East Link Extension: Rainier Station Light Rail Review Panel – 60% Design

August 7, 2014

Agenda

- Introduction, *Cynthia Padilla, ST*
- Permitting Process, *Debora Ashland, ST*
- East Link Design – Seattle

PART I – Station Design, Landscape, and Art

Station Design	*David Hewitt, HEWITT/PB* *Audrey West, NAKANO/PB*
ST*art*	*Barbara Luecke, ST*

PART II – Systems Structures

Systems Structures	*Paul Bennett, ST* *Audrey West, NAKANO/PB*

- Conclusions and Next Steps

SOUNDTRANSIT
RIDE THE WAVE

East Link Overview

Length: 14 miles

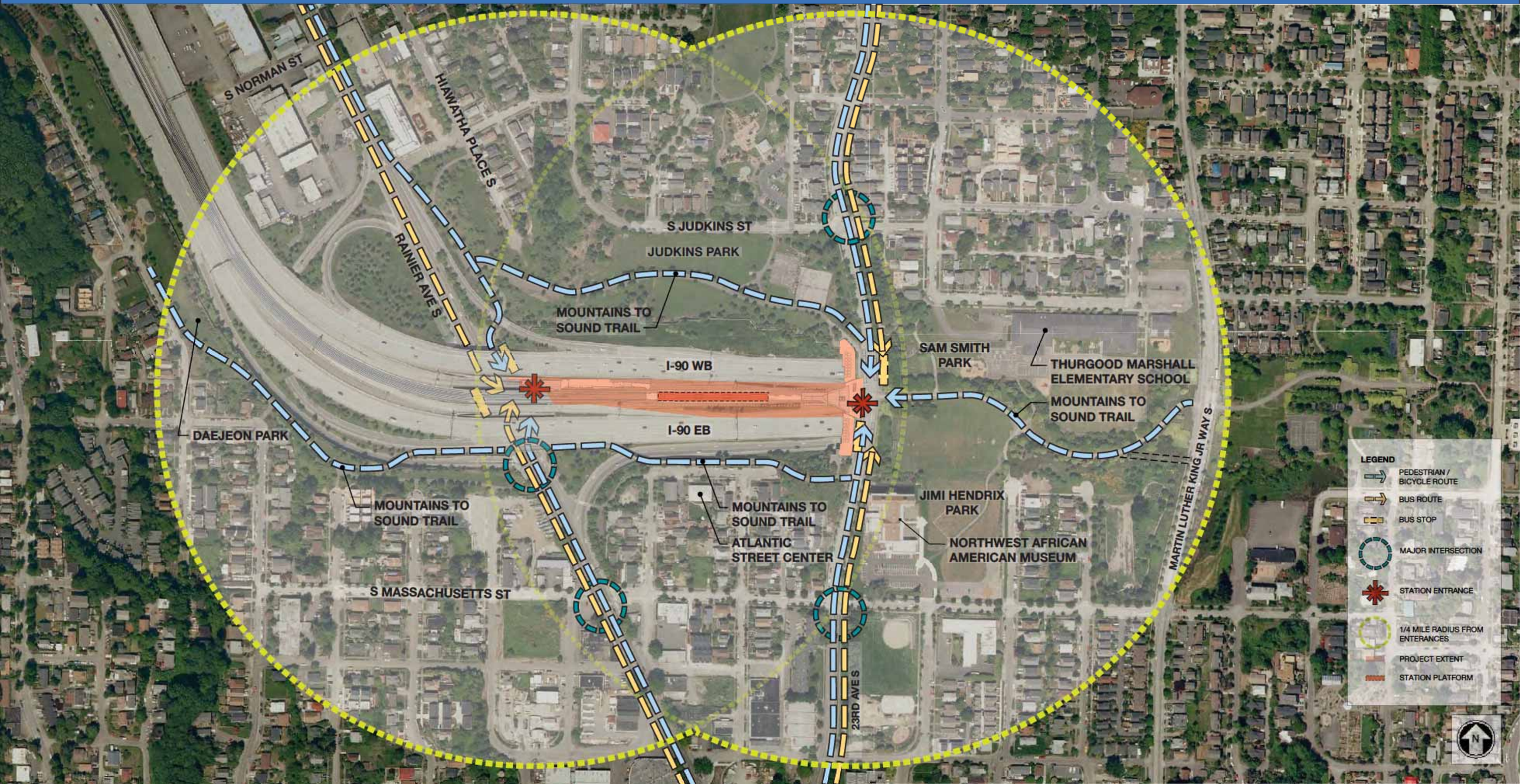
Ride times:

- Mercer Island to UW: 20 min.
- S. Bellevue to Airport: 50 min.
- Overlake Transit Center to Bellevue Transit Center: 10 min.

Rider projection: 50,000 daily by 2030

Budget: $2.8 billion (2010 $)

Start of Service: Targeted 2023


S NORMAN ST
HIAWATHA PLACE S
RAINIER AVE S
S JUDKINS ST
JUDKINS PARK
MOUNTAINS TO SOUND TRAIL
I-90 WB
I-90 EB
SAM SMITH PARK
THURGOOD MARSHALL ELEMENTARY SCHOOL
MOUNTAINS TO SOUND TRAIL
MARTIN LUTHER KING JR WAY S
DAEJEON PARK
MOUNTAINS TO SOUND TRAIL
MOUNTAINS TO SOUND TRAIL
ATLANTIC STREET CENTER
JIMI HENDRIX PARK
NORTHWEST AFRICAN AMERICAN MUSEUM
S MASSACHUSETTS ST
23RD AVE S
LEGEND
PEDESTRIAN / BICYCLE ROUTE
BUS ROUTE
BUS STOP
MAJOR INTERSECTION
STATION ENTRANCE
1/4 MILE RADIUS FROM ENTERANCES
PROJECT EXTENT
STATION PLATFORM
N

East Link Timeline

2006-2011
Planning and environmental review

2011-2015
Final design (we are here)

- ✓ 30% design
- ✓ 60% design
- ❑ 90% design

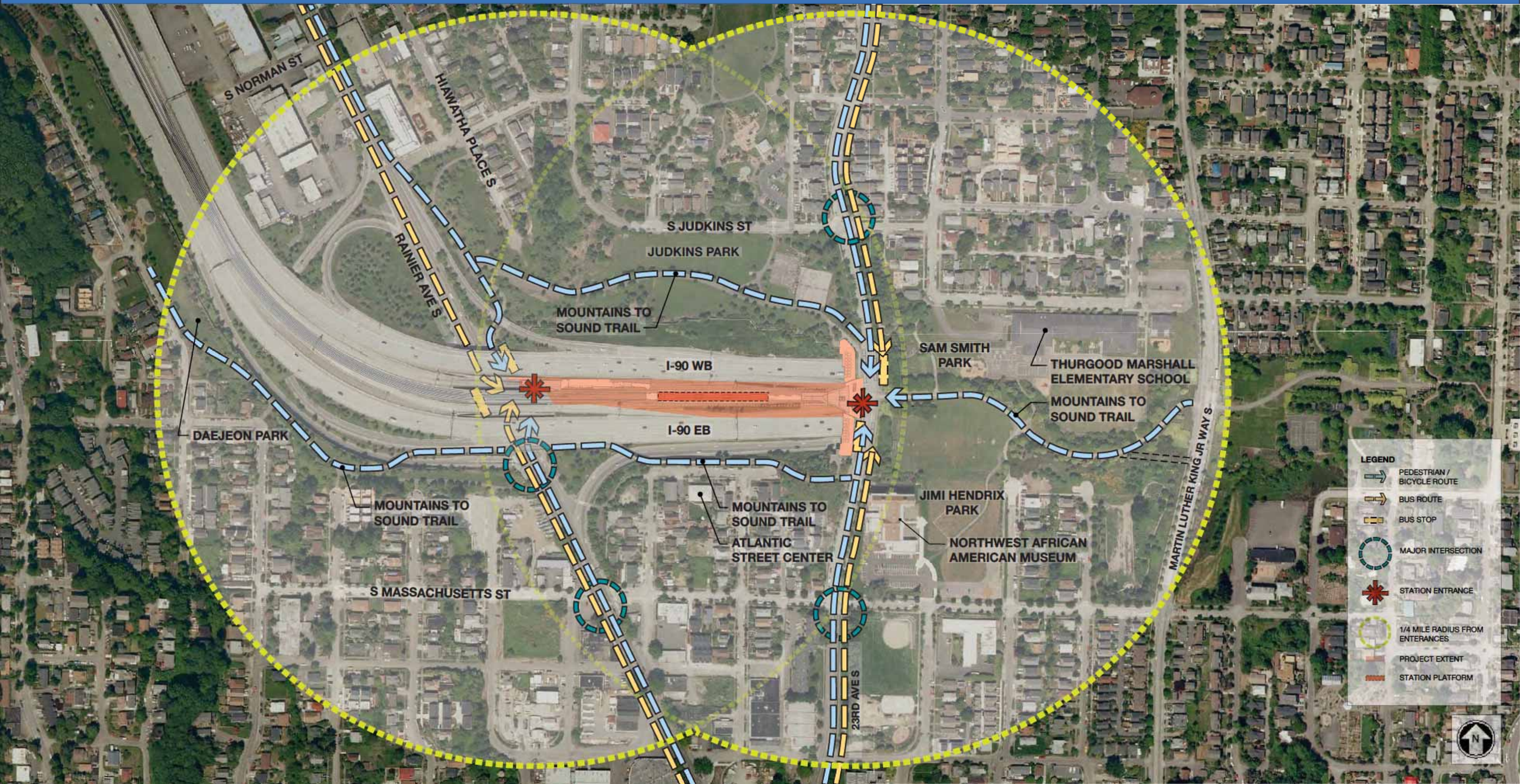
2015-2022
Construction

Targeted 2022
Testing & pre-operations

Targeted 2023
East Link in service

Rainier Station

Station and Landscape Design


S NORMAN ST
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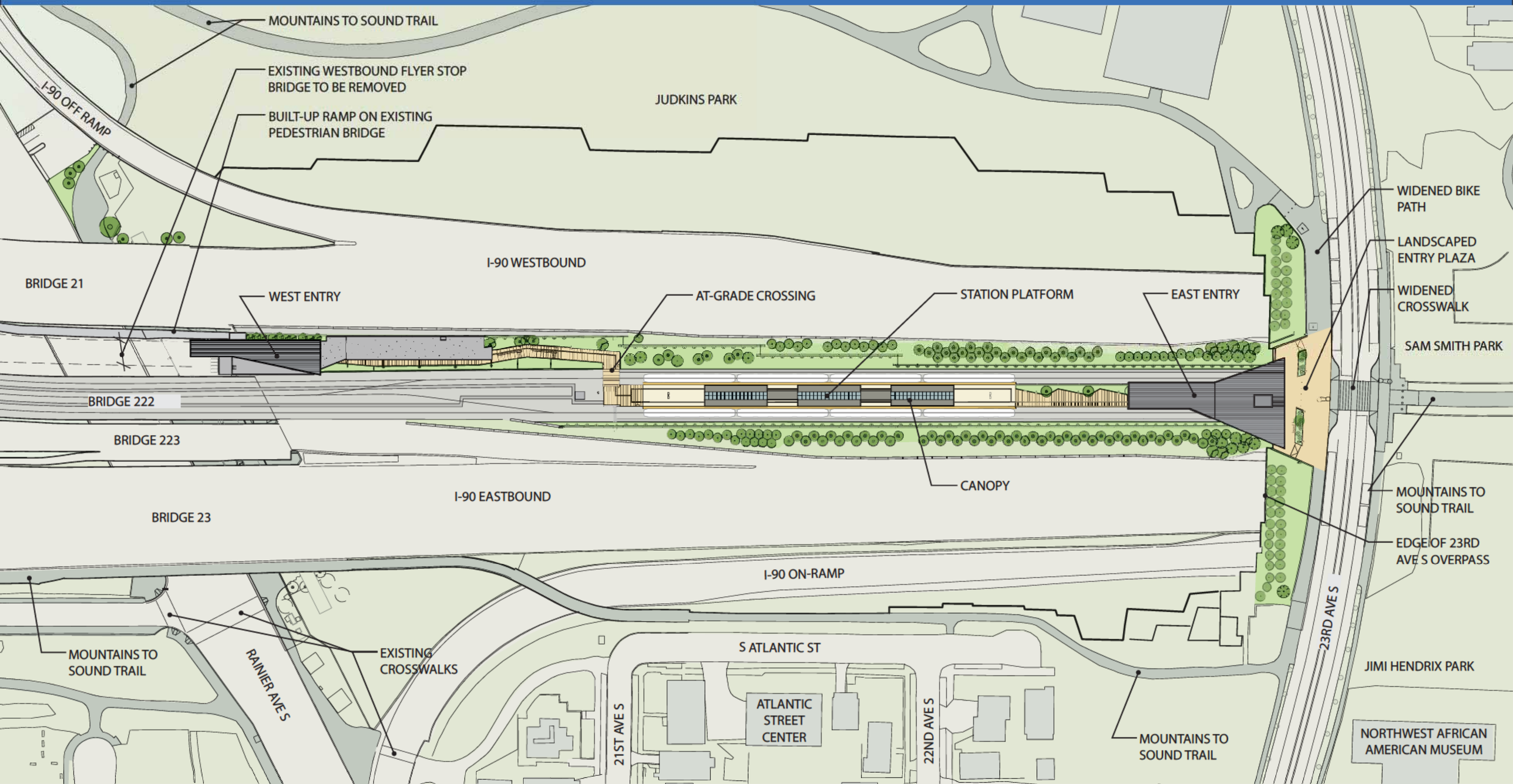
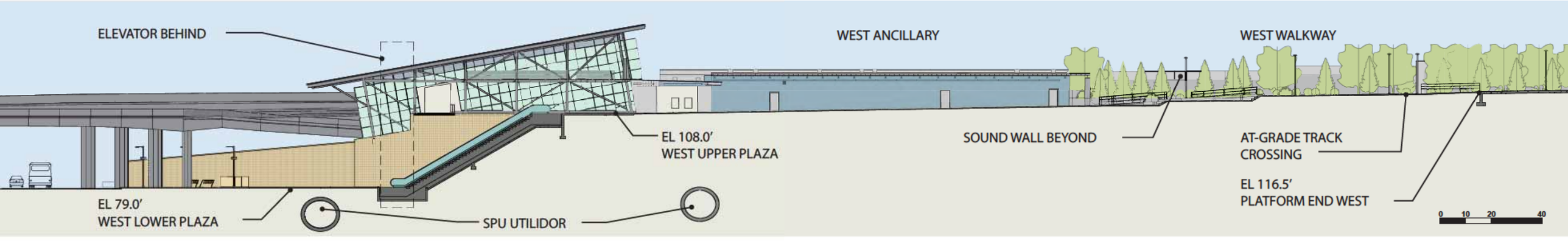
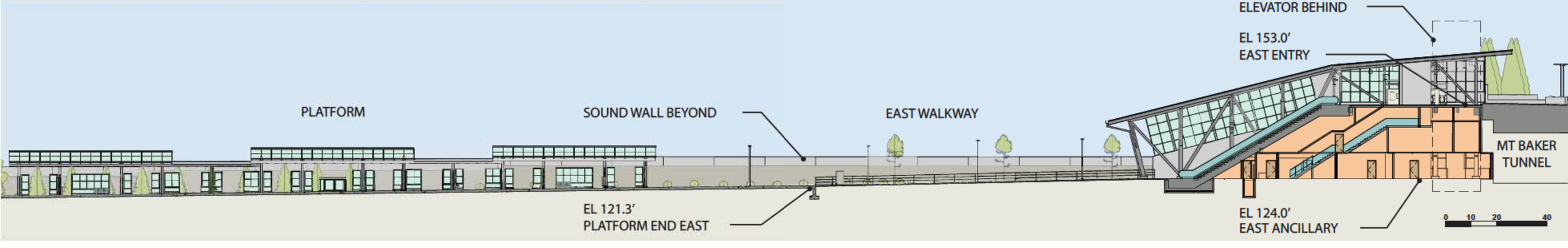
BUS ROUTE
BUS STOP
MAJOR INTERSECTION
STATION ENTRANCE
1/4 MILE RADIUS FROM ENTERANCES
PROJECT EXTENT
STATION PLATFORM
N

RAINIER STATION - AERIAL VIEW

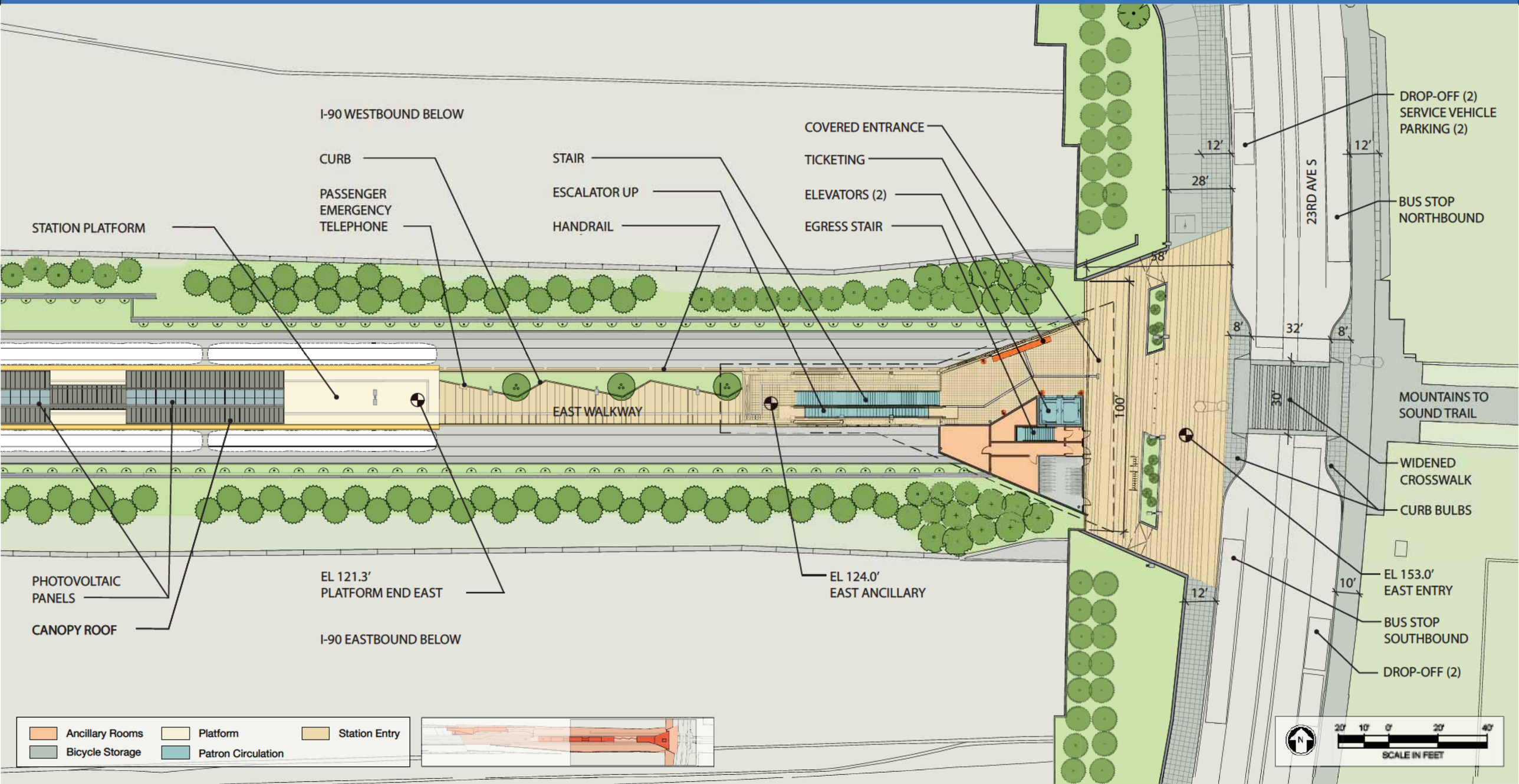

MOUNTAINS TO SOUND TRAIL
EXISTING WESTBOUND FLYER STOP BRIDGE TO BE REMOVED
BUILT-UP RAMP ON EXISTING PEDESTRIAN BRIDGE
I-90 OFF RAMP
JUDKINS PARK
I-90 WESTBOUND
BRIDGE 21
WEST ENTRY
AT-GRADE CROSSING
STATION PLATFORM
EAST ENTRY
BRIDGE 222
BRIDGE 223
CANOPY
I-90 EASTBOUND
BRIDGE 23
WIDENED BIKE PATH
LANDSCAPED ENTRY PLAZA
WIDENED CROSSWALK
SAM SMITH PARK
MOUNTAINS TO SOUND TRAIL
EDGE OF 23RD AVE S OVERPASS
I-90 ON-RAMP
MOUNTAINS TO SOUND TRAIL
RAINIER AVE S
EXISTING CROSSWALKS
S ATLANTIC ST
21ST AVE S
ATLANTIC STREET CENTER
22ND AVE S
23RD AVE S
JIMI HENDRIX PARK
MOUNTAINS TO SOUND TRAIL
NORTHWEST AFRICAN AMERICAN MUSEUM

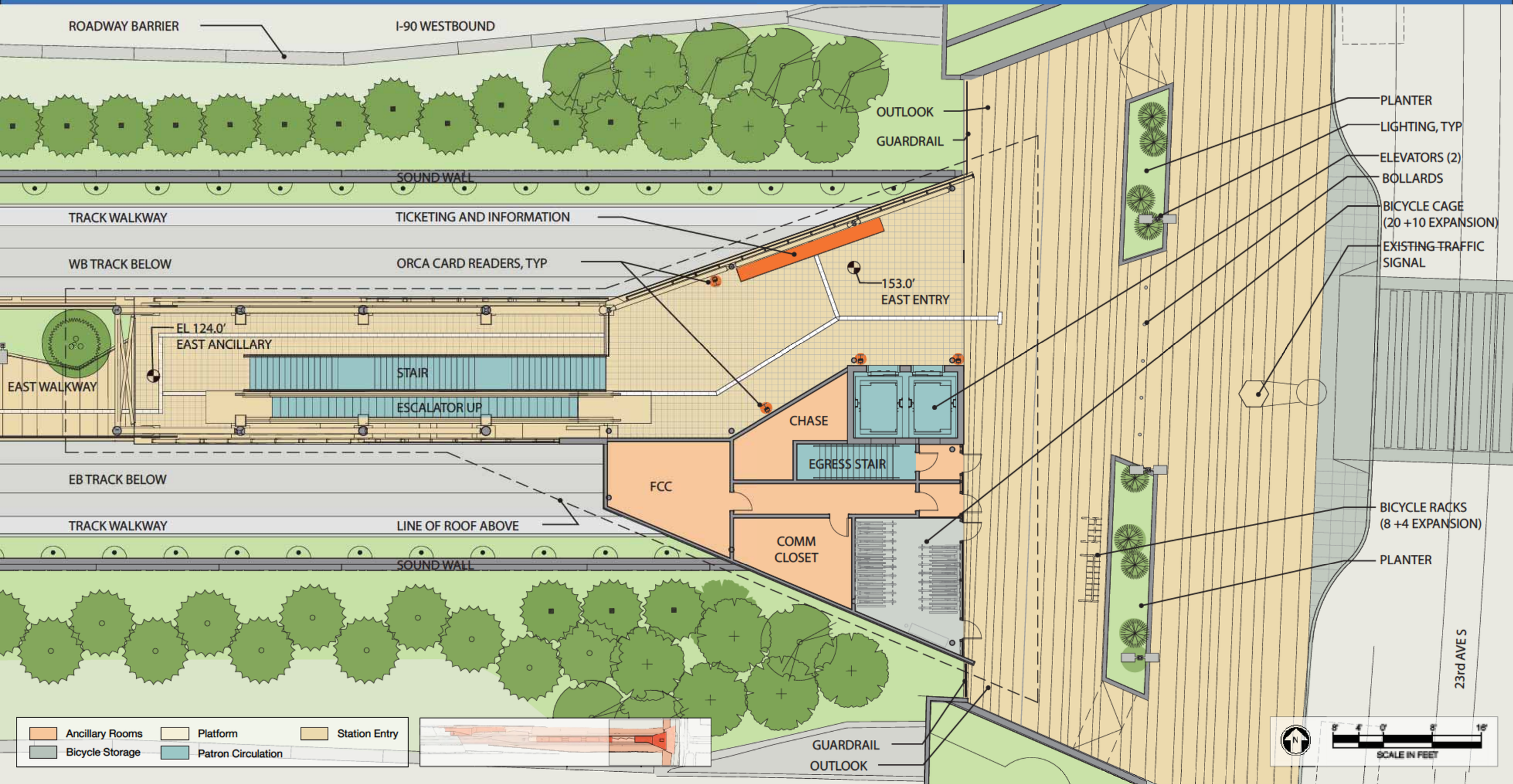
220'
470'
380'
260'
WEST ENTRY
PLATFORM
EAST ENTRY
23RD AVE S
RAINIER AVE S
0 25 50 100

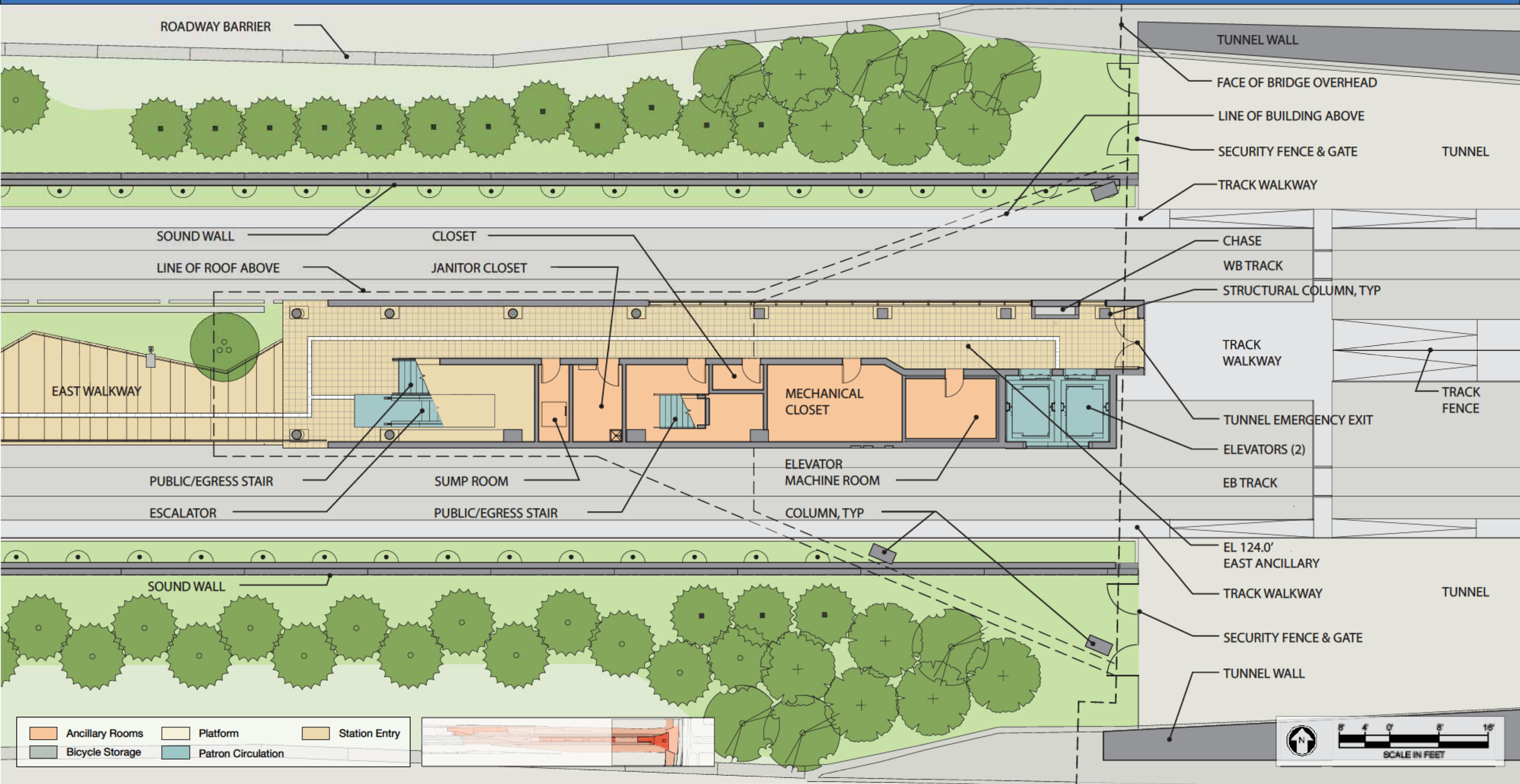

ELEVATOR BEHIND
WEST ANCILLARY
WEST WALKWAY
EL 108.0'
WEST UPPER PLAZA
SOUND WALL BEYOND
AT-GRADE TRACK
CROSSING
EL 116.5'
PLATFORM END WEST
EL 79.0'
WEST LOWER PLAZA
SPU UTILIDOR
0 10 20 40

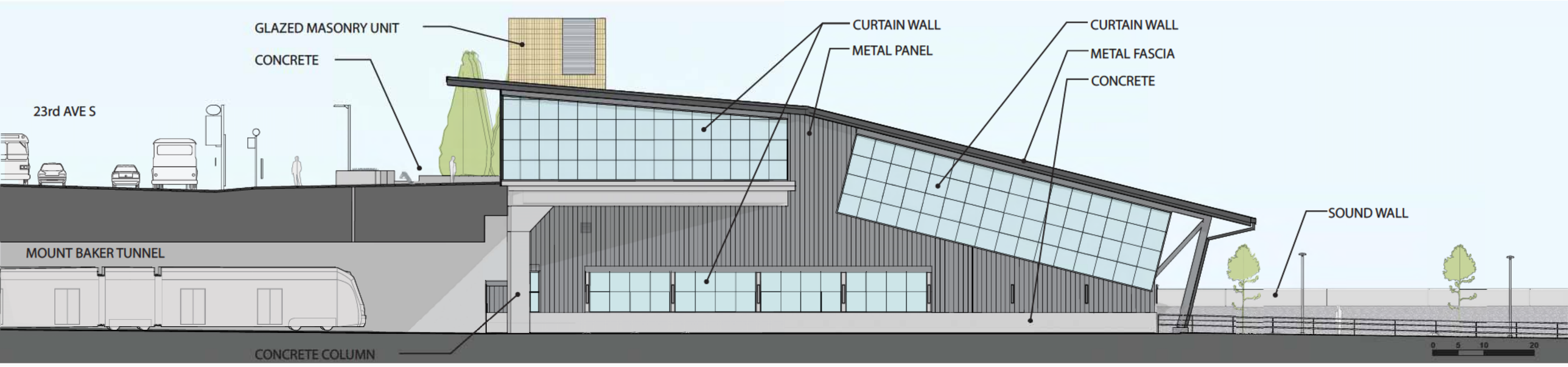

ELEVATOR BEHIND
EL 153.0'
EAST ENTRY
PLATFORM
SOUND WALL BEYOND
EAST WALKWAY
MT BAKER
TUNNEL
EL 121.3'
PLATFORM END EAST
EL 124.0'
EAST ANCILLARY
0 10 20 40

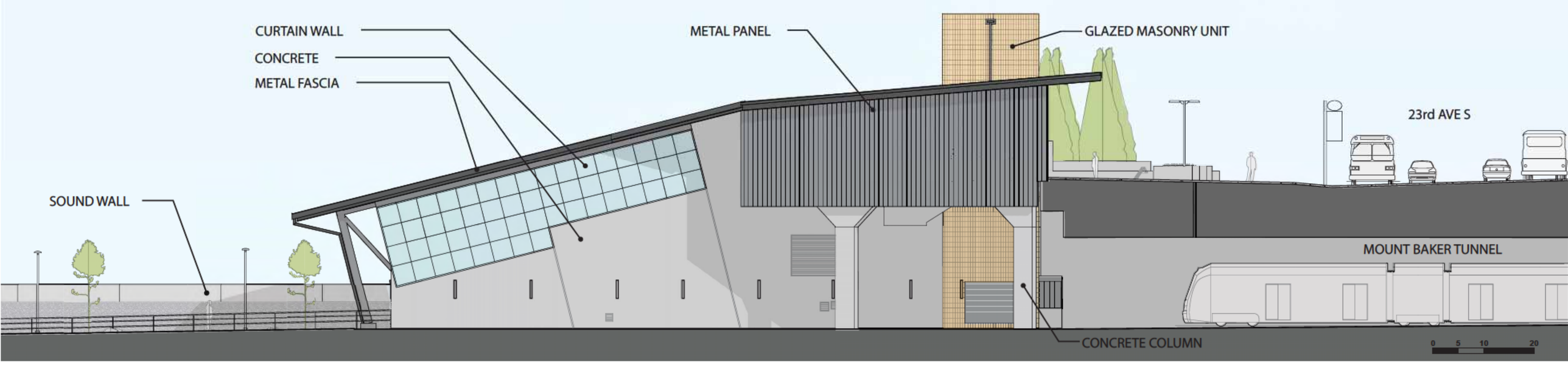
EAST ENTRY AT 23RD AVENUE SOUTH

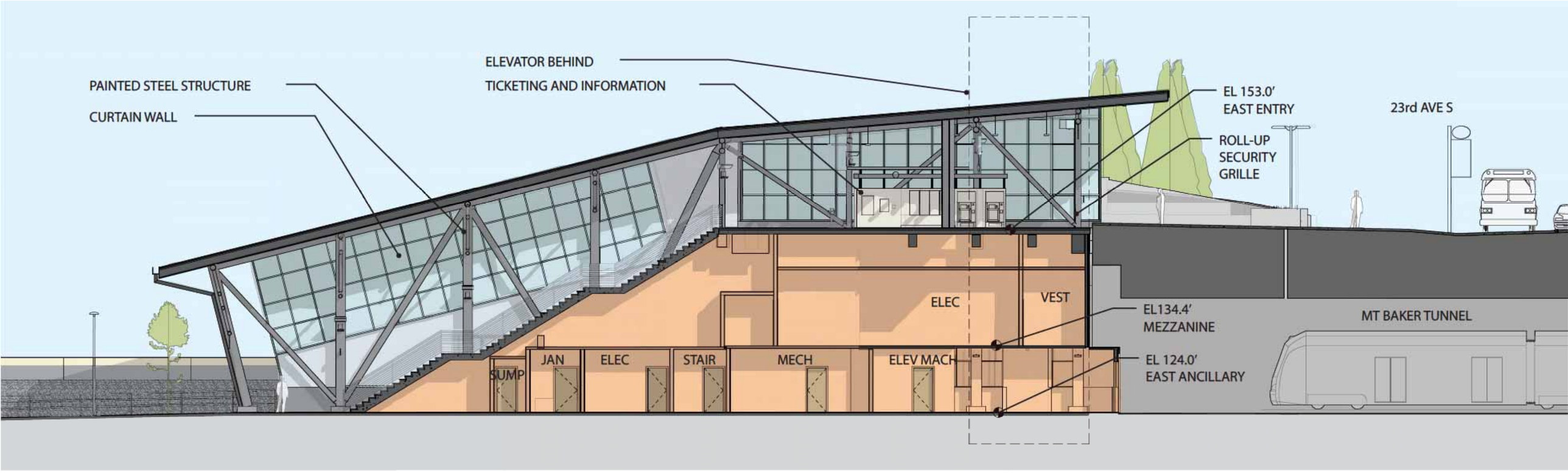

I-90 WESTBOUND BELOW
CURB
PASSENGER EMERGENCY TELEPHONE
STAIR
ESCALATOR UP
HANDRAIL
COVERED ENTRANCE
TICKETING
ELEVATORS (2)
EGRESS STAIR
STATION PLATFORM
EAST WALKWAY
DROP-OFF (2)
SERVICE VEHICLE PARKING (2)
BUS STOP NORTHBOUND
23RD AVE S
12′
28′
58′
100′
8′
32′
30′
MOUNTAINS TO SOUND TRAIL
WIDENED CROSSWALK
CURB BULBS
EL 153.0′
EAST ENTRY
10′
BUS STOP SOUTHBOUND
DROP-OFF (2)
PHOTOVOLTAIC PANELS
CANOPY ROOF
EL 121.3′
PLATFORM END EAST
EL 124.0′
EAST ANCILLARY
I-90 EASTBOUND BELOW
Ancillary Rooms
Bicycle Storage
Platform
Patron Circulation
Station Entry
N
20′ 10′ 0′ 20′ 40′
SCALE IN FEET


ROADWAY BARRIER
I-90 WESTBOUND
OUTLOOK
GUARDRAIL
SOUND WALL
TRACK WALKWAY
TICKETING AND INFORMATION
WB TRACK BELOW
ORCA CARD READERS, TYP
153.0'
EAST ENTRY
EL 124.0'
EAST ANCILLARY
STAIR
ESCALATOR UP
EAST WALKWAY
CHASE
EGRESS STAIR
FCC
EB TRACK BELOW
TRACK WALKWAY
LINE OF ROOF ABOVE
COMM
CLOSET
SOUND WALL
PLANTER
LIGHTING, TYP
ELEVATORS (2)
BOLLARDS
BICYCLE CAGE
(20 +10 EXPANSION)
EXISTING TRAFFIC
SIGNAL
BICYCLE RACKS
(8 +4 EXPANSION)
PLANTER
23rd AVE S
Ancillary Rooms
Platform
Station Entry
Bicycle Storage
Patron Circulation
GUARDRAIL
OUTLOOK
N
8' 4' 0' 8' 16'
SCALE IN FEET


ROADWAY BARRIER
TUNNEL WALL
FACE OF BRIDGE OVERHEAD
LINE OF BUILDING ABOVE
SECURITY FENCE & GATE
TUNNEL
TRACK WALKWAY
SOUND WALL
CLOSET
CHASE
LINE OF ROOF ABOVE
JANITOR CLOSET
WB TRACK
STRUCTURAL COLUMN, TYP
TRACK WALKWAY
EAST WALKWAY
MECHANICAL CLOSET
TRACK FENCE
TUNNEL EMERGENCY EXIT
ELEVATORS (2)
ELEVATOR MACHINE ROOM
PUBLIC/EGRESS STAIR
SUMP ROOM
EB TRACK
ESCALATOR
PUBLIC/EGRESS STAIR
COLUMN, TYP
EL 124.0' EAST ANCILLARY
SOUND WALL
TRACK WALKWAY
TUNNEL
SECURITY FENCE & GATE
TUNNEL WALL
Ancillary Rooms
Bicycle Storage
Platform
Patron Circulation
Station Entry
N
8' 4' 0' 8' 16'
SCALE IN FEET

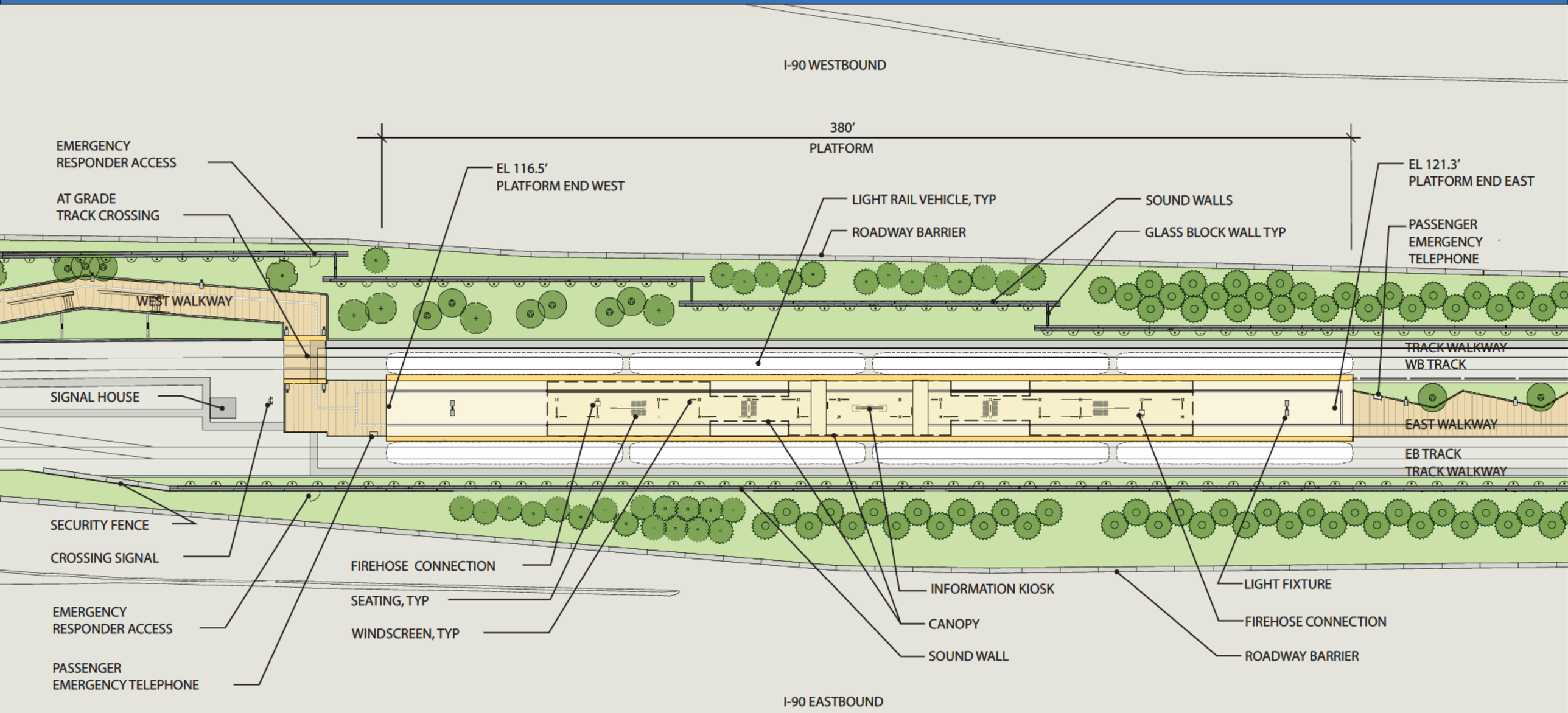

GLAZED MASONRY UNIT
CONCRETE
23rd AVE S
MOUNT BAKER TUNNEL
CONCRETE COLUMN
CURTAIN WALL
METAL PANEL
CURTAIN WALL
METAL FASCIA
CONCRETE
SOUND WALL
0 5 10 20


CURTAIN WALL
CONCRETE
METAL FASCIA
SOUND WALL
METAL PANEL
GLAZED MASONRY UNIT
23rd AVE S
MOUNT BAKER TUNNEL
CONCRETE COLUMN
0 5 10 20

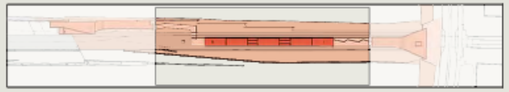

PAINTED STEEL STRUCTURE
CURTAIN WALL
ELEVATOR BEHIND
TICKETING AND INFORMATION
EL 153.0'
EAST ENTRY
ROLL-UP
SECURITY
GRILLE
23rd AVE S
ELEC
VEST
EL134.4'
MEZZANINE
MT BAKER TUNNEL
SUMP
JAN
ELEC
STAIR
MECH
ELEV MACH
EL 124.0'
EAST ANCILLARY

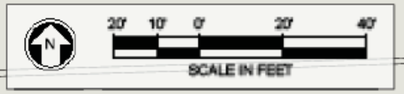
← Link West
Link East →
Station Name Station
4
4

PLATFORM CANOPY LOOKING WEST

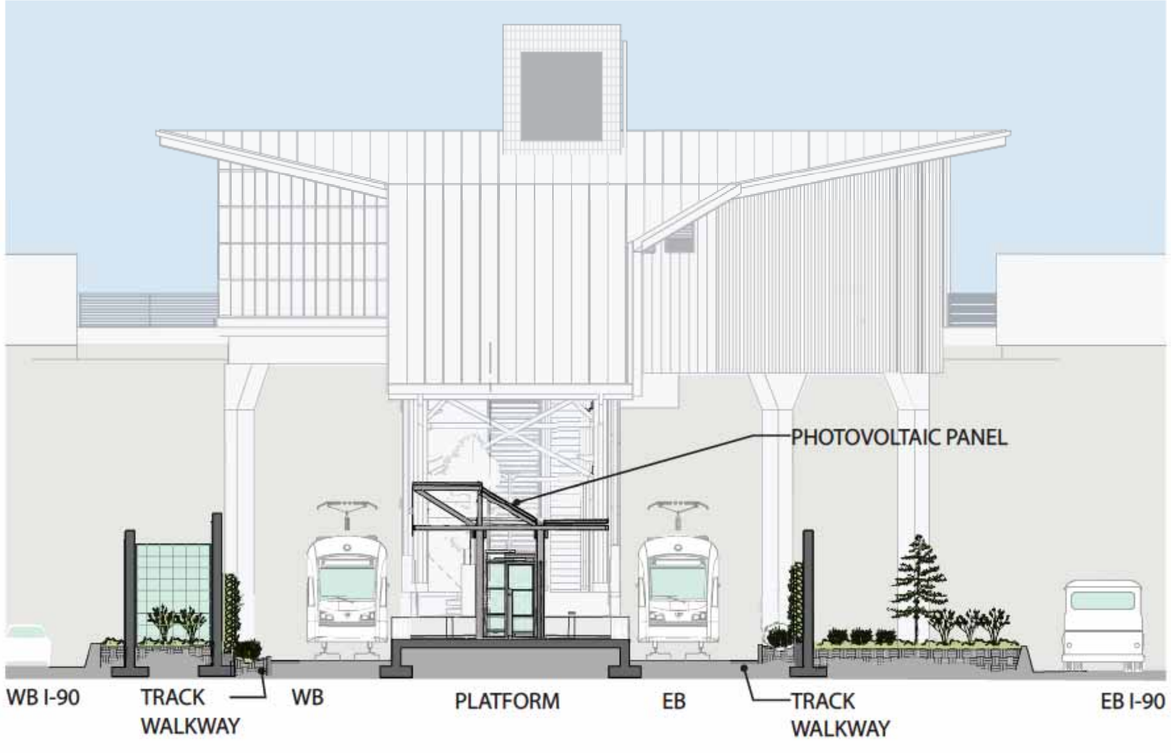


Ancillary Rooms | Platform | Station Entry
Bicycle Storage | Patron Circulation

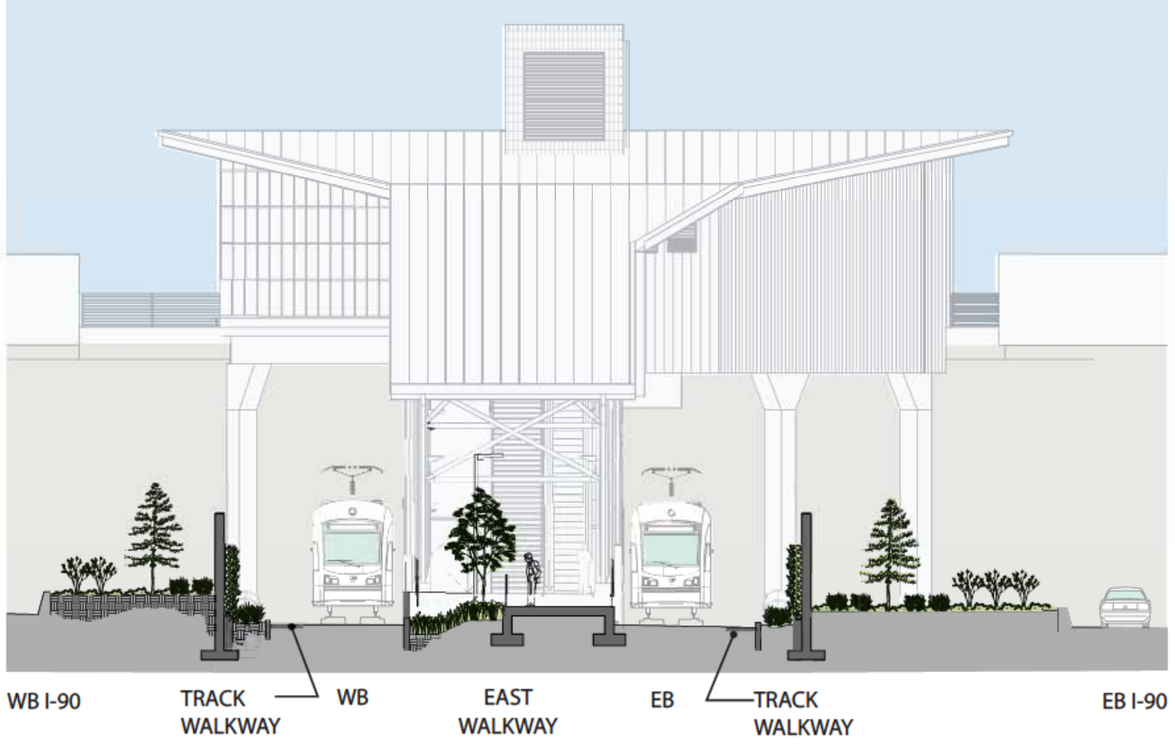




Key Longitudinal Site Section



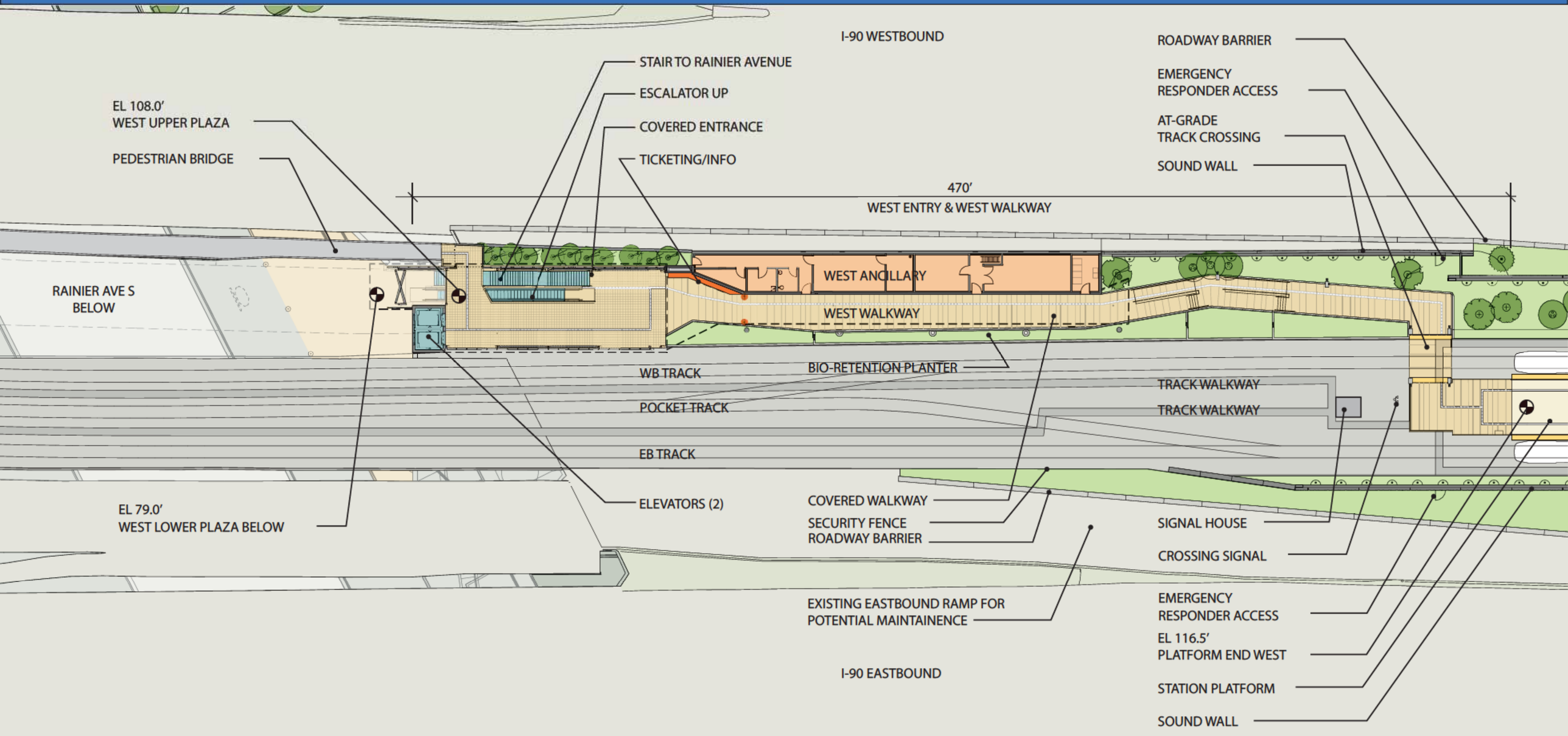
Section C



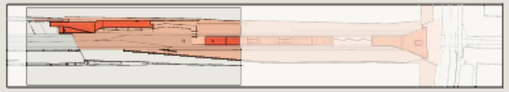
Section D

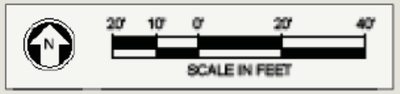
RAILROAD CROSSING
RAILROAD CROSSING

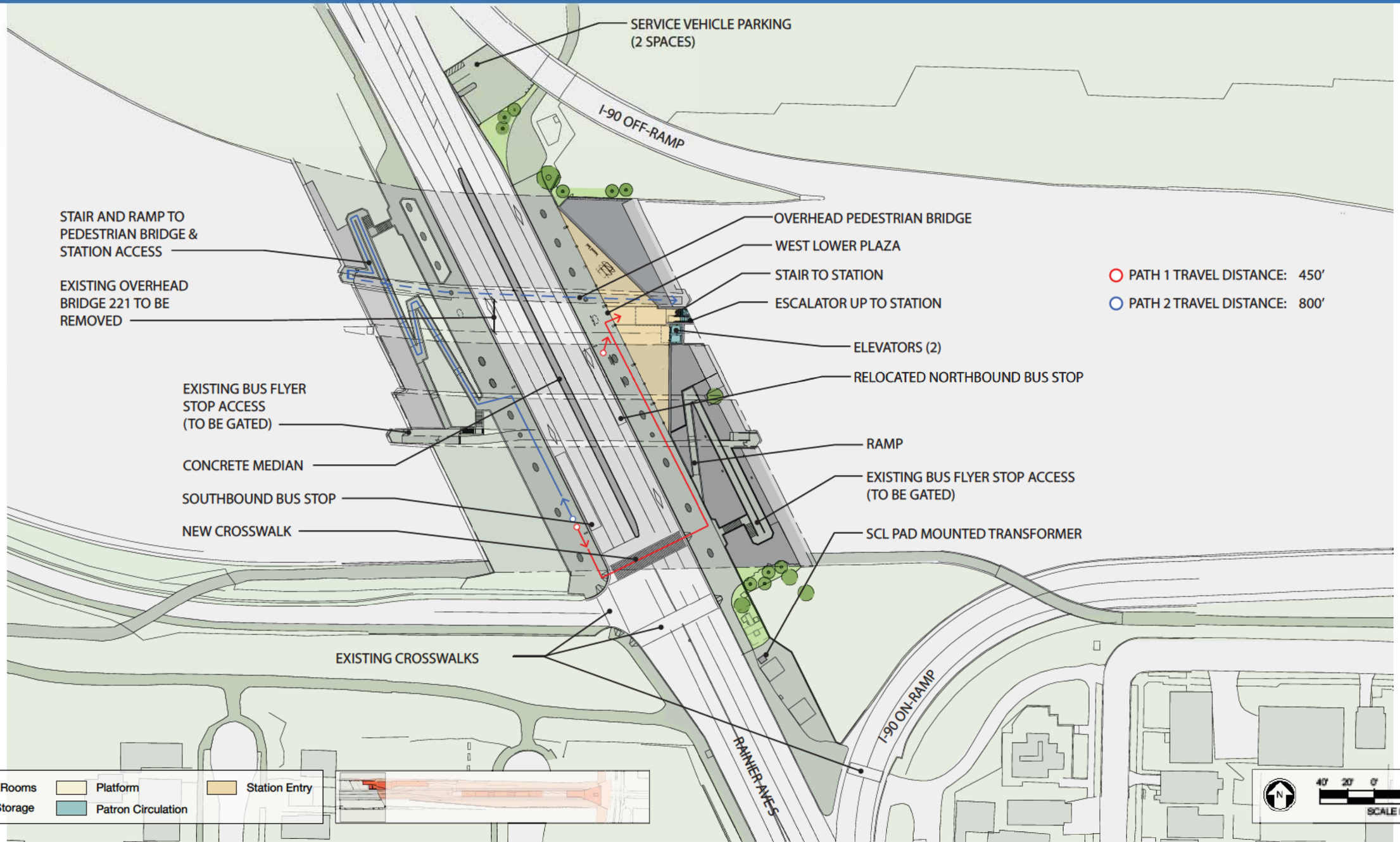
WEST ENTRY WALKWAY LOOKING WEST



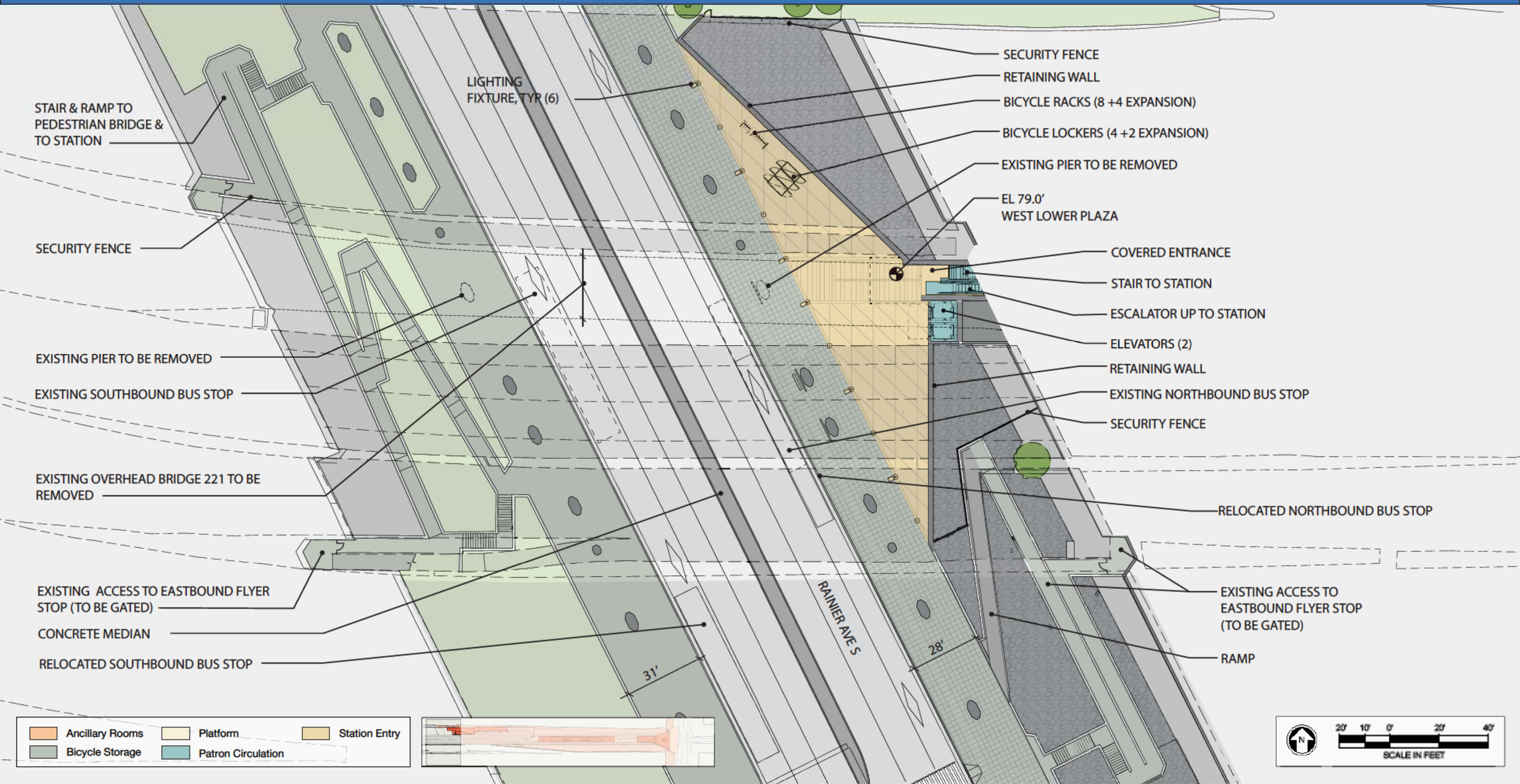
Ancillary Rooms
Bicycle Storage
Platform
Patron Circulation
Station Entry





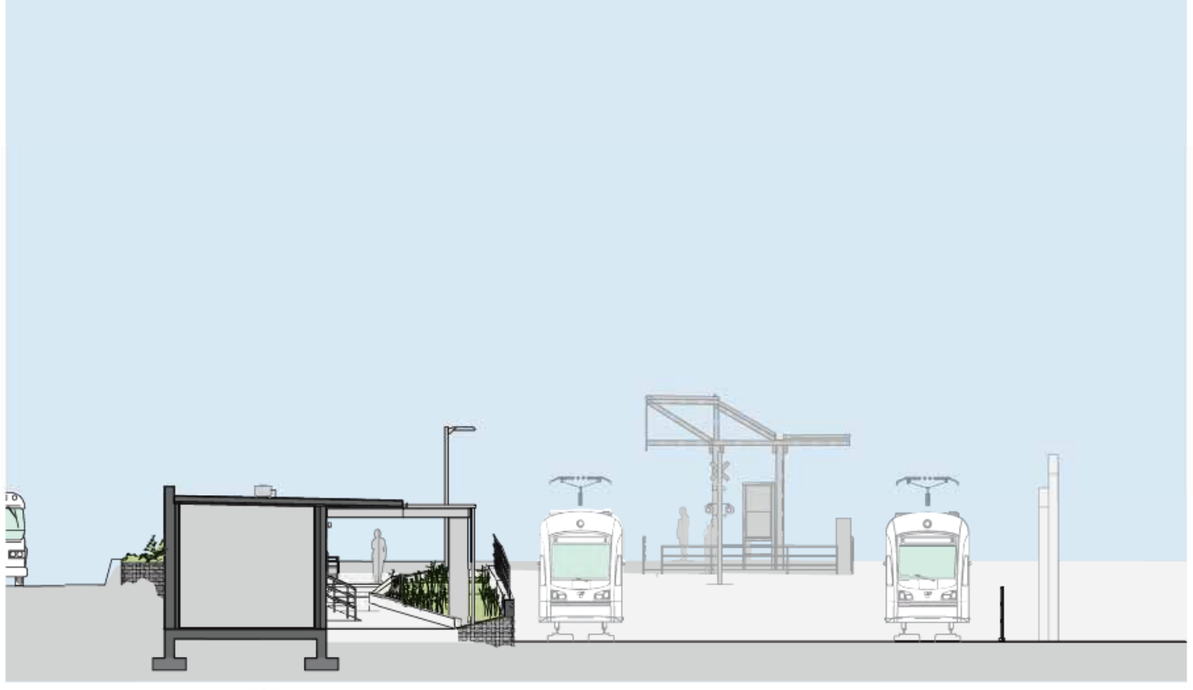

SERVICE VEHICLE PARKING
(2 SPACES)
I-90 OFF-RAMP
STAIR AND RAMP TO
PEDESTRIAN BRIDGE &
STATION ACCESS
EXISTING OVERHEAD
BRIDGE 221 TO BE
REMOVED
OVERHEAD PEDESTRIAN BRIDGE
WEST LOWER PLAZA
STAIR TO STATION
ESCALATOR UP TO STATION
ELEVATORS (2)
RELOCATED NORTHBOUND BUS STOP
RAMP
EXISTING BUS FLYER STOP ACCESS
(TO BE GATED)
SCL PAD MOUNTED TRANSFORMER
EXISTING BUS FLYER
STOP ACCESS
(TO BE GATED)
CONCRETE MEDIAN
SOUTHBOUND BUS STOP
NEW CROSSWALK
EXISTING CROSSWALKS
PATH 1 TRAVEL DISTANCE: 450'
PATH 2 TRAVEL DISTANCE: 800'
I-90 ON-RAMP
RAINIER AVE S
Ancillary Rooms
Bicycle Storage
Platform
Patron Circulation
Station Entry
N
40' 20' 0' 40' 80'
SCALE IN FEET

WEST ENTRY - LOWER PLAZA PLAN

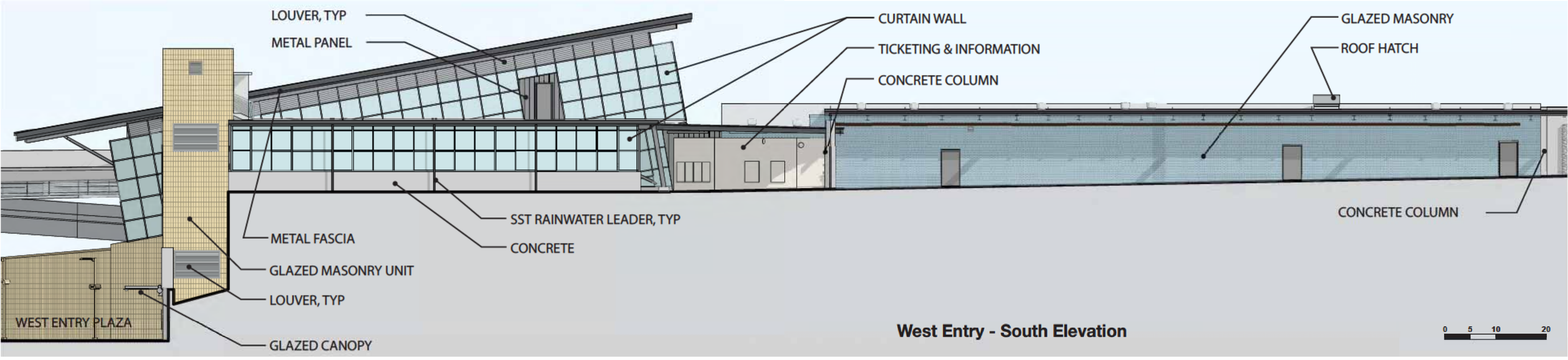


Key Longitudinal Site Section

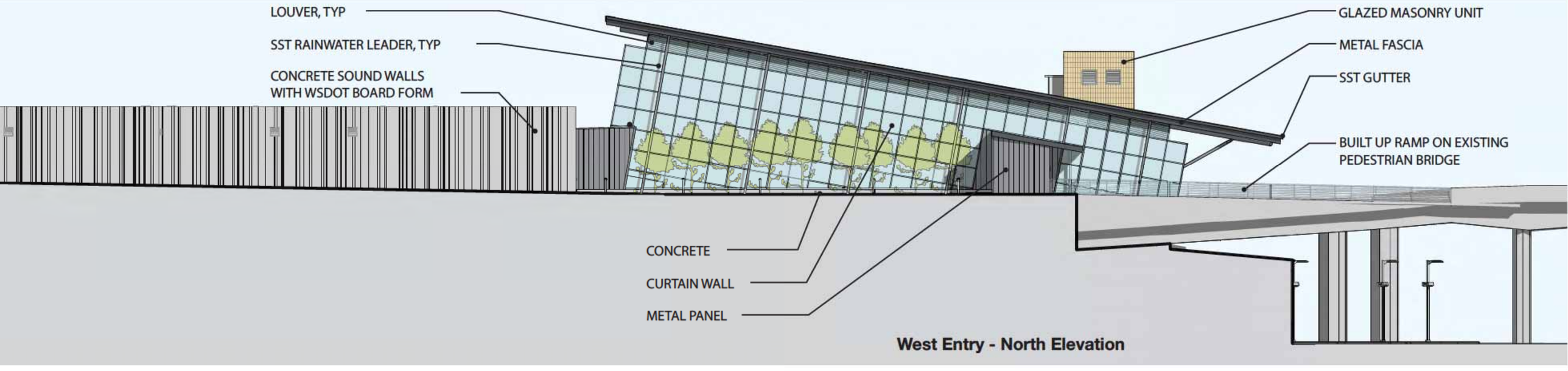
Section A



Section B

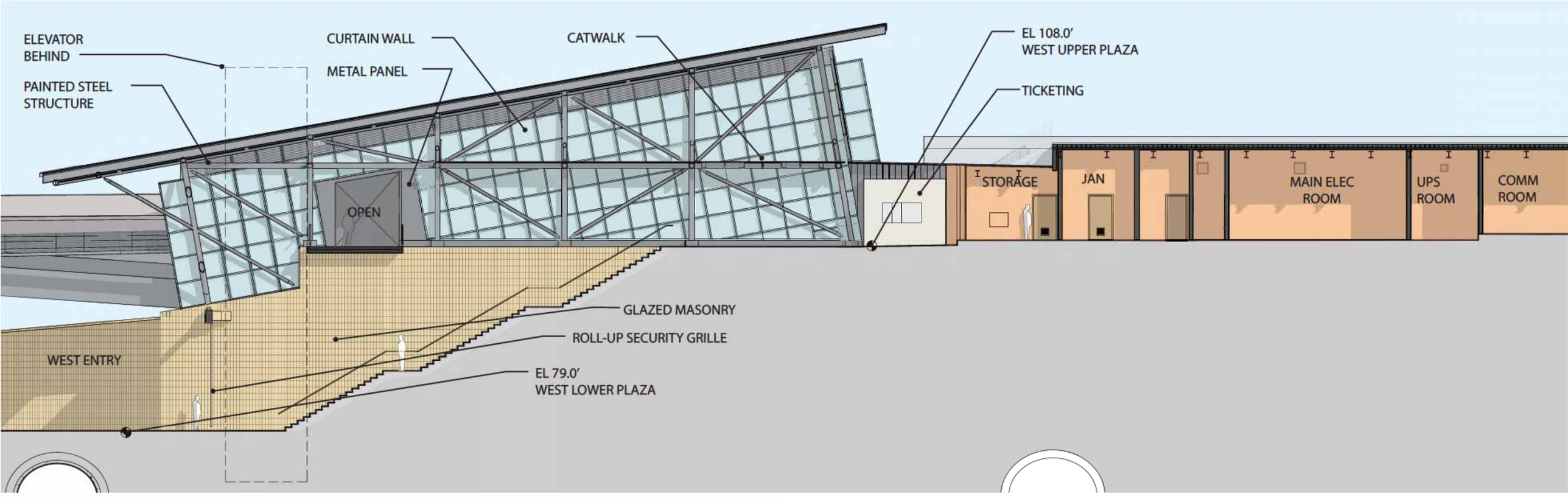


West Entry - South Elevation



West Entry - North Elevation

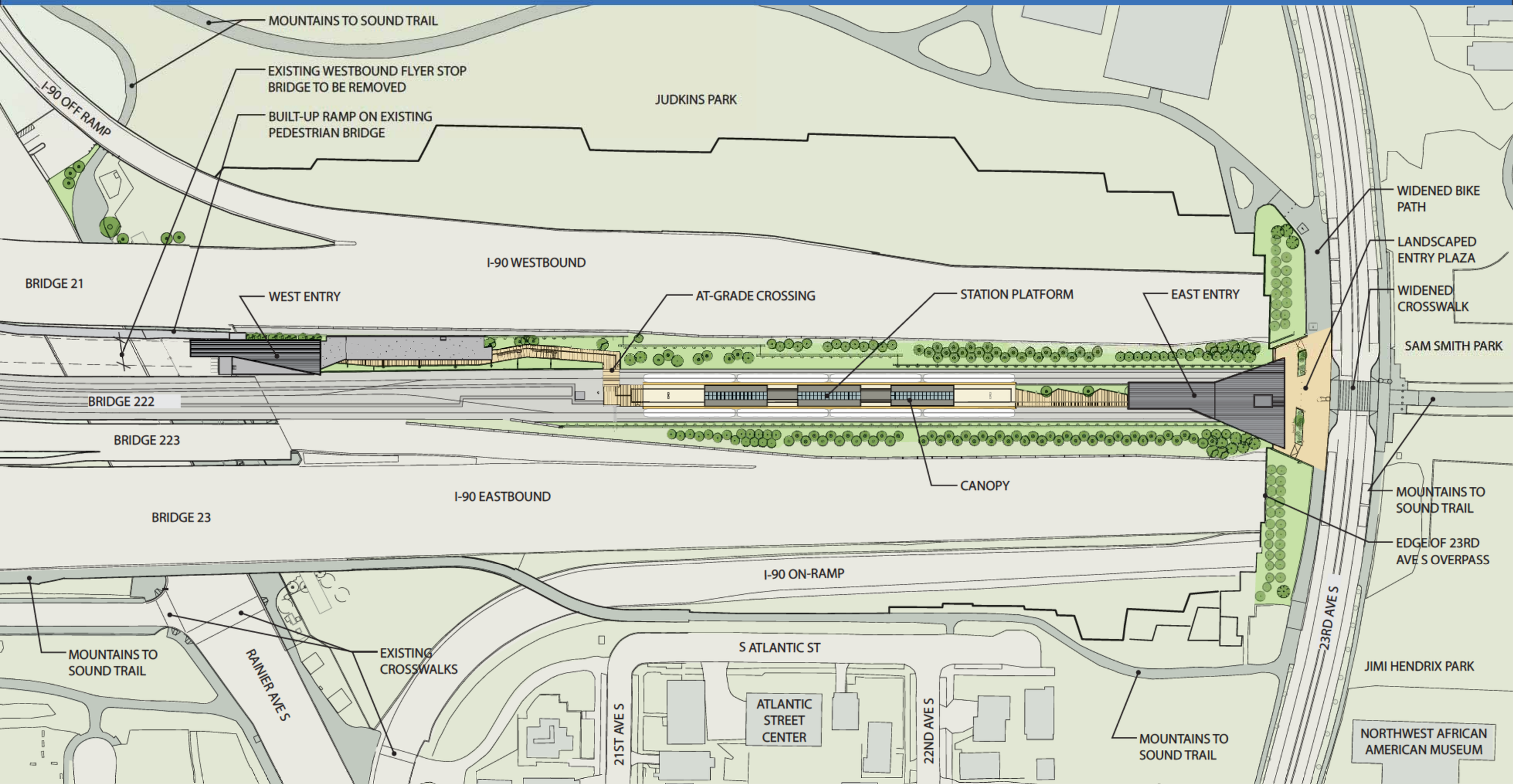
WEST ENTRY - BUILDING SECTION



WEST ENTRY AT RAINIER AVENUE SOUTH

Rainier Station

Station Landscape


MOUNTAINS TO SOUND TRAIL
EXISTING WESTBOUND FLYER STOP BRIDGE TO BE REMOVED
BUILT-UP RAMP ON EXISTING PEDESTRIAN BRIDGE
I-90 OFF RAMP
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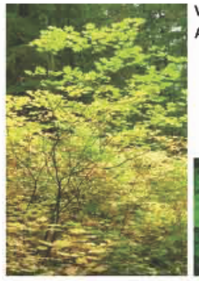
ATLANTIC STREET CENTER
22ND AVE S
23RD AVE S
JIMI HENDRIX PARK
MOUNTAINS TO SOUND TRAIL
NORTHWEST AFRICAN AMERICAN MUSEUM

TREES - EVERGREEN

INCENSE CEDAR
Calocedrus decurrens

AUSTRIAN PINE
Pinus nigra

TREES - DECIDUOUS



VINE MAPLE
Acer circinatum

DOUGLAS MAPLE
Acer glabrum

MAIDENHAIR TREE
Ginkgo biloba

CORAL BARK MAPLE
Acer palmatum 'Sango-Kaku'

STAGHORN SUMAC
Rhus typhina

SHRUBS

OREGON GRAPE
Mahonia aquifolium

SHRUB SERVICEBERRY
Amelanchier alnifolia

DWARF SWEETBOX
Sarcoccoca hookeriana humilis

KELSEY DOGWOOD
Cornus stolonifera 'Kelseyi'

OCEAN SPRAY
Holodiscus discolor

RED FLOWERING CURRANT
Ribes sanguineum

GROUNDCOVERS & PERENNIALS

HELLEBORE
Hellebore purpurea

EUPHORBIA
Euphorbia amygdaloides var. Robbiae

BECCA FLAX LILY
Dianella caerulea 'DCNCO' P.P.

GOLD STRIPE FLAX LILY
Dianella tasmanica 'Yellow Stripe'

DEER FERN
Blechnum splicant

LADY FERN
Athyrulum filix-femina

SWORD FERN
Polystichum munitum

SLOUGH SEDGE
Carex obnupta

SOFT RUSH
Juncus effusus var. Pacificus

SWORD LEAF RUSH
Juncus ensifolius

JAPANESE SPURGE
Pachysandra terminalis

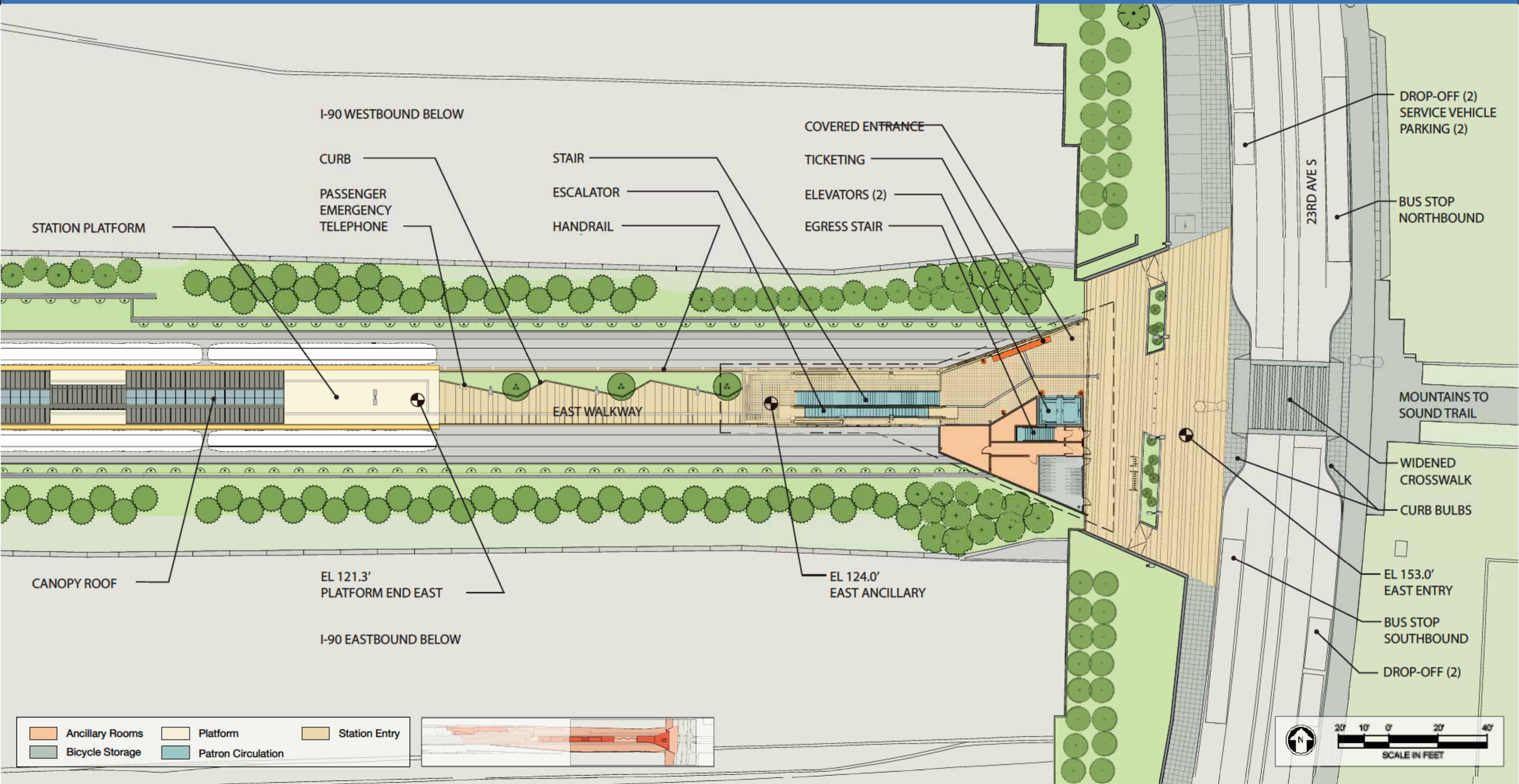
KINNIKINNICK
Arctostaphylos uva-ursi

LOW OREGON GRAPE
Mahonia nervosa

SALAL
Gaultheria shallon

VINES

BOSTON IVY
Parthenocissus tricuspidata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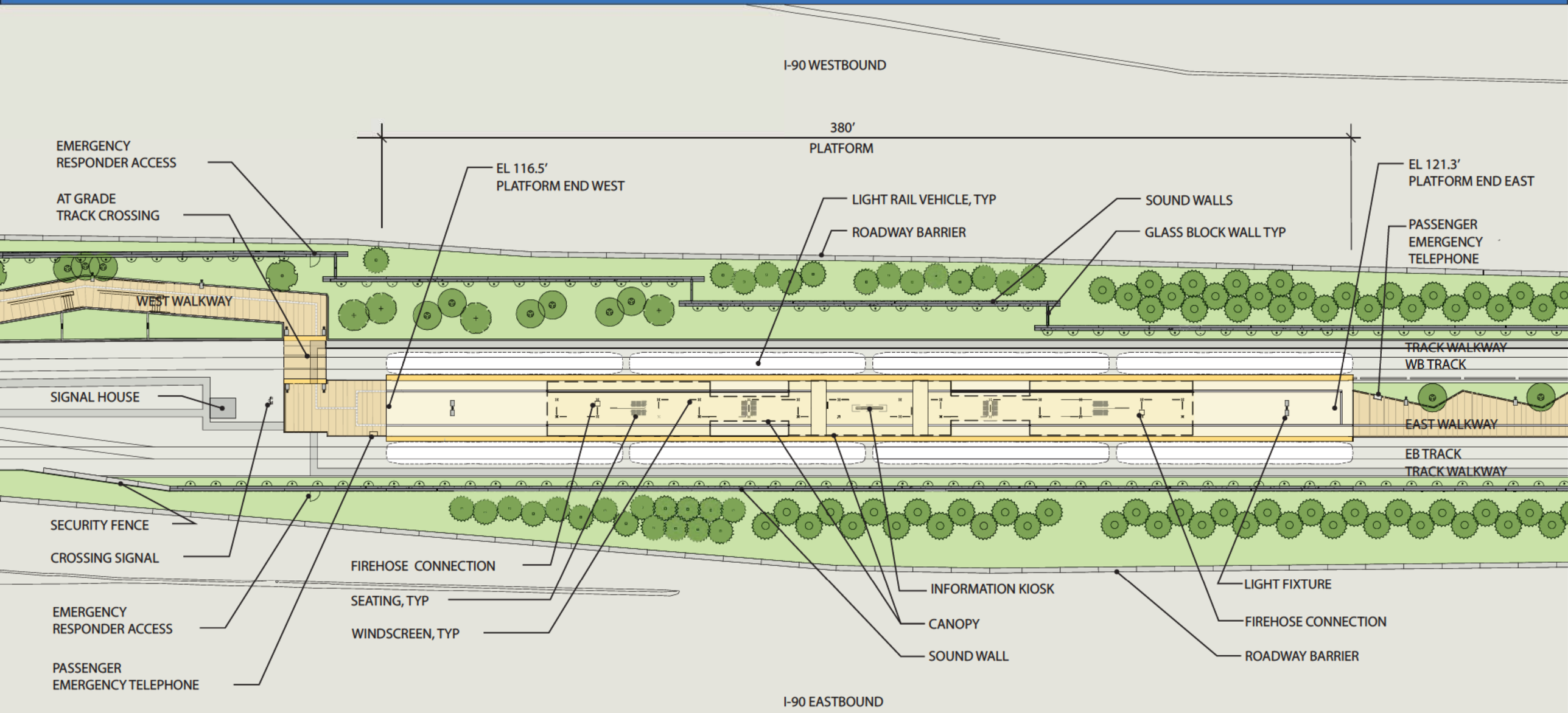
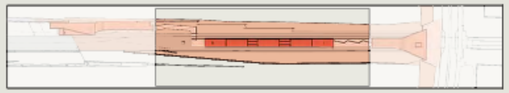
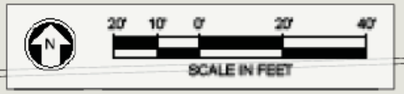
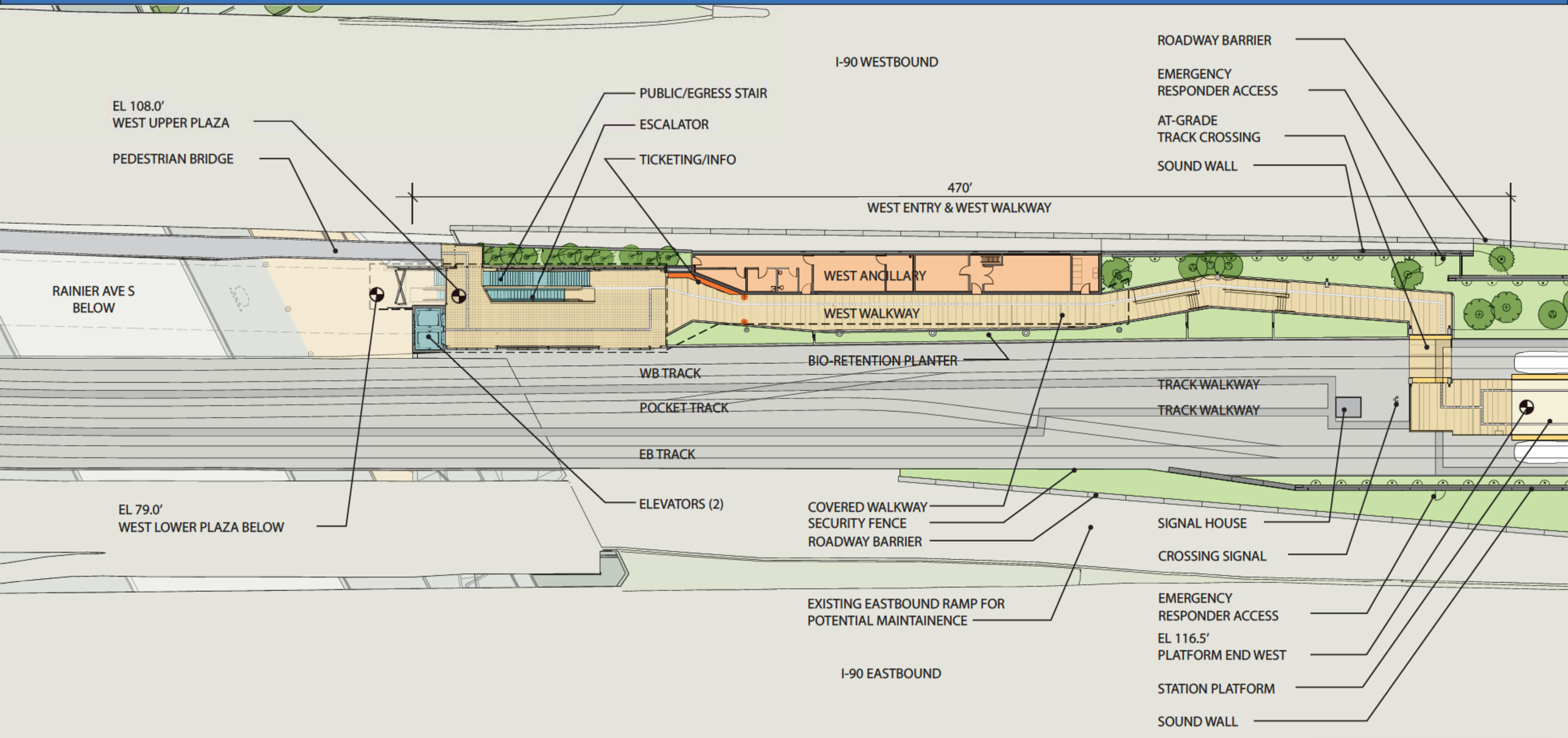
EAST WALKWAY
DROP-OFF (2)
SERVICE VEHICLE PARKING (2)
23RD AVE S
BUS STOP NORTHBOUND
MOUNTAINS TO SOUND TRAIL
WIDENED CROSSWALK
CURB BULBS
CANOPY ROOF
EL 121.3'
PLATFORM END EAST
EL 124.0'
EAST ANCILLARY
EL 153.0'
EAST ENTRY
BUS STOP SOUTHBOUND
DROP-OFF (2)
I-90 EASTBOUND BELOW
Ancillary Rooms
Bicycle Storage
Platform
Patron Circulation
Station Entry
N
20' 10' 0' 20' 40'
SCALE IN FEET



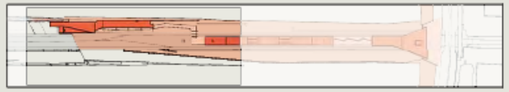
Ancillary Rooms
Bicycle Storage
Platform
Patron Circulation
Station Entry

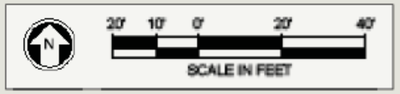






Ancillary Rooms
Bicycle Storage
Platform
Patron Circulation
Station Entry

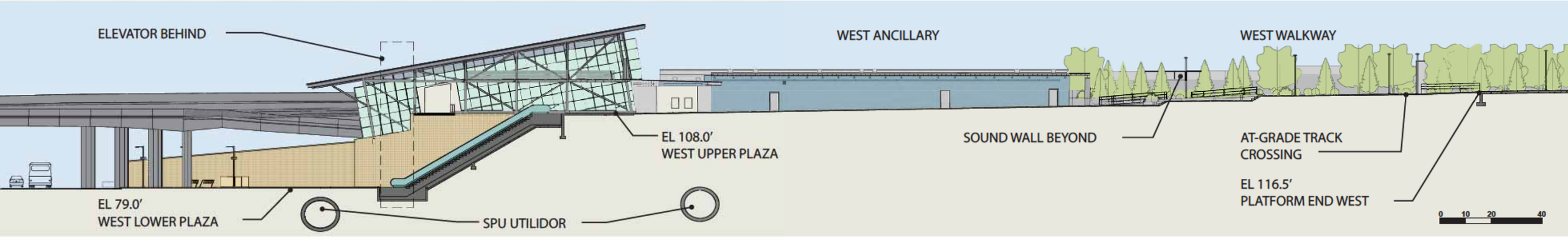


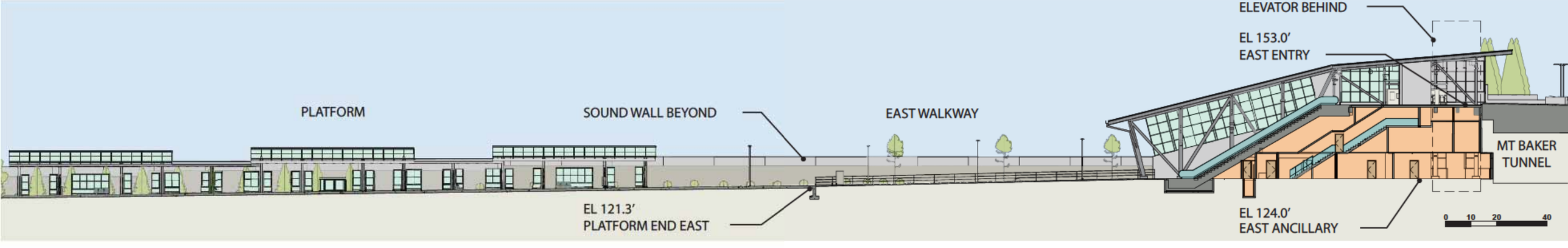


ST*art*

Station Art

220′
470′
380′
260′
WEST ENTRY
PLATFORM
EAST ENTRY
23RD AVE S
RAINIER AVE S
0 25 50 100


ELEVATOR BEHIND
WEST ANCILLARY
WEST WALKWAY
EL 108.0′
WEST UPPER PLAZA
SOUND WALL BEYOND
AT-GRADE TRACK
CROSSING
EL 116.5′
PLATFORM END WEST
EL 79.0′
WEST LOWER PLAZA
SPU UTILIDOR
0 10 20 40


ELEVATOR BEHIND
EL 153.0′
EAST ENTRY
PLATFORM
SOUND WALL BEYOND
EAST WALKWAY
MT BAKER
TUNNEL
EL 121.3′
PLATFORM END EAST
EL 124.0′
EAST ANCILLARY
0 10 20 40

EAST ENTRY AT 23RD AVENUE SOUTH

Questions and Comments: Station Design, Landscape, and Art