Case study_2013_02



Torsion reinforcement with S&P C-Sheet 240

Project: Repair A4 Anschlussbauwerk Mosi Süd, Brunnen/SZ, CH

Year: 2013

Background: By utilizing staged construction, the Federal Road Office (ASTRA) is improving, in stages,

the road safety for the Mositunnel and reconditions the road connection Brunnen south.

Goal: The static verification showed that the access bridge from Brunnen to Sisikon must be

strengthened to support torsion loading.

Solution concept: In regular intervals of 10.80 meters, massive steel crosses are set in the box girders. To

accommodate the hoop tension, the box girder is wrapped with six layers of S&P C-Sheet 240 400 g/m² (Modulus of elasticity 240 kN/mm²). The carbon sheets are engineered to

provide a design tension capacity corresponding to a 0.6% elongation.

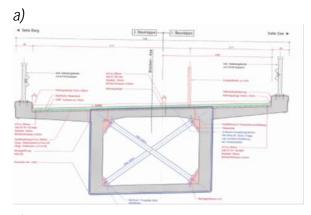
Quantities /

Schedule: Approximately 220 m² S&P C-Sheet 240 400 g/m² / 1 week under traffic control

Images: a) Concept

b) Application of the S&P C-Sheets 240 300 mm wide at breakthrough

c) Finished reinforcement with UV-protection







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