





# Pattullo Bridge Replacement Project

# Bridge foundation construction

## About the Pattullo Bridge Replacement Project

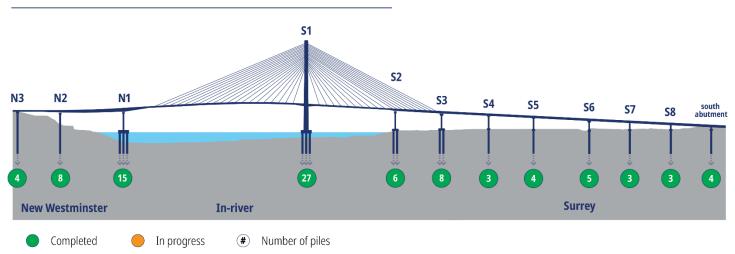
The new four-lane, toll-free bridge will provide important safety and reliability improvements for people who are driving, cycling or walking, as well as communities on either side of the bridge. The new bridge is scheduled to open in 2024. Once the new bridge is open, the existing bridge will be removed.

### Pile installation for main bridge foundations

Pile installation for the main bridge foundations is complete. In total, crews installed 90 piles at 12 piers. Work to build the bridge tower (S1 in the illustration below) continues as crews complete 33 segment jumps in 5-metre incremenents.

In New Westminster, a drilled shaft methodology was used instead of intermittent pile driving, to minimize noise and vibration for nearby residents.

In Surrey, crews would drive a steel pile into the ground, then stop to weld another steel pile section onto the driven pile, and then start up again until the pile reached the required depth.



### Pattullo Bridge Replacement Pile Installation Progress

### **Contact the Project**



**24/7 Construction** Information Line 1-844-815-6149

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Project Information pattullobridgereplacement.ca pattullobridgeproject@gov.bc.ca



Work on the Project bcib.ca info@bcib.ca

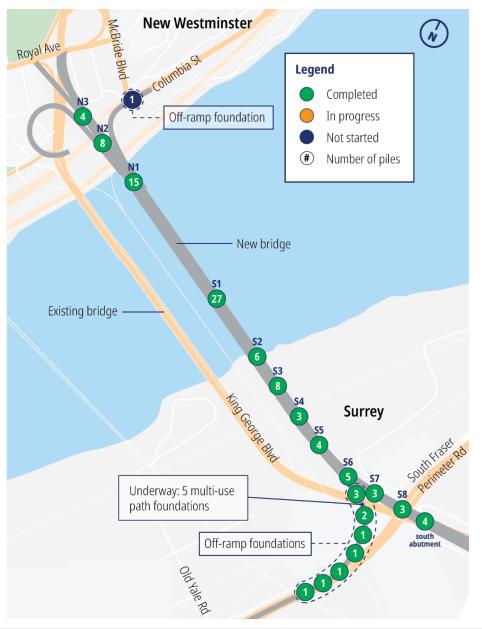






#### Foundations for off-ramps in New Westminster and Surrey

In addition to the main bridge foundations, eight off-ramp foundations are being built – one in New Westminster near the McBride Boulevard-East Columbia Street intersection, and seven for the off-ramp between the bridge and Highway 17 in Surrey. There are also five foundations for the multi-use path (MUP) ramp in Surrey and three foundations for the MUP ramp in New Westminster.



#### **Contact the Project**



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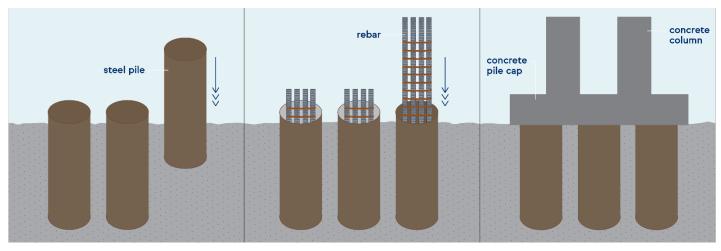




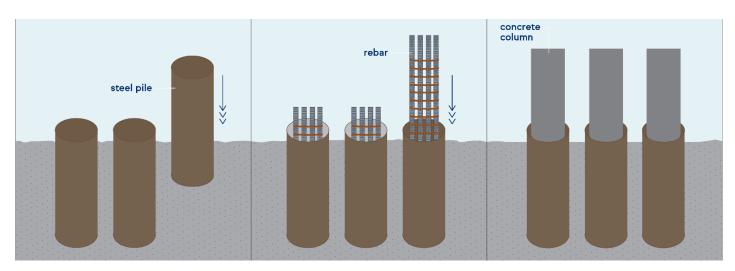


#### **Building the foundations**

After the steel pile is driven or drilled into the ground, it is filled with rebar, followed by concrete to fill and "plug" the pile. There are two ways to continue from this point – either to pour another layer of concrete to cap the pile, or proceed directly to pouring concrete columns that are filled with rebar directly on top of the piles, to support the bridge deck.



A pile cap is used on the S1 main tower foundation as well as piers N1, N3, S2 and S3. On pier N3, structural steel columns extend from bearing pedestals which sit directly on the pile cap.



Concrete columns will be poured directly on top of the piles for piers N2, S4, S5, S6, S7, S8 and foundations for the Highway 17 off-ramp in Surrey.





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