

Project Profile

Former Football Park Stadium Demolition



Client	Commercial & General
Location	Adelaide, South Australia
Duration	July 2018 to May 2019
Contract	Lump Sum Construct Only
Cost	\$5.0 million

Project Overview

Football Park is a former Australian rules football stadium located in West Lakes, 14km from Adelaide’s central business district. It was built in 1973 by the South Australian National Football League and opened in 1974. Until the end of the 2013 Australian Football League season, it served as the home ground of both the Adelaide Football Club and Port Adelaide Football Club. It also hosted all South Australian National Football League finals from 1974 to 2013. At its peak Football Park had a seating capacity of 62,000.

In 2015, plans were enacted to dismantle the grandstands and land around the oval so it could be subdivided for housing in a 15-year masterplan development by developer Commercial & General, known as WEST. The oval would remain in place as a training ground for the Adelaide Football Club and for use by the greater community.

The \$1 billion WEST development will eventually be home to 1,300 dwellings, a cosmopolitan café and dining strip, food outlets and public open spaces. McMahon Services were engaged to deliver the demolition of the stadium structure and civil preparation works for the 100 bed aged care site.

McMahon Services

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Scope of Work

Scope of works included the decommissioning and demolition of the former Football Park stadium grandstands while retaining the grass oval and the adjacent Adelaide Football Club Building and Checkside Tavern.

Initial works included the identification, isolation and removal of all existing inground services including water, power, gas, sewerage and communications. McMahon Services took on the risk of hazardous materials on site and appropriately remediated, treated or disposed of all waste encountered.

The next stage included the removal of asbestos and the internal strip out of services from the grandstands. Starting from the North Eastern side, the Grandstand stadium was mechanically demolished in stages and included the removal of surrounding seats. The existing Grandstand footings, light towers and scoreboards were also deconstructed. The risk of working at heights was eliminated on site through the use of high reach demolition excavators. Detailed engineering ensured that canopy structures could be collapsed safely mitigating stored energy risks.

Airborne dust, noise and vibration was kept to a minimum throughout the works to avoid disrupting the Adelaide Football Club practice sessions taking place on the oval. These measures were also taken to avoid impacting the surrounding residences, Grange Golf Club and West Lakes Shopping Centre.

Civil works included preparing the site for the future Aged Care development.

Over 2,400t of steel and 100,000t of concrete and brick were demolished and recycled by project completion. Major milestones were the demolition of the Southern Stand in October 2018 producing 1,3000t of concrete, the Northern Stand in November 2018 and the Western Stand in January 2019 producing 14,000t and 21,000t of concrete waste respectively. The majority of the construction waste was ultimately recycled into road bases and construction footings within Adelaide.

Plant and equipment utilised on the project included Komatsu PC850 and PC450 Excavator demolition excavators with multiple demolition attachments, bin trucks, skid steers, a 250t crane, front end loader, semi-tipper and 3t, 5t and 13t excavators. The use of demolition excavators eliminated the risk of workers undertaking manual demolition works. Workforce peaked at 20 and completed 30,000 workhours without incident.

Project Challenges

Light tower sequenced demolition

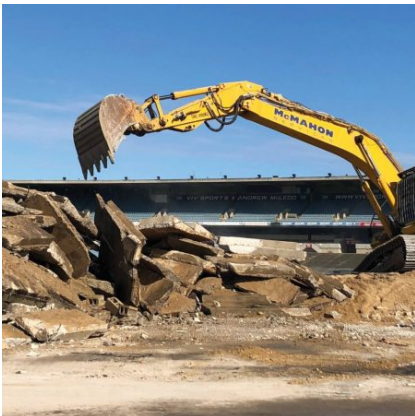
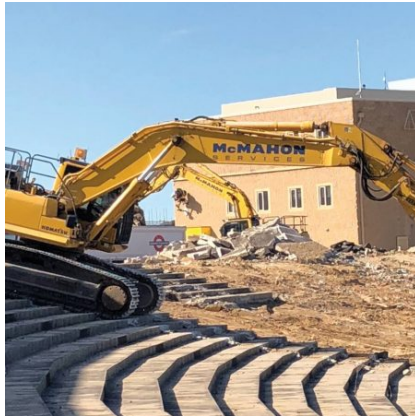
A major challenge on the project was the dismantling of four 63m light towers, achieved through a series of complex crane lifts and oxy-LPG cutting works. Using a combination of a 250t Liebherr hydraulic crane with a vertical reach of 72m and guide plates welded inside each structure, the light towers were held in place while one tradesperson cut the metal frame and another tradesperson acted as a spotter.

Once cutting was complete, a 9t section was then lifted vertically and carefully from each tower and lowered to the ground adjacent to the remaining tower structure. A 25t Franna crane ensured that the light tower could be laid horizontally to minimise damage to the tower and maximise the salvageability of its component parts.

The process was then successfully repeated two more times through the various tower levels for each tower, with ground level deconstruction being achieved on the following day. All four towers were safely dismantled according to plan.

Checkside Tavern bracing during demolition

South Australian National Football League's Checkside Tavern continued to operate throughout the demolition process. The adjoining walls connecting the tavern to the stadium structure were removed, appropriately braced and replaced to ensure the taverns long-term future. Detailed engineering and staging plans ensured the tavern was structurally braced and protected at all stages of the demolition works, including bracing for earthquake proofing.



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