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### 1 Royal Engineers' Building

This Gothic Revival style building was constructed in 1846-47 to house the senior members of the Royal Engineers, who were responsible for arranging all works in the colony. Designer unknown, the building is of sandstone front and facings, with brick sides and rear, which were subsequently cement rendered. An interesting feature of the building is that two of the windows on the northern side are false and appear to be windows from the outside only. The large area of Crown Land included the engineers' parade ground, workshops, houses and, earlier, works stores, timber yard and jetty, much of which dated from John Lee Archer's time as engineer and colonial architect from 1827 to 1838.

The Tasmanian Main Line Railway Company, which built the railway from Hobart to Western Junction (and modified the line to Launceston) from 1873 and operated it from 1876, occupied the building as its headquarters until the State Government acquired the company's assets in 1890. The building continued as railway headquarters until the Transport Commission was established in 1938. It subsequently became the railway's printery and stationery store. More recently, the building was acquired by the State Government and restored with funds from Government grant, gifts from professional engineering organisations and public subscription. The building is currently leased by the Institution of Engineers, Australia, and occupied as headquarters of its Tasmania division.

### 2 Hobart Gas Works

The Hobart Gas Company was established by an Act of Parliament in 1834 and was empowered to manufacture and distribute coal gas. The first gas flowed through the reticulation system on 7 March 1837. The entire technological apparatus — retorts, purifiers and gas holder — were imported. Coal was also imported, the early fuel containing a mixture of English Boghead coal. Other coal came mainly from Newcastle in New South Wales. For many years, the company's waste products also contributed to the local economy, its coke stoking the boilers of many industries and institutions. Its waste tar was used extensively for road making and, later, as fuel. At one stage the company manufactured sulphate of ammonia until this was taken over by the Electrolytic Zinc Co.

In 1895, under the Hobart Lighting Act, the Gas Co. was authorised to generate and supply electricity to customers in Hobart and it installed a series of generators, using gas engines in 1898 and steam from 1901. The chimney and remaining group of buildings housed the generating plant and offices of the company. With the financial collapse of the private electrical company developing the water of Great Lake at Waddamana, the Gas Co. bought the Hobart distribution system of that company in 1913. The combined distribution systems were bought by the new Government Hydro-Electric Department in 1915, after the Department completed the Waddamana development. In 1924, extra land along Evans Street was purchased and a reconstruction of the entire site was completed. The purifiers were relocated, a tank was constructed for tar and liquor, and a new vertical retort house was constructed. This transformed the charging routine.

Coal arrived in railway trucks on elevated tracks and was automatically fed into bunkers on top of the retorts.

The process was changed to oil-based in 1965, when an Onia-Gegi catalytic oil reformer was installed. A 2000 tonne storage tank was erected in the yard and a pipeline laid to the oil wharf at Macquarie Point. The first gas from this process was circulated on 17 June 1966. The manufacture and distribution of gas to Hobart and suburbs continued until 1 May 1978. The buildings and equipment were removed to allow Davey Street to be extended through the site in 1987.

### 3 Jones & Co. Buildings

This group of buildings is located on what was once Hunter Island which was used in 1804 by Lieut David Collins, for landing and receiving of stores. The island was connected to the foreshore by a causeway in about 1820 and a warehouse was erected shortly after. The line of the causeway is marked by bronze markers in front of the present buildings. Because of insufficient depth and difficult docking conditions for vessels under sail, shipping transferred to the New Wharf at Salamanca Place. However, with the coming of steam, shipping returned and Hunter Island was developed with land reclamation. Further warehouses, a tavern and dwellings were erected by 1848.

IXL Jones & Co. commenced operations in 1867, when George Peacock purchased a pair of dilapidated warehouses in Hunter Street. Expansion continued in 1882 and 1903 and a reinforced concrete warehouse was built in 1911. The fabric of the largest part of the building is of reinforced concrete and is founded on timber piles under the greater part of its area. When it was built, the technology of reinforced concrete was quite new and this was one of the first constructions using the material in Australia.

The jam factory of IXL Jones operated within this building and parts of the machinery and fittings have been retained as the building has been reworked to house the Art School of the University of Tasmania. Walk through the 'pink' building main entrance to the courtyard. The Jones & Co. office at No. 23 Old Wharf still has the name in the sandstone lintel. The factory opened in 1850 and closed in the late 1960s when jam-making was moved closer to the markets on the mainland.

### 4 Swing Bridge, Victoria Dock

Originally built as a single lane bridge, the present structure was designed by the Marine Board in 1960 and the running gear was replaced in 1976, the rotation being achieved by mounting the bridge on a crane slew ring of 2130 mm pitch circle diameter.

### 5 Bond Store (Follow signs at the Museum main entrance in Macquarie Street.)

The Bond Store was built on the edge of the shore in 1824. The door at the foot of the hydraulic hoist is at one end of a passageway through the building, the other end originally opening at the water's edge. The hoist, of unusual design, was operated from the town water supply and serviced the three upper floors. A short piece of wall, built on the original shoreline, still exists at the western (mountain) end of the Bond Store and is visible from Davey Street through the wire gate. The building above

it is one of the oldest buildings on the site, being built about 1813, and later adapted as a residence for the governor's private secretary.

### 6 Dockside Cranes

Near Constitution Dock are two old cranes, each dating from the nineteenth century. The small crane, between the dock and Mures Fish Centre, dates from before 1885. Originally placed on the edge of Franklin Wharf, in Morrison Street, it was moved to Constitution Dock in 1890. It is still used by small craft in the dock for repairs and maintenance. The crane appears in many historical photographs and a 1903 picture shows it being used to land blue gum poles, 30 metres long, which were sent to England for use in the construction of Dover Pier. The other historical crane stands next to the bascule bridge. It is a 25 tonne capacity, travelling steam crane, built by Appleby Brothers, Leicester, England. It was commissioned in 1899, and operated on Kings Pier South which had an extra row of piles under the crane track. Originally the only powered crane in the port, this crane gave long and valuable service, including shift work operation during the Second World War. The crane was down-rated to 20 tonnes capacity in 1960 and remained in service until 1969.

### 7 Bascule Bridge, Constitution Dock

This bridge was built in 1935, to the design of HR Hutchison, consulting engineer, Hobart. A single-lane bridge, with clearances the same as the tunnel on the main railway line between Hobart and Launceston to enable loading direct from ship to rail, it was built of mild steel structural sections with cast iron gearing and rails. The dimensions and operation of the bridge imposes limitations on modern traffic, its use by the heavier fork-lifts and larger cranes being precluded.

### 8 Elizabeth Street Pier

This pier replaced the former Argyle Street Pier (1875) and Elizabeth Street Pier (1876). It was designed by HR Hutchison in 1932 and was believed to be the only completely reinforced concrete pier and shed in Australia at that time. The new structure, 152 metres long and 36.5 metres wide, was constructed at a cost of \$75,000 by Cheverton & Gray, starting in September, 1932, and was opened for traffic on 26 June 1934 by the Governor, Sir Ernest Clark, KCB, CBE and Lady Clark. The shed, with an area of 2,627 square metres, had reinforced concrete walls and asbestos-cement roof. The longest pile is 32.6 metres long, weighs 27 tonnes and is driven 15.8 metres into the sea bed. During the Tasman Bridge emergency (1975-77), this pier was used as the city passenger terminal, with four ferry berths constructed on the pier. The shed was converted to an apartment style hotel, convention rooms and cafes in 1997 with the deck, columns and roof line being retained.

### 9 Parliament House

Designed by John Lee Archer as the Customs House in the late 1830s, it has been redecorated internally in recent years, and the old 'bond store' basement has been restored and is publicly accessible. The building is of sandstone from the Hobart Domain quarry (now in the grounds of Government House) and is founded on rock filling won from the quarry behind Salamanca Place. Convict built arches (barrel vaulting)

can be seen in the cellars.

The Legislative Council moved into the building in 1840 "to advise the Lieutenant Governor on the administration of the new colony" and has continued to meet there. In 1856, Tasmania was given self-rule and the building became Parliament House.

### 10 Boat Crews' Cottages

These conjoined cottages were constructed in 1890 to house the crews which rowed the pilots to and from ships. Designed by HR Hutchison, the cottages were his first project for the Marine Board at the start of his engagement as the Board's consulting engineer which lasted until 1945. Works designed by him include Princes Wharf, Murray Street Pier, Elizabeth Street Pier and the bascule bridge at Constitution Dock.

### 11 Mulgrave Battery and Semaphore

The name 'Battery Point' was taken from the Mulgrave Battery which was built in 1818. The battery mounted six guns which projected through embrasures in a strong earthwork, this being the earliest method of construction. The original ships' guns were later replaced by more modern "32 pounders" in 1824. The Engineer reported that the guns and carriages were dangerous to the men firing salutes, so in 1829 timber for the carriages was sent from Macquarie Harbour. Records show, however, that by 1831, only one carriage had been repaired. That year saw work proceeding on bolstering the galleries by immense pieces of wood, 15 metres long, with bolts, braces and bars. In later years, the battery was replaced with a much better one just above it, the Prince of Wales Battery (1845) but only the powder house of this later battery remains. The semaphore mast was first installed in 1812 and, in conjunction with the one on Mount Nelson, was used to signal the arrival of ships in the River Derwent. Later, this semaphore and the nearby guard-house also became part of an elaborate system of communication for the management of the convict system in south-east Tasmania. The adjacent guard-house, dating from 1818, is now reputed to be the oldest building in Battery Point.

### 12 Tide Gauge House and Datum

This octagonal tide gauge house, designed by Hucksion, was opened in December 1889, and still contains a working tide gauge. The gauge pit reaches 2.13 metres below lowest spring tide level. On the right hand side of the door, one step has a square cut in it, to act as a base for a surveyor's staff. That square was, for many years, the datum for all levels in Tasmania.

### 13 Ordnance Buildings

John Lee Archer designed the two buildings which were built in 1835-38. Each building was originally of three storeys, but the far one had a fourth added later. The ownership of the buildings was the subject of extended legal argument because Ordnance did not have title to the land. In 1982, the building next to the Tide Gauge House was restored internally to become a museum and offices for the Building's Branch of Telecom. The other was used by the State Supply and Tender Department. They have now been adapted as galleries, professional offices and residential units.



6 Dockside Cranes



11 Mulgrave Battery and Semaphore



11 Mulgrave Battery



12 Tide Gauge House and Datum



The Engineering Heritage Walk describes a walking trail around Sullivans Cove, highlighting early engineering projects, buildings and machinery that have become part of Tasmania's heritage.

Apart from trees and shops in Salamanca Place, there is little shelter from inclement weather along the route. It is advisable to check the weather forecast before starting the walk. Public toilets are fairly evenly distributed along the way, and are indicated on the map.

**Other nearby items of engineering interest**

- **Wellington Bridge**, 1841 – first significant bridge over Hobart Rivulet (in Elizabeth Mall, adjacent to National Bank)
- **McNaught Beam Engine** – the world's oldest McNaught compound beam engine, built in Scotland in 1854 (outside Hobart TAFE, corner of Campbell and Bathurst Streets)



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# Engineering Heritage Walk

## Sullivans Cove Hobart

