Stolmen Bridge

OWNER/CLIENT: Norwegian Road Authorities, Hordaland
CONSULTANT: Instanes A/S
CONTRACTOR: NCC Eeg-Henriksen
MAIN SPAN: 301 m (world record for free-cantilever bridges)

CONCRETE VOLUME: C65 9,850 m³
                LC60 1,600 m³

Stolmen bridge, built in 1998, with a main span of 301 m and total length of 467 m, holds the current world record for free-cantilevering concrete bridges. 184 m in the middle of the of the main span was built with high-strength lightweight aggregate concrete LC60. C65 ND concrete was used for the rest of the superstructure.

Mean compressive cube strength, 28 days: 70,4 MPa
Mean density of watercured LC60 cubes after 28 days: 1940 kg/ m³

MIX DESIGN FOR THE LC60: kg/m³
Cement             420
Silica             35
Sand (0-8)         700
HF Leca 800, 4-12 mm 600
Water (absorbed in aggregate) 48
Water (added)      160
AEA (Rescon L)     0,08
Stabiliser (Melstab) 10
Retarder (Rescon R) 1

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