Haydn+Rollett

Construction

Ballance Whangarei

Construction Design + Build

Project
Industrial

Location
Kioreroa Road
Whangarei

Client
Ballance Agri-Nutrients

Value
$20.5 Million

Period
13 Months

Consultants
Architect /
Woodhams Meikle Zhan

Structural & Civil /
MSC Consulting

Mechanical /
Thurston Consulting

Blessed in a pre-dawn ceremony late in 2022, Ballance Agri-Nutrients' new Whangarei hub is the second phase of a $50 million investment by the fertiliser cooperative in Northland, following the opening of a bulk storage facility at Marsden Pt. It's an ambitious project, and Haydn and Rollett were an obvious choice to build the new facility at Kioreroa Rd given its track record of working successfully with Ballance on projects elsewhere in the North Island.

The scope of works was extensive: design and build a new 6,100m^2 warehouse, and alter and extend existing buildings (the site was previously occupied by Toll Holdings) to create a total facility for Ballance of 16,500m^2; upgrade existing office facilities; build storage bins, a bag store, dispatch and mechanical intakes; develop a separate yard area of 4700m^2, including carparking; and create a rain garden to treat any fertiliser contamination from site run-off. Within that construction programme, Haydn & Rollett coordinated with a handful of New Zealand and overseas companies tasked with designing and installing plant equipment.

Unfortunately, the timing was poor, with Whangārei suffering its second wettest winter on record, while Covid wreaked havoc on the workforce. At times, whole teams were off sick, causing unavoidable delays to sections of the programme. The project was hindered, too, by unforeseen ground conditions that required remediation before construction could begin.

A standout feature was the construction of the concrete panels for the storage pens. Poured onsite in dedicated beds and transported into place by a crawler crane, these were heavy units – one 700mm-thick panel weighed 38 tonnes – and required substantial concrete footings to withstand the high loads imposed by storing bulk fertiliser. Another idiosyncratic detail: to counteract the kind of aggressive chemical reaction you get when fertiliser dust hits exposed steel, all of the structural steel received a protective high-grade epoxy coating, while fibre-reinforced plastic was used for the roof and cladding. To control the dust at source, the facility was fitted with forced air ventilation and rapid action roller doors.