Local Heritage Places

Heritage Citation

Substation No. 212

Key details

Addresses	At 224 Wynnum Road, Norman Park, Queensland 4170
Type of place	Substation
Period	Interwar 1919-1939
Style	Free Classical
Lot plan	L1_RP54754; L2_RP47127
Key dates	Local Heritage Place Since — 1 January 2004 Date of Citation — April 2015
Construction	Roof: Terracotta tile; Walls: Masonry

People/associations	Alfred Herbert Foster (Architect); Harold Erwood (additions) (Architect)
Criterion for listing	(A) Historical; (H) Historical association

Substation No. 12 was erected in 1929-30 as part of the Brisbane City Council's commitment to supply electricity to the Greater Brisbane region. Substations were essential components for distributing an effective electrical service throughout the City for most of the twentieth century. The brick and concrete building was probably designed by the Greater Brisbane City Council's first City Architect, Alfred Foster, who also designed a number of other substations throughout Brisbane. Additions, undertaken in 1937-8, were designed by City Architect Harold Erwood.

History

The history of electricity supply and distribution began in Brisbane in 1882, with the demonstration of eight arc light street lamps, which were powered by J.W. Sutton and Company's steam engine, housed in Adelaide Street. The first electricity generating and distribution systems to supply private consumers had started operation in Britain and the United States in the same year.

In 1887 the company Barton and White was formed, and in 1888 it had a powerhouse operating in Edison Lane, behind the General Post Office, the latter becoming the first consumer to be supplied by an electrical supply undertaking in Australia. Barton and White's Direct Current (DC) dynamo produced 100 volts to power the post office's arc lights. By 1896 Barton and White had become the Brisbane Electric Supply Company. In 1904 the latter became the City Electric Light Company (CEL). After the closure of the powerhouse at Edison Lane in 1899, CEL operated a powerhouse at 69 Ann Street until 1915, and another in Williams Street from 1912 to 1930.

In 1893 Thargomindah was the first town in Queensland, outside Brisbane, to have an electrical supply. It was also the first town in Australia to use municipally owned electric streetlights, and the first to have a hydroelectric plant, supplied by an Electric Authority. Charters Towers' electrification followed in 1897, with Rockhampton in 1898, and Toowoomba in 1905. By 1914, six towns outside Brisbane had electricity.

By 1922 there were four power stations in Brisbane: the three tramways power stations, and CEL's Williams Street power station.

The three power stations that the BCC had inherited were having difficulty coping with supplying both the expanding tramways, and the suburbs of Ithaca and Toowong. Other pre-amalgamation local authorities had purchased their electricity in bulk from CEL, under ten year agreements, and the last of those agreements did not expire until 1935. Until then the BCC had to continue to purchase electricity for the areas concerned from CEL, which refused to sell its assets at a price agreeable to the BCC. CEL built the Bulimba power station in 1926, and continued to supply the central city and South Brisbane after 1935.
In 1925 the BCC was faced with an obsolete electricity network, and decided that it needed to upgrade its own generation capacity and infrastructure. This lead to rapid expansion in the late 1920s, as a co-ordinated, uniform distribution system was developed. The BCC encouraged the public to connect to existing supply lines, and

promoted electrical appliances at its own showrooms. After the New Farm power station became operational in June 1928, under the BCC Tramways Department, the three obsolete power stations were closed.

In Brisbane, as each local authority's ten-year agreement with CEL expired, that area's public electricity supply was sourced from New Farm, via ESD substations. The main transmission system carried 11kV AC from New Farm to the main control substations, which were built in a distribution loop. Four 11kV main control substations were built by the BCC in 1928: Victoria Park (No.4), Lang Park (No.6), Victoria Street Woolloongabba (No.9), and Cairns Street, Kangaroo Point (No.11). By 1930, Balmoral (No.12), Stephens (No.13), and Hamilton (No. 5) had been added. They were all made of brick, and were designed to harmonise with existing residential buildings. One 5kV main control substation was also in ESD operation in 1930. Underground cables linked the main control substations to automated substations, the distribution being controlled from a room in City Hall.

Balmoral Shire's electricity supply agreement with CEL ended in 1930, as did the agreements with the Coorparoo, Hamilton and Stephens Shires.

The decision to gradually change Brisbane's street lighting to the series system was taken in 1927, and the BCC decided to switch Balmoral and Coorparoo's street lighting to the series system in May 1930. In a parallel circuit system, each item receives its own full voltage from the power supply, but in the series system the current flows through each item in turn, in a loop from the power source. A series street lighting circuit usually consisted of about 100 lamps, and required a minimum of 2000 volts. If more lamps were added, a higher voltage was required to maintain the necessary current. If a lamp burnt out, two metal disks would carry the current and maintain the circuit. Incandescent street lights had become economically practical by 1917, and Brisbane developed its street lighting system using incandescent lamps, in series. The only other towns to use the series system for street lighting, since they had AC generators, were Maryborough, Mackay, Townsville and Cairns. Other towns used incandescent lights on the parallel system.

Title to the small site was transferred to the Brisbane City Council in 1929, and tenders for the substation on Galloway’s Hill were called in September 1929. The structures were to be:

> …of brick and concrete, with tiled roofs, and the dimensions will be approximately 33 feet by 18 feet. The buildings will be one-storied, with steel frame windows, and will be used for the housing of switchgear. The plans were prepared by the City Architect’s Department, and provide for buildings that will be ornamental as well as utilitarian.’ *(Brisbane Courier 17 September 1929 p11)*

The design for the substation was completed by the prominent Brisbane City Architect A.H. Foster. Albert Herbert Foster (1873-1932) commenced work as assistant architect and building surveyor with the Brisbane Municipal Council in 1913. He was appointed City Architect following the formation of the Greater Brisbane City Council in 1925 and served in this position until his death in 1932.4 He was responsible for such civic buildings as Kurilpa Library (1927) and Victoria Park gold clubhouse (1931). Foster also designed other substations including Gregory Terrace (1928), Kangaroo Point (1928), Lang Park (1928, demolished), Moorooka (1929), Hamilton (1929, demolished), and Coorparoo (1930). Foster was renowned for his distinctive brick buildings.5

H. J. Erb’s tender for £763 was accepted in October. Tenders were also called for a five panel, 11,000 volt metal clad switchboard for the substation, which was installed at a cost of £1,810. Duplicate 11,000 volt cables were laid in 1930, and submarine cables connected the substation to the powerhouse at New Farm.

Substation Number 12 was opened in 1930. [The Tramways Substation was built on the other side of Galloway’s Hill in 1935.]

By 1937 the building was considered too small. Land with a frontage to Balmoral Street was resumed in 1938 and the substation extended later that year. This time the design work was undertaken by controversial City Architect Harold Erwood. Erwood served as City Architect from 1934 until 1940 on the salary of £475 p.a. He was appointed to the position after the death of A.H. Foster in 1934. Erwood also designed sub-stations at Kedron, Newmarket and Newstead.
Initially numbered as ESD substation No.12, it was renumbered as No. 212 when all substations in Brisbane were transferred to the BCC in 1963. To avoid any duplication of numbering, all existing BCC stations were prefixed with the number "2" at this time.

In 1949 CEL started constructing the Bulimba B power station, and the BCC started work on a power station at Tennyson. The new stations were commissioned in 1953 and 1955 respectively. When CEL became the Southern Electric Authority (SEA) in 1953, the BCC continued to run the New Farm and Tennyson power stations, and distributed power to the city, whereas the SEA sold power to the BCC, and distributed outside Brisbane. The New Farm power station was transferred to the SEA in 1963, while all substations were handed over to the BCC in same year. From 1963 onwards, the BCC only distributed power, which was purchased from the SEA. The year 1969 witnessed the disbandment of the tramways system, and the New Farm power station was decommissioned in 1971. On 1 July 1977, the South East Queensland Electricity Board (SEQEB) took over distribution of power in Brisbane, and the BCC's Department of Electricity disappeared.

Responsibility for Substation 212 passed from the South East Queensland Electricity Board to Energex. Energex continues to own the property. The substation was still operational in 2003.

Description

The building is on a narrow site between Wynnum Road and Balmoral Street and is tightly ‘wedged’ between buildings on either side, particularly along the Wynnum Road frontage. The building is a small single storey load-bearing brick structure with a terracotta tiled hipped roof. The front façade towards Balmoral Street contains the main roller shutter access door for equipment maintenance, which is set into a painted rendered entablature embellished with the Council emblem and sub-station number. There are plain pilasters on either side.

The face brick is in English bond and has rendered quoins denoting the corners of the original building. Windows are multi-panned steel framed and glazed type with a square headed lintel over, and a continuous corbelled concrete or rendered string course runs around the building at the top of the walls.

Later extensions are defined by the change to red terracotta roofing tiles and stretcher bond face brickwork. There are two vertical concrete walls punctuating the roof line which may also define later changes and extensions to the building. Several roof-mounted ventilators penetrate the roof line.

At the south-east corner, the roof eaves have been damaged by the closeness of the adjoining building, and the gutter has been cut away at this point. The southern face of the building is located below the roadway and deeply set back from the road alignment so as to be unnoticeable.

Statement of significance

Relevant assessment criteria

This is a place of local heritage significance and meets one or more of the local heritage criteria under the Heritage planning scheme policy of the *Brisbane City Plan 2014.* It is significant because:

Historical

CRITERION A

The place is important in demonstrating the evolution or pattern of the city's or local area's history

as evidence of Brisbane's system of electricity distribution and the level of technology found within the electricity industry in Brisbane from the late 1920s and beyond.

Historical association

CRITERION H

The place has a special association with the life or work of a particular person, group or organization of importance in the city's or local area's history

as an example of the work of notable Brisbane architect and the first City Architect of the Greater Brisbane City Council, Alfred Herbert Foster.

References

1. Department of Environment and Heritage Protection, Entry on the Queensland Heritage Register, Coorparoo Substation No.210 [602495]
2. Brisbane City Council Building Cards
3. Queensland Certificates of Title
4. Queensland Post Office Directories
5. Digitised newspapers and other records. http://trove.nla.gov.au/newspaper

Copyright Brisbane City Council

Note: This citation has been prepared on the basis of evidence available at the time including an external examination of the building. The statement of significance is a summary of the most culturally important aspects of the property based on the available evidence, and may be re-assessed if further information becomes available. The purpose of this citation is to provide an informed evaluation for heritage registration and information. This does not negate the necessity for a thorough conservation study by a qualified practitioner, before any action is taken which may affect its heritage significance.

Citation prepared by — Brisbane City Council (page revised September 2020)

Dedicated to a better Brisbane