

Adler - Alpika-Service Road PK401 (Russia)



Project description

In preparation for the 2014 Winter Olympics in Sochi, a new road was built between Adler and Alpika-Service, to improve access to the main alpine facilities of the resort at Krasnaya Polyana. A bridge was constructed at PK401 (km 40.1) of this road to cross a flood plain of the adjacent Mzymta river. The three-span structure has a steel deck and concrete abutments and piers.

Since the resort is in a seismically active area, the structure had to be designed and constructed to accommodate seismic ground movements. This was particularly important for the bridge's mechanical components – its bearings and expansion joints.

mageba scope

To resist vertical forces on the bridge's deck, mageba supplied 8 free-sliding RESTON®SPHERICAL bearings (type KA), to carry loads of up to 7,600 kN and facilitate movements of up to 300 mm longitudinally and +/- 550 mm transversely. Each of the bearings was equipped with clamps to resist seismic uplift forces.

To resist horizontal forces, mageba supplied RESTON®FORCE shear keys (type F) and a shear pin (type S).

Expansion joints for the deck were also supplied by mageba - a TENSA®MODULAR joint (type LR3) and a TENSA®GRIP single gap joint (type RS-A), one at each end.

Highlights & facts

mageba products:

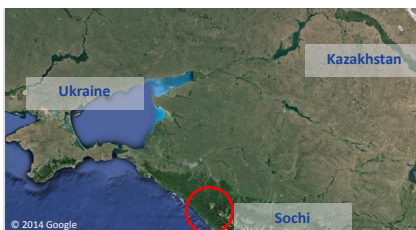
Product: RESTON®SPHERICAL KA uplift bearings, RESTON®FORCE types F and S shear keys/pins, TENSA®MODULAR (LR3) and TENSA®GRIP joints

Installation: 2012

Structure:

Location: Sochi ski resort
Country: Russia
Completed: 2012
Type: Steel road bridge

The bridge provides access to the Krasnaya Polyana ski resort near Sochi in southern Russia.



A free sliding bearing designed for large transversal movements, with uplift clamps.



A TENSA®MODULAR joint (type LR3) during installation at one end of the bridge's deck.

