

COFFS HARBOUR PRECAST YARD

MAR - JUL 2023

CBGU D&C JV

\$2 M

DEMEX was engaged as a subcontractor to demolish a pre-cast concrete batching facility, which was custom built to support construction of the Cross River Rail project in Brisbane. The client, CBGU D&C JV, was a joint venture between several tier one and two contractors.

The scope of work included removal of all slab, inground services, inground moulds, above ground sheds and concrete structures, the latter of which encompassed super-T moulds, concrete plinths, slabs, services, and driveways.

PROJECT METHODOLOGY

Works commenced with processing of the steel moulds, which involved hammering, oxy cutting and shearing, as well as processing to separate the concrete and moulds.

There were 37 concrete moulds onsite and it was necessary to remove these first to establish heavy machinery access areas, allowing demolition of the concrete plinths, and to create a safe working zone for the concrete crusher and concrete stockpile.

Once the moulds were removed, works commenced on four concrete plinths located in six sheds on the site. This equated to a total 1,000 lineal metres of concrete. Each plinth was heavily steel reinforced and 1.5 metres x 1.8 metres in size with demolition undertaken using hydraulic hammers and 50 tonne excavators.

PROJECT HIGHLIGHTS

- Design and fabrication of the ripper attachment.
- Innovative methodology using induced layover rather than induced collapse reduced the risk of flying debris falling outside the demolition work zone.
- No major safety or environmental incidents.





SCRAP STEEL RECYCLED	1.918 TONNES
CONCRETE RECYCLED	1,084 TONNES
WASTE RECYCLED	99.72%
C&D WASTE REMOVED	35 TONNES

SOLUTIONS

Once demolished, concrete was relocated to a stockpile for crushing with the western bay of the main shed demolished mechanically by two excavators fitted with shears and an extension pick custom designed by DEMEX.

Material from demolition activity was processed onsite and removed to scrap while setting up and preparing for the induced layover of the eastern shed. This shed was separated into sections with each of these demolished to facilitate an induced layover in keeping with safe work guidelines.

To mitigate the risk of potential interference with powerlines on the road below the site, one of the shed's structural bracing walls was demolished manually.

The expanse of the site and volume of works allowed for concurrent work zones, which meant that at one point during the project, 12 excavators were operating simultaneously.

