

# Northgate Bridge (USA)



## Project description

The Northgate neighbourhood in Seattle has been witnessing a rapid urban development.

With new and planned mixed use infill development and a new light rail station currently under construction, upgraded pedestrian and bicycle improvements were needed to better connect the surrounding neighbourhoods.

The new bridge relinks the western neighbourhoods and North Seattle College across Interstate 5 to the future rail station, transit centre, bicycle pathways, and commercial core of the area.

The bridge's tubular structural integrates the twenty-foot wide walking surface, guardrails, throw barriers, handrails, lighting, and drainage systems into a singular unit.

## mageba scope

To support the bridge's unique structure mageba supplied 4 RESTON®DISC bearings (fixed and guided) with 360 kips (1,600 kN) of vertical load capacity and 4 RESTON®DISC UPLIFT bearings (fixed and guided) with 150 kips (670 kN) vertical load capacity.

The four bearings that required uplift protection, to prevent uplift when large upward forces act, were accommodated with an internal uplift pin connection and an additional uplift claw at the sliding interface of the guided bearings.

All products were designed to resist large horizontal forces, up to 45% of the vertical load, and connected with bolts to the superstructure and the substructure in order to facilitate easy replacement in the future.

## Highlights & Facts

### mageba products:

Type: RESTON®DISC and RESTON®DISC UPLIFT bearings

Installation: 2020

### Structure:

City: Seattle (WA)

Country: USA

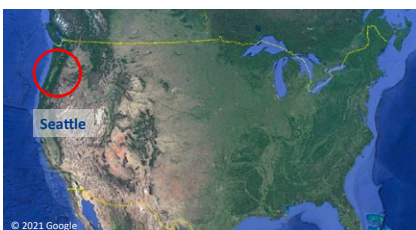
Type: Pedestrian bridge

Span: 628 m (2,060 ft.)

Owner: City of Seattle

Contractor: Kraemer North America LLC

Northgate Bridge is situated in downtown Seattle



Disc bearing during assembly



A RESTON®DISC bearing ready for shipping

