


	Project sheet
Research project :	Glass Bridges
Images :	
Keywords :	Glass, Bridge, Stabilization, Production, Transport, Erection
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Time span :	Since 2010
Description :	<p>IN 2010 two full glass bridges have been erected in the “Eaton Centre” in Calgary and in the “Ritz-Carlton Hotel” in Toronto. The Eaton Center glass bridge is in total 14,25 m long and 3,66 m wide. The balustrade beam elements were splitted in three parts. The middle balustrade elements are supported by a tree column out of steel. The Ritz Carlton glass bridge is in total 9,00 m long and 2,10 m wide. The balustrade beam elements span over the full length in one piece.</p> <p>During the design phase the global buckling behavior and the local stresses in the bolted connections have been in the focus of the FE-analysis. Besides the design with allowable stresses in the borehole, the bolted connections were also checked with allowable connection forces determined in a series of detail tests.</p>
Most important publications :	<ul style="list-style-type: none"> - Wellershoff, F., Sendelbach, M.; Schmitt, F.: Glass Bridges and Glass Walls, Challenging Glass 2 - 2010, Conference Proceedings, page 217-226 - Wellershoff, F., Sendelbach, M.; Schmitt, F.: Glass Columns and Glass Beams – Projects of 2010, engineered transparency at glastec 2010. Conference Proceedings, page 349- 357
Working group :	WG 4. Novel glass assemblies
Category :	TG 12: Stability
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