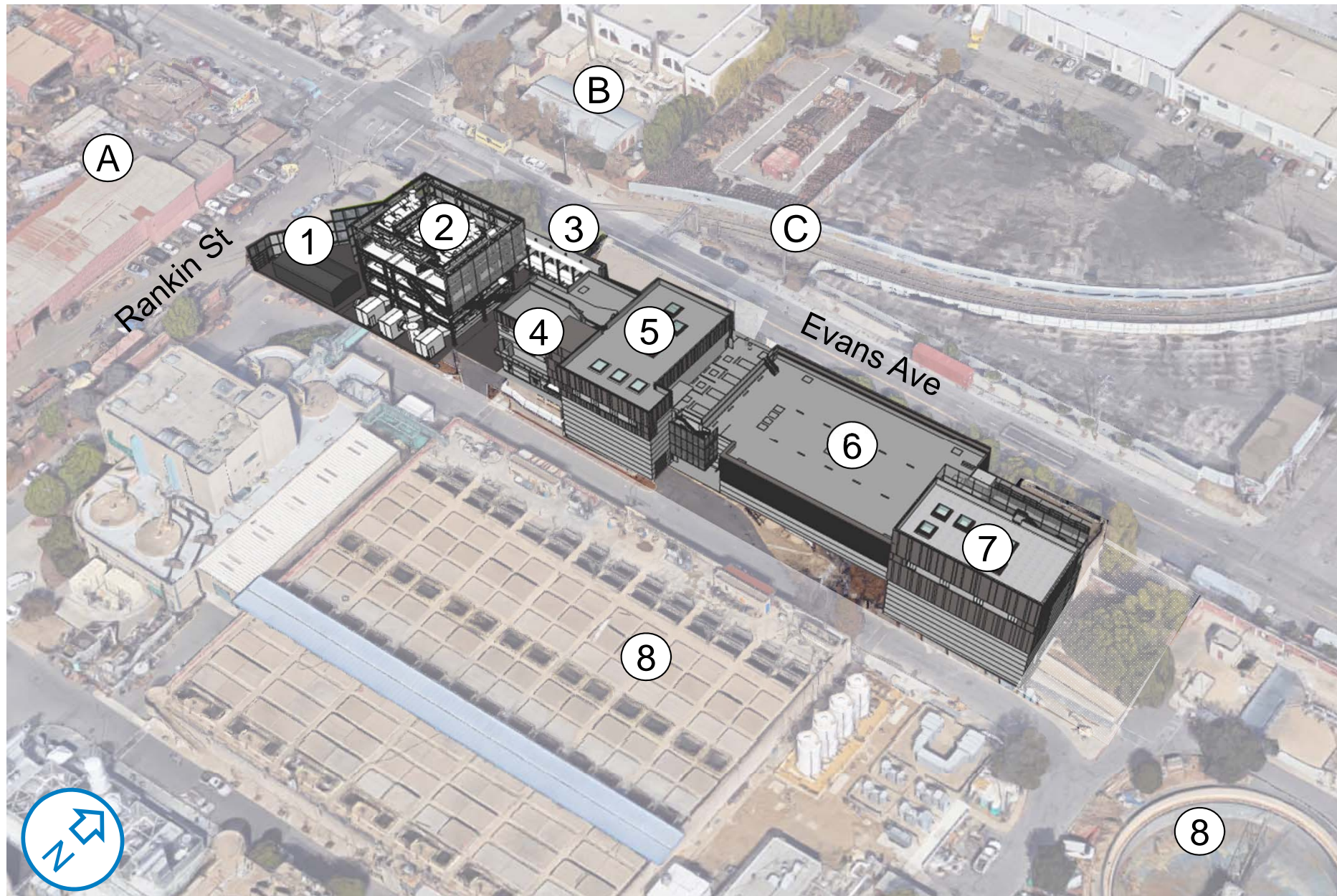
Context. The headworks project is located at the SFPUC Southeast Plant which treats 80% of San Francisco's wastewater. This project replaces the existing headworks which is at the end of its useful life. The project site is at the corner of Evans Avenue and Rankin Street in the Bayview neighborhood. On the plant side, the site is hemmed in by an above ground treatment basin.

Replacement Headworks & Functions

Program. Plant operators and mechanics visit the facility daily, specifically they visually verify equipment is working in the basement pump rooms, screening area and load out bays. Dump trucks pick up materials at the load out bays on a weekly basis. Tour groups will be brought into the facility from the plant side via an accessible route to see the screening area. There is no entrance to the headworks from Evans or Rankin due to health and security requirements.



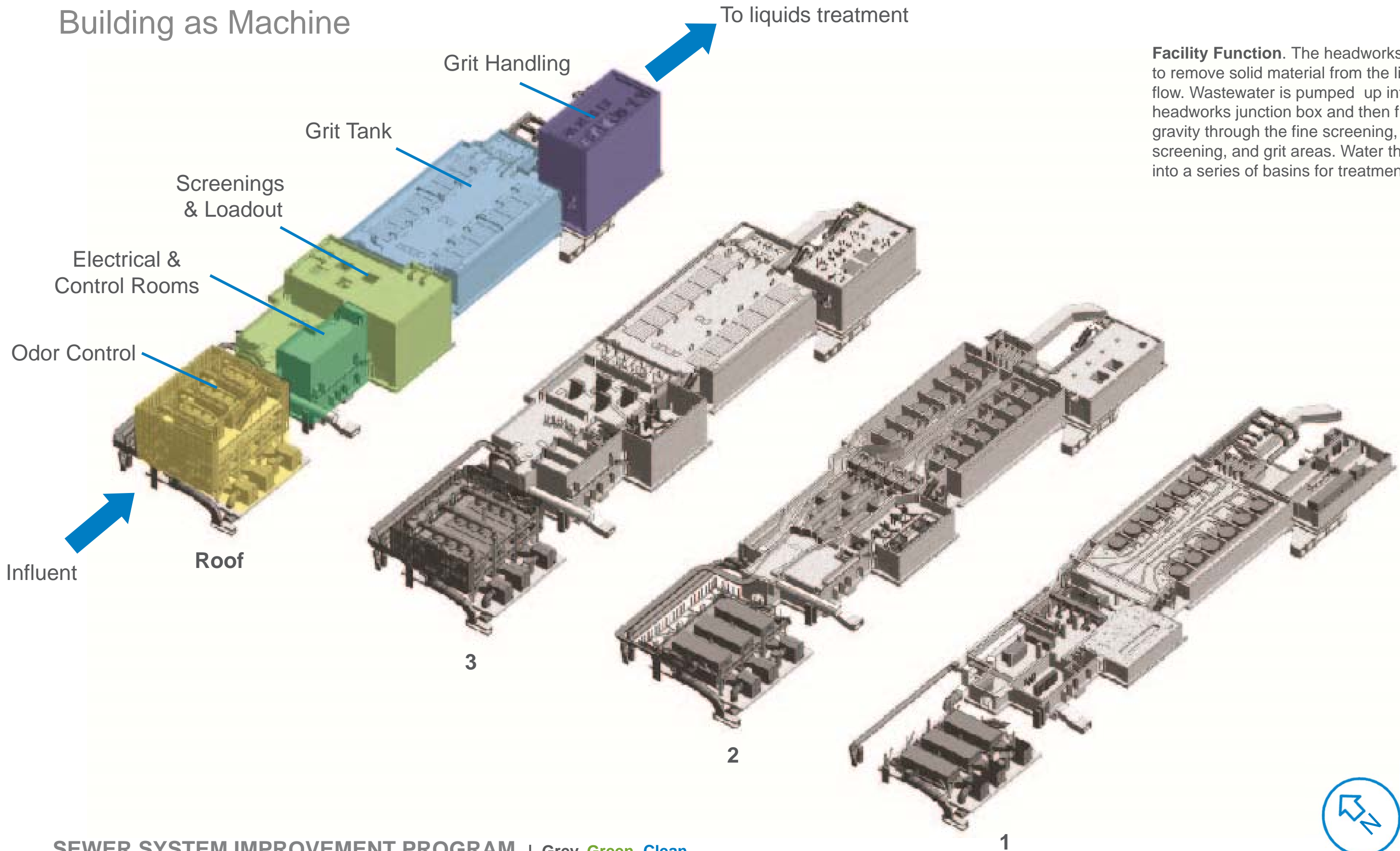
Existing Headworks



- ① Transformer Building
- ② Odor Control Structure
- ③ Influent Pipes
- ④ Electrical Building
- ⑤ Screenings Facility
- ⑥ Grit Tank Facility
- ⑦ Grit Handling Facility
- ⑧ Liquid Treatment Basin
- Ⓐ Circosta Scrap Metal
- Ⓑ Bruce Flynn Pump Station
- Ⓒ Union Pacific Railway

Floor Plans

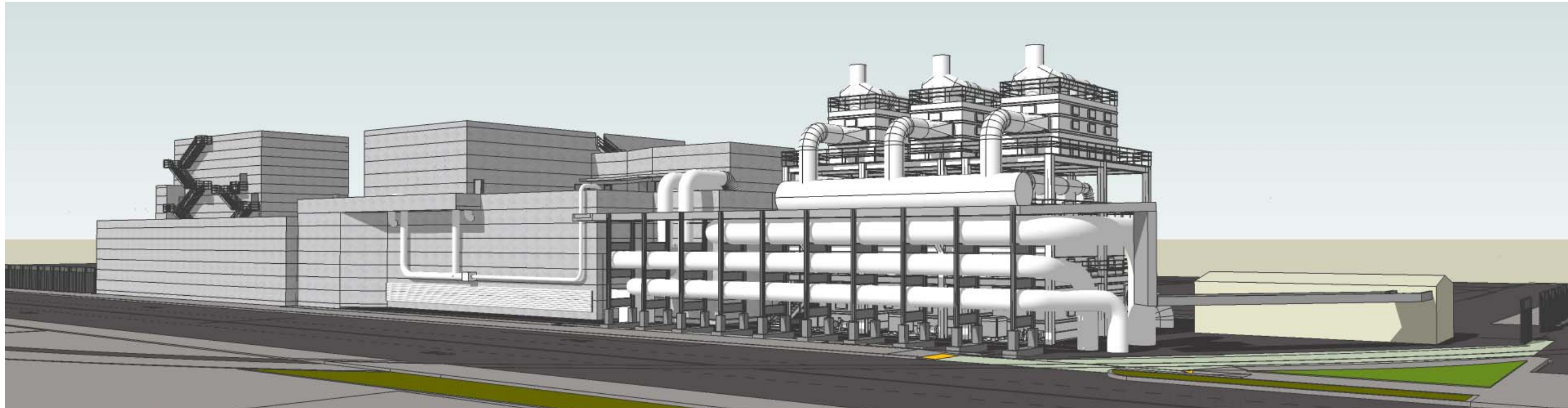
Building as Machine



Facility Function. The headworks job is to remove solid material from the liquid flow. Wastewater is pumped up into the headworks junction box and then flows by gravity through the fine screening, screening, and grit areas. Water then flows into a series of basins for treatment.



Evans Ave. - Essential Components



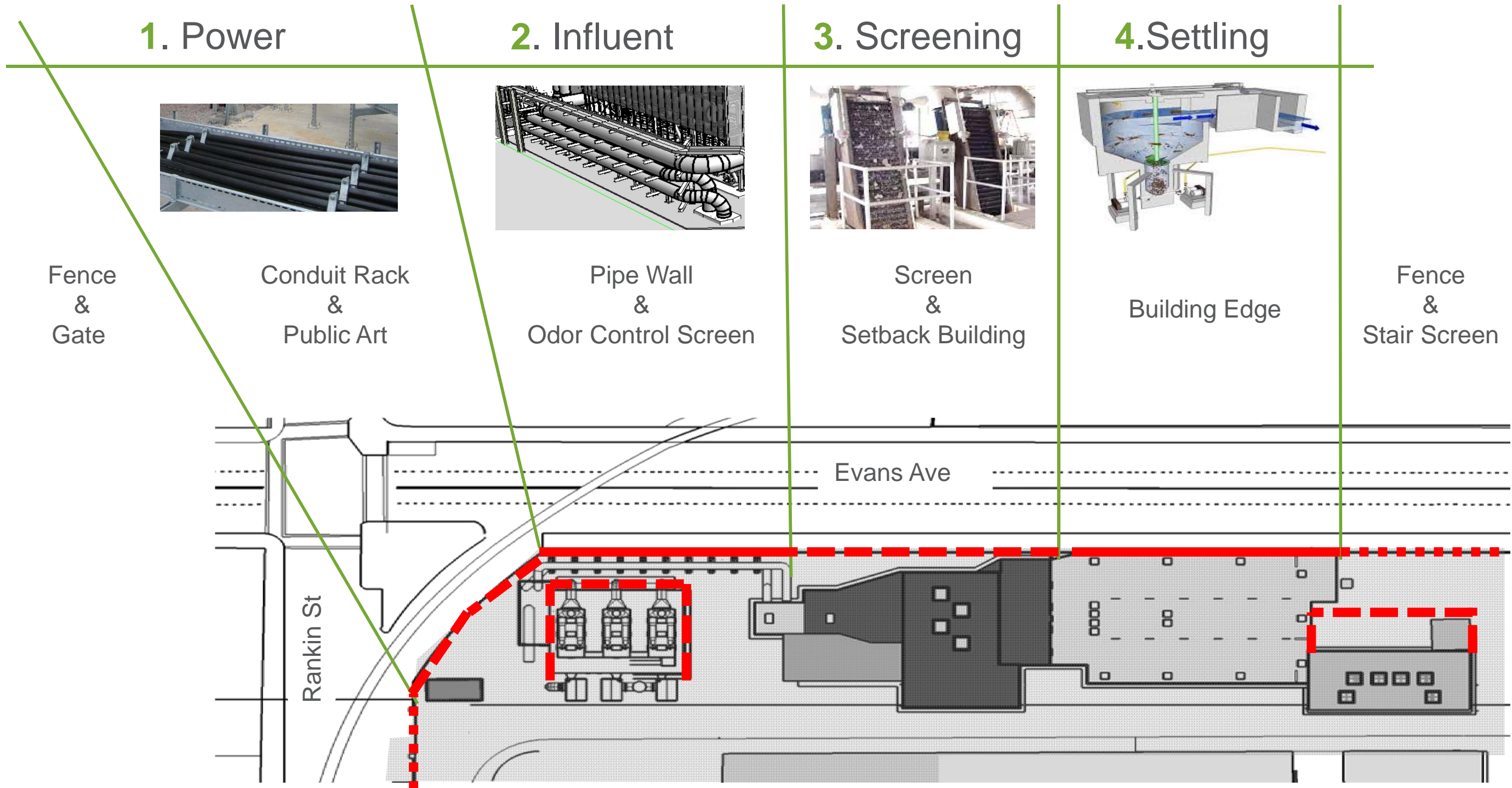
Functional Components - Influent pipes, odor control structure and pipes, external stairs, building structure



Structural and Screening Components - Stair screen, setback fence, pipe wall, odor control screen, conduit screen

Evans Ave. - The Four Episodes

Expressive Perimeter



Plan View



Material Palette and Precedents



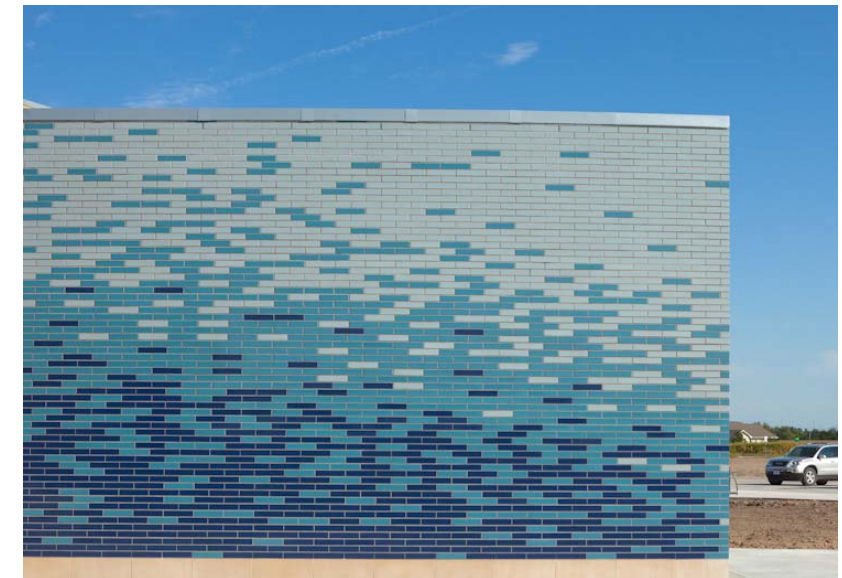
Textured Concrete



Terra Cotta



Channel Glass



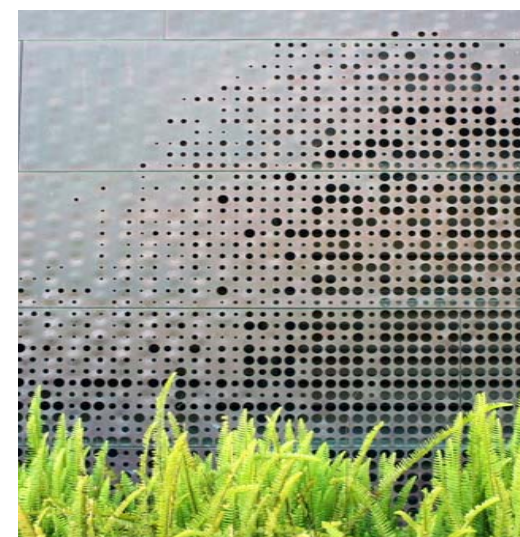
Kenwood Elementary – WHS Architects



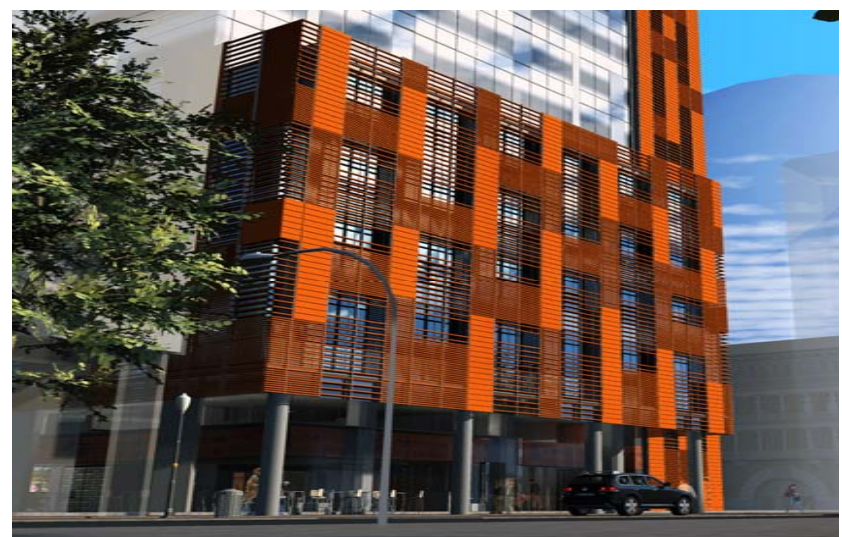
Stainless Steel Mesh



Zinc/Stainless Steel

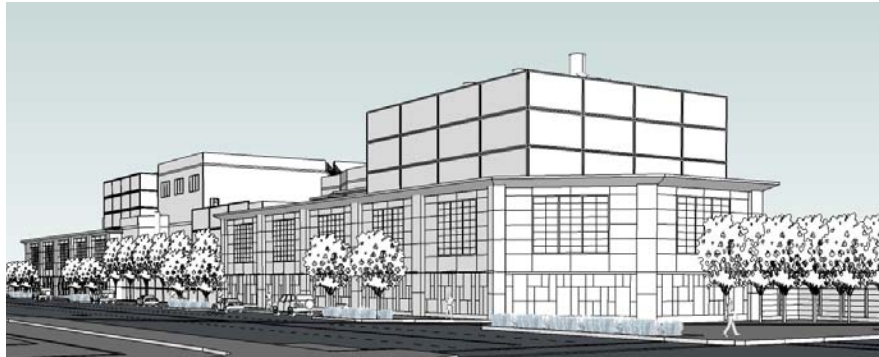


Perforated Aluminum



Hay Street House – CCN Architects

Design Progression



Older Versions



Newer Versions

Design Strategies - Older Versions

- Express as building walls
- Semi-traditional style
- Multiple locations for art

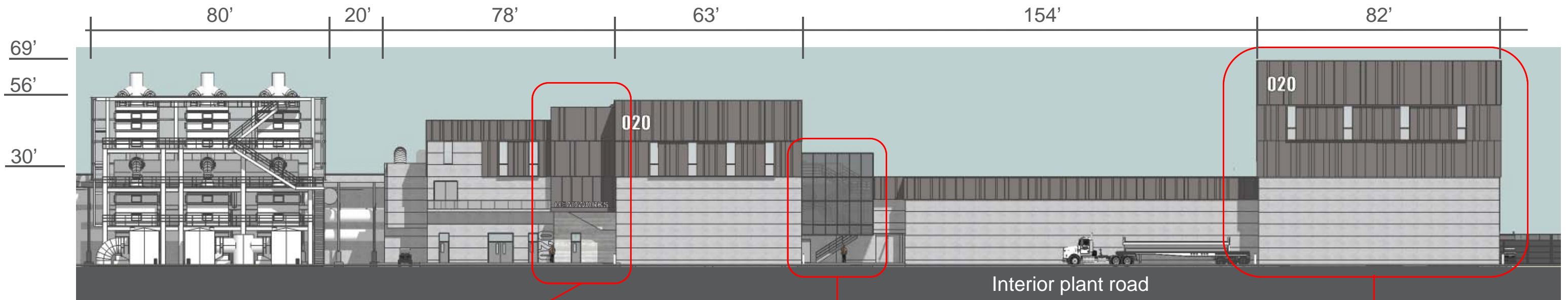
Design Strategies - Newer Versions

- Express as separate components
- Contemporary style
- Single corner location for art
- Overlap wall sections
- Vegetate setbacks

Latest Informal CDR comments:

- Tell a holistic design story
- Honest, consistent use of materials
- Simplicity and clarity
- Reconsider vegetated setbacks
- Reconsider wall overlaps
- Provide additional terra cotta studies

Plantside Architectural Components



South Elevation



Main entry



Exterior stair screening



Windows and cladding

Partial elevation studies - Evans Ave.



Shifted

Widening pattern relates to flow and treatment of water, creating movement for pedestrians and drivers.

- Terra cotta rainscreen
- Two colors, two textures
- 26' H solid and perforated screen mimics pattern



Staggered

Pattern creates variety with horizontal data to break up height of wall

- Terra cotta rainscreen
- Two colors, two textures
- 3 levels (12', 23', 30')
- 23' H solid and perforated screen mimics pattern



Pixelated

Pixel pattern adds more dimension and variety for pedestrians and drivers

- Terra cotta rainscreen
- Three colors, two sizes
- 18' H solid and perforated screen mimics pattern

Preferred Scheme

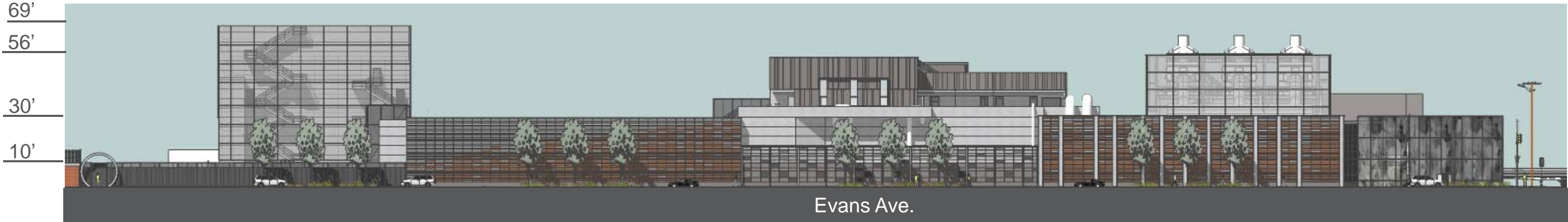


Embedded

Terra cotta tiles inset in concrete walls with pixel pattern to tell the story

- Terra cotta tiles in concrete
- Two colors, one size
- 18'H solid an perforated screen mimics pattern

Evans Ave. Architecture



North Elevation



East Elevation



West Elevation

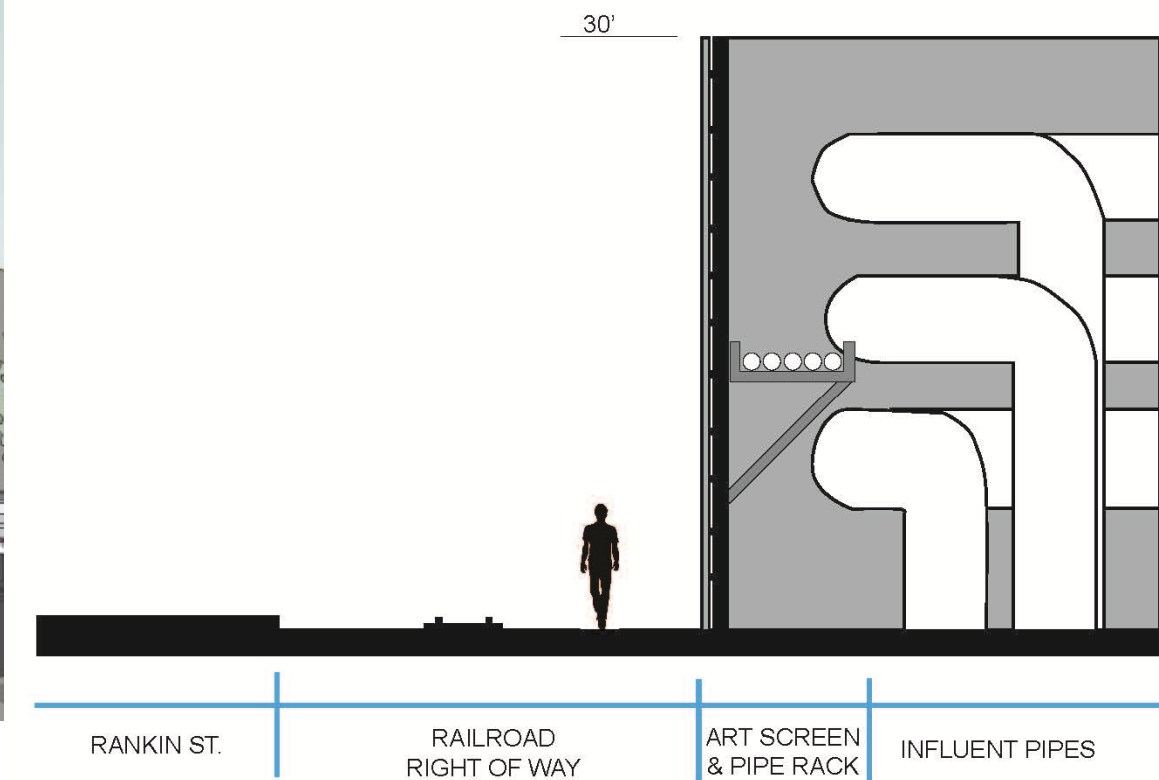
Evans Ave. Episodes

1 : Power

- Screening for pipes, conduit and transformer building
- Public Art opportunity
- Gateway to Bayview neighborhood
- Truck entrance to plant



Looking South from sidewalk on Evans at Rankin



Section

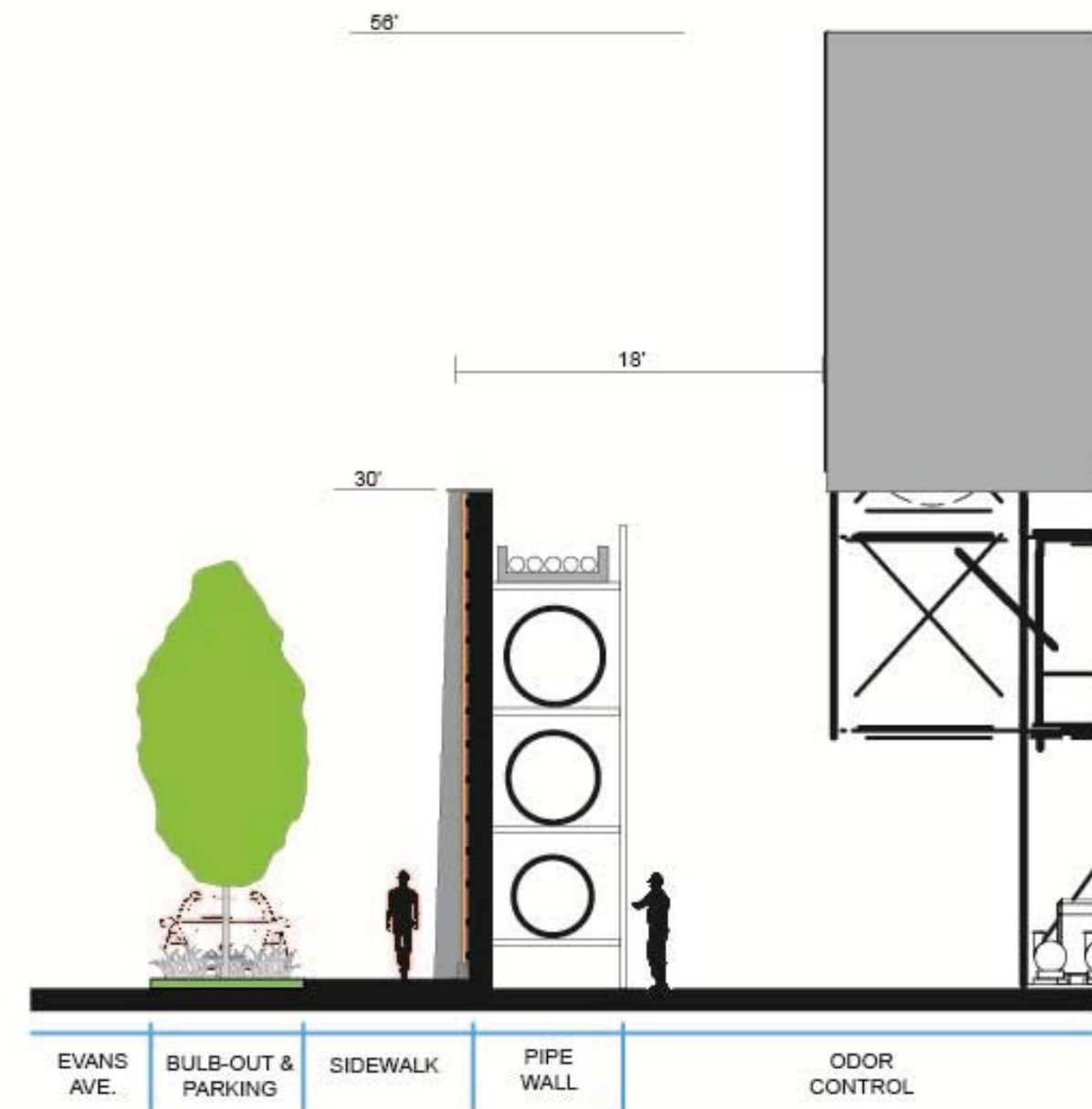
Evans Ave. Episodes

2 : Influent

- Structural wall for influent pipes
- Buttressed columns to emphasize structure
- Begin of pixelated terra cotta (representing incoming dirty water)
- Sidewalk treatment and vegetated bulbout



Looking East from sidewalk on Evans Ave.

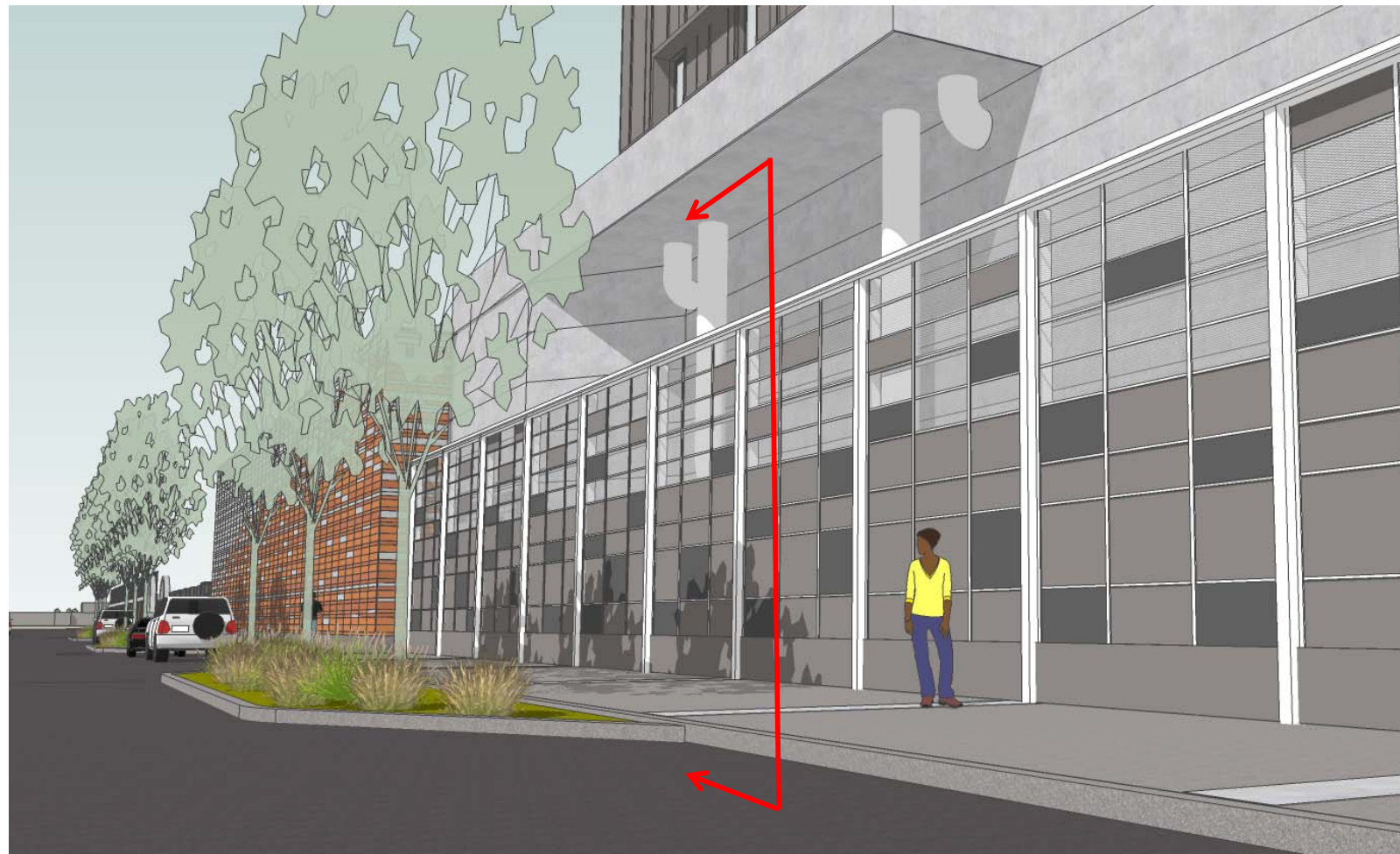


Section

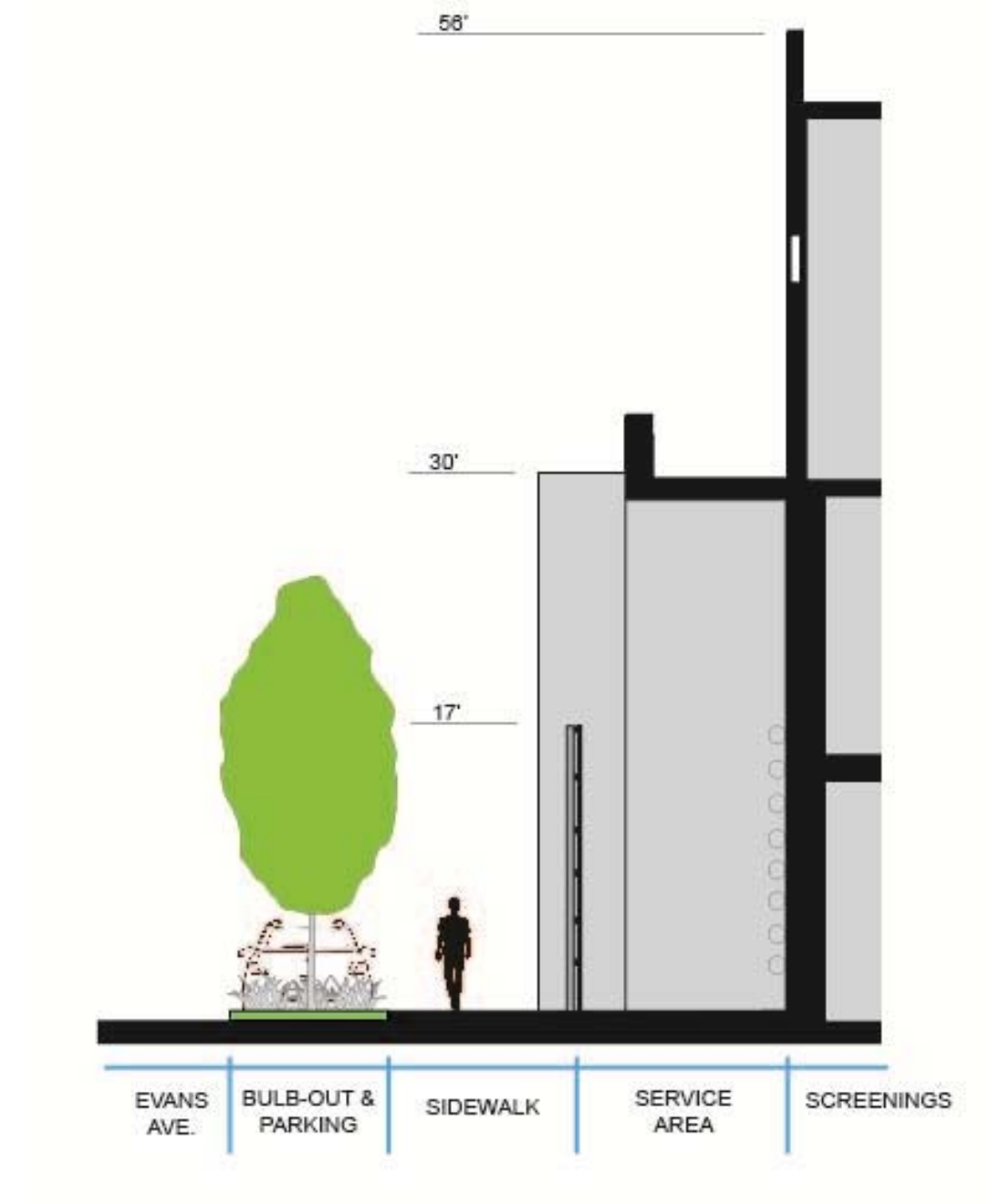
Evans Ave. Episodes

3 : Screening

- Security screen for workspace and equipment beyond
- Perforated and solid metal panels in pixelated pattern
- 18" setback from property line for articulated streetwall
- Sidewalk treatment and vegetated bulbout



Looking East from sidewalk on Evans Ave.



Section

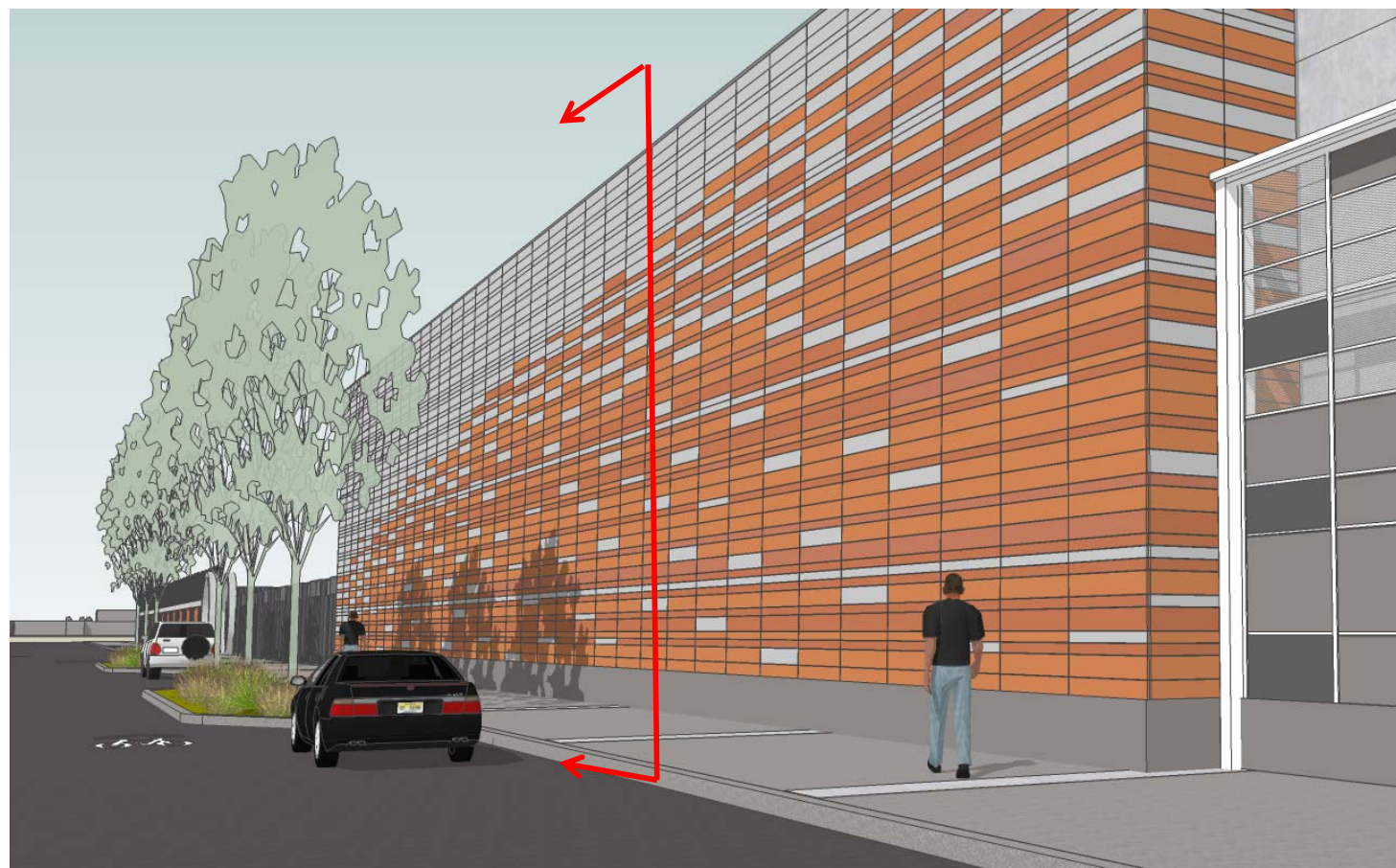
Evans Ave. Episodes

4 : Settling

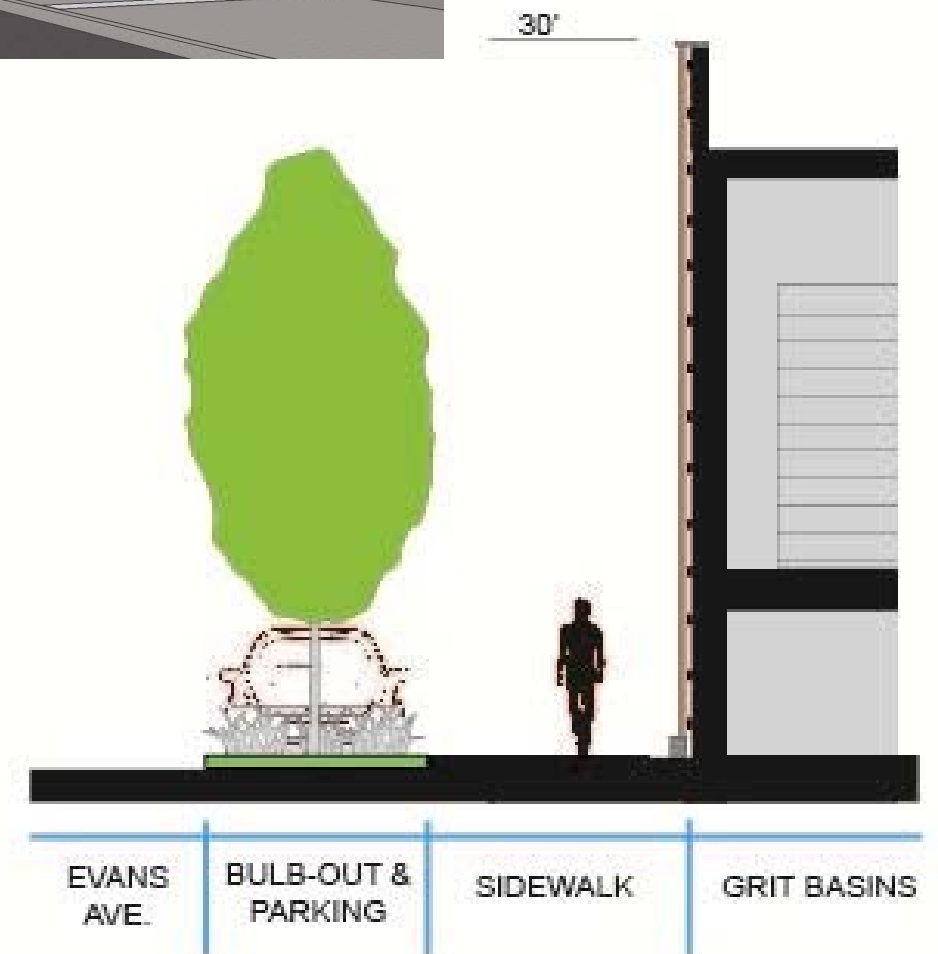
- Structural wall of grit tank
- Continuation of pixelated terra cotta (representing filtering of water)
- Smooth face to reflect structure
- Sidewalk treatment and vegetated bulbout



Embedded Version



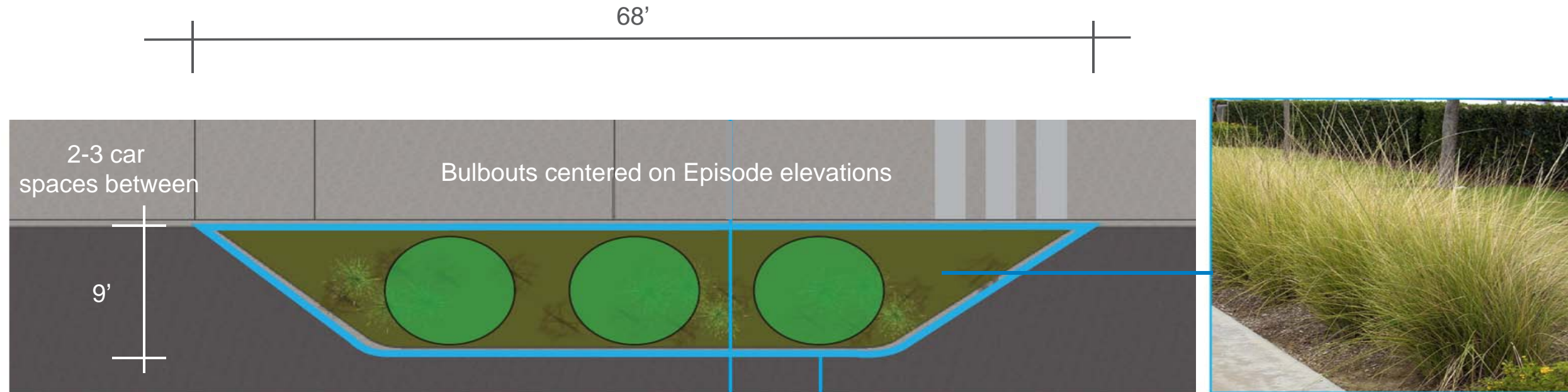
Looking East from sidewalk on Evans Ave.



Section

Evans Ave. Landscape

Vegetated Bulbouts



BULBOUTS AND TREE PLANTING

Option 1

Afrocarpus gracilior
Fern pine

Columnar shape (H: 20-25')

Evergreen, no flowers, attractive foliage

Shade tolerant

Low care requirements

Recommended for narrow sidewalks



Option 2

Pittosporum crassifolium
Karo

Evergreen, fragrant flowers in spring

Shade tolerant

Moderate care requirements

Recommended for narrow sidewalks



Thank You

