William R. Bennett Bridge

By 2005, over 50,000 vehicles a day were crossing Okanagan Lake Bridge in Kelowna. Built in the mid-50s, the bridge wasn't designed to handle such a massive volume of traffic. It was also reaching the end of its functional life. The Okanagan Lake Bridge needed to be replaced.

In May 2008, a new five-lane bridge opened to the public. It's known as the William R. Bennett Bridge. This new five-lane structure relieves congestion along Highway 97, the second busiest highway in the province. The new bridge ensures the safe and efficient movement of people and goods through the Kelowna corridor. It plays a crucial role in growing the regional economy, particularly the Okanagan's signature tourism industry.

Frequently Asked Questions

Are there different sections to the William R. Bennett Bridge?
Yes. The bridge has a fixed section at either end and a floating section in the middle. Between these sections are flexible joints. These joints allow the floating section to move in bad weather, to expand and contract when the temperature changes, and to move when the lake level rises and falls.

Pedestrians will scarcely notice this movement, though. The bridge is held steady by 24 large anchors attached to the lake bottom. These anchors are adjusted twice a year as the lake levels drop or rise.

What is the floating section made out of?
The floating section of the bridge is made up of nine giant concrete slabs called pontoons. The pontoons are connected to each other with 148 individual steel connectors located around the perimeter of each pontoon (i.e., top, bottom and sides).

One of the concrete pontoons being moved into position.

How does this section of the bridge float?
Concrete is heavier than water so you'd think the pontoons would sink. They don't, though, because they're hollow and weigh less than the water beneath them.

Will the bridge sink if the wall of one of the pontoons is penetrated?
No, each pontoon is made up of many separate watertight compartments. If one of the compartments is flooded, the others won't be affected. The bridge will remain operational.

Why a floating bridge?
Okanagan Lake is very deep and it has very poor soil conditions. It would be extremely difficult and costly to attach the bridge to the lake bottom. (There are anchors but these aren't permanent attachments.)

The William R. Bennett Bridge is one of only 12 existing floating bridges in the world.

How do boats get through?
The middle portion of the bridge slopes gently upwards (6% grade) to a height of 18 metres above the lake surface. Boats can easily pass under the bridge here. This is a vast improvement from the old Okanagan Lake Bridge, which had a centre section that lifted to allow boats to pass underneath. This caused serious traffic delays on the bridge.

How many lanes are on the new bridge?
There are 5 lanes, 3 westbound (to Westbank) and 2 eastbound (into Kelowna). There is a fixed concrete barrier in the middle separating the traffic.

How do pedestrians and cyclists cross the bridge?
There's a 3m wide sidewalk on the south side of the new bridge for pedestrians and cyclists.

Why is the new bridge called the William R. Bennett Bridge?
The bridge was named in honour of Bill Bennett, a resident of Kelowna and BC's Premier from 1975-86.

What are the dimensions of the bridge?
- The bridge is almost 1063 metres long.
- Its highest point is 21 metres.
- The height from the lake surface to the highest point under the bridge is 18 metres.
- The bridge is almost 50 metres wide.
- The floating section of the bridge is 700 metres long.

Construction Timeline

July 2005
Construction begins on the graving dock where the concrete pontoons will be built.

December 2005
The graving dock is complete. Pontoon construction is ready to begin.

May 2006
Construction completed on the first concrete pontoon.

Fall 2006
Work begins on the west and east end approach roads.

December 2006
First four pontoons are installed at the bridge site.

Winter 2007
Construction of the bridge deck begins.

Q4 2007
All pontoons are now in place at the bridge site.

Q4 2007
Approach roads on either end of the bridge are completed.

Q1 2008
Bridge deck construction is completed.

Spring 2008:
Test and commission of bridge.

May 2008
Grand opening of the new William R. Bennett Bridge.