

Construction activities – Option A

Exhibit 3-9. Option A - Construction of the Montlake Interchange



View showing existing Montlake interchange



- Demolition of MOHAI and NOAA facilities
- Montlake lid walls
- Temporary westbound off-ramp



- Montlake Boulevard lid and crossing
- North half of Montlake lid near 24th Avenue E
- Westbound off-ramp, mainline and bicycle/pedestrian path
- Temporary eastbound off-ramp from Portage Bay Bridge



- South half of the Portage Bay Bridge
- Eastbound off-ramp
- Eastbound SR 520 mainline
- South half of Montlake lid near 24th Avenue E

Construction activities – Option K

Exhibit 3-11. Option K - Construction of the SPUI and Tunnel



View showing existing Union Bay Bridge and unused R.H. Thomson ramps, MOHAI building, and McCurdy Park.



- Temporary detour bridge
- Secant pile wall around depressed SPUI
- Ground freezing under Montlake Cut
- Demolition of existing SR 520 mainline Union Bay Bridge
- Westbound off-ramp to Montlake



- Drilled shafts to support boat section in Lake Washington
- Excavation of depressed SPUI section and ramps
- Excavation of tunnel



- Micropile tie-downs in SPUI floor
- Elevated mainline through boat section



- Mainline bridges over depressed SPUI and ramps
- North half of lid at 24th Avenue E

Construction activities – Option L

Exhibit 3-13. Option L - Construction of the SPUI and Bascule Bridge



- Work bridges for new west approach bridge
- Clearing and grubbing for SPUI ramps and Montlake Cut crossing
- Demolition of MOHAI building



- Drilled shafts for west approach bridge and Montlake Cut crossing bridge
- Wall for the north half of elevated SPUI
- Excavation for bascule bridge foundations
- Demolition of westbound off-ramp to Montlake Blvd



- HOV direct-access ramps and westbound mainline
- North half of west approach bridge
- North SPUI ramp approach
- Approach to new bascule bridge



- HOV direct-access ramps and westbound mainline
- South half of west approach bridge
- South SPUI ramp approach
- Bascule bridge drawspan

Construction durations

	Option A	Option K	Option L
I-5/SR-520 Interchange	21 months	21 months	21 months
10 th Avenue and Delmar Lids	27 months	27 months	27 months
Portage Bay Bridge (north half)	30 months	30 months	30 months
Portage Bay Bridge (south half)	42 months	42 months	42 months
Montlake Interchange and Lid	45 months	Not applicable	Not applicable
Single point urban interchange, Montlake Lid: Lake Washington Blvd South of SR 520	Not applicable	78 months	60 months
Pacific St./Montlake Blvd. intersection with Lid	Not applicable	18 months	18 months
New Bascule bridge	27 months	Not applicable	30 months
Tunnel from SR 520 to Pacific Ave./Montlake Blvd. E.	Not applicable	45 months	Not applicable
West approach (north half)	30 months	54 months	30 months
West approach (south half)	30 months	30 months	30 months
Floating bridge and east approach	54 months	54 months	54 months
Bridge maintenance facility	24 months	24 months	24 months

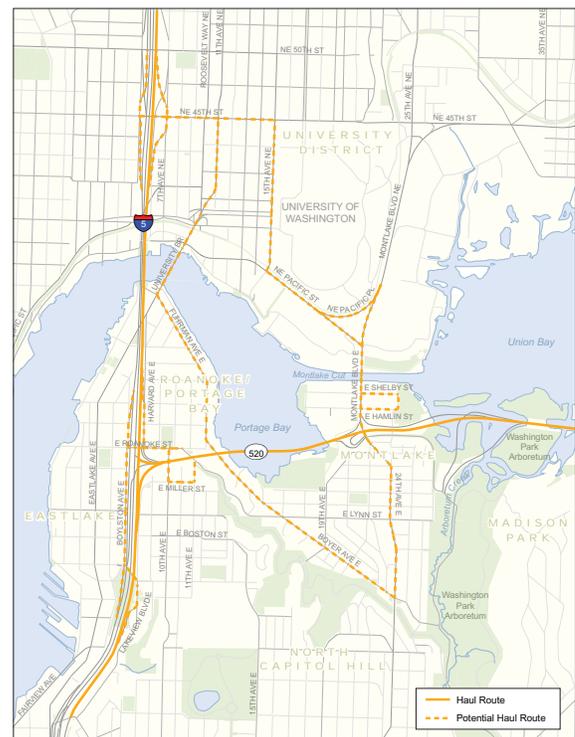
Different construction elements can be constructed at the same time.

What to expect during construction

Members of local communities will notice a wide variety of activities during construction of the project, including:

- Staging areas on land and water.
- Completing activities on land, work bridges and from barges outfitted with cranes.
- Materials transported to and from the construction sites by trucks and barges on designated haul routes.

Haul routes will be determined in consultation with local jurisdictions and community residents.



Potential haul routes.

Estimated number of peak construction period haul route trips on local highways						
	Per day			Per hour		
Regional Freeway	A	K*	L	A	K*	L
SR 520	350	620	420	45	70	65
I-5	270	400	300	35	55	50
I-405	190	320	220	20	40	35

*The hauling of material out of the single point urban interchange and tunnel (Option K) would typically occur for 10 hours per day, and occasionally for up to 16 hours per day.

Construction effects

Geology and soils

Each option would require excavation and grading for cuts and fills, and/or installation of bridge and retaining wall structures.

Excavation and import volume (cubic yards)	
Option A	340,000 cubic yards excavation
	86,000 cubic yards excavation
Option K	1,300,000 cubic yards excavation
	320,000 cubic yards excavation
Option L	450,000 cubic yards excavation
	52,000 cubic yards excavation

Hazardous materials

The project would remove any contaminated soil or groundwater encountered during construction, leaving the project area cleaner than it was before.

Construction effects could include:

- Encountering contaminated soils, groundwater, or sediments.
- Exposing hazardous compounds such as asbestos during demolition of older buildings.
- Encountering abandoned underground fuel storage tanks and decommissioning them.
- Encountering methane gas during construction near landfills.
- Accidental spills.

Under Options K and L, methane gas from the former Montlake Landfill could be encountered during construction. WSDOT would conduct gas monitoring for all construction within 1,000 feet of the landfill boundary.