EAST LINK EXTENSION

S DEAN STREET SUPPORT STRUCTURE - PLAN AND PLANT MATERIALS



S DEAN STREET SUPPORT STRUCTURE - ELEVATIONS AND PERSPECTIVE VIEW











work zone safe.



Typical Light Rail Construction Sequence EAST LINK EXTENSION

to run light rail track and builds stations and supporting infrastructure.

and operate the signals.



communications, safety and emergency systems, as well as signals and crossing gates.

I-90 Seismic Retrofit

EAST LINK EXTENSION



D Micropile installation

Micropiles are installed to add additional anchoring support for the West Approach structure.





Steel dowels are added and covered in epoxy to form a connection between existing concrete and new concrete. Over 5,000 steel dowels will be installed.





Steel jackets will be added to some existing columns and will be delivered by barge. The heaviest piece is 11,000 pounds.





A Post-tensioning

Post-tensioning is a method to strengthen concrete by adding steel strands to existing concrete. The steel strands are anchored to various points on the bridge. The steel strands are then jacked to very high stresses and then released. The end result is

5 Stiffeners

Longitudinal stiffeners are added to the box girders.



compressed and stronger concrete.













Crossing Lake Washington EAST LINK EXTENSION

Pioneering engineering

As part of the East Link extension, Sound Transit will do something that's never been done before—run light rail trains across a floating bridge.

To do this, engineers and designers had to consider a number of factors, including six ranges of motion as trains travel onto the floating portion of the I-90 bridge. Here's how we stepped up to the challenge.





What did we do?

To accommodate running trains from the land bridge to the floating bridge, Sound Transit built two life-size test "track bridges." The track bridges consist of rails that rest on a series of bearings and plates to let them move with the changing lake levels and bridge movements.

Passing the test

Sound Transit shipped the test bridges and two light rail vehicles to the Transportation Technology Center (TTC) in Pueblo, Colorado, where freight and commuter rail agencies from around the country test new technologies.

At the TTC, Sound Transit was able to mimic the forces and movements the track bridges will experience during normal and extreme conditions, including lake level, sway, roll and surge forces.





The results

After collecting more than 500 channels of data during each light rail vehicle pass, the track bridges passed all critical test criteria with the ability to provide safe and comfortable light rail service at speeds up to 55 mph.

> Learn more about the track bridge and watch a video soundtransit.org/trackbridge







JUDKINS PARK CONSTRUCTION TIMELINE

EAST LINK EXTENSION



BLOCK 2 D2 Roadway

Schedule subject to change

ACTIVITY	2018	2019	2020	2021	2022	2023
Seismically retrofit concrete supports and superstructure						
Install wire system used to supply electrical power to light rail vehicles (overhead catenary system or OCS)						
Install electrical/control system/signals						
Install traction-powered (electrical) substation (TPSS)						
System installation commissioning and testing (to ensure everything meets operational requirements)						

BLOCKS 3, 4, 5 Judkins Park Station

ACTIVITY	2018	2019	2020	2021	2022	2023
<u>General</u>						
Demolition						
Station construction						
Install electrical/control system/signals						
Install utilities						
Install overhead catenary system (OCS) and track						
System installation commissioning and testing						
<u>Specific</u>						
Demolish Rainier Flyer bus stop located on I-90 at Rainier Avenue						
Construct station entrances, entryways and building structures						
Construct platform						
<u>Impacts</u>						
Localized impacts to haul routes						
Intermittent Rainier Avenue South weekend closures						

BLOCK 6 Mt. Baker Tunnel

ACTIVITY	2018	2019	2020	2021	2022	2023
Domolition						
Demonuon						
Tunnel modifications (OCS, fans, lighting)					••••••	
Install utilities						
Install track						
Install electrical/control systems/signals						

Commission tunnel			

System installation commissioning and testing

BLOCKS 7, 8, 9, 10 Floating Bridge

ACTIVITY	2018	2019	2020	2021	2022	2023
Pontoon post-tensioning						
Seismically retrofit footings and superstructure						
Install overhead catenary system, track and track bridge system						
Install electrical/control systems/signals/cathodic protection						
Install traction powered substations						
System installation and testing						
						04/18









.

EAST LINK EXTENSION

SITE PLAN



LONGITUDINAL SITE SECTION

EAST LINK EXTENSION

WEST PEDESTRIAN BRIDGE ACCESS – WEST OF RAINIER AVENUE S

ARTWORK AT RAINIER AVENUE S

EAST LINK EXTENSION

PLATFORM CANOPY LOOKING WEST

ARTWORK AT PLATFORM – PLAN

ARTWORK AT PLATFORM

JUDKINS PARK STATION - FINAL DESIGN EAST LINK EXTENSION

EAST LINK EXTENSION

CONTEXTUAL PLAN

AERIAL PERSPECTIVE

EAST LINK EXTENSION

WEST ANCILLARY AND TICKETING AREA – LOOKING EAST

EAST LINK EXTENSION

MT BAKER SUPPORT STRUCTURE - AERIAL VIEW

LOCATION "A"

Gaultheria shallon

Word Fern Polystichum munitum

LOCATION "B"

MT BAKER SUPPORT STRUCTURE - PLAN AND PLANT MATERIALS

MT BAKER SUPPORT STRUCTURE- PERSPECTIVE AND ELEVATION DRAWINGS

VIEW LOOKING SOUTHEAST FROM STAIRS

VIEW LOOKING NORTHWEST FROM MOUNTAINS TO SOUND TRAIL

Perforated corten steel panels

Painted steel guardrail

0ct 2016

I-90 SEGMENT: SEATTLE OVERVIEW EAST LINK EXTENSION

Benefits:

- Provides access to high
- Approximately 3,000 daily Park Station (2030)
- goals to promote urban and facilitate access to employment centers for access to the Eastside

quality, frequent transit service that operates 20 hours per day station boardings at Judkins • Meets the City of Seattle's villages, link urban centers, residents with expanded

Trave times (from Judkins Park Station) • International District/Chinatown = 5 minutes University of Washington = 8 minutes • Bellevue Transit Center = 15 minutes • SeaTac Airport = 39 minutes (with transfer at International District Station)

LIGHT RAIL ALIGNMENT EAST LINK EXTENSION

Rider projection: About 50,000 riders will use East Link every day by 2030

July 2014

JUDKINS PARK COMMUNITY OUTREACH EAST LINK EXTENSION

Community Outreach's mission is to represent Sound Transit's interests in the community, and construction, it is our job to keep community for Sound Transit's projects.

Good Neighbor Commitments:

- Provide advanced notification of work activities.
- Maintain business and residential access.
- Maintain a clean work site.
- Minimize noise, dust and debris.
- Provide wayfinding and signage.
- 24-hour construction hotline.

the community's interests in Sound Transit. During members informed of major construction activities and project progress. We are your point of contact

Contact us

tel: 206-398-5465 email: eastlink@soundtransit.org web: soundtransit.org/eastlink **24-hour Construction Hotline:**

1-888-298-2395

For issues that need immediate attention after normal business hours

