

Reference List of Earthquake strengthening Industrial and high-rise buildings Bridges

Innovative Strengthening of Structures with
post-tensioned CFRP plates

Tensioning System StressHead-CarboStress

2021

| Project | Reason for strengthening | Client | Year |
|--|---|---|---------|
| Earthquake strengthening | | | |
| High Mountain Clinic, Davos (CH) | Earthquake strengthening of masonry and closing of building separation joints | Kühne Real Estate AG | 2021 |
| Apartment building Zelglistr, Dietikon (CH) | Earthquake strengthening of masonry | Anlagestiftung Migros-Pensionskasse | 2021 |
| Aeschenvorstadt 56, Basel (CH) | Earthquake strengthening of concrete | Credit Suisse AG | 2021 |
| Pumping station, Hettlingen (CH) | Earthquake strengthening of aerated concrete stone walls | Municipality of Hettlingen | 2021 |
| Shopping mall, Mels (CH) | Earthquake strengthening, closing of building separation joints | Credit Suisse AG | 2021 |
| Leuenhof, Zürich (CH) | Earthquake strengthening of concrete slabs | Swiss Prime Anlagestiftung | 2020 |
| Fluhmattstrasse 12, Luzern (CH) | Earthquake strengthening of masonry | Konstruktiv GmbH | 2020 |
| Aeschenvorstadt 56, Basel (CH) | Earthquake strengthening of concrete | Credit Suisse AG | 2019 |
| Monbijoustreet 114, Bern (CH) | Earthquake strengthening of masonry | SMT Engineers Ltd | 2019 |
| Limmattalstreet 400, Zurich (CH) | Earthquake strengthening of concrete walls | Immobilien Ltd | 2019 |
| School building Ried, Muotathal (CH) | Earthquake strengthening of masonry | Community Muotathal | 2019 |
| Irchelstreet 2, Zurich (CH) | Earthquake strengthening of masonry | Caprez Engineers Ltd | 2018 |
| Retirement Home, Herisau (CH) | Earthquake strengthening of masonry | Foundation care of elderly, Herisau | 2017 |
| Control Center armasuisse, Emmen (CH) | Earthquake strengthening of masonry | armasuisse | 2017 |
| Housing development, Goldach (CH) | Earthquake strengthening of masonry | Credit Suisse Real Estate Investment Management | 2017 |
| Bank building UBS, Altstetten ZH (CH) | Earthquake strengthening in elevator shaft | UBS AG Zürich | 2017 |
| Housing development, Dübendorf (CH) | Earthquake strengthening of masonry | Credit Suisse Real Estate Investment Management | 2017 |
| School building Wasgenring, Basel (CH) | Earthquake strengthening of concrete walls | Building Department canton Basel-City | 2017 |
| Bank for International Settlements BIS, Basel (CH) | Earthquake strengthening of concrete walls | Bank for International Settlements BIS | 2017 |
| Lonza Visp, Valais (CH) | Earthquake strengthening of concrete walls | Lonza AG | 2016 |
| TRUK Boltigen, Bern (CH) | Earthquake strengthening of masonry | armasuisse | 2016 |
| Stapfenstreet, Bern Bümpliz (CH) | Earthquake strengthening of precast concrete slabs | Housing and building cooperative Bümpliz | 2015/16 |
| Housing development, Horgen (CH) | Earthquake strengthening of concrete walls | Cereal Holding Pensionskasse | 2015 |
| Housing development, Winterthur (CH) | Earthquake strengthening of masonry | Strabag AG | 2015 |
| Housing development Fellergut, Bern (CH) | Earthquake strengthening of concrete walls | Weiss+Appetito AG | 2015 |

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| CS Uetlihof 1, Zurich (CH) | Earthquake strengthening of concrete walls | Credit Suisse | 2015 |
| Talgarten, Zurich (CH) | Earthquake strengthening of masonry | ASIG housing cooperative | 2015 |
| Highrise building, Bern Bumpliz (CH) | Earthquake strengthening of precast concrete slabs | Railway Building cooperative Bern | 2014/15 |
| Hospital, Aarau (CH) | Earthquake strengthening of coupling joint | Hospital Aarau AG | 2014 |
| Secondary school, Zurich (CH) | Earthquake strengthening of concrete walls | Municipality of Zurich | 2014 |
| Armory, Thun (CH) | Earthquake strengthening of concrete walls | Swiss Army | 2013 |
| Hospital, Aarau (CH) | Earthquake strengthening of coupling joint | Hospital Aarau AG | 2013 |
| Highrise Agrisano, Windisch (CH) | Earthquake strengthening of concrete walls | Health Insurance Agrisano | 2013 |
| Secondary school, Laufen (CH) | Earthquake strengthening of concrete walls | Building Department City of Lucerne | 2013 |
| Coop Wallisellenstrasse, Zurich (CH) | Earthquake strengthening of masonry | COOP Basel | 2012/13 |
| Roche Bldg.27, Basel (CH) | Earthquake strengthening of masonry | Hoffmann La Roche AG | 2012 |
| Weihermatt care home, Urdorf (CH) | Earthquake strengthening of masonry | Municipality of Urdorf | 2012 |
| Falkenstein care home, Basel (CH) | Earthquake strengthening of concrete walls | City of Basel | 2011 |
| Käfergrund 41/43/45, Aarau (CH) | Earthquake strengthening of masonry | Credit Suisse | 2011 |
| Aarmatt pumping station, Zuchwil (CH) | Earthquake strengthening of concrete walls | Regio Energie Solothurn | 2010 |
| Regio Energie HQ, Solothurn (CH) | Earthquake strengthening of masonry | Regio Energie Solothurn | 2010 |
| Agrisano office building, Windisch (CH) | Earthquake strengthening of concrete walls | Agrisano Health Insurance | 2010 |
| Community hall, Langendorf (CH) | Earthquake strengthening in lift shaft | Municipality of Langendorf | 2010 |
| Upper Valais hospital, Visp (CH) | Earthquake strengthening of concrete walls | Building Department Canton Valais | 2009 |
| Housing development Kürberg, Zürich (CH) | Earthquake strengthening of masonry | Halter AG, Zurich | 2008 |
| Wasgenring substation, Basel (CH) | Earthquake strengthening of concrete walls | IWB Indust. Werke Basel | 2006 |
| Gösgen nuclear power station, Däniken (CH) | Earthquake strengthening of cooling water tank | Kernkraftwerk Gösgen AG | 2004 |
| Fire station, Visp (CH) | Earthquake strengthening of masonry | Municipality of Visp | 2002 |
| Lucerne cantonal police, Lucerne (CH) | Earthquake strengthening of concrete walls | Building Department City of Lucerne | 2000 |

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| Industrial and high-rise buildings | | | |
| Fresh water tank, Tel Aviv (ISR) | Closing cracks, replace missing reinforcement | Binyan Haaretz | 2020 |
| Railway station Bern, Bern (CH) | Concrete wall strengthening | SBB AG, real estate | 2019 |
| Tibits Restaurant, Bern (CH) | Deck strengthening | SBB AG, real estate | 2018 |
| Casino, Vienna (A) | Deck strengthening, removing column | Casinos Austria | 2016 |
| Secondary school Winterthur (CH) | Deck strengthening due to damaged prestressing | Municipality of Zurich | 2014 |
| Meat processor Meinen, Bern (CH) | Downstand strengthening | Meinen AG, Bern | 2013 |
| Park Hotel, Vitznau (CH) | Deck strengthening | Park Hotel Vitznau | 2012 |
| Burstwiesenstrasse, Zurich (CH) | Downstand strengthening | Wincasa AG, Winterthur | 2010 |
| Police building, Crans-Montana (CH) | Masonry strengthening | | 2008 |
| Extension to Similasan, Jonen (CH) | Floor opening (lift) | Similasan AG, Jonen | 2007 |
| Reussmatten development, Sins (CH) | Shear reinforcement | | 2006 |
| Conversion to Lacoste, Basel (CH) | Deck strengthening due to conversion | Lacbal SA | 2005 |
| Leutschenbach, Zurich (CH) | Deck strengthening due to stormwater tank | ARGE Leutschenbach | 2005 |
| VEBO multi-use building, Oensingen | Deck strengthening due to damaged prestressing | VEBO Oensingen | 2004 |
| Holcim AG, Würenlingen (CH) | Silo strengthening | Sika Services AG | 2004 |
| Auto Rondo, AMAG Zug (CH) | Downstand strengthening for wall penetration | AMAG Zug AG | 2003 |
| Aupoint Brandstetter, Salzburg (A) | Hall roof truss strengthening due to fire damage | Brandstetter GmbH | 2003 |
| Thurgauerhof, Weinfelden (CH) | Shear strengthening of concrete beams | Hotel Thurgauerhof | 2003 |
| Audi plant Hungary, Győr (H) | Sealing of expansion and movement gaps | Audi Hungary | 2002 |
| CS communications centre, Horgen (CH) | Strengthening of masonry and roof trusses | Credit Suisse, Zurich | 2002 |
| Shopping centre, Emmen (CH) | Strengthening of stairwell cores | Maus Frères SA | 2001 |
| Paper plant, Perlen (CH) | Façade underpinning with column removal | Perlen Papier AG | 2000 |
| Orly Center, Amsterdam (NL) | Needle beam strengthening in façade area | Orly Center AG | 2000 |

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|--|--|--|----------------|
| Bridges | | | |
| 3 Railway bridges, Tatranská Štrba (SVK) | Additional pay load | ŽSR - Railways of the Slovak Republic | 2021 |
| Bridge R.N.7, Pontcharra-sur-Turdine (F) | Prestressing cable replacement | DIR Centre-Est | 2018 |
| Sandacher Bridge, Spreitenbach (CH) | Strengthening of coupling joint | Swiss Railway SBB, ASTRA | 2015 till 2017 |
| Cavan Bridge (IRL) | Bending strengthening | John Cradock Ltd | 2016 |
| Semuy Bridge, Ardennes (F) | Bridge girder strengthening | Dép. Ardennes | 2016 |
| Bridge Exit N29, Qatar (QA) | Strengthening of web due to damaged prestressing cable | Public Works Authority of Qatar (Ashghal) | 2015 |
| Bridge, China (CHN) | Train bridge girder strengthening | via Sika Services AG | 2014 |
| Fortified Bridge Hagneck Biel (CH) | Prestressing cable replacement | BKW FMB Energie AG | 2014 |
| Bridge, China (CHN) | Train bridge girder strengthening | via Sika Services AG | 2013 |
| Commonwealth Bridge, Singapore (SIN) | Bridge stringer strengthening | VSL International AG | 2008 |
| Tschingeley Bridge, Grindelwald (CH) | Bridge strengthening and repair | Municipality of Grindelwald | 2007 |
| Stegweid Bridge, Spiez (CH) | Bridge cross beam shear strengthening | Ct. of Berne Civ.Eng. Dept. | 2006 |
| Bridge, China (CHN) | Bridge stringer strengthening | via Sika Services AG | 2004 |
| Bridge, Holland (NL) | Bridge stringer strengthening | via Sika Services AG | 2004 |
| Ländten Bridge, Biel (CH) | Bridge stringer strengthening for bending and shear | City of Biel Civ.Eng. Dept. | 2004 |
| Clinton & Hopkins Bridge, Ohio (USA) | Bridge stringer strengthening | State of Ohio, Dept. of Transportation | 2003 |
| Hütten Bridge, Werthenstein (CH) | Bridge stringer strengthening for bending and shear | Ct. of Lucerne Dept. of Agriculture | 2003 |
| Sung San Bridge, Seoul (KOR) | Bridge deck strengthening, longitudinal | Western Roads & Bridges Maintenance Office Seoul | 2002 |
| A3 Escher Canal Bridge, Glarus (CH) | Bridge deck strengthening, transverse | Ct. of Glarus Civ.Eng. Dept. | 2002 |
| A4 Reuss Bridge, Flüelen (CH) | Cross beam strengthening | Ct. of Uri Civ.Eng. Dept. | 1999 |