

COMPANY

Beca

LOCATION

Auckland, New Zealand

SOFTWARE

Autodesk® Revit®

Autodesk® Collaboration for Revit®

Autodesk® BIM 360™ Team

Collaboration Across Continents

Beca – one of Asia Pacific’s leading professional consultancies – connected workers across six time zones and added hours to its workday.

It saved massive amounts of time and effort. Our people in overlapping timezones could work on the project simultaneously.

– **Brett Naylor**
Group Digital Delivery
Manager
Beca



Image courtesy of Beca.

The benefits are almost immeasurable... we achieved a return on investment through reduction in rework alone.

– **Craig Lamont**
Business Director
Beca



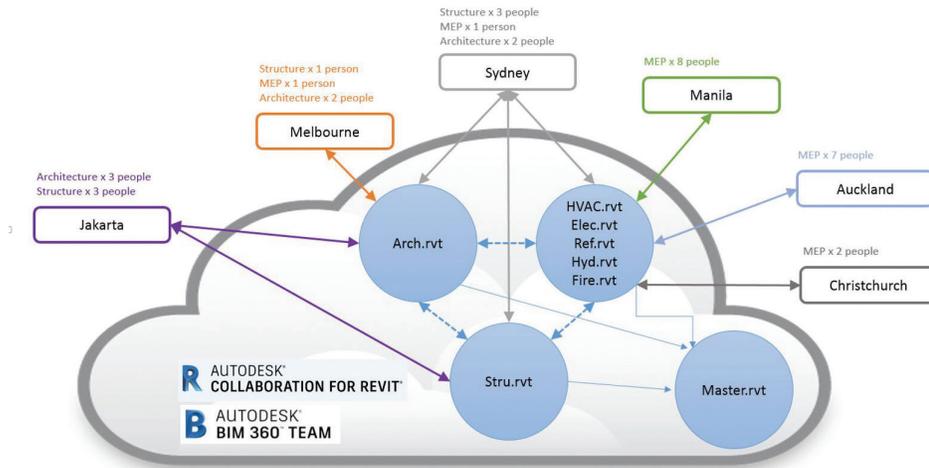
A Tight Timeline

In the spring of 2016, Beca took on a job using Revit software to design an \$80 million food factory expansion in Sydney, Australia. Company officials knew that the architectural and engineering work represented at least a 12-week job, but Beca only had eight weeks to complete the work.

“We had a very tight timeline to get design documentation out,” recalls Craig Lamont, Business Director in Beca’s buildings business. “And the only way we were going to be able to do that time-effectively was to use our external offices.”

The firm has around 3,200 employees in 20 offices across the Asia-Pacific region, and also collaborates with documentation firms in Indonesia and the Philippines. These firms bring cost efficiencies to large design projects, but can also present drawbacks, including risk of extensive rework and time wasted uploading and downloading models. Beca has experience in implementing many different collaboration solutions all with various capabilities however they weren’t appropriate for this particular project.

“We needed something that would stretch our workday to fifteen hours and help us meet our design timeline.” Lamont says “So we sat down and explored what could do to take advantage of the time zone span between New Zealand and Indonesia?”



Breaking Down Barriers

To loop in offices across six time zones, Beca subscribed to Collaboration for Revit for each of the 33 people working on the food factory project. The cloud-based service provides centralized access to Revit models, and allows project team members from multiple sites to co-author Revit models regardless of each person's physical location. This cloud-enabled worksharing also let team members see each other's work and communicate with one another in real time.

On previous projects, workers in one office would upload a model at the end of the day, handing it off to team members who then would download it in another location. Collaboration for Revit enables a smoother handover by allowing both offices to be in the model at the same time. The teams can then communicate while looking at the same information, reducing risk of misunderstanding and error.

"We didn't have any of those issues with Collaboration for Revit, because we were able to work together with external offices," says Lamont. "The team would start work in New Zealand in the morning, we'd get Australia going two hours later, and then we could bring our Indonesia and Manila resources on board before we went home at the end of the day. They knew exactly what we wanted them to work on and what the design deliverables were for the day."

"It saved massive amounts of time and effort," says Brett Naylor, Group Digital Delivery Manager for Beca. "We no longer needed to upload and download the model, and our people in overlapping time zones could work on the project simultaneously."

Workers on the project spoke three different primary languages, and Lamont says that Collaboration for Revit helped to minimize

confusion. "We could click and point and talk about exactly what we wanted drafted and where," he says. "Being able to have everyone see the same thing in Revit at the same time helped overcome the language barrier."

Each week, the team published the latest version of the model to BIM 360 Team, allowing them to share the design work with stakeholders who were not active in the Revit models.

Engagement and Accountability

Prior to deploying Collaboration for Revit, Beca would fly employees to offices in Manila and Jakarta to formally train workers there. "It was costing us a fortune," says Lamont. "Now, with the Collaboration for Revit and the Communicator tool, people can connect virtually, inside the model, and there's training happening on-the-job, almost as if people are sitting next to the person in Sydney or Melbourne."

Increased visibility also led to greater accountability, Lamont says. "We could see who was working on the job at any given time. Communicator allowed the team leads to see who was working in the model and give reassurance that the project was appropriately resourced."

Reducing Rework

"There was nowhere near the amount of rework we would normally experience on a project of this size, especially at the speed that the job had to be completed," says Clive Lumsden, job lead draftsman at Beca. "I could see exactly what remote workers were doing, and I was able to pick up issues before they became a problem, rather than waiting three days to get the model back. It just makes your life so much easier, and we saved money on the rework, too."

At one point during the project, designers in remote offices began mistakenly drafting ductwork within the architectural environment. The Design lead immediately caught the error and were able to redirect the modelling team to back out of the wrong model. "That would normally come with a lag of a week," says Lamont. Collaboration for Revit removed that latency."

Overcoming Obstacles

"The challenge we have with a lot of other collaboration platforms is, they have to be within the Beca firewall," Naylor says. "We can get around that, but at a high cost and timely setup. What we really liked about Collaboration for Revit was the ability to incorporate people outside our firewall environment, without adding a lot of setup time or changing our IT configuration. This allowed us to operate in a high trust environment and thereby further cement the relationship with our contracted partners."

Before fully deploying Collaboration for Revit, Beca tested the tool, sharing some of its largest architectural and engineering models between offices to see how the software performed in real-world situations. "It was a pretty quick learning curve," Lamont says. "If you knew Revit, you could use Collaboration for Revit."

'Immeasurable' Benefits

Lamont is blunt about the impact that Collaboration for Revit has had on Beca's work, particularly on the initial food processing facility design. "If we didn't have Collaboration for Revit, we would not have made the design timeline," he says. Only because of the 15-hour workday enabled by Collaboration for Revit, Lamont says, was Beca able to complete a three-month project in only eight weeks.

"The benefits are almost immeasurable," Lamont says. "It worked out that the cost of deployment was only a few hundred dollars for the duration of the job, and we achieved a return-on-investment very quickly through the reductions in rework alone."

"It was an incredibly cost-effective solution," Lamont adds. "With the time it saved, it was just a no brainer."

For more information, visit www.autodesk.com/products/collaboration-for-revit/overview