

The bulk of the BNZ building in Wellington will be recycled and re-used

By Marta Steeman

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Deconstruction of parts of the BNZ building is almost complete.

CentrePort is close to finishing the first part of the deconstruction and demolition of the BNZ building on Waterloo Quay hard hit by the November 2016 Kaikoura earthquake.

Imploding the building was an option but considered too risky, project delivery manager for the demolition programme Greg Patience said.

It did not take long to discount that option because of the safety of the public and another nearby business, Bluebridge Cook Strait Ferry service.

Straight-out demolition would have been quicker - by about six to eight months - but the port company would have been left with mountains of debris and rubble that had to be trucked to a landfill and a big bill.











SUPPLIED

Greg Patience, CentrePort's project delivery manager for the demolition programme, says the BNZ is not a straight-forward building.

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In choosing the one-year programme of deconstruction and then demolition of the core concrete structure, health and safety was the key driver because of the closeness of the building to public pathways and the Bluebridge Cook Strait Ferry service, Patience said. Container hoardings had to be erected so the public could still walk on public footpaths.

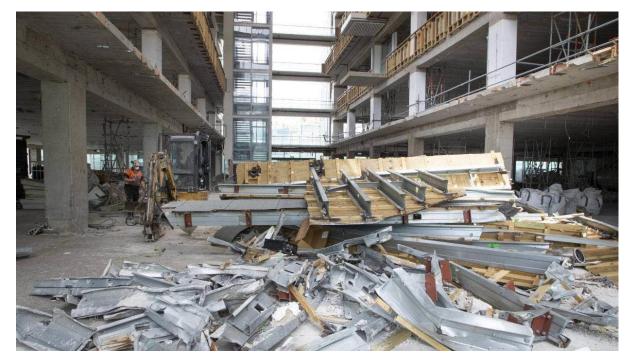
The contract for deconstruction of large parts and demolition was more expensive than outright demolition as deconstruction was labour-intensive. But the safety factor was the deciding one, Patience said.

"You can't put a dollar value on health and safety." Deconstruction was a more conservative option but the company did not want to end up in court if demolition caused problems.

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Imploding the building was an option but considered too risky to public safety.

The BNZ is the 18th of 20 buildings to be removed from the port company site in its deconstruction and demolition programme in the past 2.5 years. Some of those were old and empty building. Statistics House was a notable demolition after the Kaikoura quake.

Centreport says 95 per cent of the building by weight will be recycled. About 30,000 tonnes of concrete in the BNZ building will be crushed at CentrePort's recycling plant at Kaiwharawhara Point and will be used as gravel fill at the port.

The first stage, June 2019 to December 2019, has been the "soft" strip out of salvageable materials and the deconstruction of glass panels and fibreglass and aluminium exterior building panels.

Ceres is the main contractor and Thermosash has been involved in the removal of the glazing. Thermosash were the original installers.



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CentrePort says 95 per cent of the BNZ building by weight will be recycled and that includes about 30,000 tonnes of concrete.

Patience said the exterior panels and most of the glass panels - about 300- would be reused in two commercial buildings in Wellington. CentrePort did not receive any payment for the materials. Ceres as the main contractor was responsible for the recycling.

Glass not recycled would be crushed and used with the crushed concrete for fill projects at the port.

The second stage from January 2020 to June 2020 was the "hard demolition" where the "clip on" structures of the building would be cut off floor by floor taking about three months.

Then the core concrete structure would be demolished from about April and that would take another three months. A high reach crane would "chew through" the concrete columns and beams and bring the remaining structure down.

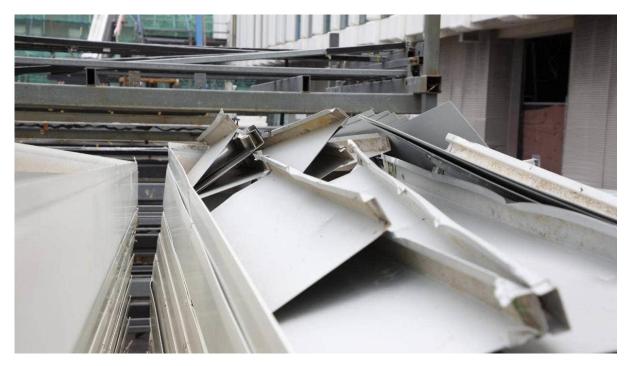
"It's not a straight forward building by any means," Patience said.



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Glass panels and exterior building panels on the BNZ building are to be re-used on two commercial buildings in Wellington.

The port had been told that the chillers, cooling towers and water pumps were heading to the Pacific for future use.

The electrical switchboards would be used in a renewable energy micro-grid project after an approach from an electrical engineer who had a subdivision at Pauatahanui.

More than 100 metres of rubber matting from the BNZ building's walkways was being used in the Wellington City Council's nurseries including at the Botanical Garden nursery.

A container was stacked to the gunwales with carpet tiles. There had been interest in those from a school and from another party through the Red Cross.

A small portion would be re-used in the Centreport building, Shed 39. If the rest were not donated and reused they would be sent back to the supplier for recycling, Patience said.

Stage three was the remediation of the BNZ land which the port expected to be completed before next Christmas so it could be used by Bluebridge for vehicle marshalling.

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Longer term use of the BNZ site land would depend on regeneration plans that were currently being developed.



SUPPLIED

Concrete is being crushed at Kaiwharawhara Point and re-used by CentrePort as gravel fill at the port.

History of the BNZ building on Waterloo Quay

.Construction 2006-2009 .Completed and tenanted 2009 .November 2016 Kaikoura earthquake .In 2018 decision taken to remove the building, due to quake damage.





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