

FIRST HILL STREETCAR

A close-up, low-angle shot of a streetcar's wheel and track, showing the intricate details of the wheel's tread and the metal rails. The lighting is dramatic, with a strong orange glow on the left side, suggesting a sunset or sunrise. The background is dark and out of focus.

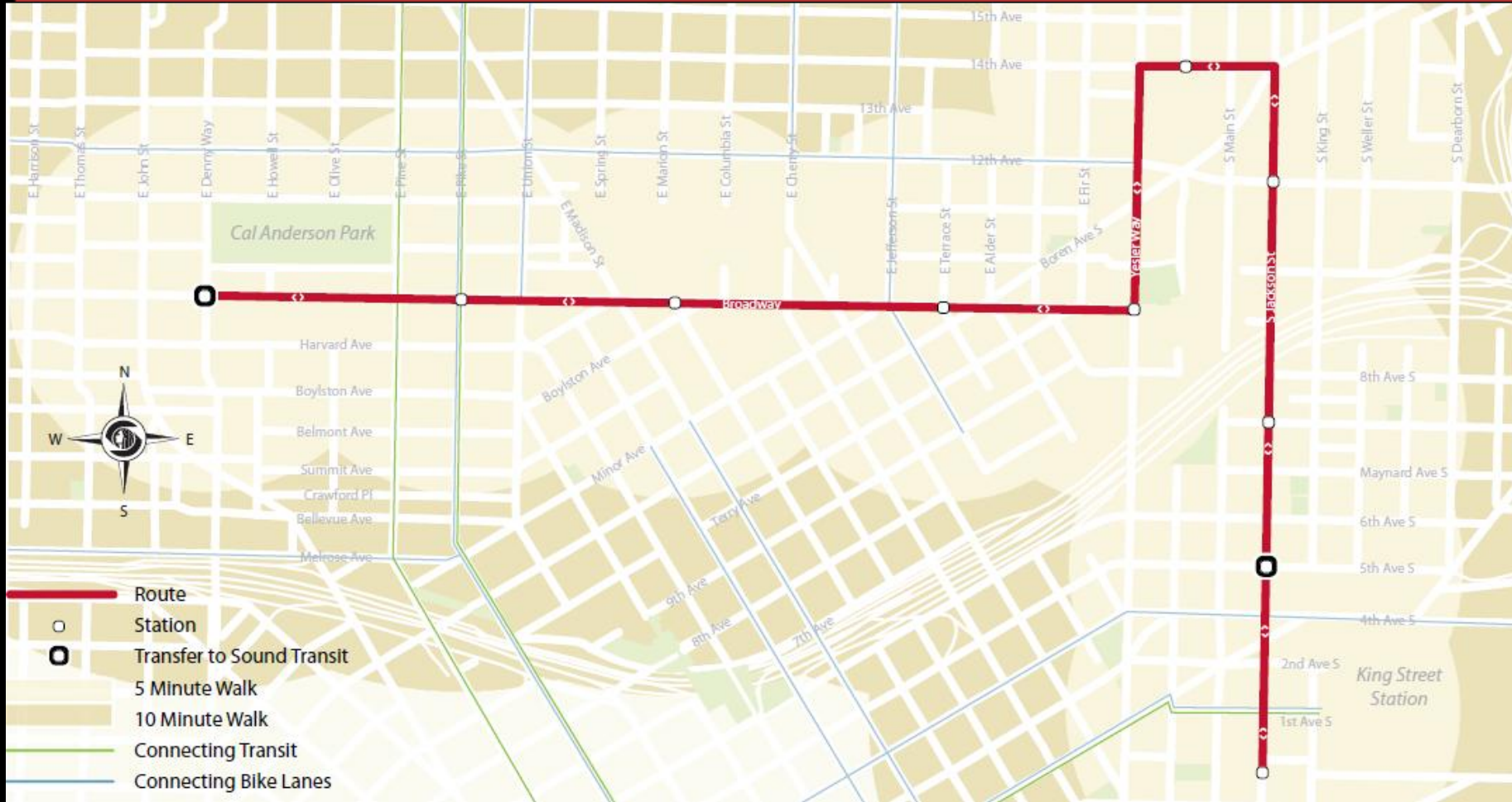
First Hill Streetcar Project Preliminary Engineer/Schematic
Design Review

Seattle Design Commission

April 7, 2011

A large, faint, red-tinted silhouette of a streetcar is visible in the background, positioned behind the text. It shows the front and side profile of the vehicle, including the windows and wheels.

Project Overview & Context

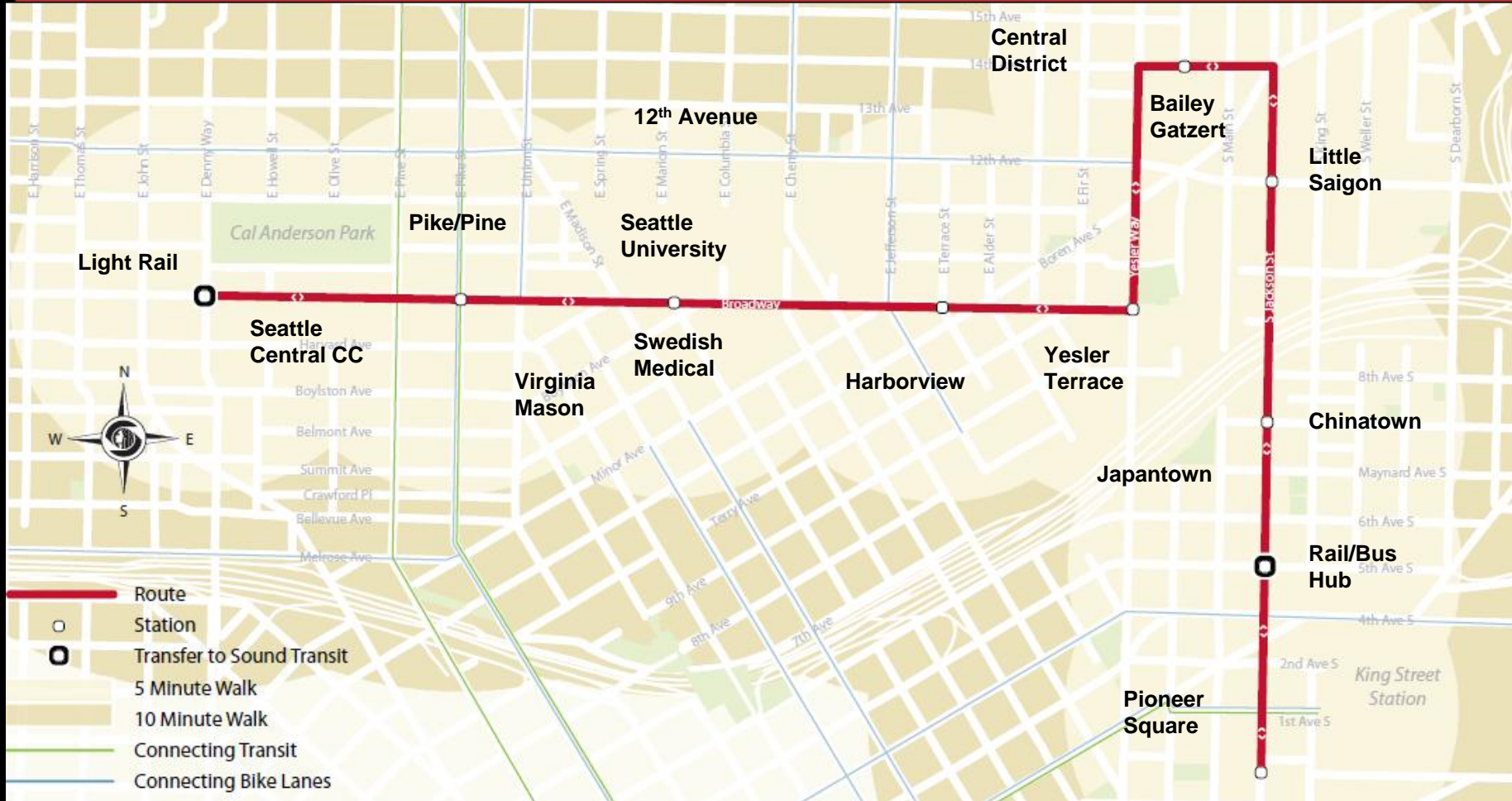


Project Overview & Context

- Modern Streetcar Project Providing Regional Transit Connections & Center City Circulation
- Busy Arterial Environment
- Diverse Neighborhoods/Historic Districts
- Major Institutions/Small Businesses



Project Overview & Context



Scope Overview

- 2.5 Miles of Embedded Track & Roadway Improvements
- 10 Stops—Mix of Side & Center Platforms, with Art Program/Landscape
- Overhead Contact System
- Traffic Signals & Train Signals
- Maintenance Facility
- Utility Relocations—Primarily Water



Trackway & Platform



Overhead Contact System & Signals

FIRST HILL STREETCAR

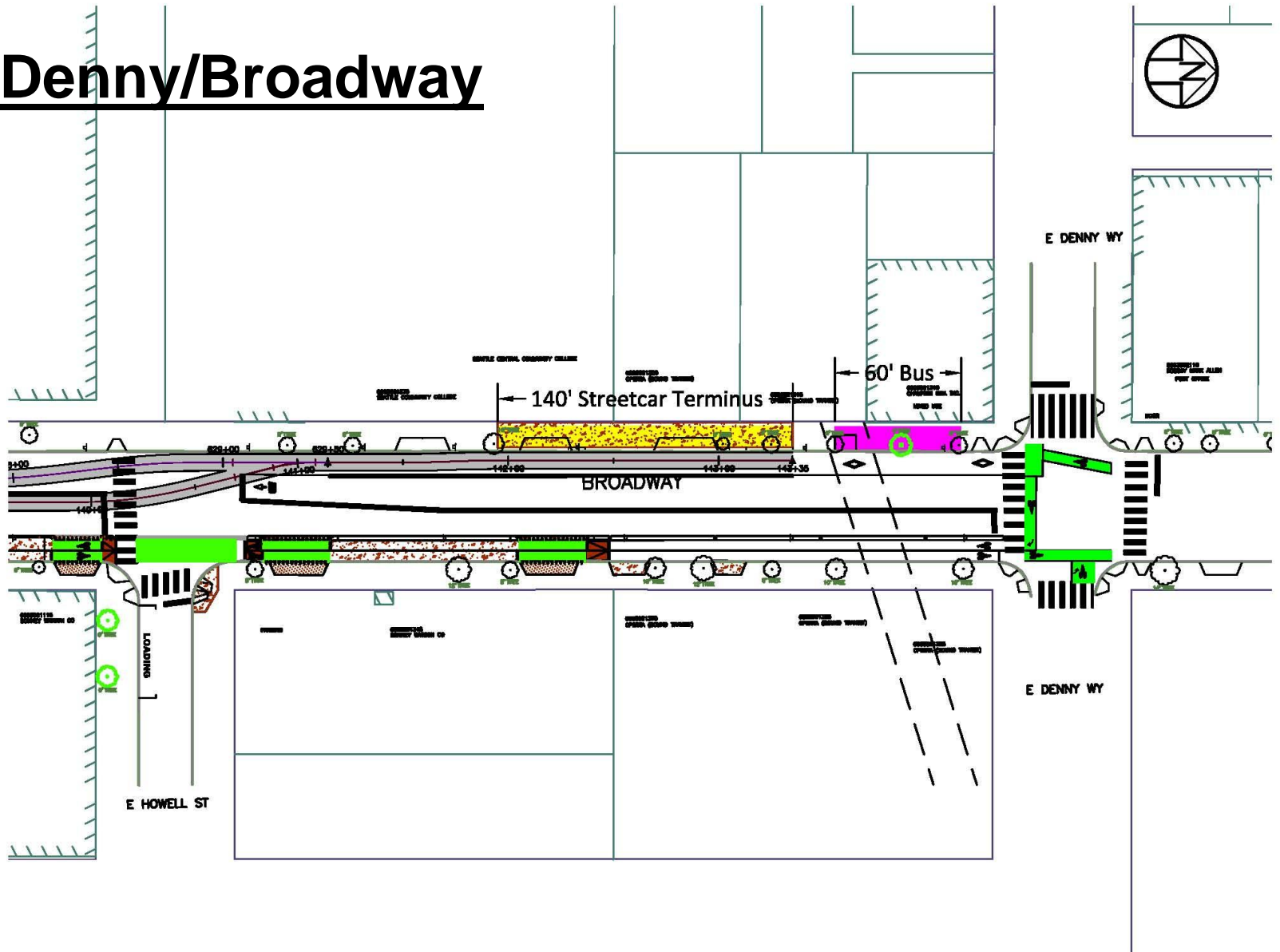


Station Plans

FIRST HILL STREETCAR



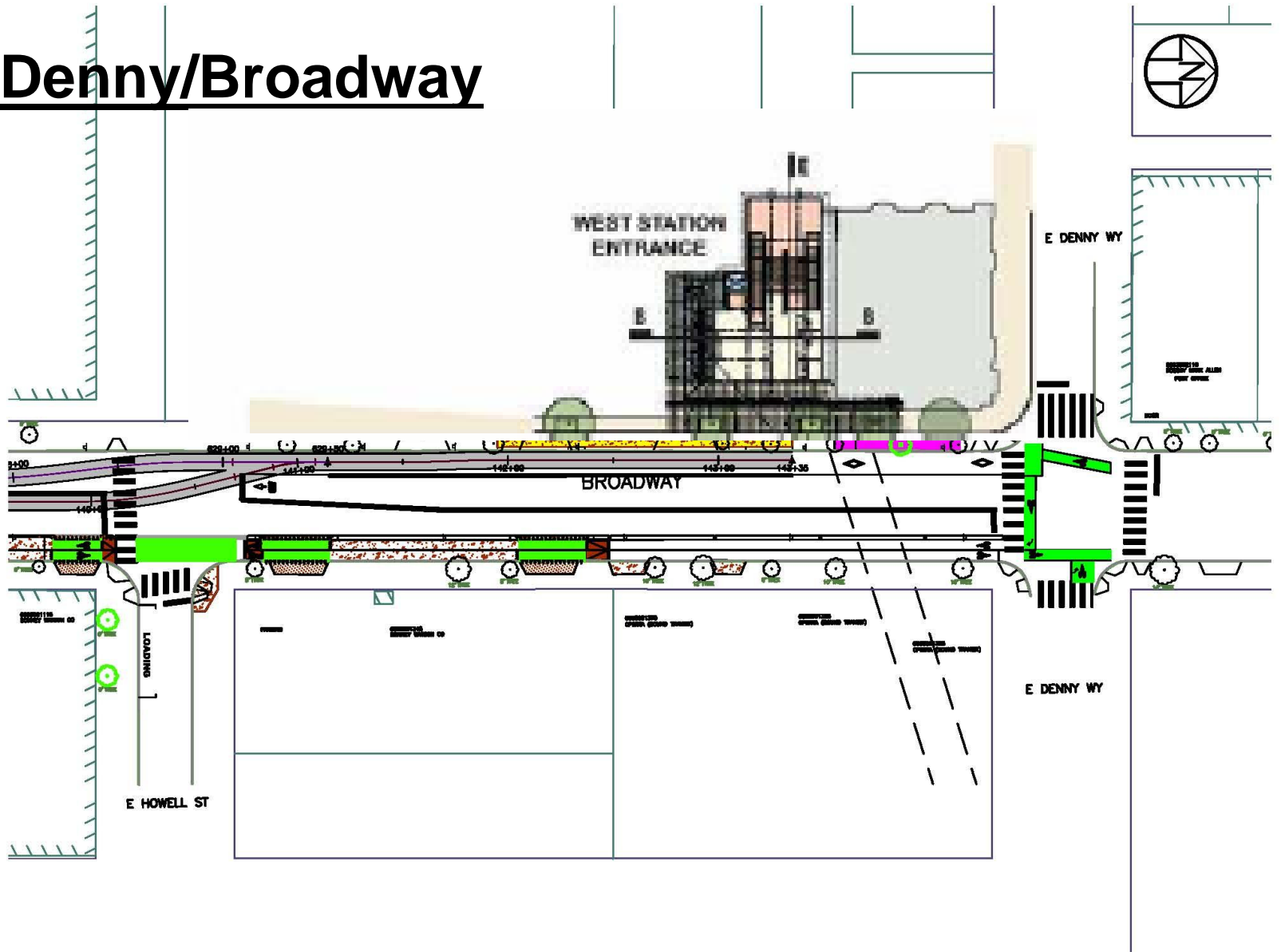
Denny/Broadway





Denny/Broadway

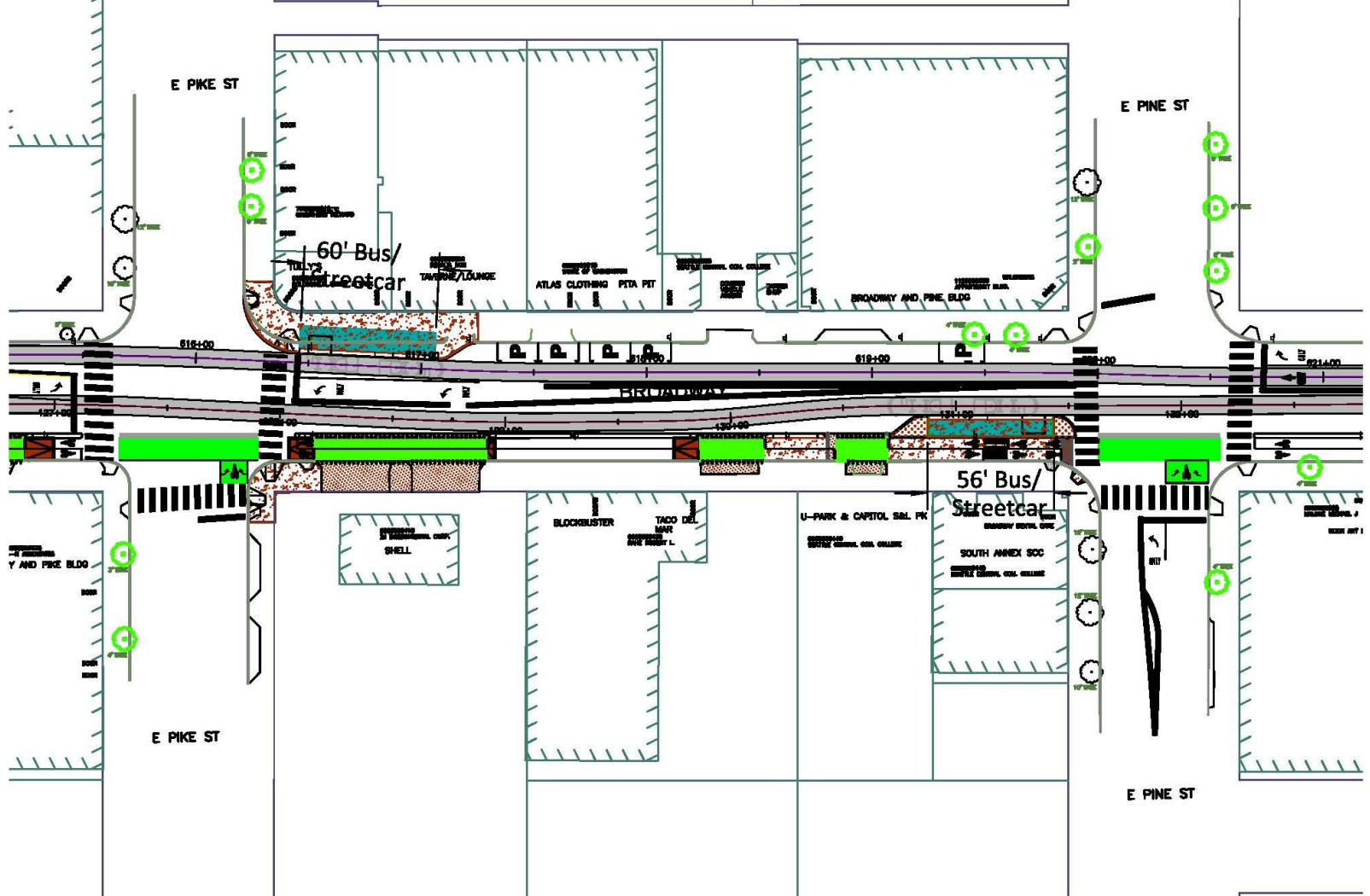
Denny/Broadway

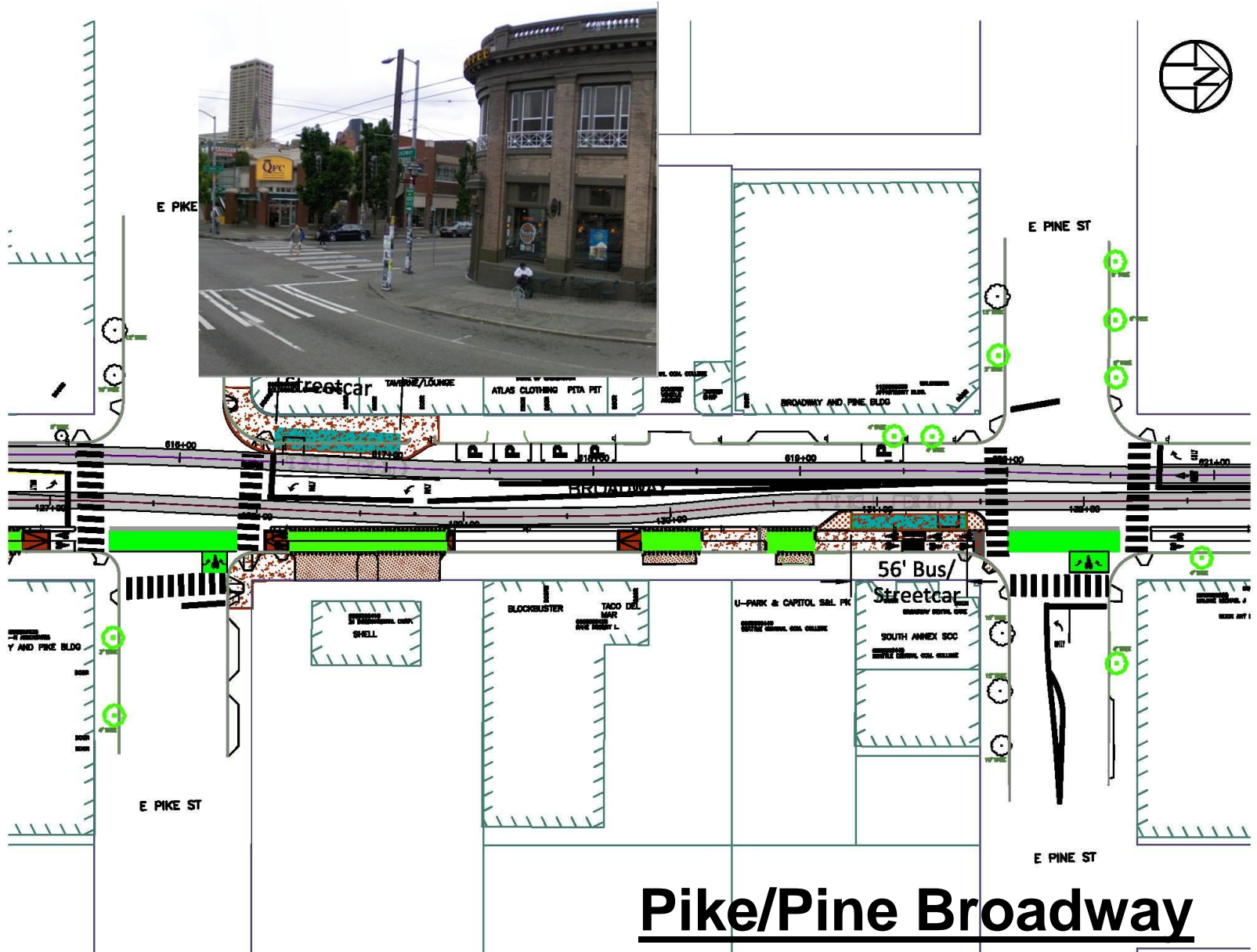




Denny/Broadway

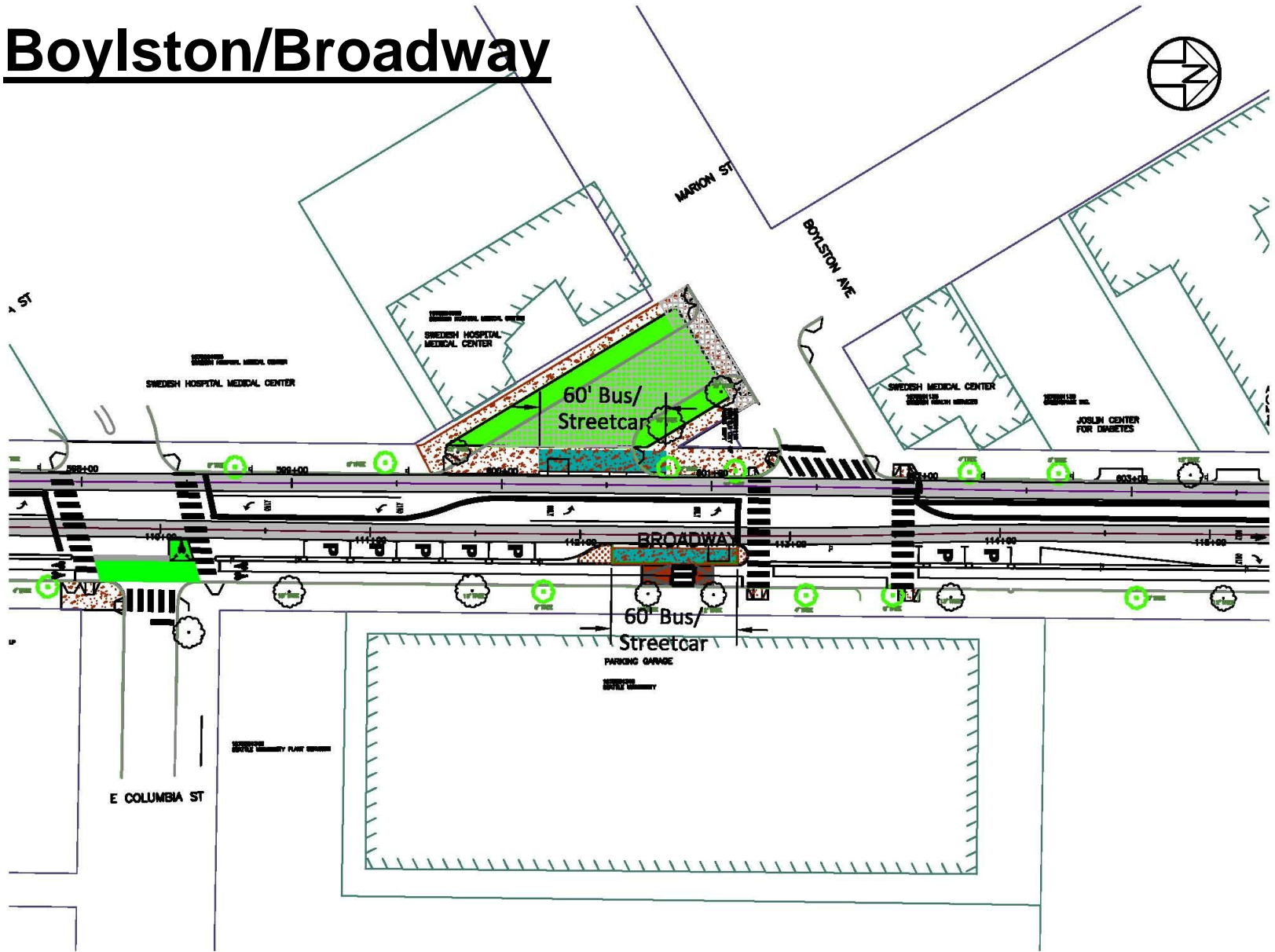
Pike/Pine Broadway

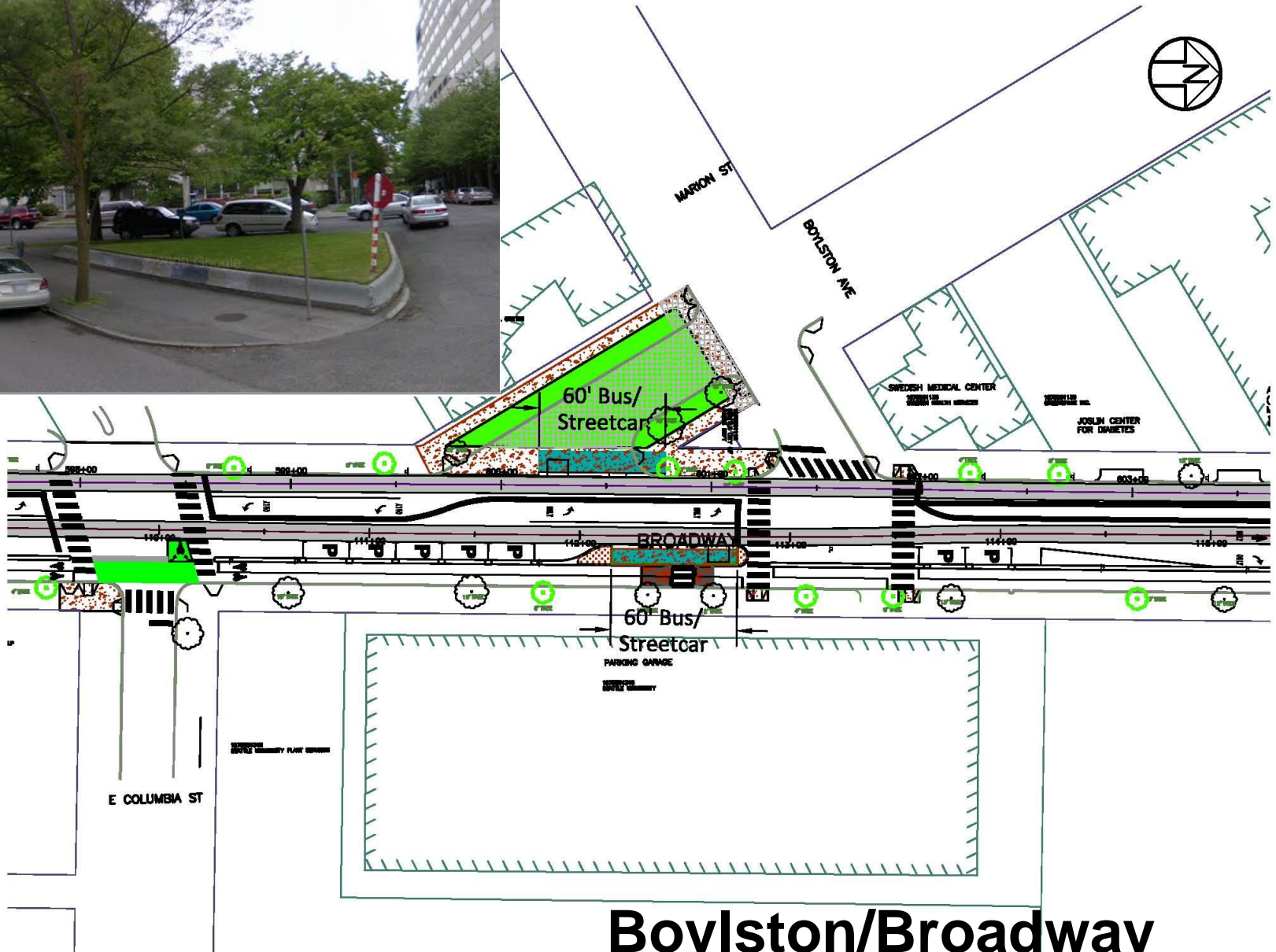




Pike/Pine Broadway

Boylston/Broadway





Boylston/Broadway

Streetcar Plazas

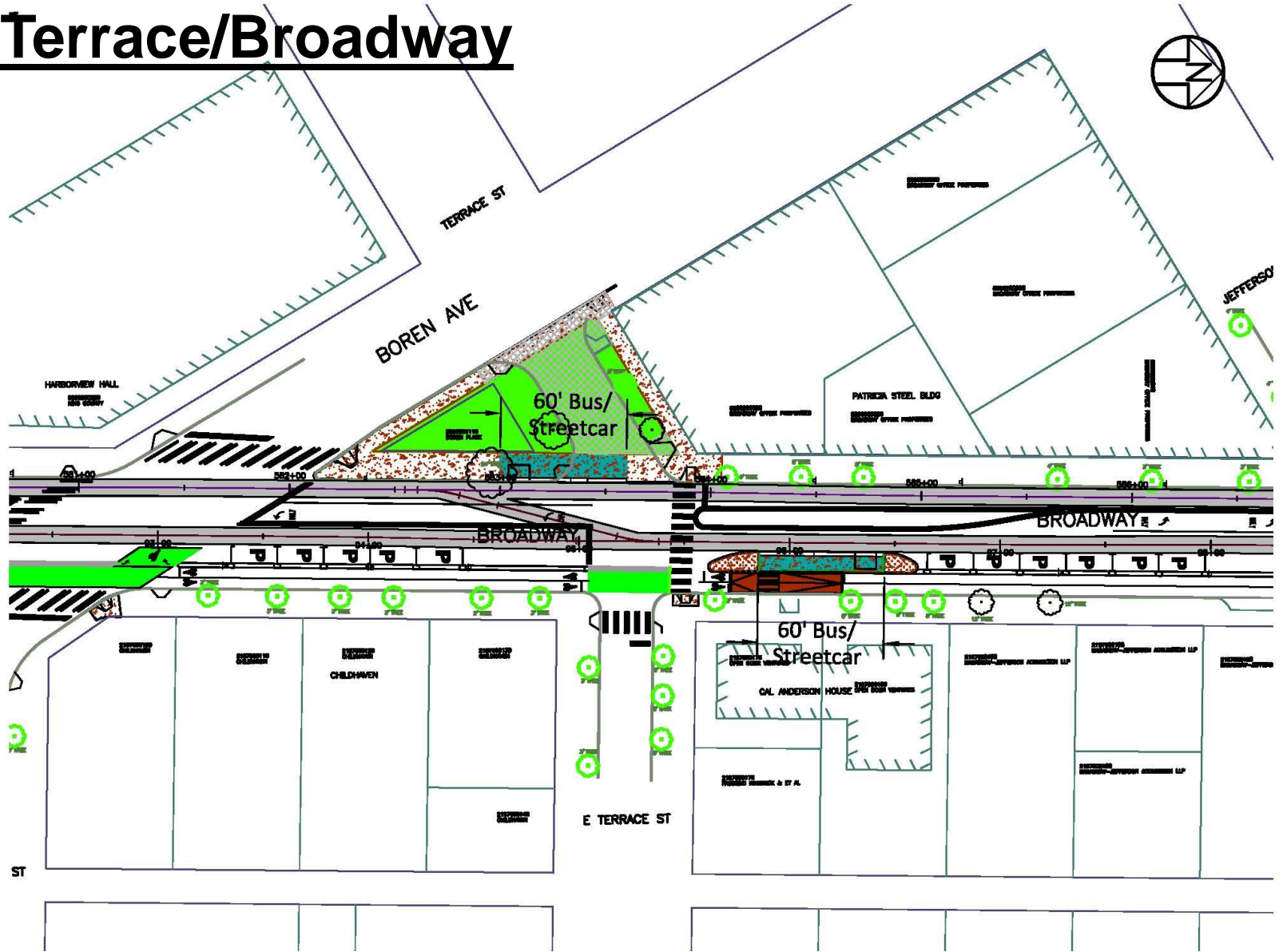


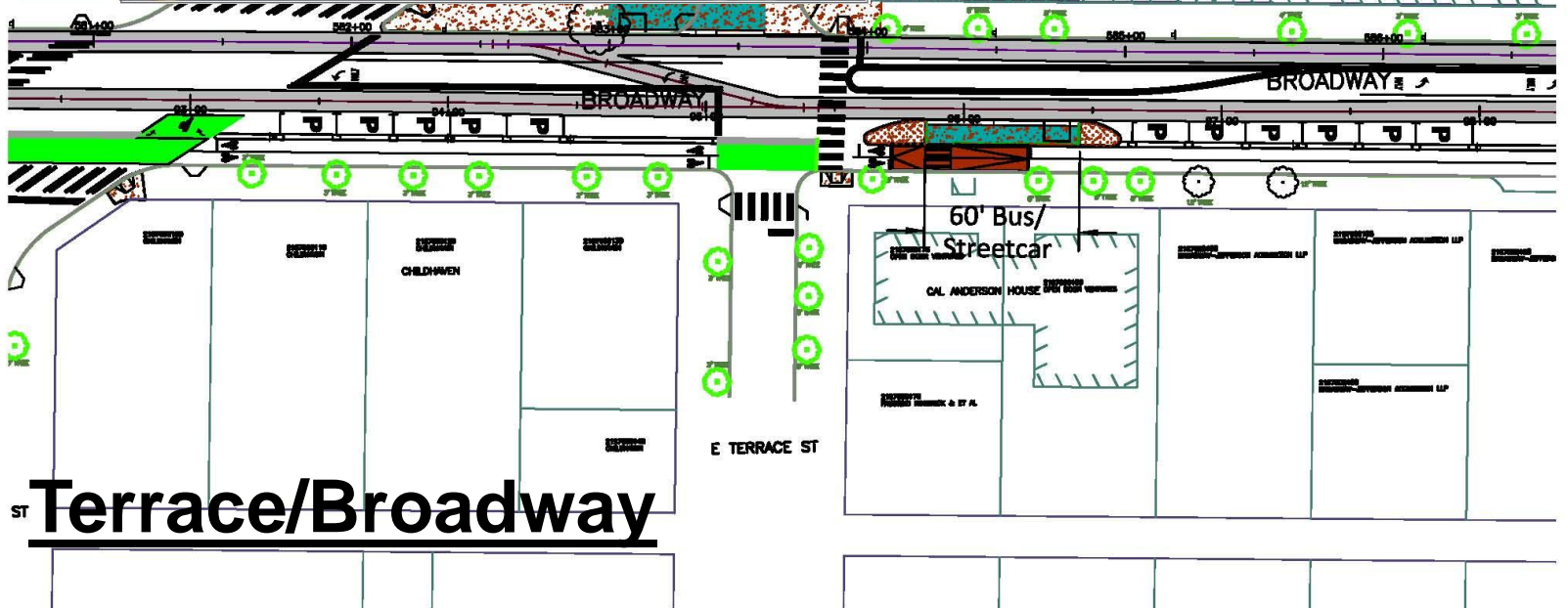
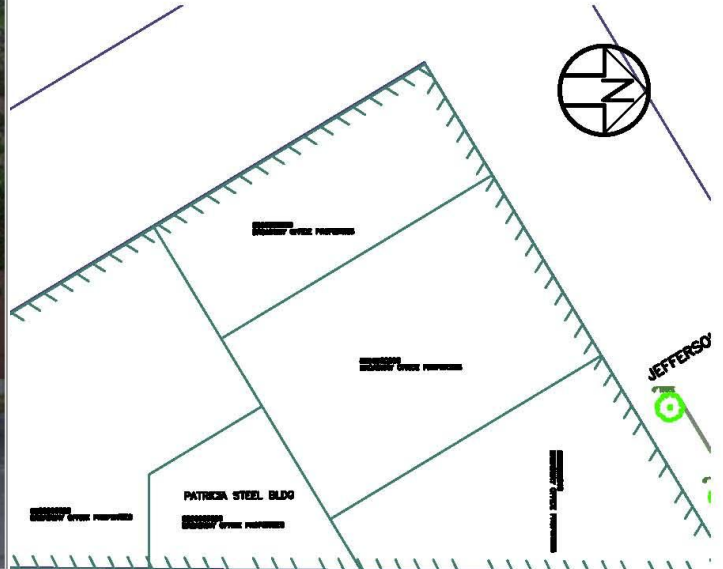
Streetcar Plazas: Precedents

McGraw Square



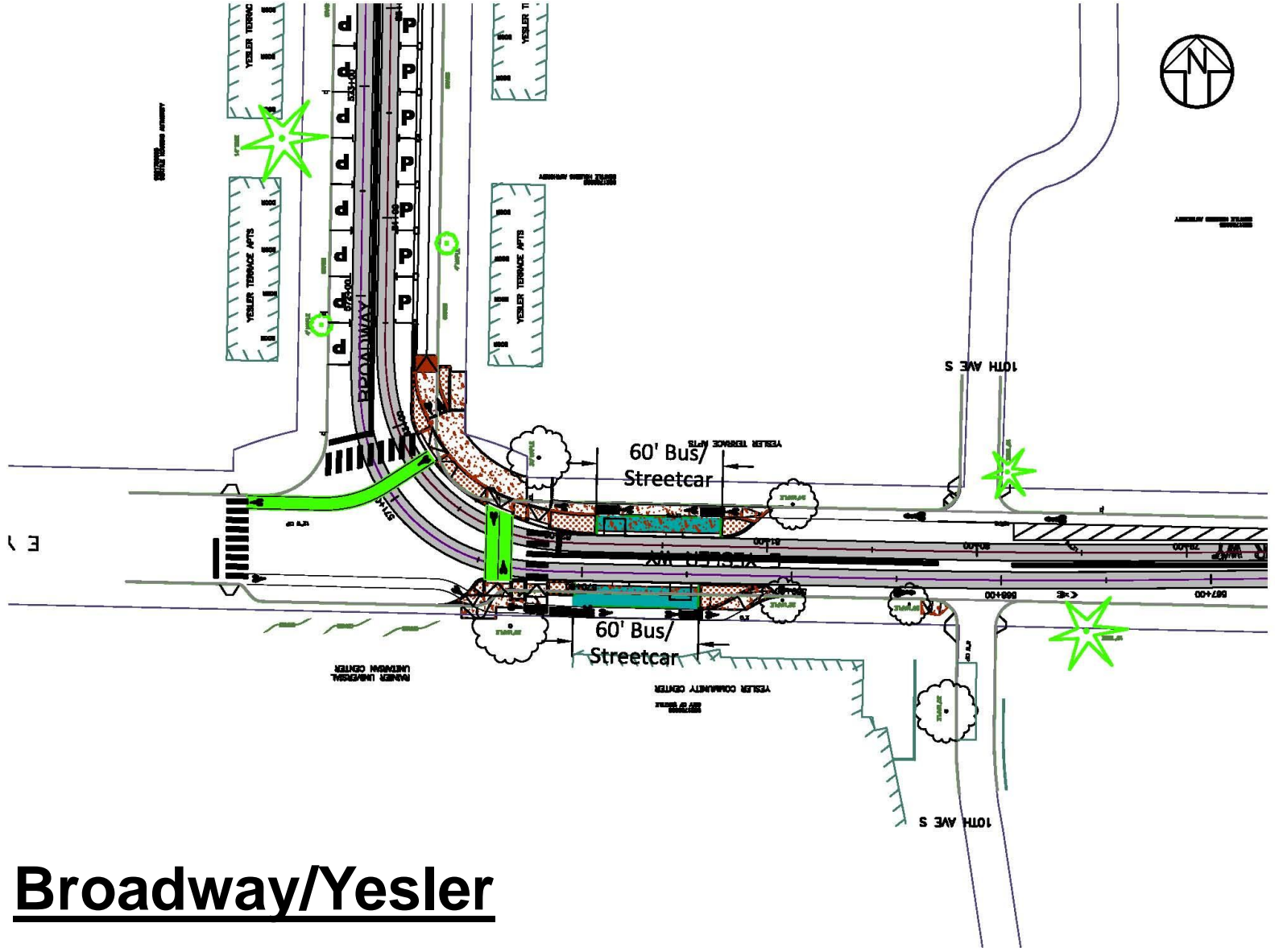
Terrace/Broadway



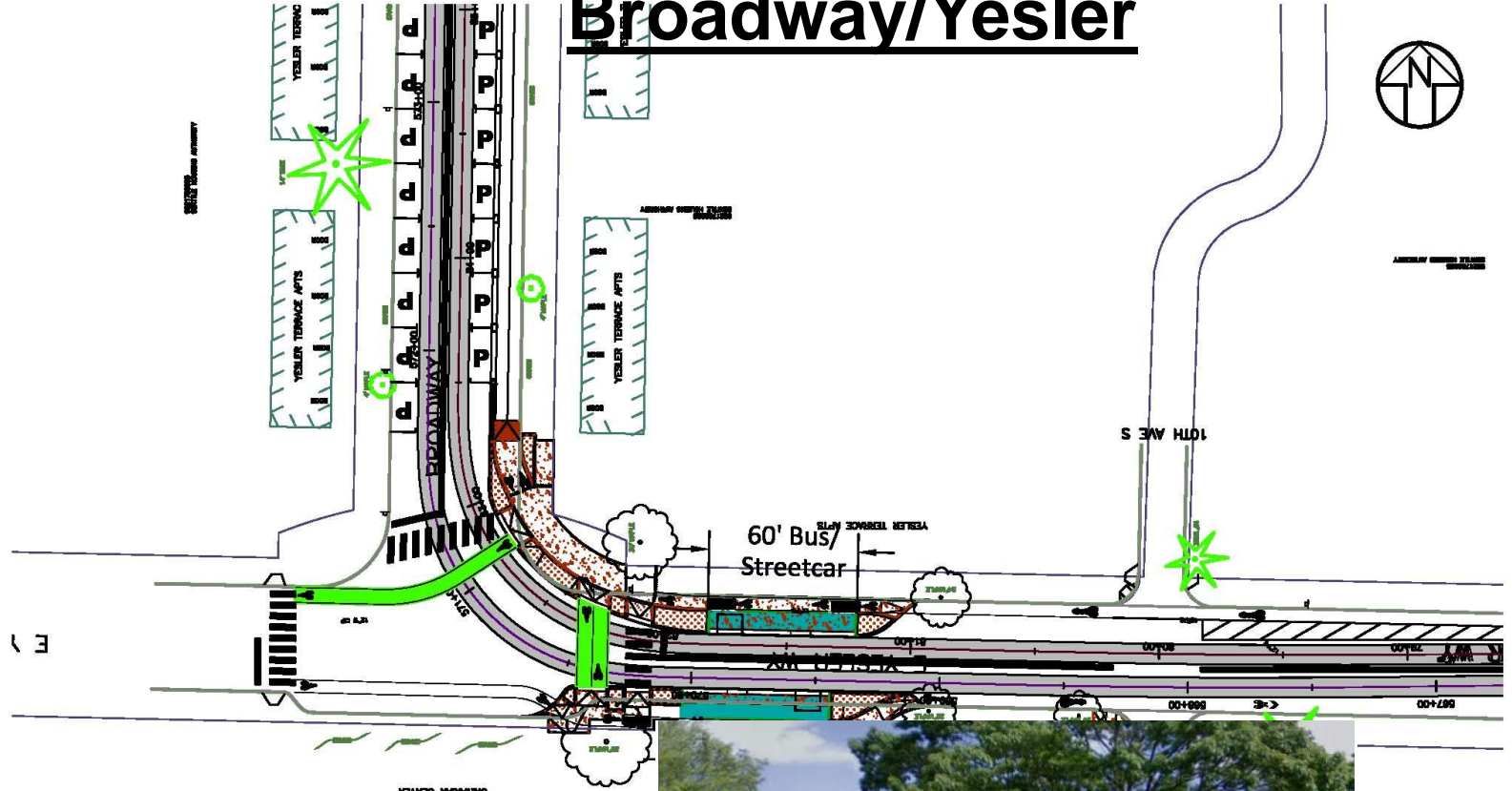


ST Terrace/Broadway

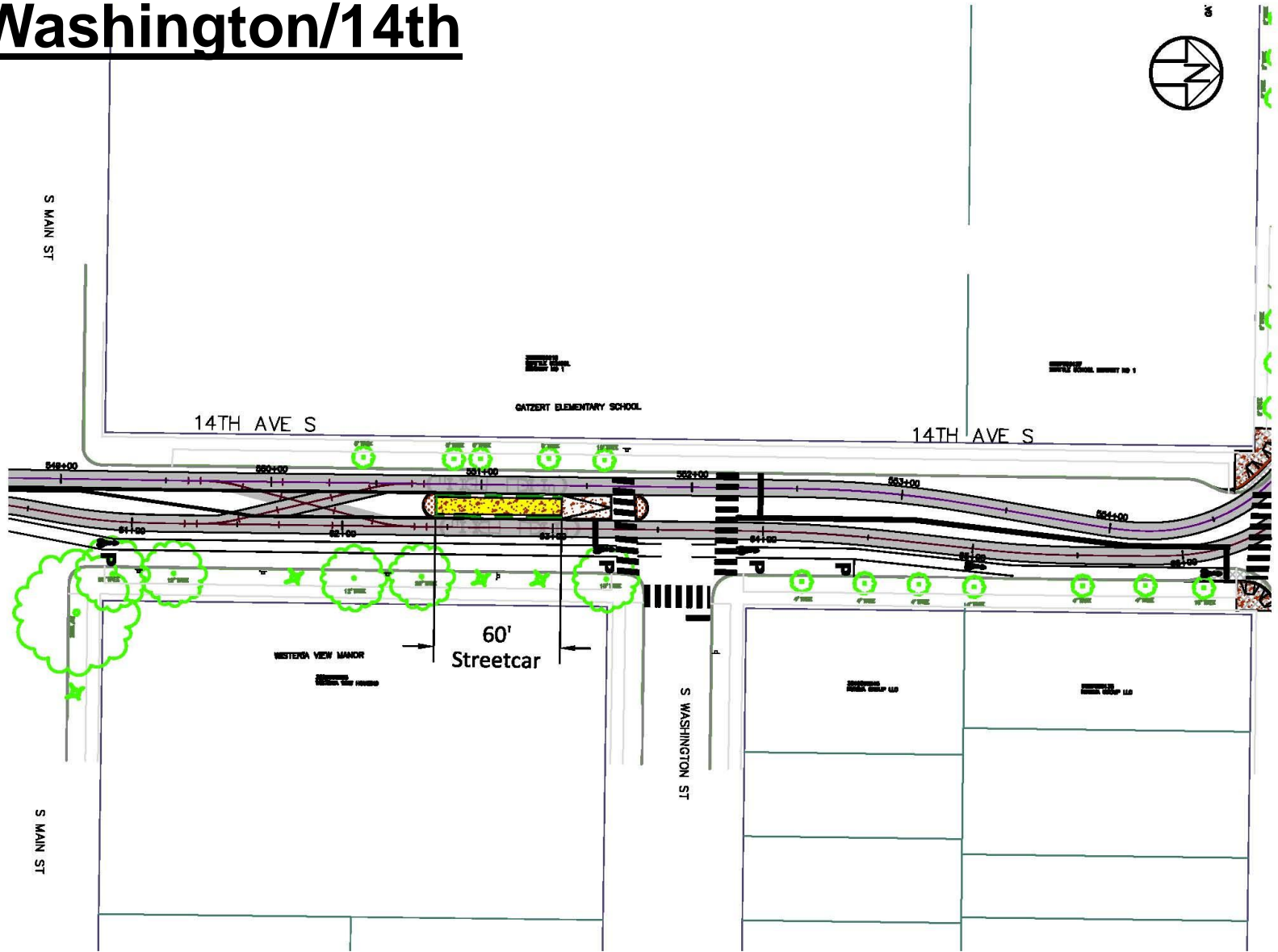
Broadway/Yesler

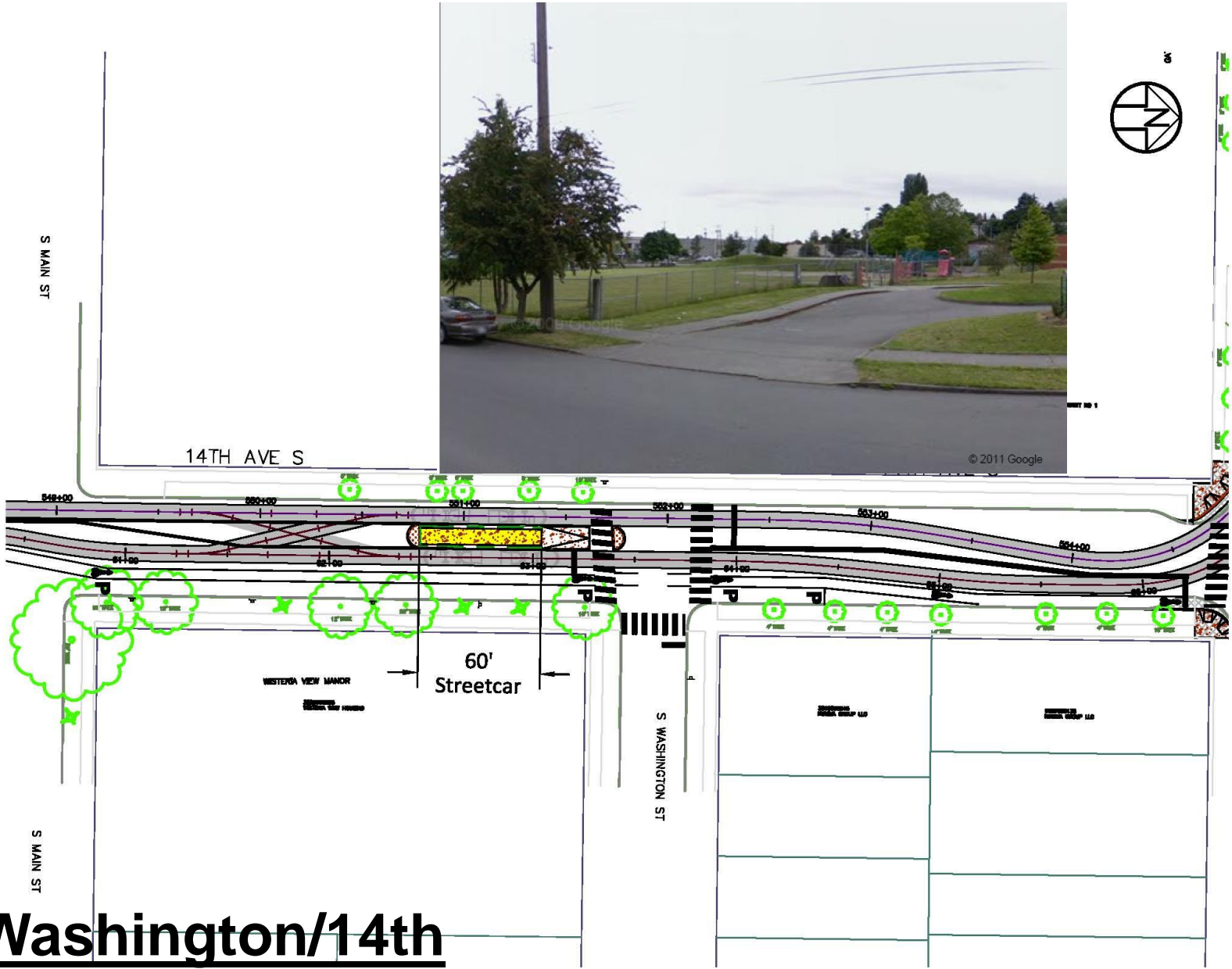


Broadway/Yesler



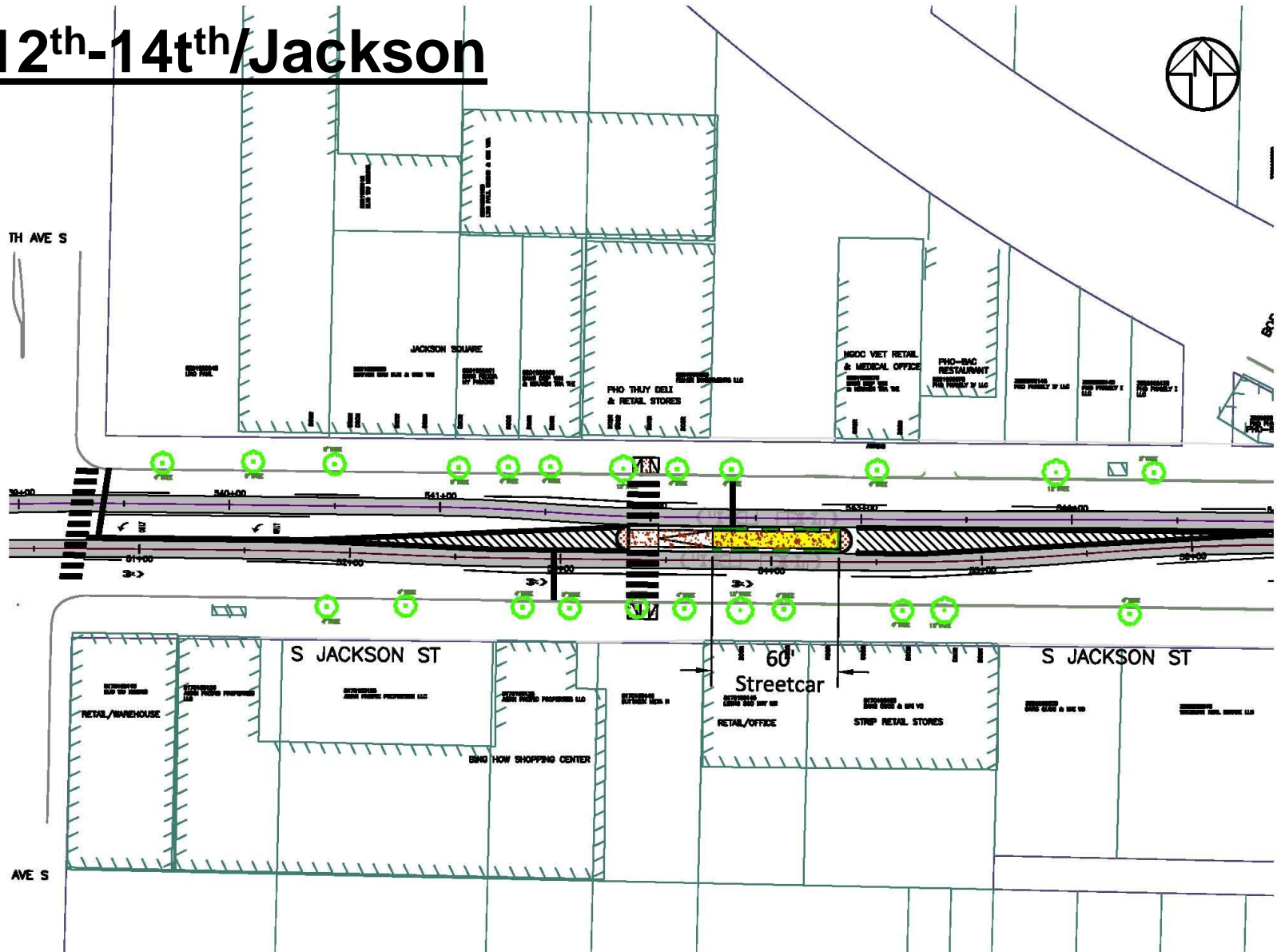
Washington/14th



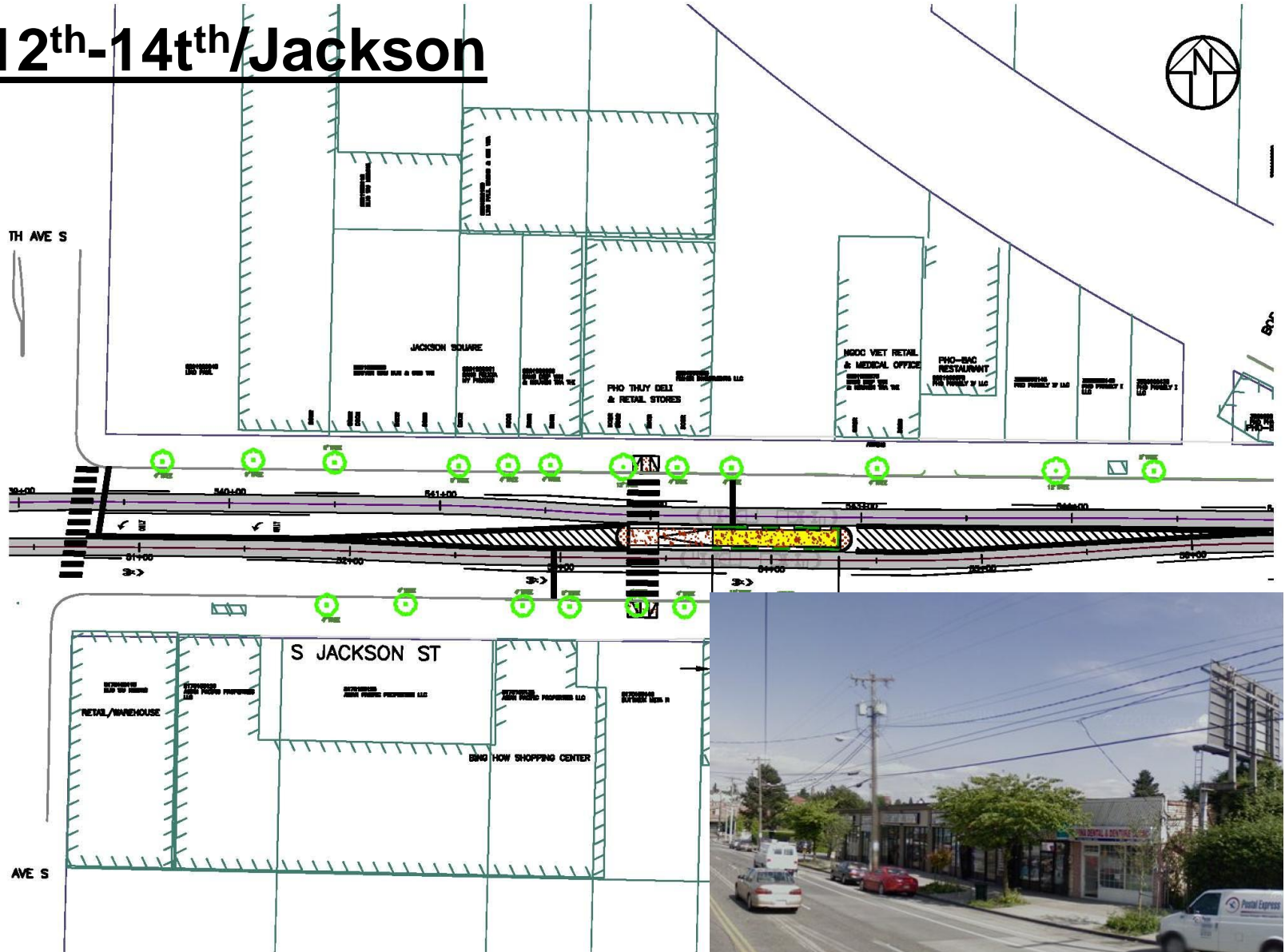


Washington/14th

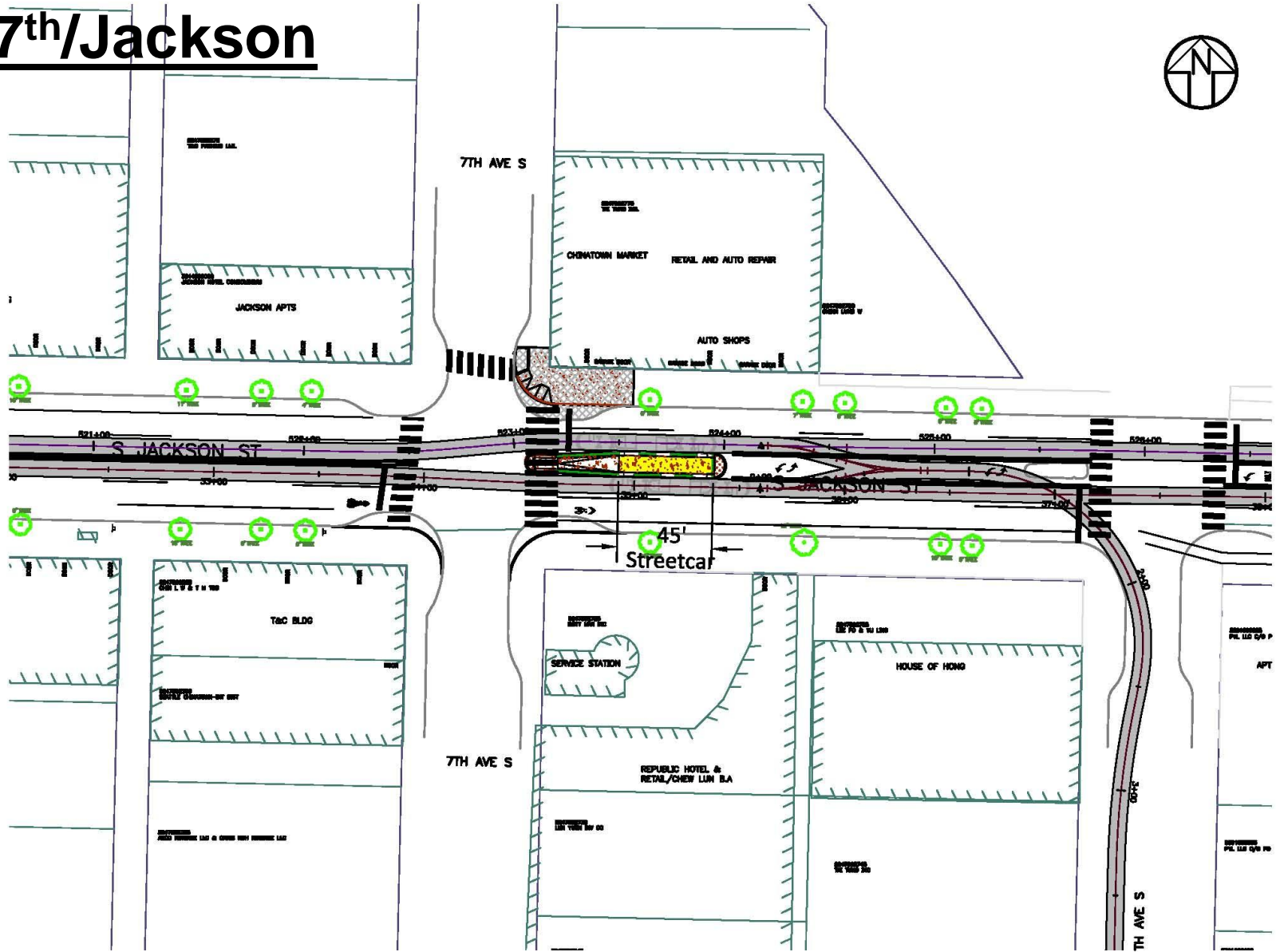
12th-14th/Jackson



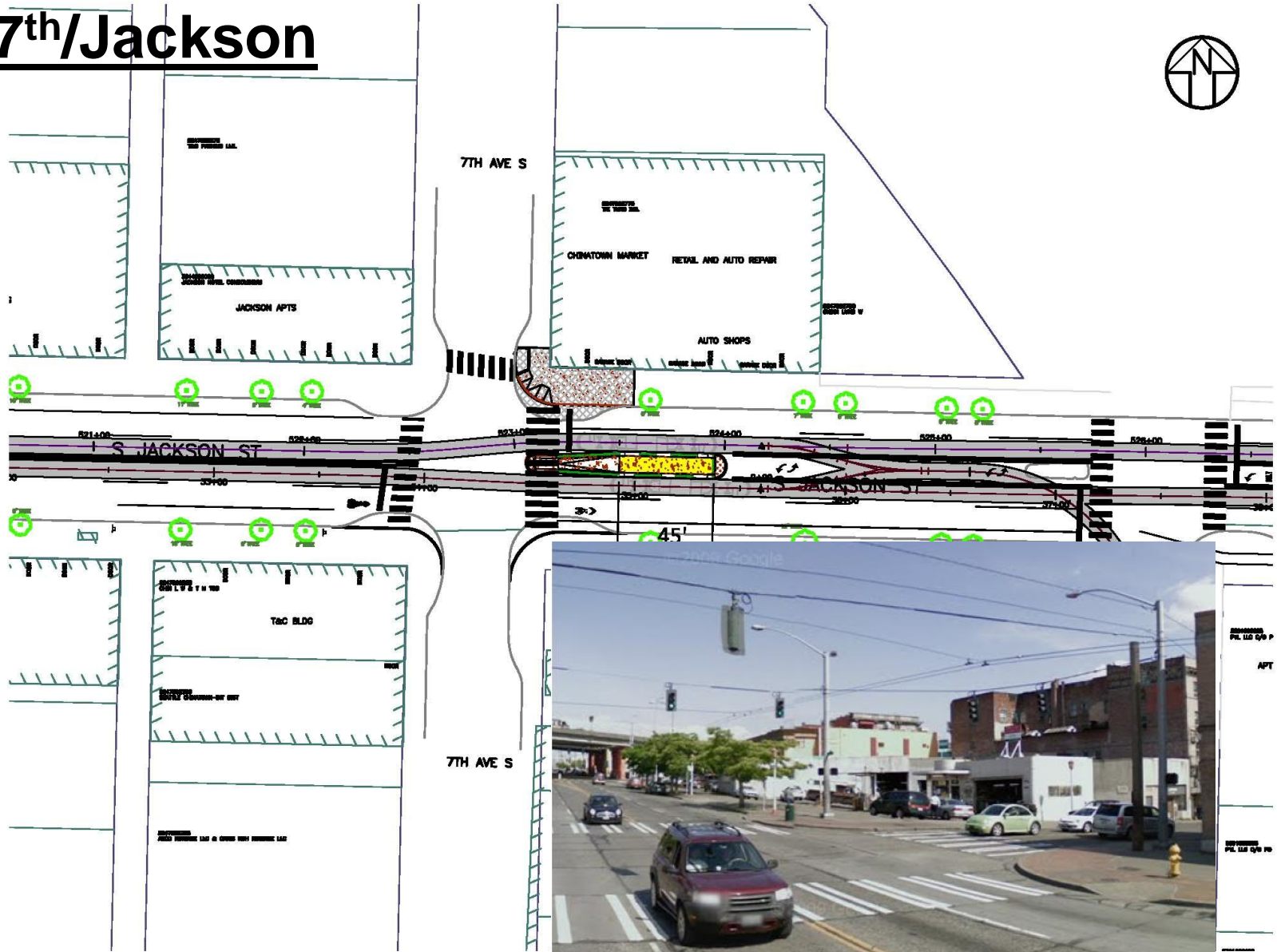
12th-14th/Jackson



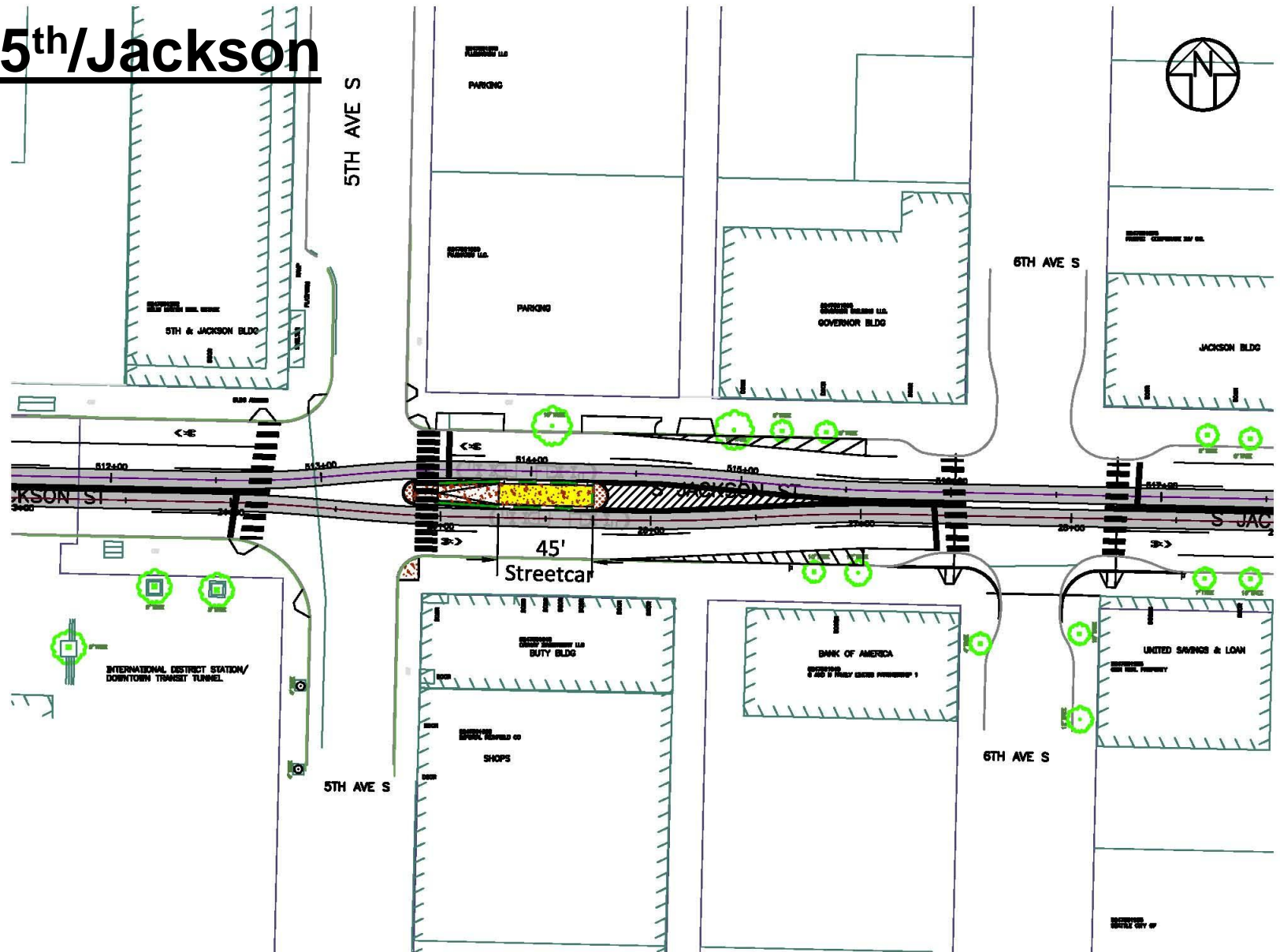
7th/Jackson



7th/Jackson

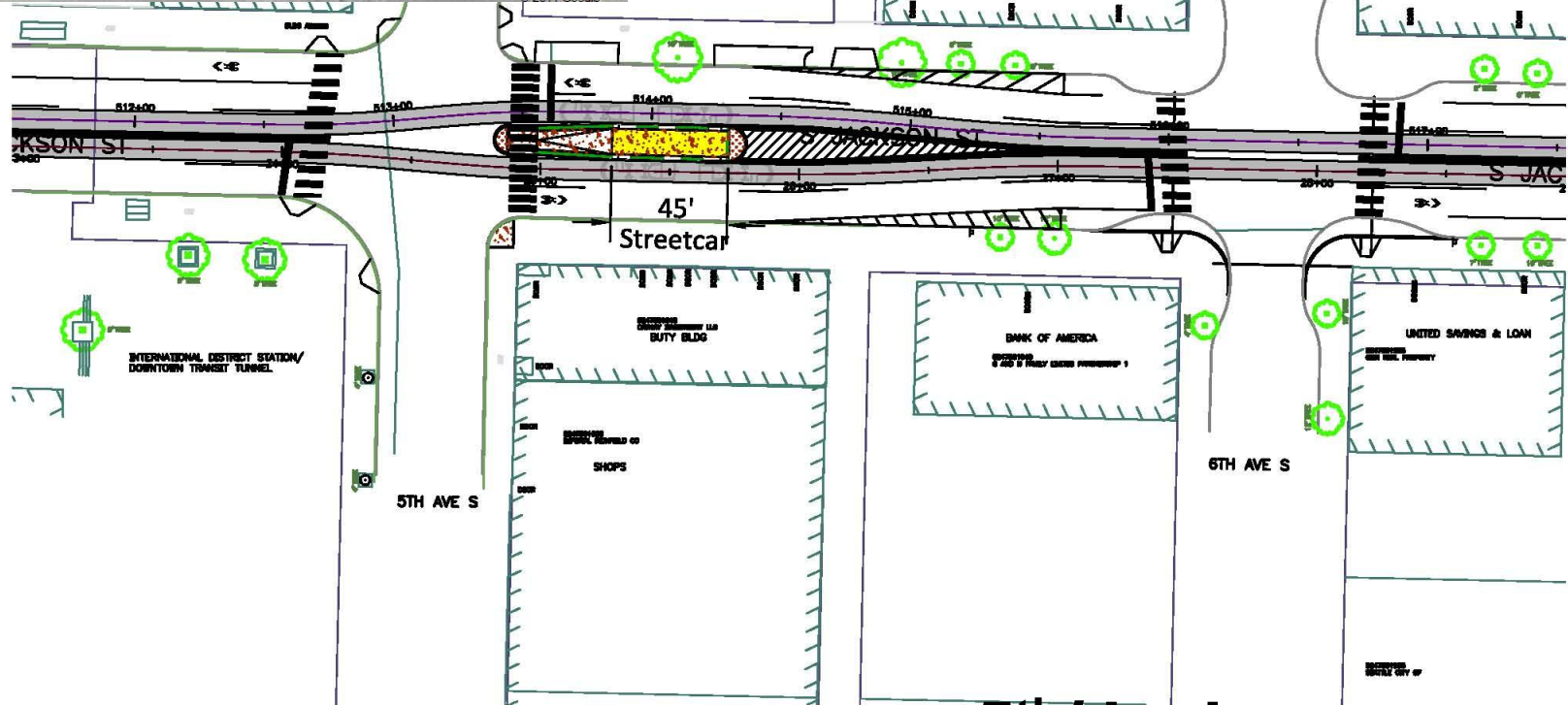


5th/Jackson



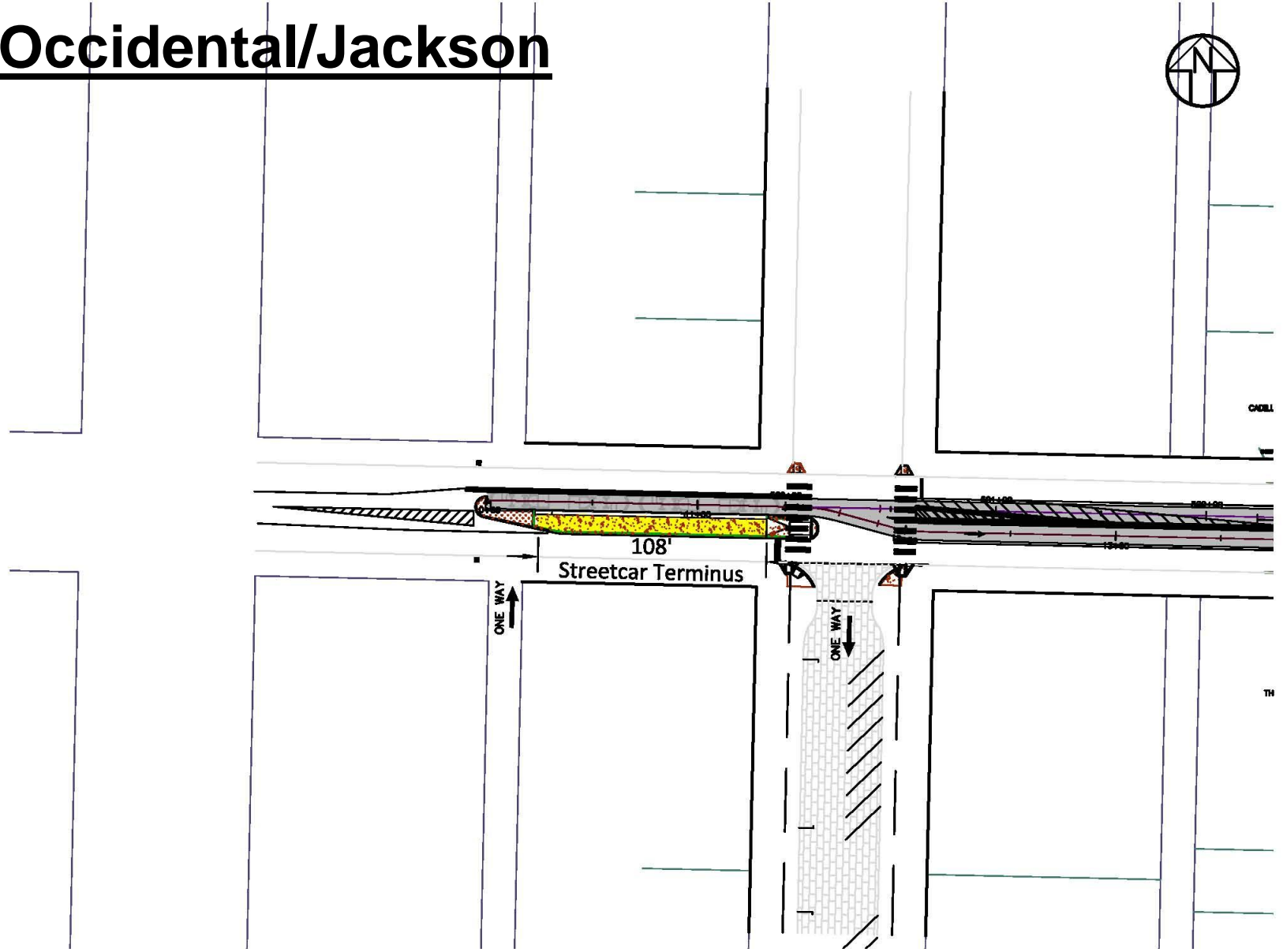


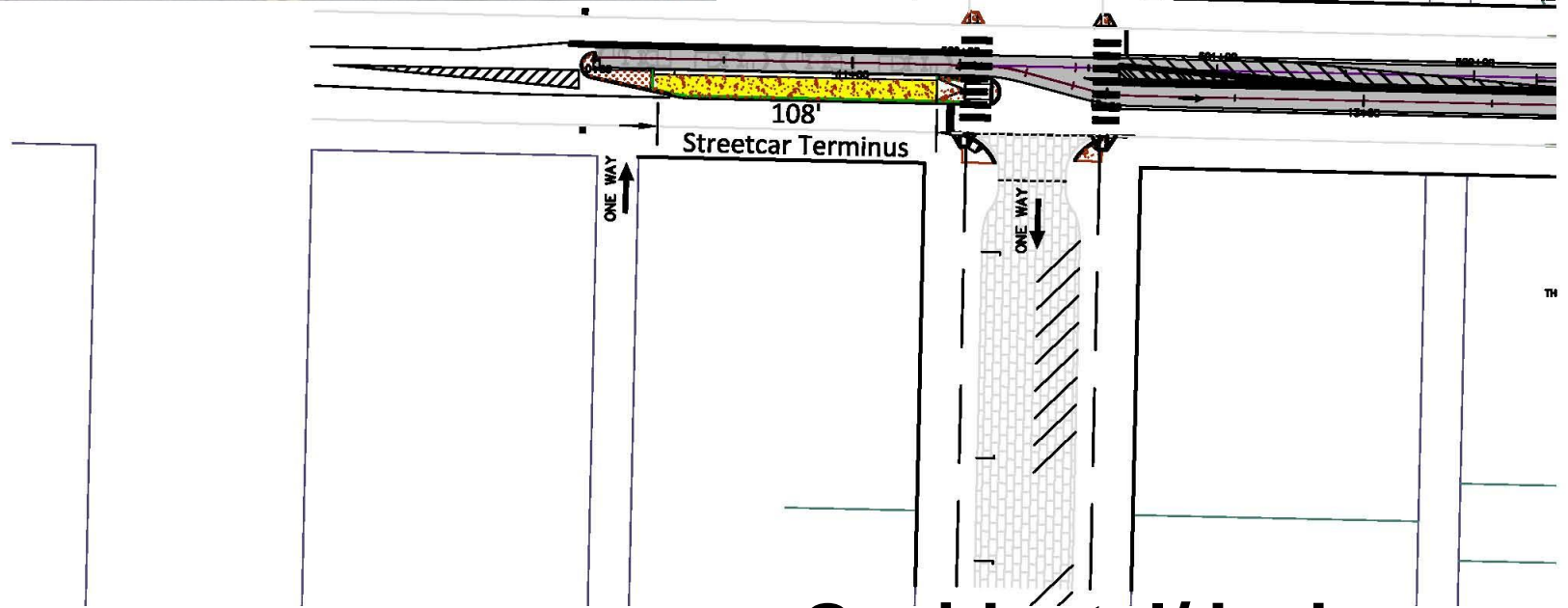
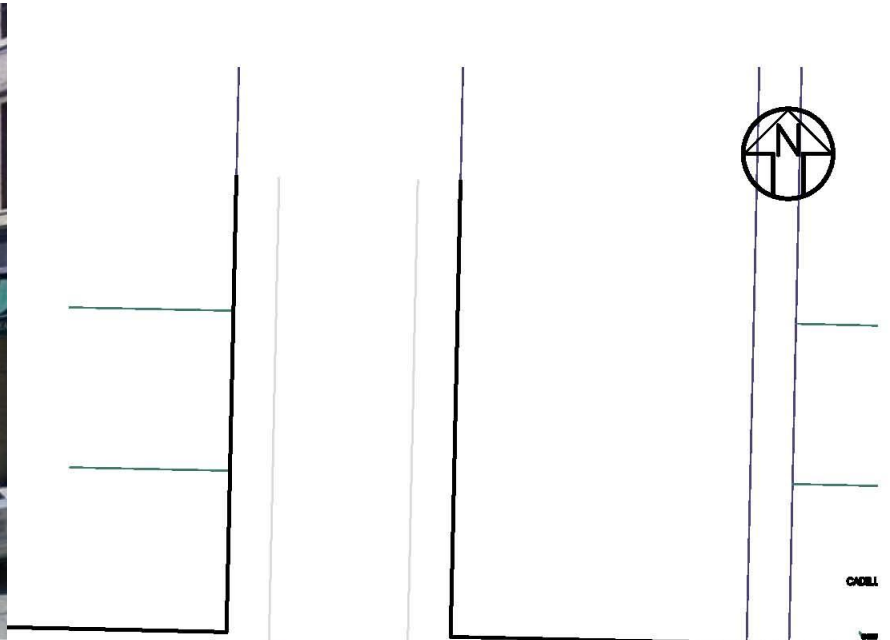
© 2011 Google



5th/Jackson

Occidental/Jackson



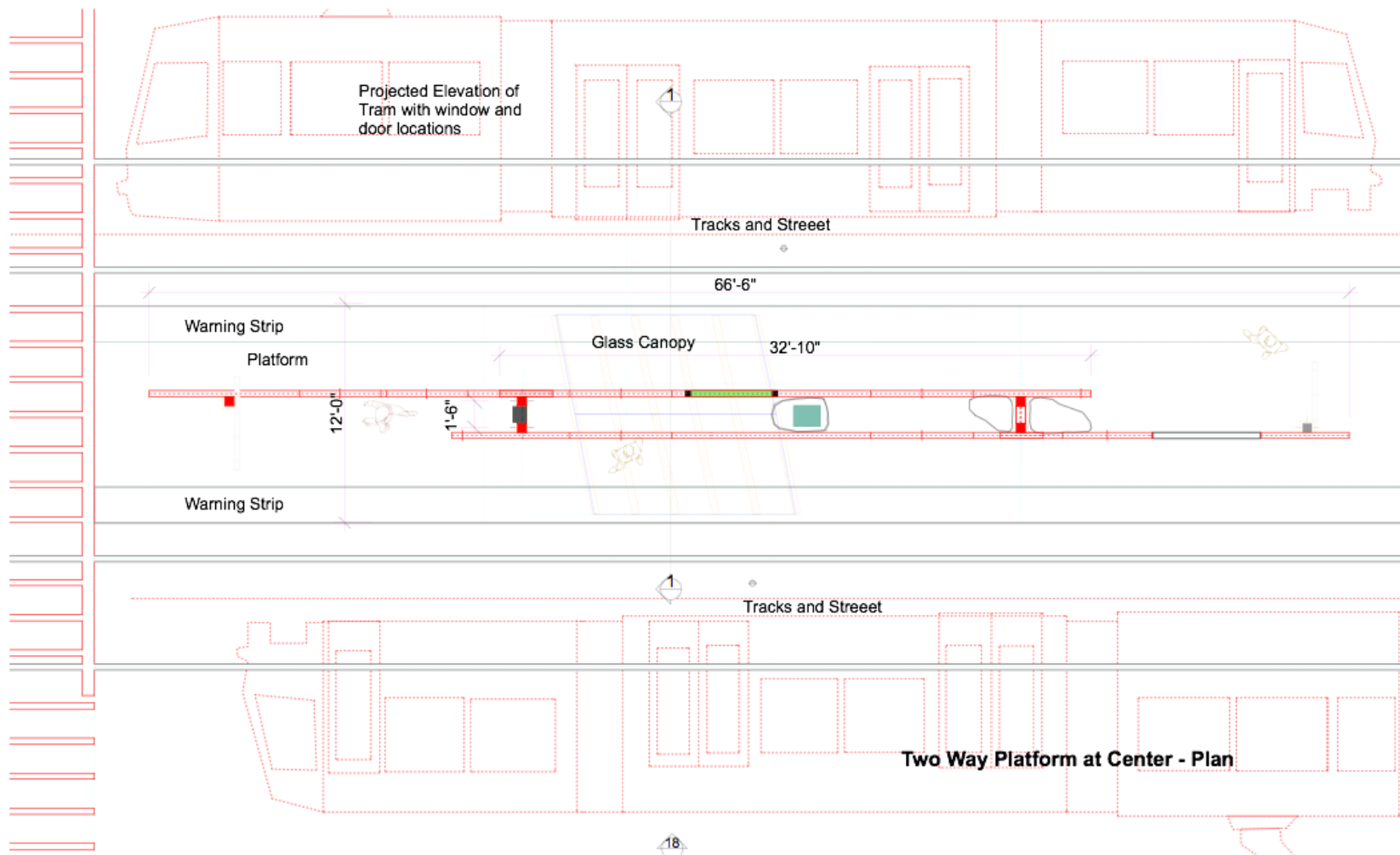


Occidental/Jackson

Artist Team Shelter Concept

- Mags Harries & Lajos Heder, Artist Team
- Concept Conditionally Approved by Public Art Advisory Committee
- Schematic Design





Projected Elevation of
Tram with window and
door locations

Tracks and Street

66'-6"

Warning Strip

Platform

Glass Canopy

32'-10"

12'-0"

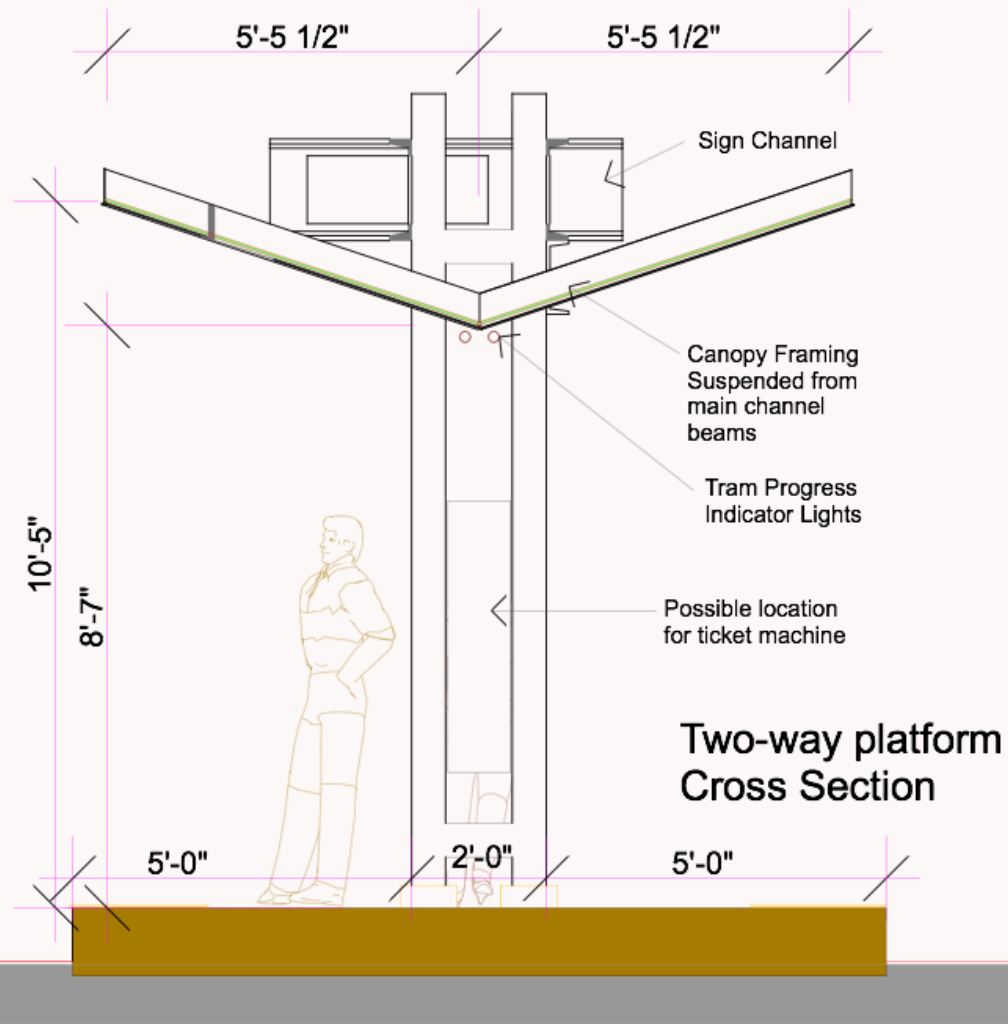
1'-6"

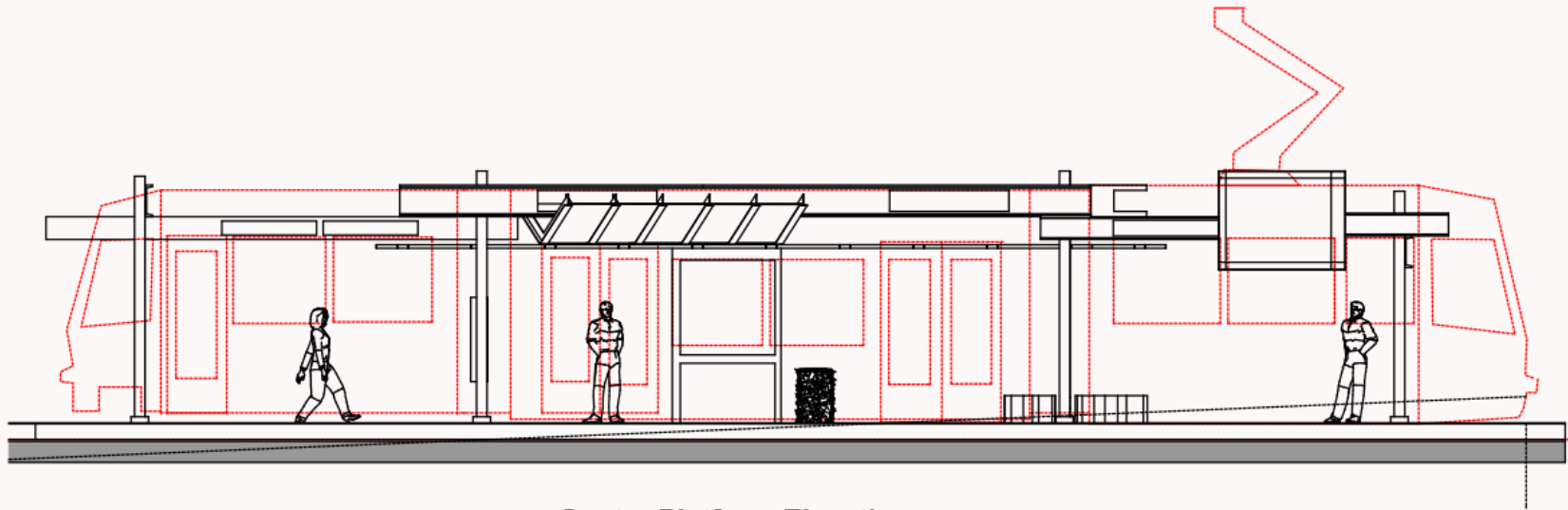
Warning Strip

Tracks and Street

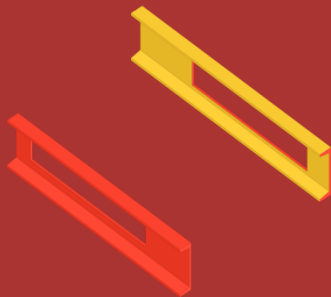
Two Way Platform at Center - Plan

18

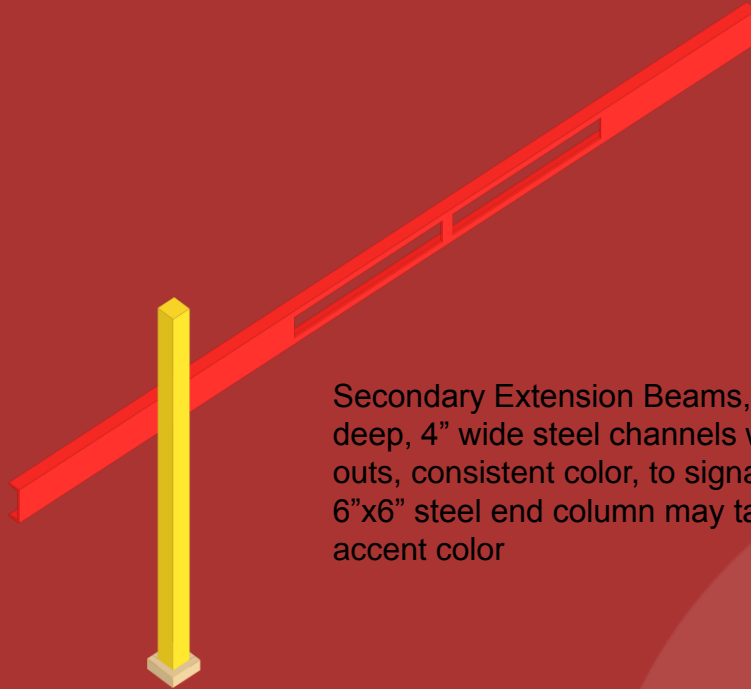




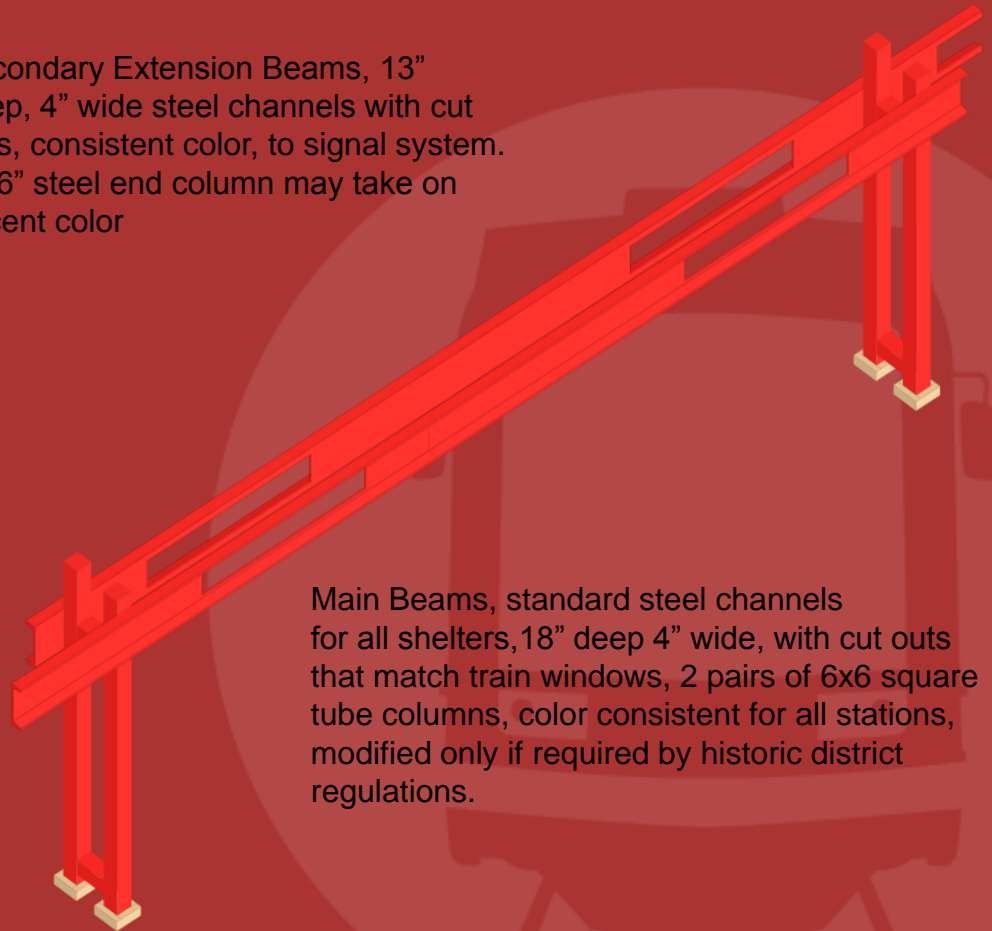
Center Platform Elevation



Perpendicular sign steel channel Beams, can take on accent colors

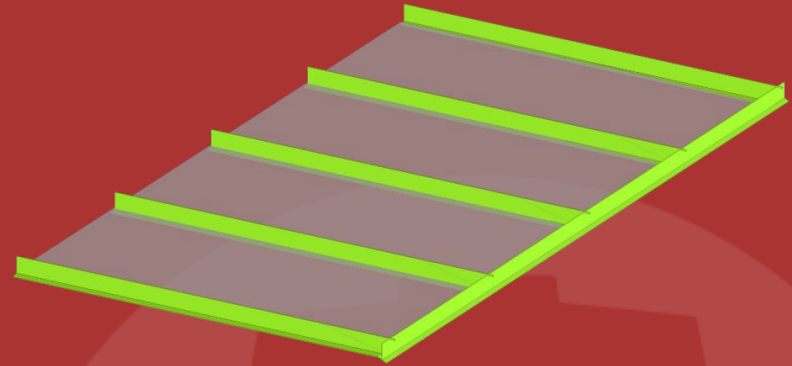
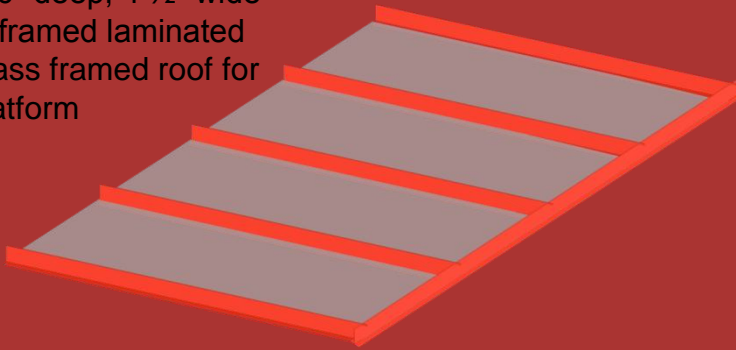


Secondary Extension Beams, 13" deep, 4" wide steel channels with cut outs, consistent color, to signal system. 6"x6" steel end column may take on accent color



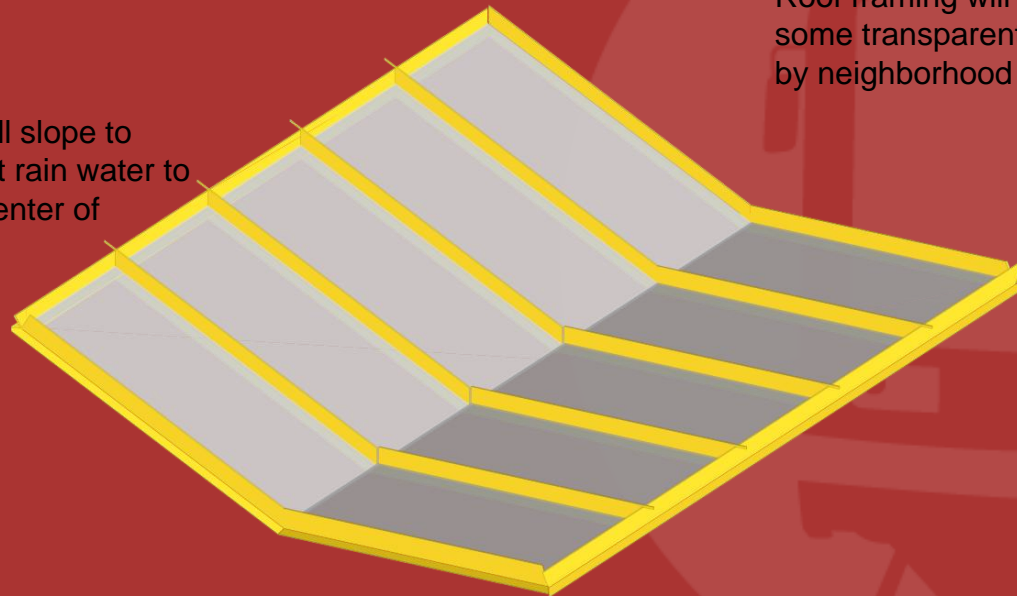
Main Beams, standard steel channels for all shelters, 18" deep 4" wide, with cut outs that match train windows, 2 pairs of 6x6 square tube columns, color consistent for all stations, modified only if required by historic district regulations.

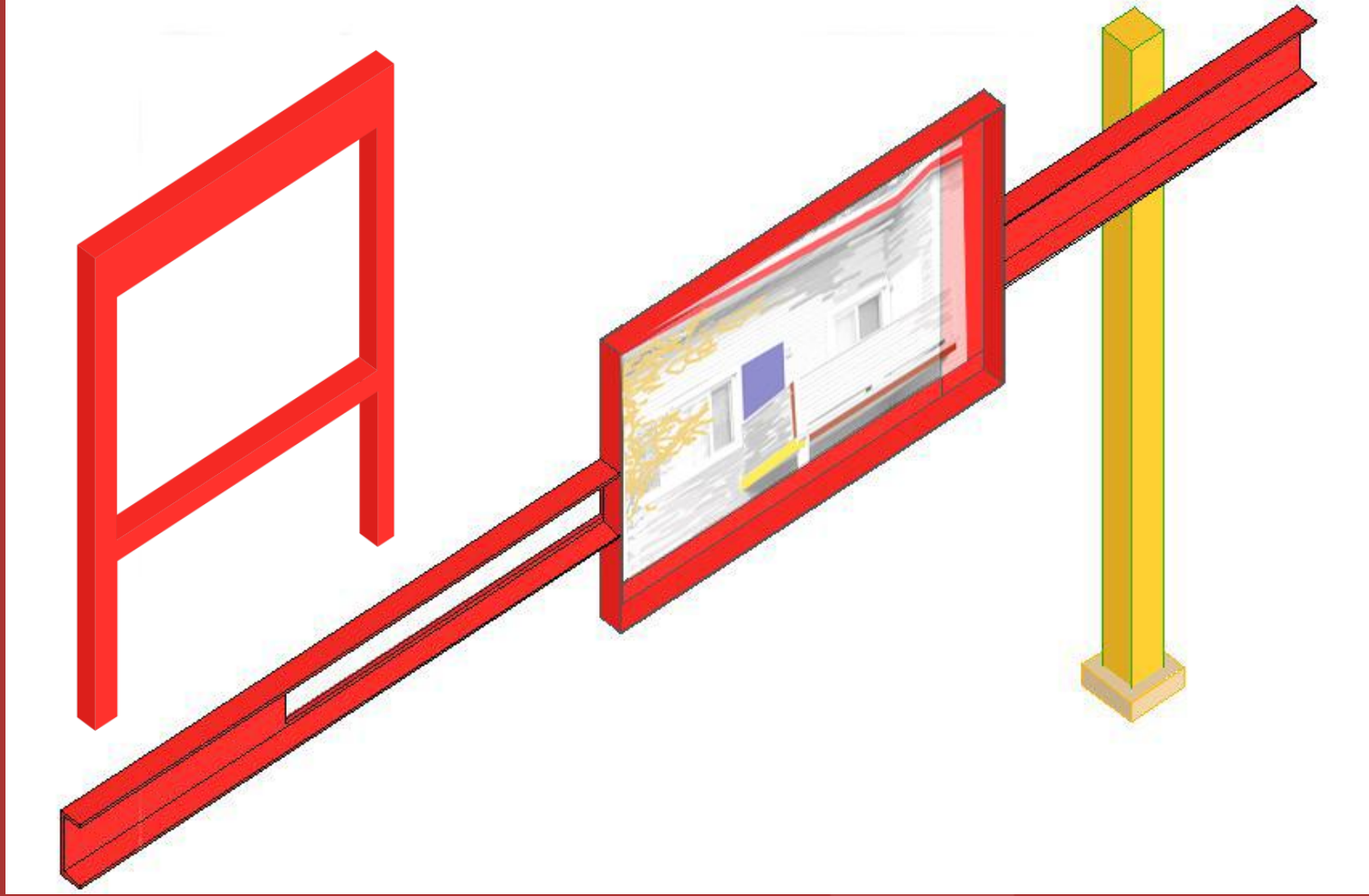
Inverted 6" deep, 4 1/2" wide steel "T" framed laminated safety glass framed roof for single platform



Roof framing will use accent colors and some transparent inserts in glass, varied by neighborhood

2-way platform roofs will slope to middle and can conduct rain water to Small planting bed at center of platform





Wayfinding/Signage

- “Community Window”
- Alignment Map/Neighborhood Map
- Static or Digital TBD



Tuesday, November 16, 2010
8:15 AM
50°
Wind: S at 8 mph
Humidity: 83%



Local News:

Power outages affected 230,000 customers. High winds caused major power outages throughout Puget Sound, but the utilities that provide the power hope to have it restored Tuesday.



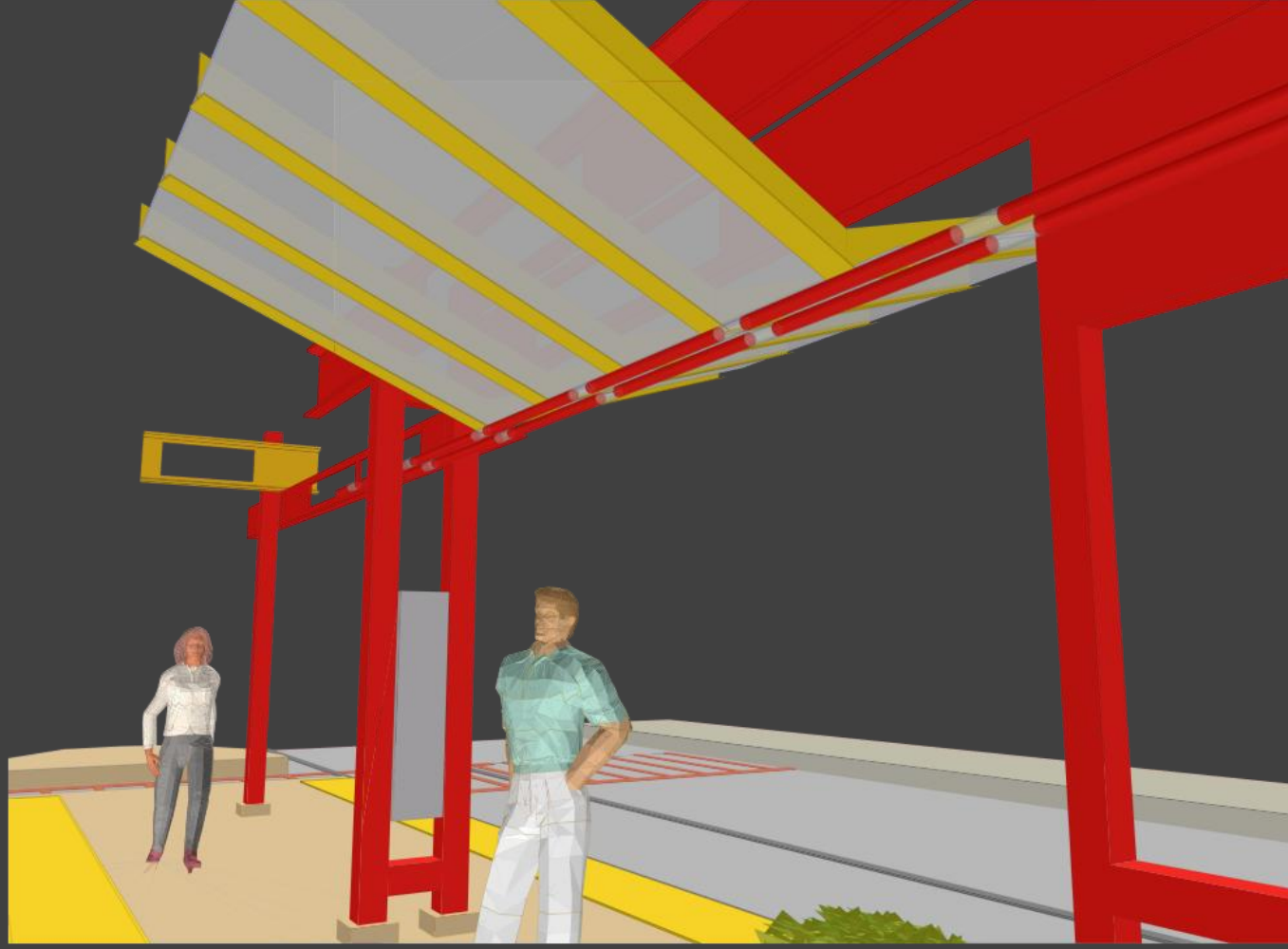
- Directions
- Places to Eat
- Events
- Info



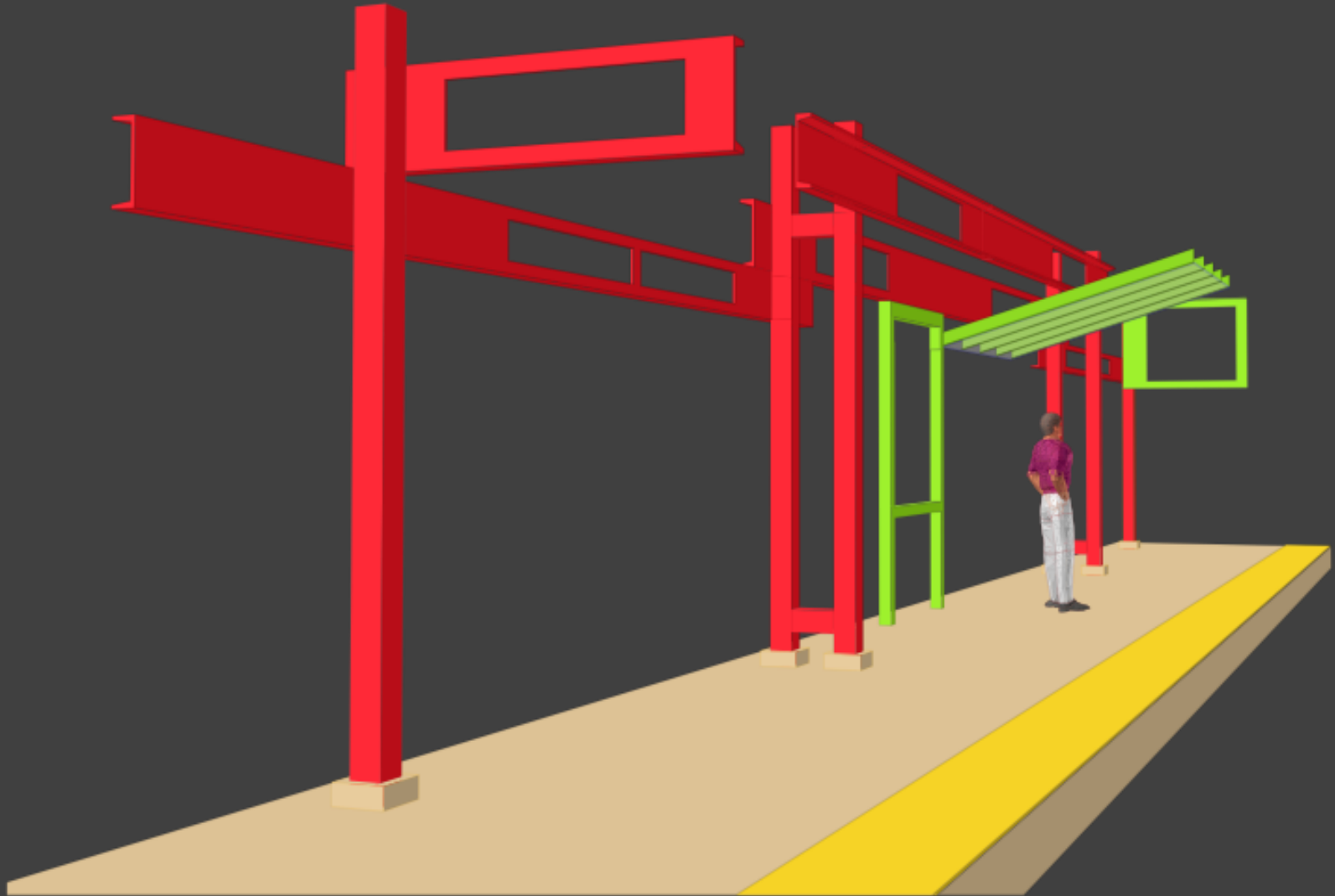
If sponsorship were found, the Community Window can become an Electronic Bulletin Board

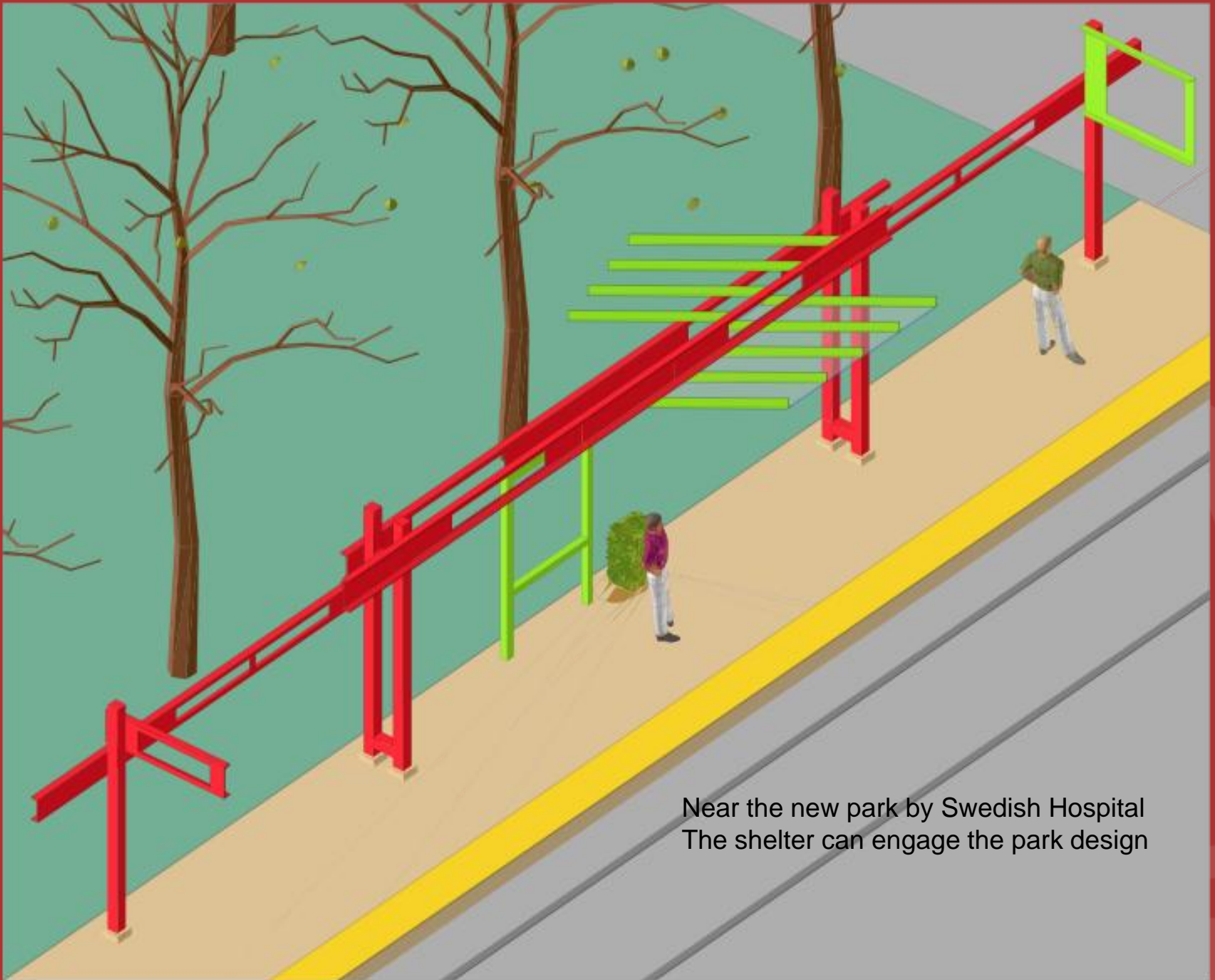


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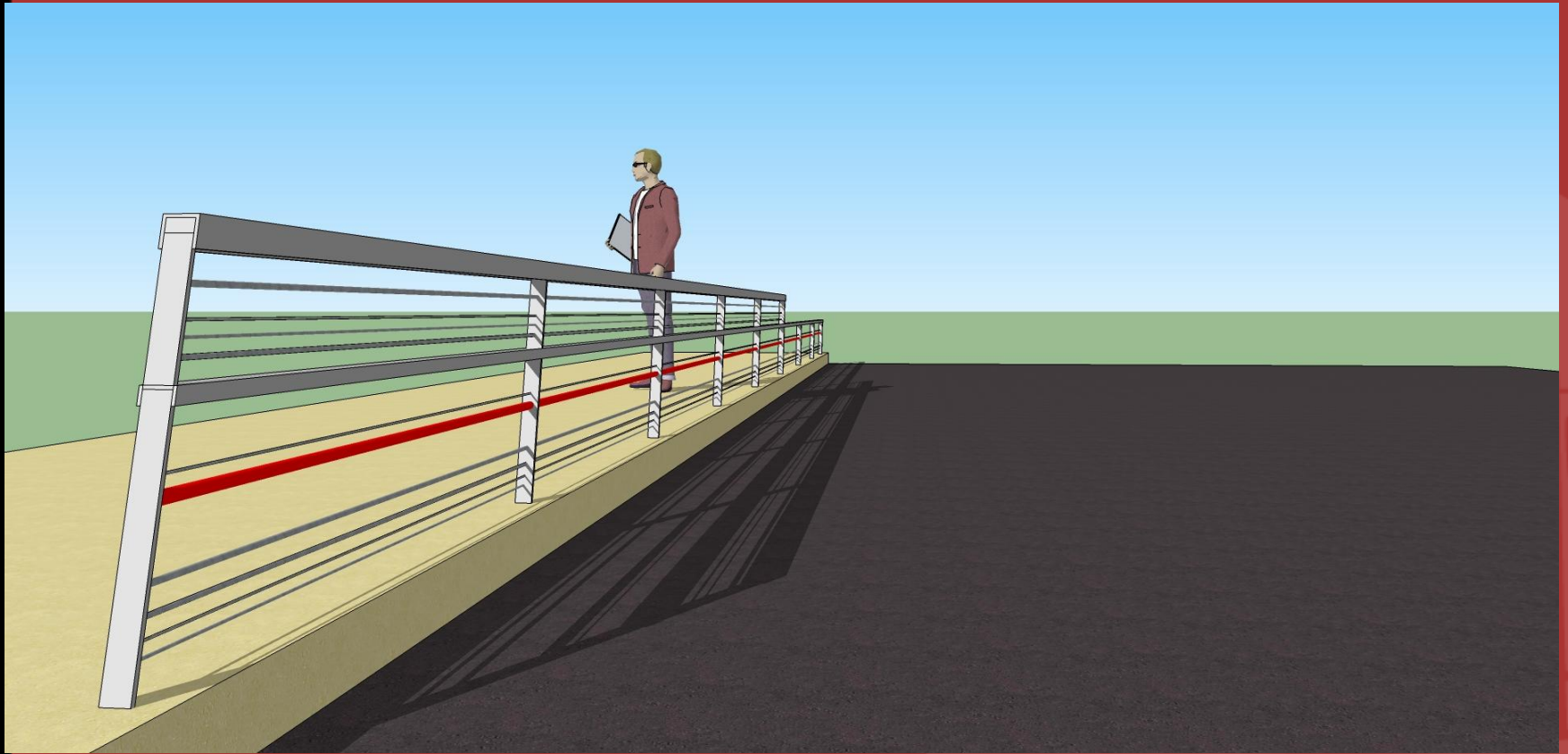
Green accents are proposed for near
New parks on Broadway and on 14th Avenue



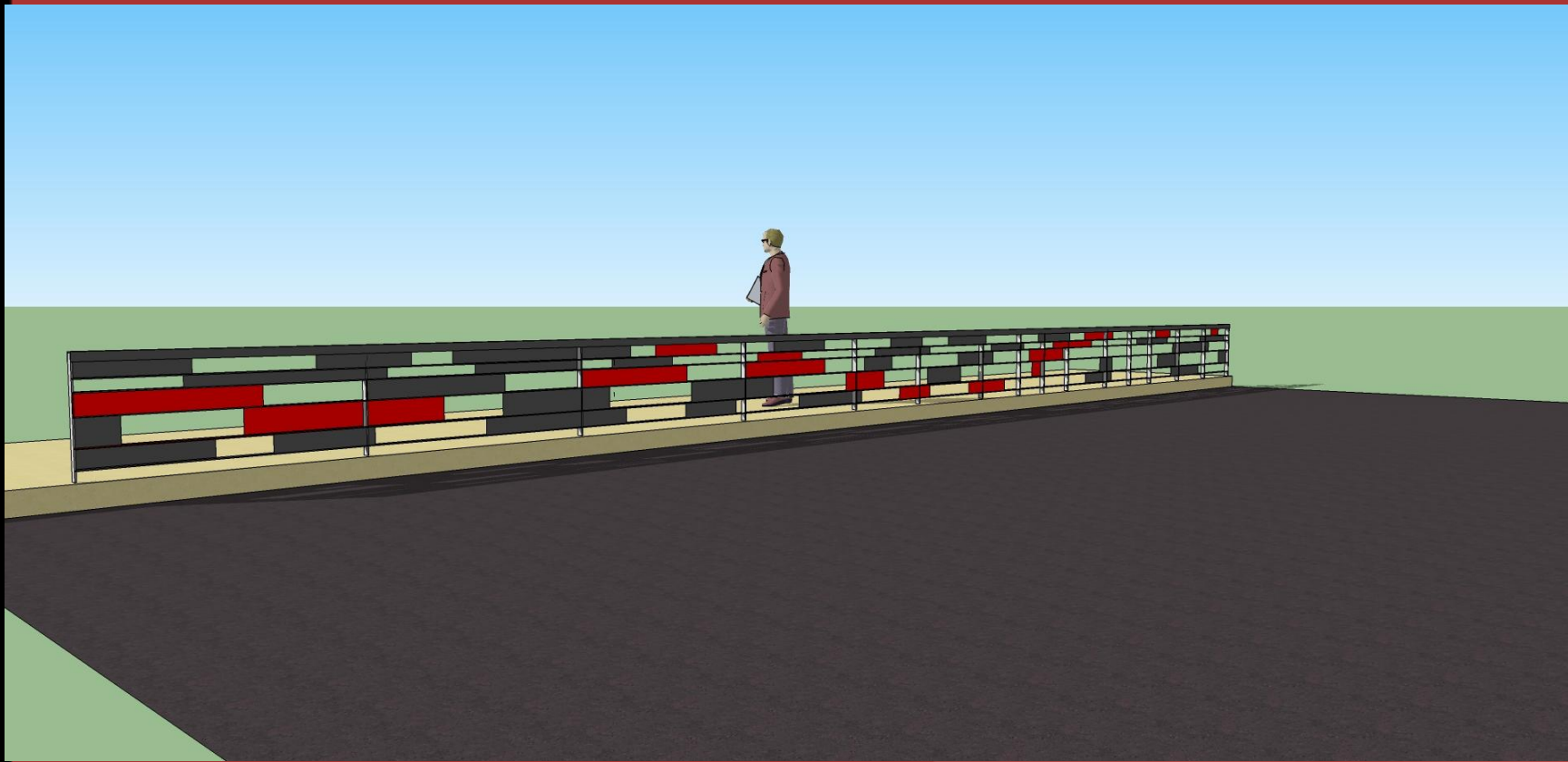


Near the new park by Swedish Hospital
The shelter can engage the park design

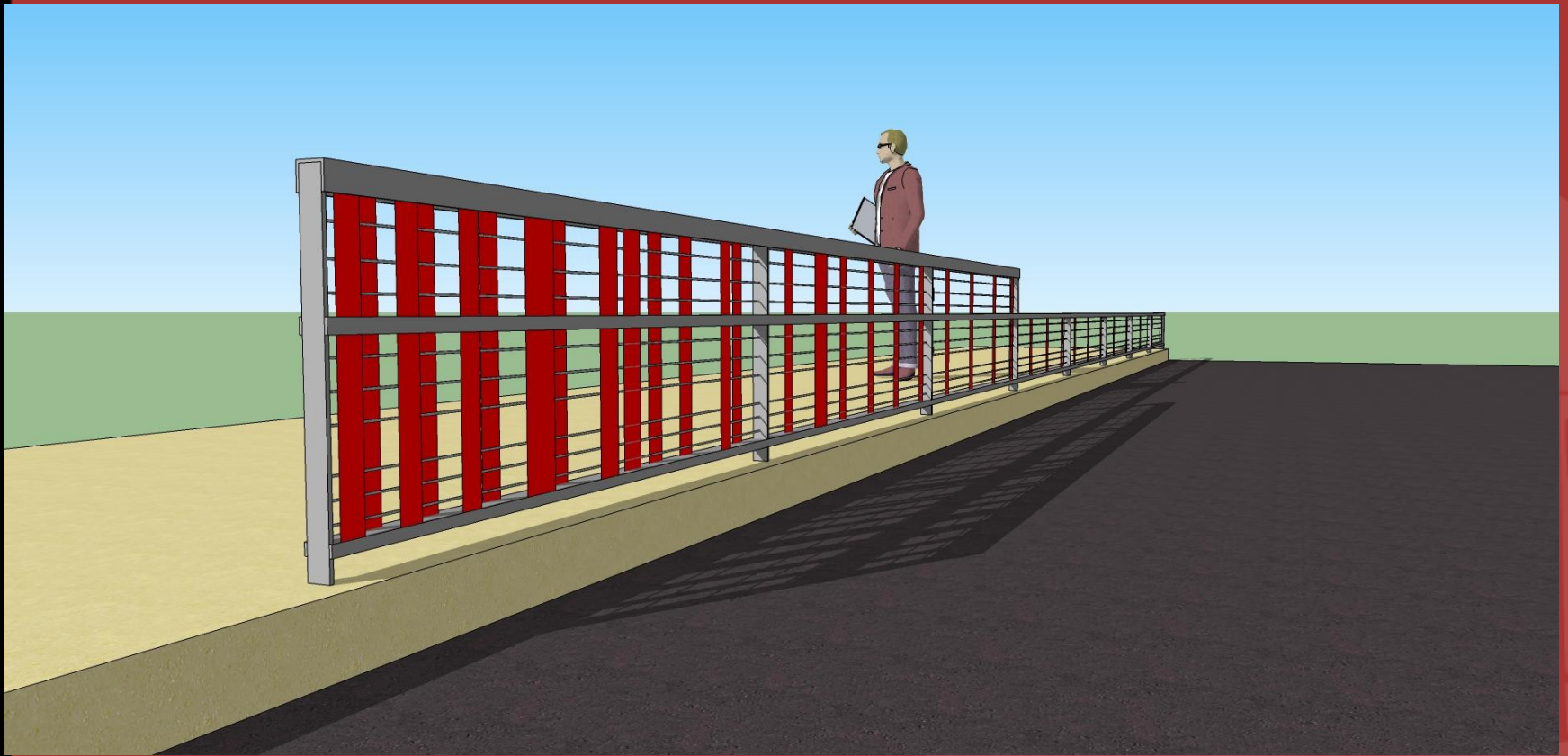
Platform Railings Concept



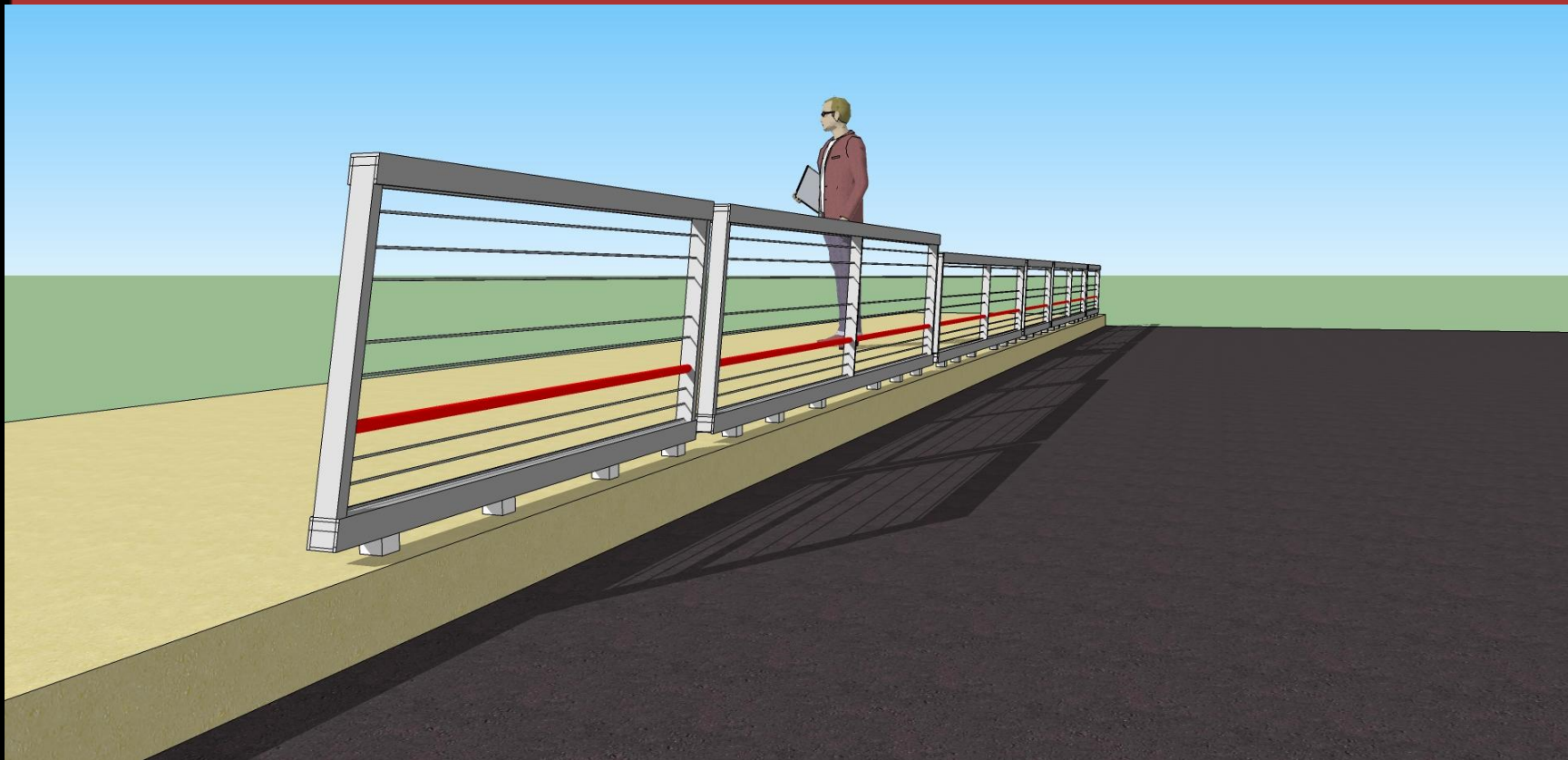
Platform Railings Concept



Platform Railings Concept



Platform Railings Concept



Platform Lighting

- Pavement Luminaires
- Linear, 6'-8' On Center
- White or Blue Light
- Street Lighting Provides Primary Lighting



Sustainability Features

- Filtera Stormwater Management System
- Platform Natural Drainage Opportunities
- Maintenance Facility LEED Gold Target
- Vehicle Onboard Energy Storage/Regenerative Braking

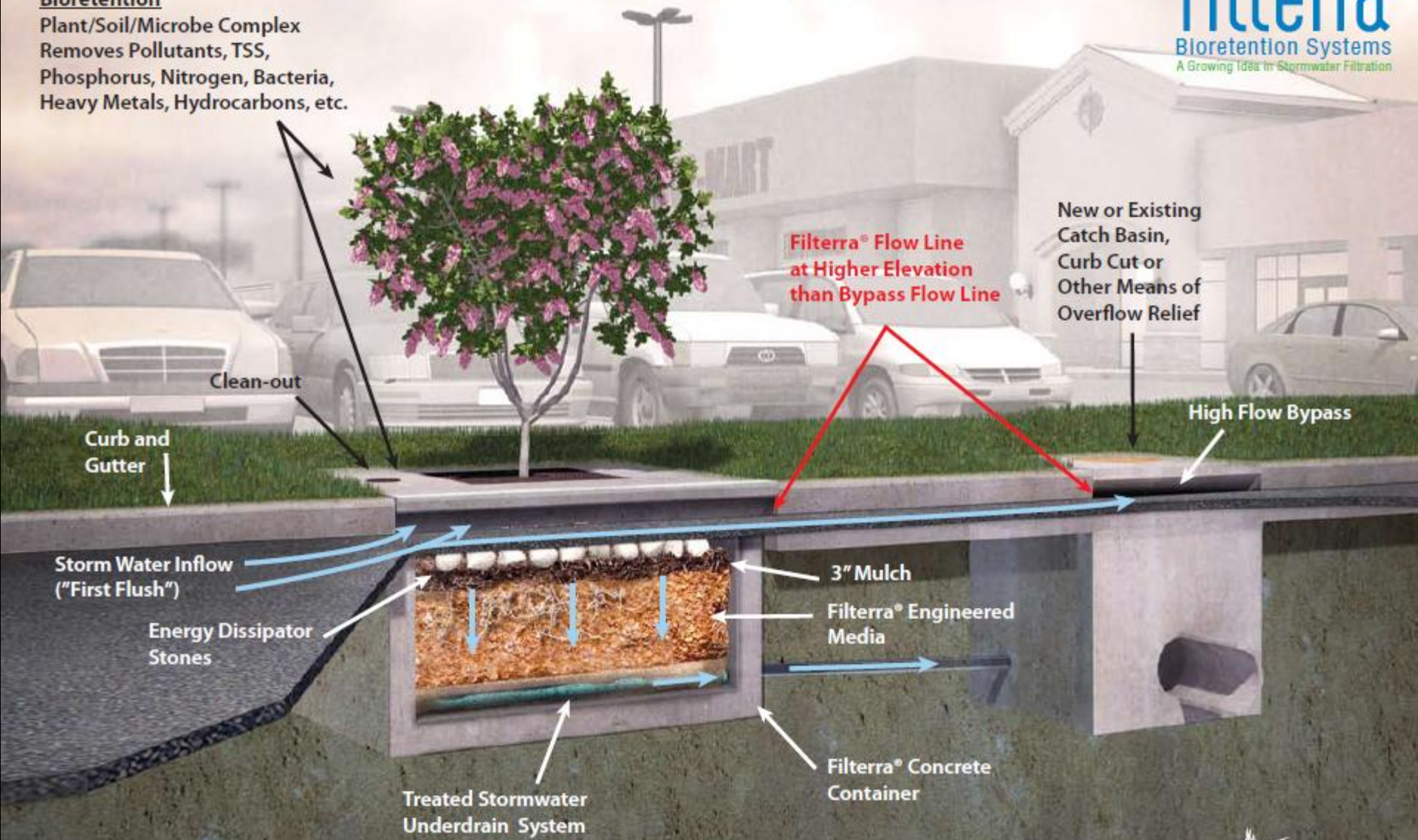




filtererra
Bioretention Systems
A Growing Idea in Stormwater Filtration

Bioretention

Plant/Soil/Microbe Complex
Removes Pollutants, TSS,
Phosphorus, Nitrogen, Bacteria,
Heavy Metals, Hydrocarbons, etc.



**Filtererra® Flow Line
at Higher Elevation
than Bypass Flow Line**

New or Existing
Catch Basin,
Curb Cut or
Other Means of
Overflow Relief

High Flow Bypass

Storm Water Inflow
("First Flush")

Energy Dissipator
Stones

3" Mulch

Filtererra® Engineered
Media

Filtererra® Concrete
Container

Treated Stormwater
Underdrain System

MAINTENANCE FACILITY

Site Program

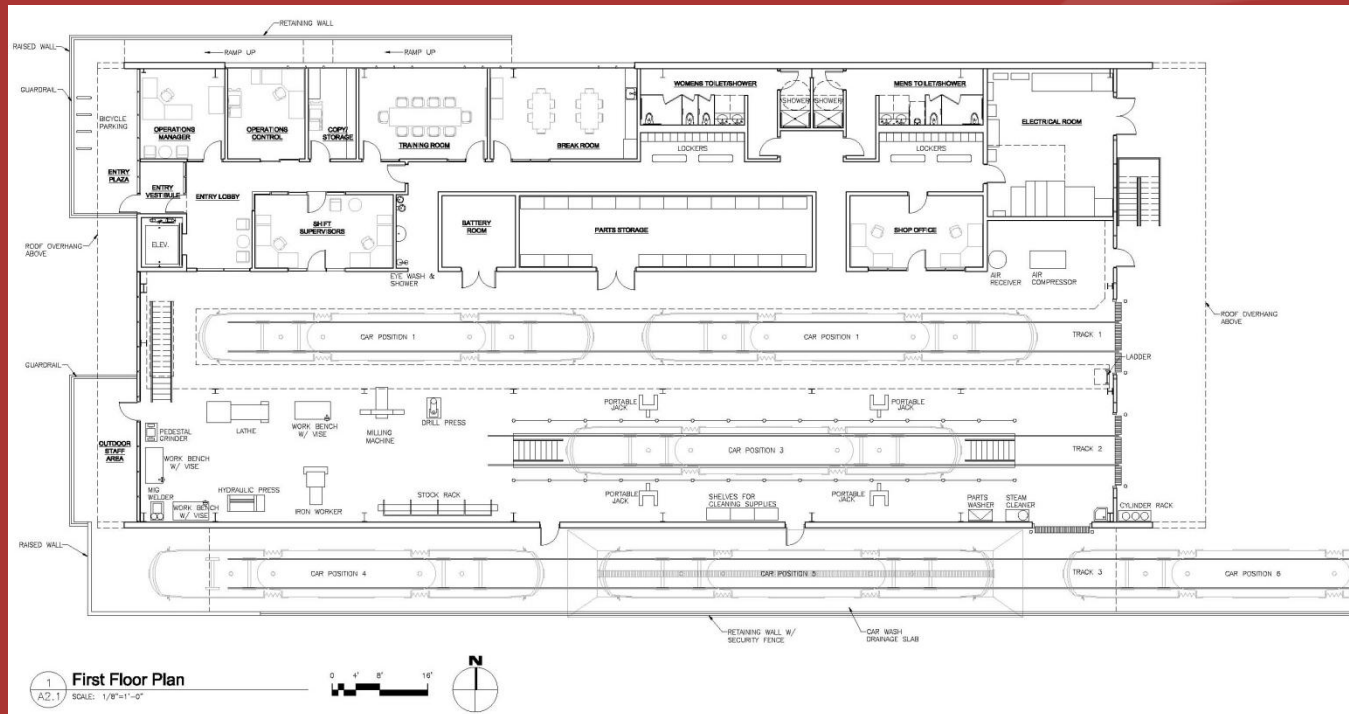
- Tracks for connection to the mainline
- Vehicle operations and maintenance facility (12,500 sq. ft. footprint, 20,000 sq. ft. total)
- A covered exterior vehicle storage and wash track
- Parking/loading spaces
- Refuse and recycling



MAINTENANCE FACILITY

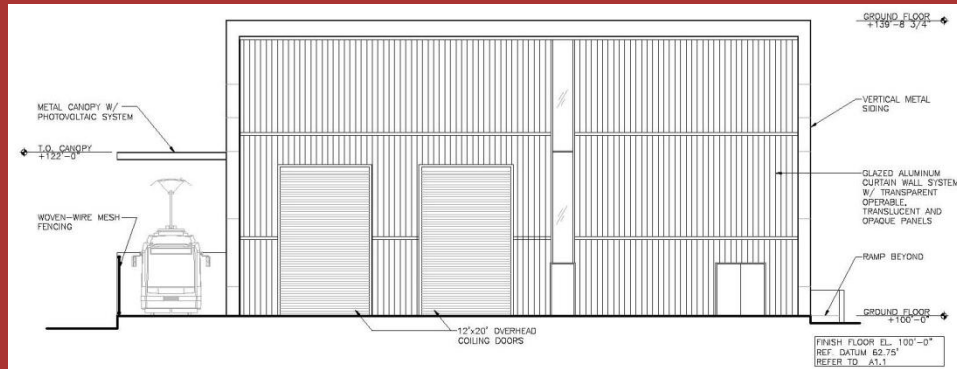
Building Program

- 2 vehicle positions with platforms for top of vehicle maintenance
- 1 vehicle position with pit and jacking capability
- Machine shop
- Support spaces including:
Operations, Training, Breakroom, Battery Room, Parts Storage, Toilet/Locker Rooms

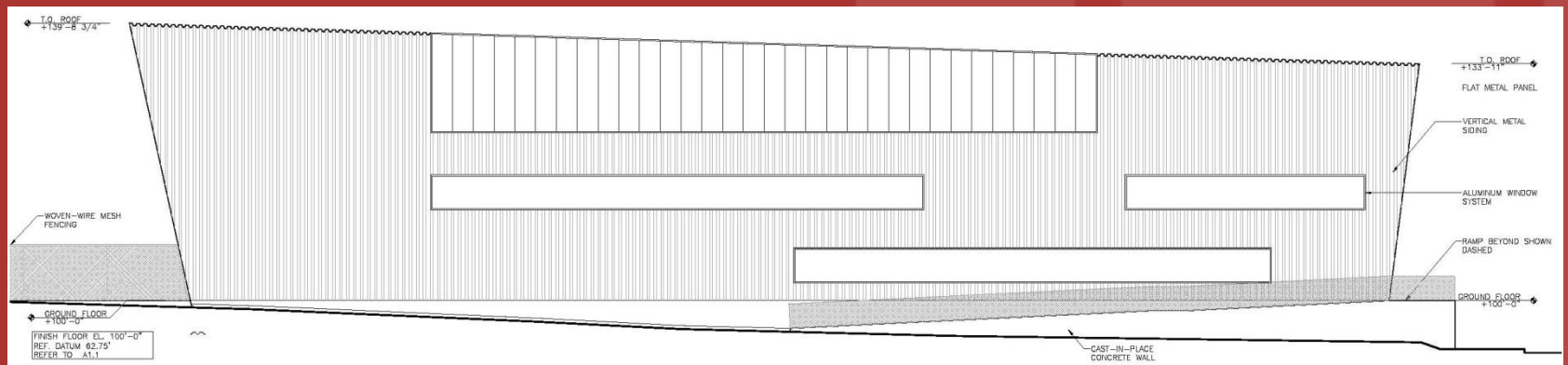


MAINTENANCE FACILITY

Building Elevations



East

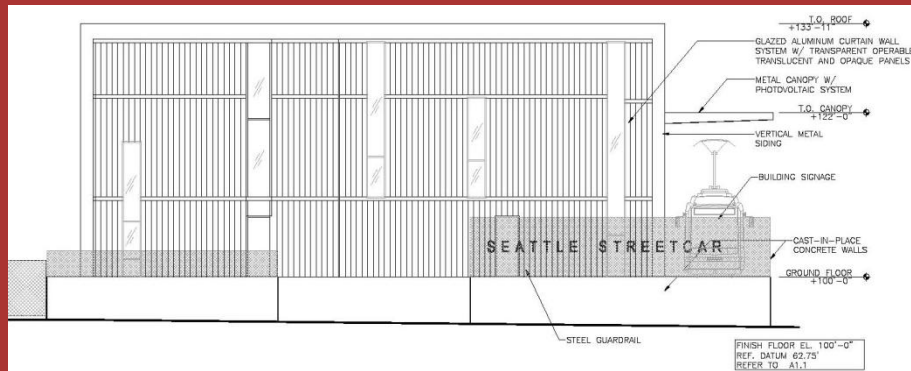


North

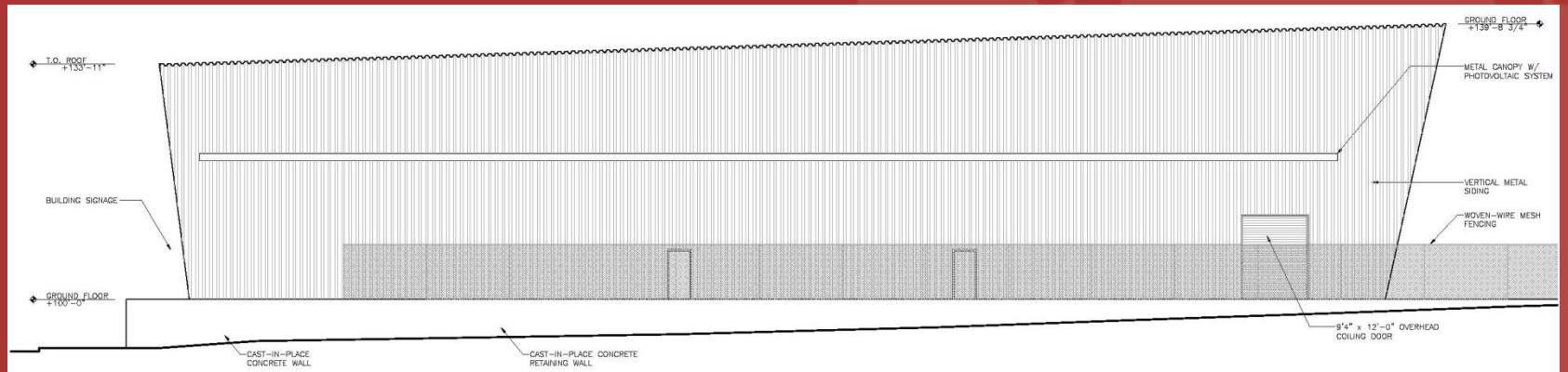
MAINTENANCE FACILITY

Building Elevations

FIRST HILL STREETCAR



West

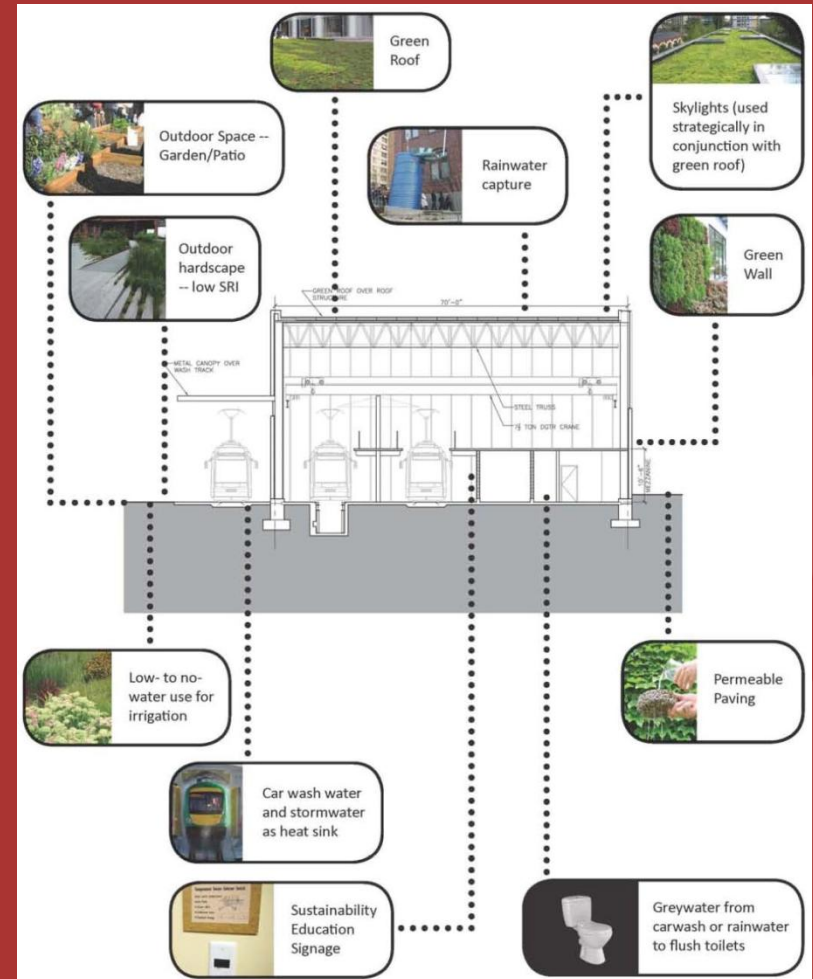


South

MAINTENANCE FACILITY

Sustainability Features

- Minimum LEED Silver Certification
- Integrated Design Process
- Extensive Stormwater Mitigation Features: full green roof, pervious paving, green wall
- Renewable Energy: PV (photovoltaic) array
- Energy Efficiency: highly efficient heating system (variable refrigerant flow [VRF] and radiant flooring), daylighting to offset electric lighting, occupancy and daylighting sensors, natural ventilation
- Occupant Health and Comfort: natural daylighting, access to views, low to no-toxicity building materials
- Locally Sourced Materials
- Electric Car Charging Stations



MAINTENANCE FACILITY

Rendering



FIRST HILL STREETCAR

first hill streetcar- charles street concept
8th ave perspective

 waterleaf
architecture, interiors & planning

Vehicles & Operations

- Similar to South Lake Union Line
- Wireless Operating Segments
- Passenger Information Systems (On-Board/At Platforms)

