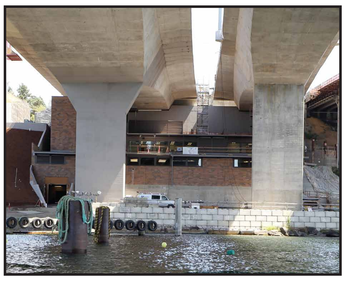
WSDOT

WSDOT CREWS HAVE NEW TOOLS TO MAINTAIN AND OPERATE NEW BRIDGE

There's more than meets the eye on the new State Route 520 floating bridge. Between its 1.5-mile-long concrete surface and the bottoms of its huge pontoons are an array of components and systems, some quite innovative, for ensuring bridge reliability and the safety of the traveling public. Maintaining those systems and managing this new floating highway is the job of WSDOT crews stationed both here at the bridge and in other offices on both sides of Lake Washington.



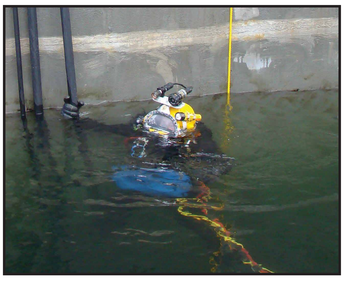
The floating bridge's maintenance crew is based in this new operations center, maintenance shop and warehouse, all tucked beneath the bridge's East Approach, along the Medina shoreline.

WSDOT crews will perform detailed inspections of the new bridge on a regular schedule, conduct routine maintenance, and make emergency repairs as needed.

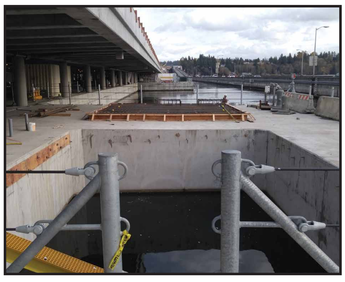
The floating bridge contains 300 miles of electrical wiring that powers such things as bridge lights, fire-suppression systems, leak-detection sensors, traffic-management systems, boater 911 phones, and a dock de-icing system (shown here).

WSDOT's Traffic Management Center in Shoreline is digitally linked to the new bridge maintenance facility's control consoles and to the bridge's remote sensors and system controls.

With wide shoulders for disabled cars, the new bridge will allow WSDOT's incident-response teams to assist stranded motorists without blocking highway traffic.



Below the lake's surface, the bridge's pontoons, anchors and anchors cables will be inspected annually by divers and by remotely operated underwater cameras.



Stormwater runoff from the bridge deck is carried by drain pipes to wells in the middle of many of the bridge's 54 supplemental stability pontoons. To improve water quality in the lake, captured oil and other pollutants are skimmed from the wells and properly disposed of.

A large backup generator, controlled by the panel shown here, ensures that the bridge's maintenance facility and electrical components remain operational during a power outage.

If a vehicle fire occurs on the bridge, responding firefighters will connect their hoses to "stand pipes" located at regular intervals along the bridge. Akin to a fire hydrant, the stand pipes draw water directly from the lake.