

Raftsundet Bridge

Raftsundet Sound, Norway

Location: Raftsundet Sound, Norway

Contractor: AS Anlegg

Owner: Statens Vegvesen, Nordland (Ministry of Roads & Transportation)

Engineer: Dr. Ing Aas-Jakobsen

Architect: Boarch Arkitekter A/S

Located more than 300 kilometers north of the Arctic Circle, the recently completed Raftsundet Bridge provides a road connection between the Lofoten Archipelago and Norway's mainland highway system.

The bridge is a continuous post-tensioned, cast-in-place, box section concrete bridge, supported by three towers of slender, rectangular twin columns. The four spans are 86, 202, 298, and 125 m long respectively. The central 224 m of the 298 m main span is constructed of high performance lightweight concrete. The high absorption of expanded clay or shale aggregates normally used in Europe does not typically permit pumping of lightweight concrete. However, extensive testing showed that by using STALITE rotary kiln expanded slate lightweight aggregate, concrete could be pumped without adverse affects on the concrete properties. The hardened density of the lightweight concrete was 19.75 kN (125 pcf) with a 28-day compressive strength of 60MPa (8,700 psi).



Built with

