



**HERITAGE
COUNCIL**
OF WESTERN AUSTRALIA

REGISTER OF HERITAGE PLACES

Assessment Documentation

11. ASSESSMENT OF CULTURAL HERITAGE SIGNIFICANCE

Cultural heritage significance means aesthetic, historic, scientific, social or spiritual value for individuals or groups within Western Australia.

In determining cultural heritage significance, the Heritage Council has had regard to the factors in the *Heritage Act 2018* and the indicators adopted on 14 June 2019.

PRINCIPAL AUSTRALIAN HISTORIC THEME(S)

- 3.5.3 Developing agricultural industries
- 3.8.5 Moving goods and people on land
- 3.8.6 Building and maintaining railways
- 4.5 Making settlements to serve rural Australia

HERITAGE COUNCIL OF WESTERN AUSTRALIA THEME(S)

- 107 Settlements
- 202 Rail & light rail transport
- 302 Rural industry & market gardening

11(a) Importance in demonstrating the evolution or pattern of Western Australia's history

CBH Grain Silos (fmr), Bunbury demonstrates the early development of bulk handling systems in the State.

CBH Grain Silos (fmr), Bunbury was the first purpose-built bulk grain terminal in the State.

11(b) Importance in demonstrating rare, uncommon or endangered aspects of Western Australia's heritage

CBH Grain Silos (fmr), Bunbury is rare as the site of the earliest purpose-built bulk handling terminal in Western Australia, which still retains a significant amount of the original fabric, now adaptively reused as a residential complex.

11(d) Its importance in demonstrating the characteristics of a broader class of places;

CBH Grain Silos (fmr), Bunbury alludes to the physical form and contains some extant machinery and machinery spaces associated with a bulk grain terminal.

11(e) Any strong or special meaning it may have for any group or community because of social, cultural or spiritual associations;

CBH Grain Silos (fmr), Bunbury is of social significance to the Bunbury community, the place saved from destruction in 1994 through community support and protest.

11(f)¹ Its importance in exhibiting particular aesthetic characteristics valued by any group or community;

CBH Grain Silos (fmr), Bunbury is a significant local landmark, initially as part of an imposing bulk terminal structure at the edge of the Bunbury Port, and later as part of an innovative adaptive reuse of the silos as part of a residential complex.

11(g) Any special association it may have with the life or work of a person, group or organisation of importance in Western Australia's history;

CBH Grain Silos (fmr), Bunbury is associated with Co-operative Bulk Handling Ltd, a company that arose as a response to the effects of the Depression on farmers, and has continued to shape the development of Western Australia's agriculture since that time.

11(h) Its importance in demonstrating a high degree of creative or technical achievement;

CBH Grain Silos (fmr), Bunbury was a significant technical achievement, constructed by working on a continuous 24-hour basis over a 20-day period.

The adaptive reuse of *CBH Grain Silos (fmr), Bunbury* was an innovative response to the prospect of demolition, with the design commended at the RAI National Awards and Heritage Council Awards.

¹ For consistency, all references to architectural style are taken from Apperly, R., Irving, R., Reynolds, P. *A Pictorial Guide to Identifying Australian Architecture. Styles and Terms from 1788 to the Present*, Angus and Robertson, North Ryde, 1989.

For consistency, all references to garden and landscape types and styles are taken from Ramsay, J. *Parks, Gardens and Special Trees: A Classification and Assessment Method for the Register of the National Estate*, Australian Government Publishing Service, Canberra, 1991, with additional reference to Richards, O. *Theoretical Framework for Designed Landscapes in WA*, unpublished report, 1997.

12. DEGREE OF SIGNIFICANCE

12.1 CONDITION

The condition of the original concrete structure of the silos is deteriorating with evidence of concrete cracking, delaminating and cracking.

12.2 INTEGRITY

This section explains the extent to which the fabric is in its original state.

CBH Grain Silos (fmr), Bunbury has been used as residential apartments since 2007, with extensive alterations made to accommodate this new use including new floors and openings throughout the silos that previously would have been large closed voids used for storage. The legibility of the silos is compromised due to the amount of change that has been undertaken and as such their integrity is low to moderate.

12.3 AUTHENTICITY

This section explains the extent to which the original intention is evident, and the compatibility of current use.

Although the external form of the place alludes to its historic use as silos, the extensive alterations to convert the place to apartments, together with this contrasting change of use, means the silos have a low degree of authenticity.

13. SUPPORTING EVIDENCE

The documentation for this place is based on G B Hill and Partners, *Bunbury White (Grain) Silos Assessment*, South West Development Authority for the Heritage Council of Western Australia, August 1994, with amendments and/or additions by the Heritage Council and the Department of Planning, Lands and Heritage.

13.1 DOCUMENTARY EVIDENCE

CBH Grain Silos (fmr), Bunbury consists of four adjoining remnant concrete silos with six interspace bins, which have been converted to apartments, together with associated removed machinery (1937), as well as a commercial complex to the north (2003), hotel complex to the south (2007), and indoor pool complex adjacent to the silos (2007). The silos were constructed for the Co-operative Bulk Handling Ltd and originally formed part of the extensive grain handling facility at the Port of Bunbury.

In the region around Bunbury the Noongar groups were known as the *Binjareb* (also recorded as *Pinjarup*). Extended family groups utilised the natural resources of the area, coming together annually to take advantage of the cyclical abundance of various food sources. In the case of the Binjareb, the fish traps at Balgarrup were a series of communal structures that provided for such events.² This way of life began to be disrupted in the 1830s with the arrival of colonists.

Koombana Bay was identified as a port that could service the arable farmlands of the region, however the area was not settled until 1838. Development of the region was slow, however the introduction of convict labour in the 1850s created a new labour force and resulted in colonial funding for roads and bridges.³

By the 1860s, Bunbury had developed to the point where a jetty was requested of the colonial government to improve grain shipping, and a timber jetty was constructed in 1864 (P3402 *Bunbury Timber Jetty* [RHP]).⁴

As agriculture in the region expanded and Bunbury became the principal port for the region, the jetty was progressively extended in 1872, 1875, 1888 and 1897, resulting in a jetty 2,660 feet (810 m) in length providing for eighteen feet depth of water at the berths.⁵

The discovery of gold in Western Australia's interior during the late 1880s and early 1890s saw the transformation of the Western Australian economy, which spurred agricultural expansion to feed the booming population of the goldfields, as well as substantial infrastructure projects to improve transportation and across the State.

² Lilley, I, 'Recent Research in Southwestern Western Australia: A summary of initial findings', *Australian Archaeology*, No 36, 1993, pp. 34-41; Gibbs, M, 'An Aboriginal fish trap on the Swan Coastal Plain: the Barragup mungah', *Records of the Western Australian Museum*, 2011, vol 79, pp. 5-12; Koch *et al. op cit.*, p. 26;

³ 'Bunbury's History', Bunbury Museum Heritage Centre, accessed 27 March 2020, <http://bunburymuseum.com.au/Pages/Bunburys-History.aspx>; see assessment documentation P3402 *Bunbury Timber Jetty* (RHP)

⁴ 'Bunbury', *The Perth Gazette and West Australian Times*, 9 December 1864, p. 3; see Assessment Documentation P3402 *Bunbury Timber Jetty* (RHP)

⁵ G B Hill and Partners, *Heritage Council of Western Australia, Bunbury White (Grain) Silos Assessment*, South West Development Authority, 1994, p. 3; Bodycoat, R, *CBH Silos, Bunbury, Conservation Plan*, Kareelya Property Group, 2002, pp. 8-9

These government projects included the expansion of railway and telegraph networks, as well as the redevelopment of Victoria Quay at Fremantle.⁶

Another major government project was the redevelopment of Bunbury's harbour, as the town continued to act as the main port for the area. While Premier John Forrest identified Bunbury as the key port for the south-west region in 1891, the harbour was considered unsafe in winter and a number of shipwrecks had already occurred in the area.⁷

At the instigation of C. Y. O'Connor, Public Works Department Engineer-in-Chief 1891-1902, the construction of a 3,200 feet long breakwater from Casurina Point was undertaken in 1898, together with the connection of the jetty to the rail system via a rubble construction causeway 1,432 feet (436 m) long, followed by a 874 feet (266 m) long viaduct and a further 300 feet (91 m) extension. Between 1900 and 1920, extensions and widening of the jetty and breakwater continued on an almost continuous basis.⁸

By the inter-war period, it was recognised that the traditional method of bagging grain for export had become costly and inefficient, especially as the bags had to be sewn by hand and could not be recovered once sold. A method of bulk handling wheat was publically considered, however the costs of construction and impact of the World War I quashed any progress in this regard.⁹

After the global economic collapse of 1929, wheat prices fell dramatically and the bagging method made grain even less profitable. Farmers faced with losing their farms made renewed calls for an economic method of bulk handling to be developed.¹⁰ A system was devised by John Thompson, H Braine and Steve Wood of the Westralian Farmers Ltd in 1931, utilising a large, horizontal base with a frame that supported multiple bins that was connected to a series of bucket elevators adapted from bagging machinery. Temporary bulk handling equipment was provided at Fremantle to handle the grain.¹¹

This was followed later that year by a series of experimental bulk handling silos in the Wheatbelt towns of Trayning, Yelbeni, Korelocking, Benjaberring and

6 (Standard Gold Boom references, use Sunnyside and Hunt's Wells); also see assessment documentation P25378 *Railway Rock Catchment Dam Group, Yilgarn* (RHP), P761 *Balladonia Telegraph Station (fmr)* (RHP), P3602 *Victoria Quay* (RHP)

7 'The Annual Dinner. Speech by the Premier', *Western Mail*, 21 November 1891, p. 17; 'The Premier at Bunbury. Harbour Works and Water Supply', *Western Mail*, 22 November 1895, p. 6; see assessment documentation P3402 *Bunbury Timber Jetty* (RHP)

8 G B Hill and Partners, *op cit.*, p. 3; Bodycoat, *op cit.*, pp. 9-10

9 'Bulk Handling of Wheat', *The Moora Herald and Midland Districts Advocate*, 3 November 1916, p. 3; 'Bulk Handling of Wheat', *Great Southern Herald*, 18 December 1918, p. 3; 'Bulk Handling of Wheat', *The Daily News*, 2 June 1923, p. 5; 'Bulk Handling of Wheat', *Sunday Times*, 18 December 1927, p. 7; Bodycoat, *op cit.*, p. 11; see also assessment documentation for P5934 *CBH Bins, Pingelly* (RHP), P3550 *Co-operative Bulk Handling Building (fmr), West Perth* (RHP), P666 *Wubin Wheatbin* (RHP)

10 C W Angwin (Chair), *The Bulk Handling of Wheat Royal Commission Report*, Sir James Mitchell KCMG Lieut-Governor Western Australia, 1935, pp. iv-vi; 'Northern Wheat Growers. Mov to Reduce Production Costs', *The West Australian*, 13 November 1929, p. 21; 'Geraldton Harbour Bulk Handling Facilities', *Geraldton Guardian and Express*, 23 November 1929, p. 1; 'Wheat Cultivation. Production Costs Too High', *Great Southern Herald*, 8 March 1930, p. 5

11 'Bulk Handling. Scheme Outlined', *Western Mail*, 6 August 1931, p. 46; Bodycoat, *op cit.*, pp. 10-12; see also assessment documentation for P5934 *CBH Bins, Pingelly* (RHP), P3550 *Co-operative Bulk Handling Building (fmr), West Perth* (RHP), P666 *Wubin Wheatbin* (RHP)

Nembudding. Existing wheat sheds were converted into basic bulk handling systems and railway wagons were converted to be able to handle bulk grain.¹²

With the success of this trial, the Trustees of the Wheat Pool of Western Australia and Westfarmers jointly registered the company Co-operative Bulk Handling Ltd (CBH) on 5 April 1933, which took over the experimental sidings and set about expanding the system.¹³ One of the early aims of CBH was to develop bulk handling facilities at Victoria Quay in Fremantle, and preliminary work began at Fremantle in 1933.¹⁴

The following year, CBH was able to accrue a loan from England for £250,000 for the erection of additional bulk handling terminals at Bunbury and Geraldton. The terms of this loan asked for no additional funding or assistance from the State government, however a Royal Commission into bulk handling in late 1934 put a freeze on the leasing of any more sites to CBH. Concerned about the profitability of the venture, the Premier's position at this time was that "the work which has taken place has been more or less in the nature of an experiment."¹⁵ The investigation dragged on until August 1935, and recommended that CBH continue their operations, but that a terminal be erected at Fremantle be under the control of the government.¹⁶ This resulted in the *Bulk Handling Act 1935*, which gave CBH sole rights over constructing and operating bulk handling stations at railway sidings until 1955. The Act however noted that in the absence of grain terminal facilities at Fremantle, Geraldton, Bunbury and Albany, CBH would need to make their own arrangements for meeting minimum storage requirements at port.¹⁷

CBH reacted by attempting to build a grain terminal at Victoria Quay, however after the Fremantle Harbour Trust refused CBH's request, a wool shed at Leighton Beach was converted into use as a grain bulk handling terminal. The following year, the Leighton shed was extended and a transit shed at North Quay was converted into a grain terminal, albeit one labelled "a temporary expedient" without the use of vertical silos.¹⁸

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- 12 'News From Wheat Centres', *Western Mail*, 31 December 1931, p. 20; 'Bulk Handling', *The West Australian*, 12 August 1931, p. 12; see also assessment documentation for P5934 CBH Bins, Pingelly (RHP), P666 Wubin Wheatbin (RHP)
- 13 'Bulk Handling. Plans For Extension. New Company Formed', *Western Mail*, 13 April 1933, p. 29; 'Bulk Handling', *The Perenjori Pioneer*, 8 April 1933, p. 6; 'Bulk Handling. The Project in This District', *Narabbeen Observer*, 28 April 1933, p. 1; 'Bulk Handling of Wheat. Proposal Before the Government', *The Daily News*, 23 June 1933, p. 3; Bodycoat, *op cit.*, pp. 8, 9, 12; see also assessment documentation for P5934 CBH Bins, Pingelly (RHP), P3550 Co-operative Bulk Handling Building (fmr), West Perth (RHP), P666 Wubin Wheatbin (RHP); Westfarmers was later re-branded "Wesfarmers."
- 14 'Bulk Handling. Wharf Equipment Inspected', *The West Australian*, 8 December 1933, p. 22.
- 15 'Bulk Handling. A Royal Commission', *The West Australian*, 15 June 1934, p. 20; 'Bulk Handling. Extension of Facilities. The Question of Sites', *The West Australian*, 15 June 1934, p. 20
- 16 C W Angwin *op cit.*, p. xxv
- 17 'Bulk Handling Act 1935', Original Acts as passed, *Western Australian Legislation*, Parliamentary Council's Office website, accessed 20 March 2020, [https://www.legislation.wa.gov.au/legislation/prod/filestore.nsf/FileURL/mrdoc_12490.pdf/\\$FILE/Bulk%20Handling%20Act%201935%20-%20%5B00-00-00%5D.pdf?OpenElement](https://www.legislation.wa.gov.au/legislation/prod/filestore.nsf/FileURL/mrdoc_12490.pdf/$FILE/Bulk%20Handling%20Act%201935%20-%20%5B00-00-00%5D.pdf?OpenElement)
- 18 'Bulk Handling at Fremantle', *The Daily News*, 22 March 1935, p. 10; 'Bulk Handling. Loading at Fremantle', *The West Australian*, 7 February 1935, p. 17; 'Bulk Handling. West Australian System. Unique Engineering Feat', *The West Australian*, 13 December 1935, p. 31; 'Wheat in Bulk', *Western Mail*, 5 March 1936, p. 3; Bizzaca, K, 'The CBH silos, North Quay: weren't they sexy enough?', *Fremantle Studies*, vol 3, pp. 53-64, reproduced on *Fremantle Stuff* website, accessed 3 April 2020, <https://fremantlestuff.info/fhs/fs/3/Bizzaca.html>

The documentary evidence is unclear as to where the first purpose-built vertical bulk handling silo was constructed (as opposed to a converted shed), however the Royal Commission made mention of the “vertical silo” constructed by the mill manager at Kellerberrin c.1935 to compete with larger grain companies.¹⁹

The question over who would finance and control the grain terminal facilities became a sticking point which continued through to 1937. The government of the day proposed an independent board to control grain shipping facilities, a measure which was eventually defeated by farming interests.²⁰ However during this time farmers in Bunbury voiced a number of concerns about government delay and the lack of suitable bulk handling facilities at Bunbury Port.²¹ Faced with an increasingly agitated industry, the government responded by announcing the erection of bulk handling facilities at Bunbury in April 1937, which would be built and operated under government control.²² The announcement was celebrated by CBH, who announced the immediate expansion of bulk handling facilities along the railway lines of the region, however the facilities were bitterly opposed by waterside worker’s unions who feared that it would lead to job losses.²³

The design and construction supervision of the silos was carried out by the Harbours and Rivers Branch of the Public Works Department, the Engineer for Harbour Rivers being Mr J. Stevenson Young. The machinery and elevators were manufactured at the State Implement Works. The contract for the construction was let to A. T. Brine and Sons, an experienced building contractor having carried out contracts for the University of Western Australia and several other large buildings in Perth. The tender was accepted on 17 May 1937, for completion of the contract by 15 December 1937, the cost in the vicinity of £60,000. The Harbours and Rivers Branch of the Public Works Department commenced driving 377 timber piles in the early part of 1937, these being driven to the underlying basalt rock approximately 24 feet below the surface. The concrete silos were constructed by working on a continuous 24-hour basis over a 20-day period. The silos were completed and the machinery installed to enable the first trials to be carried out by the 15 December 1937 completion date. The associated machinery included rail wagon unloading facilities, conveyors, elevators, weighing and discharge equipment. The system enabled both bulk discharge into rail wagons for loading onto shipping, and also bagging facilities for export to countries not equipped with bulk handling facilities.²⁴

19 C W Angwin *op cit.*, pp. 7, 165, 208; ‘Bulk Handling Supported. Evidence of Mill Manager’, *The Daily News*, 26 March 1935, p. 5

20 ‘Bulk Handling. Control of Terminals’, *Geraldton Guardian and Express*, 2 December 1937, p. 5; ‘Bulk Handling Bother. Who Will Control Terminal Elevators?’, *Sunday Times*, 12 December 1937, p. 38; ‘Bulk Handling. Country Party’s Attitude’, *The West Australian*, 24 May 1938, p. 9; ‘Mr Johnson Tells Mr Lyons About Lost Bill’, *The Daily News*, 10 January 1938, p. 3

21 ‘Bulk Handling. The Bunbury Zone’, *The West Australian*, 30 January 1937, p. 6; ‘Wheatgrower’s Union’, *The West Australian*, 13 February 1937, p. 15; ‘Bunbury Bulk Handling’, *The West Australian*, 31 March 1937, p. 15; ‘Bulk Handling. The Bunbury Zone. Government Charged with Delay’, *The West Australian*, 13 April 1937, p. 10

22 ‘Bulk Handling. Terminal at Bunbury. Erection by Government’, *The West Australian*, 17 April 1937, p. 18; ‘Bulk Handling for Bunbury. Government Makes Anxiously Awaited Decision’, *Sunday Times*, 18 April 1937, p. 1; ‘Bulk Handling. The Bunbury Terminal’, *The West Australian*, 22 April 1937, p. 21

23 ‘Facilities at Sidings. Work to be Proceeded With’, *The West Australian*, 22 April 1937, p. 21; ‘Lumpers Don’t Want Bulk Handling’, *The Daily News*, 24 April 1937, p. 15

24 ‘Speedier Handling of Wheat’, *The West Australian*, 8 July 1937, p. 18; ‘Bulk Handling Progress. Successful Trials of Jetty Units’, *South Western Times*, 4 December 1937, p. 7; ‘Record Claimed for Erection of Bunbury

The grain terminal was officially opened on 27 January 1938, by the Acting Premier and Minister for Lands Mr M. F. Troy. In the course of his remarks the Minister commented that, 'There were features connected with the scheme which were rather unique, arising from the fact that storage had to be provided about a mile from the point of discharge into ships.'²⁵

While the newly-built silos were positively received, the following year Australia was plunged into the Second World War. Grain exports suffered as global trade collapsed, however the crops in hand meant that grain was increasingly stockpiled in the bulk handling terminals at port.²⁶

In 1947, the State government ceded operational control of the grain terminal at Fremantle to CBH under a loan arrangement that saw CBH paying the government interest on the value of the building every year. Operations at the Bunbury terminal were similarly handed over to CBH on 1 October 1948.²⁷

In the years 1946 to 1957, an almost continuous works program was carried out at Bunbury Harbour including dredging and breakwater work. In 1962, construction of the land backed berth inside the breakwater commenced. The expansion of the grain silo storage facilities by 18,000 tonnes was commenced in 1962, with the construction of a further eight grain storage cells termed the 'grey' silos. In 1969, construction of the inner harbour commenced providing facilities of the continued export of bulk materials facilities, namely alumina and woodchips.²⁸

New grain loading facilities were constructed in the outer harbour in 1982, however by this time CBH had largely switched its use of bulk grain handling to Fremantle and Kwinana.²⁹

The use of Bunbury as a facility for the export of grain ceased in 1991, the use of the 'white' silos having ceased in 1985. In 1989, Southwest Development Commission acquired the place as part of the Bunbury Harbour City Project. The

Wheat Silos', *The Daily News*, 22 December 1937, p. 2; G B Hill and Partners, *op cit.*, pp. 3-4; Bodycoat, *op cit.*, pp. 14-15

25 'Silos Completed', *South Western Times*, 21 December 1937, p. 2; 'Bulk Handling. System Opened at Bunbury', *Great Southern Herald*, 5 January 1938, p. 2; 'State's First Terminal Wheat Silos', *Sunday Times*, 9 January 1938, p. 19; 'Bulk Handling. Official Opening of Silos', *South Western Times*, 29 January 1938, p. 5; G B Hill and Partners, *op cit.*, pp. 3-4; Bodycoat, *op cit.*, pp. 14-15;

26 'Assisting the Wheatgrower', *Merredin Mercury and Central Districts Index*, 12 October 1939, p. 3; 'Australia's War Effort. Reorganisation of Economic Structure', *The West Australian*, 18 January 1940, p. 10; Bodycoat, *op cit.*, p. 15

27 'Bulk Handling Facilities. Company Control at Bunbury', *The West Australian*, 9 September 1947, p. 7; 'Bulk Handling Terminal. Government Agreement With Company', *The West Australian*, 7 November 1947, p. 20; 'Bulk Wheat Terminals', *The West Australian*, 28 October 1948, p. 9; 'Dealings in State Bulk Wheat Facilities', *The West Australian*, 11 December 1948, p. 9; Bodycoat, *op cit.*, p. 15

28 *View over Bunbury toward wheat silos and Bunbury Harbour, ca 1962*, Battye Library Historic Image Collection, 28118PD; Cumming, D, Garratt, D, McMarthy, M, Wolfe, A 'Port Related Structures on the Coast of Western Australia', *Report: Department of Maritime Archaeology, Western Australian Maritime Museum*, no 8, WA Museum, 1995, pp. 23-24; G B Hill and Partners, *op cit.*, p. 4; Bodycoat, *op cit.*, p. 15;

29 Pope, A, 'European History and Historic Sites – Technical Report for the Bunbury Harbour City Redevelopment', Unpublished report for the Waterways Commission on behalf of the South West Development Authority', 1990, pp.5-7; Bizzaca, *op cit.*; see assessment documentation P3602 *Victoria Quay* (RHP)

'grey' silos were imploded and the handling machinery removed in 1992 and the timber berthing jetty dismantled in 1993.³⁰

In 1994 the remaining "White Silos" were slated for demolition, however after public outcry the remaining silos were entered onto the State Register of Heritage Places in November that year.³¹ After this point control of the area was handed to LandCorp, who subdivided the land and sold the land as part of a private development in 1999. The plans for the remaining structure was an adaptive reuse of the silos as part of a commercial redevelopment of the precinct, a move supported by the Heritage Council of Western Australia. Between 1999 and 2002 a Heritage Agreement, a Conservation Plan and an Interpretation Plan were generated to guide the redevelopment of the site, and commercial and residential development immediately north of the silos commenced that year.³²

In 2003, a commercial complex was built north of the silo structures. Conversion of the silos into a residential and commercial complex with adjacent indoor swimming pool was complete by 2007, accompanied by a hotel complex development to the south. The adaptive reuse project went on to win a Design Commendation at the RAI National Award in 2002 and a High Commendation in the 2008 Heritage Council Awards.³³

13.2 PHYSICAL EVIDENCE

CBH Grain Silos (fmr), Bunbury consists of four adjoining remnant concrete silos with six interspace bins, which have been converted to apartments together with associated removed machinery (1937), as well as a commercial complex to the north (2003), hotel complex to the south (2007), and indoor pool complex adjacent to the silos (2007).

The transformation of the place does not lend itself to being categorised under a particular architectural style and is simply better described as an early 21st century modern adaptive re-use development of a functionalist inter-war industrial structure. The legibility of the building to differentiate between the new and original structure is not immediately apparent. Only on close inspection of the external facade is evidence of the former structure's adaptation apparent.

Siting

The place is located east of Casuarina Drive, close to the shoreline of Koombana Bay in the City of Bunbury. The previous wharf, rail network and jetty have all been removed with the edge of the water now realigned and the area is no longer used

³⁰ 'The Big Bang. Demolition Countdown', *South Western Times*, 1 February 1992, p. 1, as reproduced on the *South Western Times* website, accessed 3 April 2020, <https://www.swtimes.com.au/news/south-west/february-1992-in-the-south-west-ng-b881348977z>; G B Hill and Partners, *op cit.*, p. 4; Bodycoat, *op cit.*, pp. 15-16

³¹ 'The Big Bang. Demolition Countdown', *South Western Times*, 1 February 1992, p. 1, as reproduced on the *South Western Times* website, accessed 3 April 2020, <https://www.swtimes.com.au/news/south-west/february-1992-in-the-south-west-ng-b881348977z>; *Legislative Council, Wednesday, 19 November 1997*, State Hansard, accessed 12 January 2021, [https://www.parliament.wa.gov.au/hansard/hans35.nsf/\(ATT\)/D9AE33857E9F926B482566010028AB69/\\$file/C1119001.PDF](https://www.parliament.wa.gov.au/hansard/hans35.nsf/(ATT)/D9AE33857E9F926B482566010028AB69/$file/C1119001.PDF)

³² Bodycoat, *op cit.*, p. 16; Historic Aerial Landgate imagery, accessed via InQuery system 3 April 2020, years 2000, 2001, 2002.

³³ 'Broadwater Apartments, Bunbury', *Airey Taylor Consulting* website, accessed 3 April 2020, <https://atconsulting.com.au/project/broadwater-apartments-bunbury/>

for port activities. The site and surrounding context has been transformed from an industrial area into a modern urbanised part of the city.

The surrounding context consists of the adjoining Marsden Hill development to the west, Koombana Drive to the south, and open parkland to the east that stretches about 100m to a narrow sandy beach at Point McCleod.

Silos Structure

Each of the four main cylindrical silo structures are approximately 10m in diameter and 35m in height with an overall length of 45m. They are built on reinforced concrete foundations supported by 7.3m timber piles bearing onto the underlying basaltic rock. The original concrete walls are 300mm thick with vertical and horizontal reinforcement. The construction method was innovative at the time which allowed the silos to be built very rapidly. The elevator pit foundations, which were adjacent to the southern cell, were carried through to the underlying basaltic rock.³⁴

These four silos are interspersed by six interspace bins between the cylinders on the outer face, three to each side (also known as “blister cells”). These semi-circular bins were originally used for the storage of grain for shipping or for reject and housed metal grain chutes and control equipment.

The 2007 conversion of the silos into an apartment complex involved a number of significant structural alterations that can be summarised as follows:

- New concrete floor slabs at each floor level.
- Cutting of openings in the concrete walls to form windows and doors.
- New lifts and stair wells.
- New roof structure.

A rectangular reinforced concrete tunnel still remains and runs the full length of the silos below ground level and originally housed a belt conveyor for the loading of hopper bottom jetty trucks.

Silos External Façades

The materiality of the exterior face of the silos is off form concrete painted white with each façade punctured with a series of new openings incorporating aluminum frame windows, louvres and doors. The upper half of the top floor level is clad with aluminum cladding. New contemporary steel entrance canopies have been installed to both the east and west elevations to provide a covered entry at ground floor level. New curved concrete balconies with glass balustrading have been added at each of the upper floor levels to the east elevation. There is a shade structure at roof level to both the north and south facades of the building.

Even through it is a significant adaptation, the scale and stark white form of the silos maintains a visible presence along the skyline, contributing to the prominence of the place as a landmark in the Bunbury region. This landmark value is most prominent from the eastern and western views of the place, as the new development to the north and south somewhat obscures the view.

³⁴ Bunbury Silo Apartments Structural Report by Maitland Heritage Engineering, June 2016.

In 2019, a survey of the building structure revealed a number of areas of concrete cracking caused by water ingress.³⁵

Silo Basement and Ground Floor Level

The basement and ground floor levels of the silos have been adapted and extended to accommodate a number of ancillary uses for the upper level apartments and the adjacent hotel complex. At basement level the silos have been altered to create storage and plant room facilities with changing areas and a stair and lift lobby to new extended areas. At the basement level there still exists one example of original remnant machinery, part of the system that originally serviced the tunnel that transported the grain for loading. At ground floor level the silos have been converted into lounges, a spa facility and the main stair and lift lobby that runs to all floors of the building. The immediate new extended areas at ground level include a gallery, club lounge and indoor swimming pool. At both floor levels there are a number of new openings created throughout the original concrete wall structure to facilitate these new uses, together with new floor slabs, new walls, service penetrations and floor and wall finishes.

Silos Upper Floor Levels (1-8)

The upper levels of the building accommodate three 2-bed apartments at levels 1-5 and two 3-bed apartments at levels 6-8. All apartments have been integrated within the four cylindrical structures with curved sections of original walls clearly expressed throughout providing a direct connection to the original building form. As per the basement and ground floor structure, all floor levels have a number of new openings created throughout the original concrete wall structure to facilitate the conversion, together with new floor slabs, new walls, service penetrations and floor and wall finishes.

Machinery Exhibit

A notable piece of interpretation representing the former use of the place is a cast iron cogged wheel and attached drum that is located in the landscaped area to the east of the building.

Adjoining buildings

The place also includes a commercial complex (2003), indoor swimming pool (2007) and hotel complex (2007), which are all recent urban residential/commercial structures associated with the modern redevelopment of the place.

13.3 COMPARATIVE INFORMATION

CBH Grain Silos (fmr), Bunbury was constructed in 1937 for Co-operative Bulk Handling Ltd and originally formed part of the extensive grain handling facility at the Port of Bunbury. A search of the Historic Heritage database for places associated with the keywords “bulk handling” returns 69 places, of which 7 are on the State Register of Heritage Places (RHP). The places most comparable to *CBH Grain Silos (fmr), Bunbury* as bulk handling or remnant bulk handling infrastructure with extant fabric include:

³⁵ PSH Engineering, *Bunbury Silo Apartments Strata 4351 Repair Works Assessment*, Unpublished Report, 2019

- P666 *Wubin Wheatbin (fmr)* (RHP): established in Wubin in 1939, this place one of only 3 1930s “H” type wheatbins, and demonstrates the early development of the CBH company and the developing bulk handling technology.
- P3402 *Bunbury Timber Jetty* (RHP): established in Bunbury in 1864 and extended numerous times, tis 590 metre long timber jetty was associated with *CBH Grain Silos (fmr), Bunbury* from 1937 until 1991.
- P5934 *CBH Bins Pingelly* (RHP): established at Pingelly in 1933, the structures on the site were constructed in 1962. The site is considered significant as a demonstration of the bulk handling system.
- P15755 *Wyalkatchem Railway and CBH Precinct* (RHP): established in Wyalkatchem after 1911, this precinct includes a 1936 CBH wheat bin, one of the earliest in the region, demonstrating the early development of bulk handling technology.
- P1389 *Cooperative Bulk Handling Grain Store* (Local Heritage Survey): established in the Shire of Kent in 1940, these structures are remnants of the earlier CBH grain handling bin sheds, rather than silos.
- P5278 *CBH Silos* (Local Heritage Survey): established in Three Springs in 1960, the current operational structures on site were constructed in the 1990s.
- P6407 *Yuna CBH Silos* (Local Heritage Survey): established in Chapman Valley in the 1930s, bulk handling facilities at the town site closed after 1961.
- P7026 *Dundinin Railway Precinct* (Local Heritage Survey): established at Kulin in 1915, bulk handling facilities were added in 1937. The current sheds on site are 1960s replacements.
- P7028 *Pingaring Railway Siding Precinct* (Local Heritage Survey): established in Kulin in 1932, and bulk handling facilities were established in 1939. The bulk handling facilities have been upgrades from the 1960s onwards.
- P7234 *CBH Bins* (Local Heritage Survey): established at Cuballing in 1959, it is unknown if the current structure is original.
- P8280 *Bullaring Railway Siding* (Local Heritage Survey): established at Corrigin in 1937, the functioning sheds on site were constructed in 1973.
- P8913 *Binnu Wheat Bins* (Local Heritage Survey): established in Binnu in 1968.
- P9025 *CBH* (Local Heritage Survey): established in Wagin in 1964, this large operation bulk handling facility has been continuously upgraded since its construction.
- P10845 *Yarding Siding & Wheat Bin* (Local Heritage Survey): established in Bruce Rock in the 1930s, the current operational structures date to 1979.

- P10915 Grain Storage Bins (Local Heritage Survey): established at Northam after 1937 and upgraded a number of times over the years, this is the largest operational bulk handling facility in the Wheatbelt. Of note are the painted silos, a public art project from 2015.
- P11019 Bindi Bindi Wheat Bins (Local Heritage Survey): established in Bindi Bindi in 1925, bulk handling facilities were added in 1937. The bins are the last of their type still left on the line.
- P11164 Coomberdale railway siding & bin – Site of (Local Heritage Survey): established at Moora in 1894, bulk handling facilities were added in 1938. The current bulk handling facilities are later replacements.
- P11185 Miling Siding (Local Heritage Survey): established in Moora in 1925, the bulk handling facilities were constructed in 1937. The structure was replaced in 1952 and has been upgraded a number of times since.
- P11409 Kondinin Railway Precinct (Local Heritage Survey): established at Kondinin in 1915, and bulk handling facilities were established in 1937. The current sheds were constructed at a later date.
- P12055 Warralakin CBH (Local Heritage Survey): located in Westonia, bulk handling facilities were established in the 1940s. The current structures date from 1955.
- P12538 Kondut Siding (Local Heritage Survey): located in Wongan-Ballidu, established in 1913. Bulk handling facilities were erected in the 1930s and later bulk handling structures still exist at the site.
- P12678 Newdegate Railway Precinct (Does Not Warrant Assessment): established at Lake Grace in 1925, bulk handling facilities were constructed in 1937 and have been upgraded a number of times since. Of note at this site are the “painted silos.”
- P12757 CBH Co-operative Bulk Handling (Local Heritage Survey): established at Lake Grace in 1980, this operational facility demonstrates the significance of grain handling to the local community.
- P15270 CBH Bin (Local Heritage Survey): established in Nungarin in 1964, these bulk handling facilities have been upgraded a number of times.
- P17196 Boyerine Co-operative Bulk Handling Site (Local Heritage Survey): established at Woodanilling in 1959, only the foundations remain.
- P17197 Co-operative Bulk Handling Facility (Local Heritage Survey): established in Woodanilling in 1940. The current operational structures date to 1976.
- P18482 Kwinana Grain Terminal, Granary Museum & Jetty (Local Heritage Survey): located at Rockingham and constructed by CBH 1969-1975, this bulk handling facility is the largest currently operating in the State.
- P22531 Inner Harbour (Local Heritage Survey/ Local Heritage List): located at Fremantle and constructed in 1892, this harbour has been continuously upgraded as the State’s main shipping port. Bulk handling facilities existed in some form at the north quay from 1936 until 2000.

While not as directly comparable to *CBH Grain Silos (fmr), Bunbury* as the places listed above, another place that demonstrate the significance and impact of CBH in the development of agriculture in the State is P3550 *Co-operative Bulk Handling Building (fmr), West Perth* (RHP). This place comprises a six-storey concrete office building in the City of Perth, purpose built by CBH in 1968 and operated by them until 2003.

The comparative evidence indicates that *CBH Grain Silos Bunbury, (fmr)* could be considered rare as an example of a bulk handling terminal, with only P18482 Kwinana Grain Terminal, Granary Museum & Jetty, and P22531 Inner Harbour being directly comparable, however terminal facilities were by their nature fewer in number than the other bulk handling silos along railway lines.

It is noted that the places identified in the documentary evidence at Leighton and P22531 Inner Harbour can be considered the first bulk handling terminal sites in the State, however these structures were considered temporary and experimental structures in their time. While not the first site to include the construction of vertical grain silos, *CBH Grain Silos (fmr), Bunbury* is still considered to be the earliest purpose-built bulk handling terminal including vertical silos in the State.

CBH Grain Silos (fmr), Bunbury is additionally considered rare as a place with physical remnants of the early bulk handling technology, of which only P666 *Wubin Wheatbin (fmr)* (RHP) and P15755 *Wyalkatchem Railway and CBH Precinct* (RHP) similarly show original physical fabric.

13.4 KEY REFERENCES

Bodycoat, R, *CBH Silos, Bunbury, Conservation Plan*, Kareelya Property Group, 2002

13.5 FURTHER RESEARCH
