

In today's world, ensuring the integrity of our architecture and infrastructure has become more important than ever.

Building and asset owners and managers are seeking to manage their risks, whether they're building new structures or repairing, protecting or strengthening existing ones. That means investing in robust, well thought-out solutions that ensure structural resilience for the long term – against general wear and tear as well as the destructive forces of water, weather and earthquakes.

Do you have an earthquake-prone building or an at-risk asset? BBR Contech can help.

We specialise in concrete repair and structural upgrading services, including seismic strengthening.

You name it, we've worked on it – from commercial and industrial buildings to wharves, bridges, tunnels, water-treatment facilities and towers. We've been involved in some of the country's highest-profile construction and restoration projects, and worked in some of the most complex and challenging environments. We're proud to have won a number of awards for our work, and developed strong, enduring relationships with clients, consultants and contractors alike.

If you're looking for the best in concrete repair and structural upgrading solutions, BBR Contech can help. With a record of success and 50 years in the business, we have the expertise, the experience and the technology to deliver performance certainty where and when you need it.



Carbon fibre column wrapping at a Christchurch shopping mall.



Seismic upgrade of columns in office redevelopment



Aotea Quay Overbridge – Seismic strengthening bridge piers using FRP wraps



Seismic upgrading to Silverstream Bridge, Wellington.

Why should you strengthen or upgrade?

- Reassure building safety to employees and building occupiers
- > Build resilience into your property
- Demonstrate earthquake resilience to existing and future tenants
- Differentiate the enhanced performance when compared to buildings that are not strengthened
- > Protect the value of your property asset
- Improvement to insurance premium and deductibles
- Maintain or improve security position with financiers



How can we help you?

BBR Contech's concrete repair and structural upgrade services include:

- 1. CONCRETE REPAIR: undertaking small patch and high-volume repairs using gunite and formed and poured techniques
- 2. CRACK REPAIR: injecting epoxy resin into cracks caused by events such as earthquakes. Our service includes concrete coring to check that the resin has completely penetrated the cracks
- FRP APPLICATION: adding additional shear capacity, flexural strength and ductility to beams, columns, slabs and walls by applying fibre-reinforced polymer (FRP) materials – with minimal disturbance to occupancy and rentable asset space
- 4. EXTERNAL POST-TENSIONING: improving concrete structures' performance by adding high-tensile bars and tendons to improve strength and tensile capacity, and applying external tendons vertically through walls and columns to improve their performance in earthquake conditions
- 5. GROUND ANCHORING: securing the foundations of structures such as buildings, towers, retaining walls and dams in a wide range of soil conditions including marine sediments and alluvial gravels. Our ground-anchoring systems, which range from soil nails and micro-piles to high-capacity post-tensioned anchors, can be used in conjunction with high-pressure grouting to deliver increased performance
- 6. GROUTING: using a range of grouting techniques for purposes such as void and fissure filling, ground consolidation and soil waterproofing, and to lift slabs and other foundations that have resettled
- 7. MASONRY PRESERVATION, RESTORATION AND STRENGTHENING: structural reinforcement to resist in-plane and out-of-plane forces for brick, concrete block and natural stone walls in commercial and historic buildings, monuments, tunnels and other structures. Systems include sprayed concrete, steel ties, FRP and post-tensioning

A partnership approach

We're committed to working with you and your team to design and implement the right solution for your project.

You can involve us at any time that suits you, from project scoping and design to budgeting, work programme planning, implementation, monitoring and maintenance. We can also recommend structural engineering consultants and other relevant specialists, and work with them on the specifics to ensure that we understand the project details and address and resolve any issues and constraints.

















- We offer five decades of experience in concrete repair and structural upgrades, and a team of experts whose combined knowledge of this complex specialty is unparalleled in New Zealand.
- 2. We have an outstanding record of performance in a large number of projects throughout New Zealand. This has earned us a number of awards, including the 2007 Supreme New Zealand Engineering Excellence Award for our work on strengthening the foundations of the nation's electricity transmission pylons.
- We're ready when you are, with an in-house team of technical and project management specialists as well as the required plant and equipment.
- 4. We're committed to meeting the highest standards of quality assurance, environmental management and health and safety performance in our work. We are certified to recognised standards and are independently audited.
- 5. As a member of the global BBR Network we have ready access to the knowledge and resources of some of the world's most experienced and talented engineers and technicians. We can also source the latest in European-approved and CE-marked construction systems and technology, of which many are exclusive to BBR Contech in New Zealand.
- 6. We've invested and will continue to invest in new approaches, techniques and technology that meet the needs of industry and specific clients. This includes supporting a number of university-level research projects that are investigating new approaches to seismic strengthening, including retrofit solutions.

Whether you are a building owner, consultant, property manager or infrastructure owner USE OUR EXPERIENCE to STRENGTHEN YOUR POSITION

Affiliations and Memberships

BBR Contech stays at the forefront of technology and maintains a high level of industry participation by membership and affiliations with the following organisations:













For more information

To learn more about BBR Contech's concrete repair and seismic strengthening services, please contact us.

Auckland

Mark Kurtovich, Special Projects Manager T 09 274 9259, E mkurtovich@contech.co.nz

Wellington

Marc Stewart, Project Manager - Structural Upgrading

T 04 569 1167, E mstewart@contech.co.nz

Christchurch

Peter Higgins, Southern Regional Manager T 033390426, E phiggins@contech.co.nz

