



**Will Laufs** PhD PE LEED® AP IWE  
Owner & Principal



Will Laufs works in the field of structural, façade engineering and specialty structures design in North America and worldwide, focusing on the use of new materials, energy efficiency, transparent glass enclosures, challenging international structures with complex geometries and architectural building elements, where 3D- structural form-finding and detailing have an important influence on esthetic appearance and identity of spaces. He lives and works in New York City and Berlin, having been raised and educated in Germany. Will believes in the unity of architecture, sustainability and structural engineering, focusing towards one single integrated design approach, having been trained in both Structural Engineering and Architecture.

- Discipline:** Structural & Façade Engineering, focus on Building Envelopes and Specialty Structures
- Offices:** LaufsED LLC, Loft 46-01 5<sup>th</sup> St, LIC, NY 11101, USA and Revaler Strasse 11, Berlin, Germany
- Qualifications:** Dr.-Ing. (PhD), Dipl.-Ing. Structural Engineering, Cand.-Ing. Architecture, RWTH University of Aachen, Germany (2000/1996/1994), International Welding Engineer (IWE), SLV Duisburg, Germany (2000), Professional Engineer PE license for the States of New York, Florida, Ohio, Connecticut, Delaware, Pennsylvania, Texas, Missouri, Michigan, Washington D.C., Oregon, North Carolina, Massachusetts & Rhode Island. NYC Department of Buildings registered special inspection agency (#002618).
- Memberships:** Member of Specialty Structures Group, ASCE North America  
Member of Tensioned Fabric Structures Group, ASCE North America  
Member of SEAoNY, Structural Engineering Association of New York
- Education:** RWTH Aachen, Germany, Faculties of Civil Engineering & Architecture – Diploma and PhD  
Imperial College London, UK, Steel Design Masters Class – German Erasmus scholarship  
ETSAB Barcelona, Spain – Architectural Studies, Urban Planning – German DAAD scholarship  
EPFL Lausanne, Switzerland – PhD Research Studies – Swiss Scholarship
- Teaching:** 1996 – 2000: Assistant Professor at RWTH Aachen, Germany, Institute of Steel Construction (lectures in steel & glass structures)  
2004 – 2005: Adjunct Professor at University of Kaiserslautern, Germany, lecturer for load-carrying glass structures and façade engineering  
2007 - present: Adjunct Professor at Columbia University, Faculty of Civil Engineering (stability course) and School of Architecture GSAPP (Advanced Structures) until 2013, lecturer for Graduate classes  
2008/2013: Adjunct Professor at Pratt Institute, School of Architecture (Integrated Project Delivery class, Structures for Architects)  
2014 – present: Bedford Professorship Endowment at RPI (Rensselaer Polytechnical Institute), 'Bedford Seminar', 'Bedford Studio', interdisciplinary for Architecture and Engineering Students
- Experience:** 23 years
- Scholarships:** 1990: German National Scholarship ('Studienstiftung des Deutschen Volkes')  
1993/94: ERASMUS Scholarship Master Course Engineering Studies at Imperial College London  
1996/97: DAAD Scholarship Master Course Architecture studies at ETSAB Barcelona  
1999: four months Scholarship Research & Teaching Period at ICOM, EPFL Lausanne

**Awards:**

2000: Research Prizes RWTH “Borchers- Plakette” and “Friedrich- Wilhelm- Preis” of Technical University of Aachen/ Germany (top 1%)  
2010: Best Research Paper Award for ‘Transparent Glazing for Free-form Building Skin - Parametric Modeling meets curved Glazing Engineering’; AEC Conference Penn State; June 2010  
Bedford Professorship endowment, Rensselaer Polytechnic Institute (RPI), Troy, 2014

**Key project information (including previous employers):****Owner & Principal at LaufsED LLC (New York City) 2012 -**

Detail engineering Culture Shed Hudson Yards, cable net- glass walls, facades, skylights and ETFE pillow system review (New York);  
Detail engineering Virginia Commonwealth University (Steven Holl), steel-glass facades (Virginia);  
Detail façade engineering Norton Museum (Fosters), steel-glass facades (Florida);  
Façade engineering for Tadao Ando’s first ever project to be built in Manhattan (New York);  
Structural Engineering upgrade for Aero Saarinen’s Holmdel Bell Labs (New Jersey);  
Innovative Ductal Façade & main steel sub-structure, Louis Vuitton, Aventura Store (Florida);  
Specialty Design for DSR’s “Beyond Fashion” exhibition, Metropolitan Museum of Art (New York);  
Hunters Point LIC, façade engineering upgrade services for Local Law 11 (New York);  
251 Central Park West Tower, façade engineering upgrade services for Local Law 11 (New York);  
Residential Façade 524 W29th St. with double-height units, pools and metal fins (New York);  
Private Residence, DuPont Estate, structure & facade engineering, Wilmington (Delaware)  
Four Private Residences (confidential), structural 7 façade engineering, Long Island (New York);  
Twisted Steel Rings, cable assemblies & Foundation for Media Sculpture (San Jose, California);  
Hampshire Hotels Office Renovation, wood/brick structure upgrade, (New York);  
Tensegrity Sculpture structural concept & engineering (Montpelier, France);  
Columbia University Manhattanville, steel egress staircase structural detail design (New York);  
The Edge Tower (600 ft tall), Façade engineering with exterior feature fins (Beirut, Lebanon);  
Kuwait University, Specialty pre-cast element Façade Structures SOM (Kuwait);  
Empire State Building, 103<sup>rd</sup> Floor Exhibition GRP Platform detail engineering (New York);  
Entrance Lobby design for 605 3<sup>rd</sup> Avenue for Fisher Brothers/Plaza Construction (New York);  
Townhouse Tribeca, ‘Maison de Verre’ interpretation, residence Manhattan (New York);  
25-storey tall Residential Project, Schermerhorn, Brooklyn (New York);

**Principal at Buro Happold (New York City) 2010 - 2012**

Columbia Medical School Specialty Facades and structural glass fins, DSR (New York);  
LEED Platinum 5 Crescent Drive Office, Unitized Facades & Main Entrance (Philadelphia);  
Structural & Façade engineering design for Museum of Image & Sound (New York);  
Bring to Light Festival Sculptures, pneumatic/cable- suspended structures (Greenpoint/Brooklyn);  
Glazed Exterior Envelope for Museum of Image & Sound, DSR (Rio/Brazil);  
New Prosolve Material Hospital Screen Sculpture Engineering (Mexico City);  
Building Envelope Water Leakage Investigation, 300 E93rd St Tower Penthouses (New York);  
West 57<sup>th</sup> St. Residential Tower 650ft tall, façade engineering for JDS Development (New York)

**Principal at THORNTON TOMASETTI (New York City) 2007-2010**

3D- fully integrated curved long-span steel-glass shell for Federation Tower Roof (Moscow);  
New stadium facade using integrated double-curved GRP mega-panels, Basra Sports City (Iraq);  
Specialty glass skylight & egress staircases, pre-stressed for Greenwich Street (New York);  
All-glass tensegrity feature staircase (Long Island), structural design and fabrication detailing;  
FKI Korean Industries Theater enclosure, 3D- parametric design of curved glazing (Seoul Korea);  
Residential Curved Tower (400 ft tall), façade engineering (Baku Azerbaijan);  
All-glass vestibule with load-carrying glass, Square 54 for Boston Properties (Washington DC);  
200 5<sup>th</sup> Avenue, Toy Building All-Glass entrance for L&L Holding, Manhattan

**Executive Vice President at WERNER SOBEK (New York City) 2003-2007**

grew start-up to 10 people and managed business operations & development in New York City;

Slava Complex (Moscow), steel-glass cable- net façade, high-rise double skin & wintergarden;  
Airport Cologne-Bonn (Germany), steel-glass cable-net façade calculations;  
New Bangkok International Airport (Thailand), fabric roof, glazed facades and site supervision;  
Arcapita Bank Headquarters (Manama Bahrain), structural design & detailing;  
Museo del Acero Monterrey (Mexico), specialty engineering of folded steel roof and staircase;  
LG Electronics Research Headquarter (Seoul), high-rise structural engineering and façade design

**Senior Engineer at WHITBYBIRD (London) 2001-2003**

Canary Wharf, DS8 (London), steel-glass cable-net façades and site supervision;  
Hurlingham Club (London), steel-glass dome and barrel vault, specialty structure and façade;  
BBC Redevelopment (London), design of hung double- skin facade and façade detailing

**Project Engineer at PSP TECHNOLOGIEN (Aachen), 1996-2000**

Glass strength, glass connection and glass element stability testing & research;  
Lehrter Bahnhof (Berlin), Photovoltaic glazing testing and engineering calculations (Germany);  
Grand Ecran, La Defense (Paris), steelwork fabrication details and engineering for glazed tower  
screen wall (France);

**Languages:** English (fluent); German (fluent); French (good); Spanish (good); Mandarin (basic)

**Publications:** Laufs, W., Sedlacek, G.: Stress distribution in thermally tempered glass panes near the edges,  
corners and holes, Glass, Science and Technology, 01 and 02/ 1999

Sedlacek, G., Blank, K., Laufs, W., GÜsgen, J.: Glas im Konstruktiven Ingenieurbau, book  
publication, Verlag Ernst & Sohn, 1999

Sedlacek, G., Blank, K., Laufs, W.: Glass and Steel in Structural Applications, AIL Bulletin,  
Universite de Liege, Belgien, 1999

Laufs, W.: Ein Bemessungskonzept zur Festigkeit thermisch vorgespannter Gläser, Dissertation  
RWTH Aachen, Lehrstuhl für Stahlbau, Shaker Verlag, 2000

Laufs, W.: Die Bestimmung der Festigkeit thermisch vorgespannter Gläser, VDI Berichte 1527,  
Fachtagung Bauen mit Glas, VDI Gesellschaft Bautechnik, Baden Baden, 03, 2000

Laufs, W., Sedlacek, G., Fuentes Abolafio, D., Burmeister, A.: Glasfestigkeit thermisch  
vorgespannter Gläser im Bohrungsbereich, Bauingenieur, 01, 2001

Laufs, W.: Biegedrillknickverhalten thermisch vorgespannter Gläser, Bautechnik, 05, 2001

Laufs, W., Baatz, A.: Untersuchungen zur Biegezugfestigkeit von gebogenem Flachglas, Zeitschrift  
Gff, 07, 2001

Laufs, W., Mohren, R.: Neuartige Stahl- Glaskonstruktionen mit Tragwirkung in Scheibenebene,  
Bautechnik, 10, 2001

Laufs, W.; Luible, A.; Mohren, R.: Etude préliminaire sur le verre comme élément de construction  
dans le bâtiment ; ICOM rapport 403F + 403D; EPFL, Lausanne 2001

Feldmann, M., Laufs, W.: Die Stahl- und Glaskonstruktionen des Neubaus der Eglise (continued)  
Notre Dame de Pentecote" in Paris- La Defense, Stahlbau, 11, 2001

Laufs, W.; Sedlacek, G.; Völling, B.: Structural Use of Glass-stress distribution in tempered glass  
panels, Conference on Modelling of glass forming M.G.F.T, Valenciennes, France, 01, 2002

Laufs, W., Luible, A.: Introduction on Use of Glass in Modern Buildings; ICOM rapport 462, EPFL  
Lausanne, Switzerland 2003

Publications:  
(continued)

- Laufs, W.: Structural Use of Glass in Modern Façade Design, Glass Processing Days GPD, Tampere Finland, 2003
- Laufs, W.: All- Glass Staircase, Notting Hill, London; COST C13, Glass and interactive building envelopes, final report, 2007
- Laufs, W., Sobek, W.: Innovative Steel Structures for Museo del Acero in Mexico, IABSE, 2008
- Laufs, W.: Top to Bottom Construction - Arcapita Headquarters at Bahrain Bay, Proceedings IABSE Chicago, 2008
- Laufs, W.: Hinge it into Curtain Wall Position, Glass Magazine, 2008
- Vilkner, G., Laufs, W.: Integrated Delivery Empowered by Computational Geometry; Conference Poster, Advances in Architectural Geometry, Vienna; 2008
- Laufs, W., Luessi, W.: Glass Roof for Hurlingham Gentlemen's Club in London. Stahlbau Spezial, Konstruktiver Glasbau, Wiley & Son, April 2009
- Laufs, W.: 'Archineering' Trends for Tensioned Fabric Structures; Proceedings ASCE Conference, Austin/Texas, May 2009
- Laufs, W.: 'Parametric Manipulation of Metallic Tent Surfaces – Example Highpoint Sail Hippieteepee Woodstock'; Textile Roofs 14th Int. Workshop, Proceedings CD, Berlin, Germany, 2009
- Laufs, W., Vilkner, G.: Gekruemmte Glasflaechen – Zusammenspiel von Geometrie und Glasde-taillierung, Stahlbau Sonderheft Konstruktiver Glasbau, Germany, Ernst & Sohn, 2010
- Laufs, W.: Kaltgebogene Freiformflaechen; Conference Glasbau; Proceedings; Dresden; 2010
- Laufs, W.: Visions Engineered – Freeform meets Form-finding; Smart Geometry Conference, Barcelona; 2010
- Laufs, W.: Interview in Architectural Record Magazine, Article "Shattering Myths about Glass", May 2010
- Laufs, W., Vilkner, G.: Transparent Glazing for Free-form Building Skin - Parametric Modeling meets curved Glazing Engineering; AEC Conference Penn State Uni, Pennsylvania; June 2010
- Laufs, W., Verboon, E.: Chapter in book publication Curtain Wall Systems; 'Innovative Façade Design and Products'; Penn State University, ASCE; 2013
- Laufs, W.: AIA- accredited lunch talk teaching: "Innovative Molding"; 2013
- Laufs, W.: Reviewer for Tensile Fabric Structures - Design, Analysis, and Construction; Task Committee on Tensioned Fabric Structures of the Special Structures Committee of the Metals Committee of the Technical Activities Division of the Structural Engineering Institute of ASCE; 2013
- Laufs, W.: Ductal Façade Louis Vuitton in Aventura/Florida; technical publication in German magazine Bautechnik 03/2014
- Laufs, W., Linares, N.: Recent US Innovative Glass Projects; GlassCon Global; conference proceedings, 07/2014
- Laufs, W., Linares, N.: Dünnwandige Freiformstrukturen - The Return of the Rivet; German magazine Stahlbau 12/2014