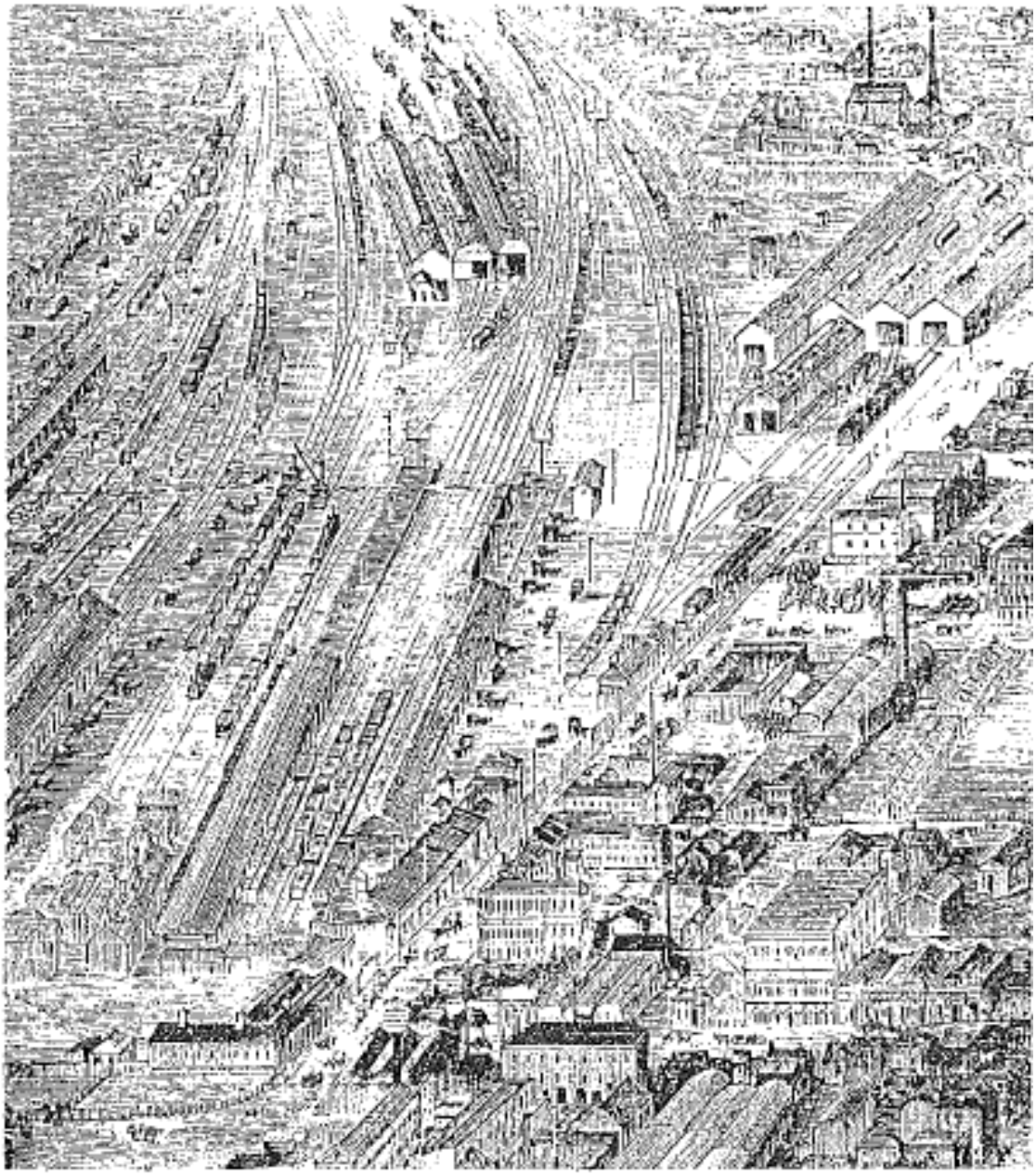
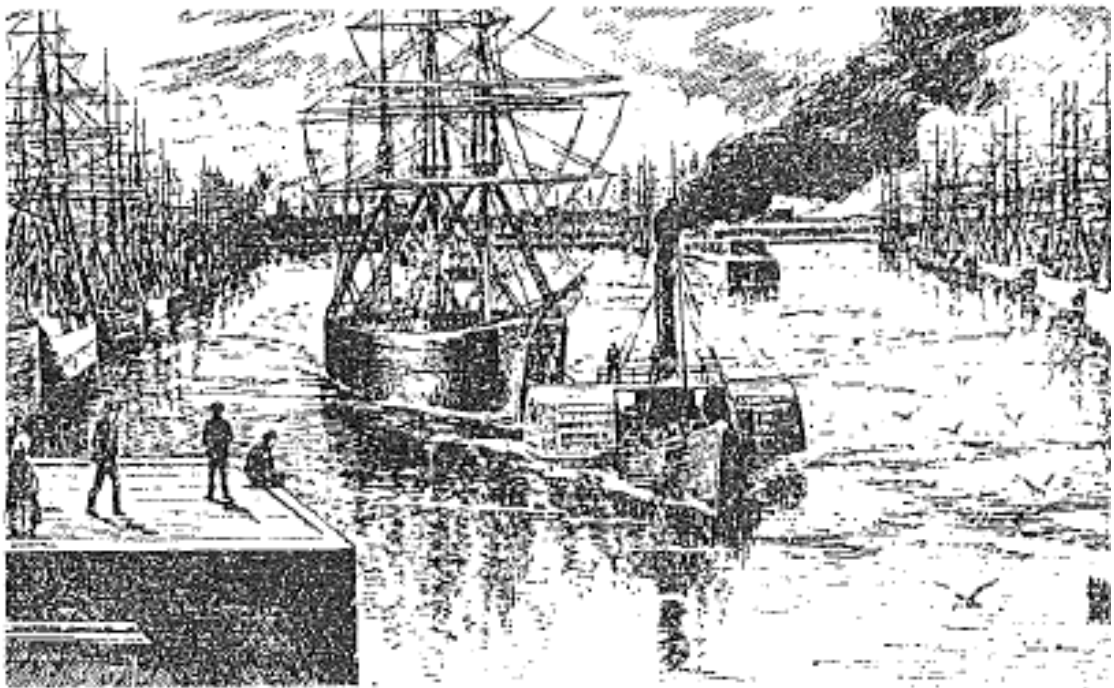


DOCKLANDS HERITAGE STUDY



3. DOCKLANDS HERITAGE STUDY ENVIRONMENTAL HISTORY

3.1 THE PRE-SETTLEMENT ENVIRONMENT

Prior to European settlement the Docklands formed part of a swamp and saltmarsh environment on alluvial sediments from Moonee Ponds Creek and the Yarra and Maribyrnong Rivers. The principal features of the area were:

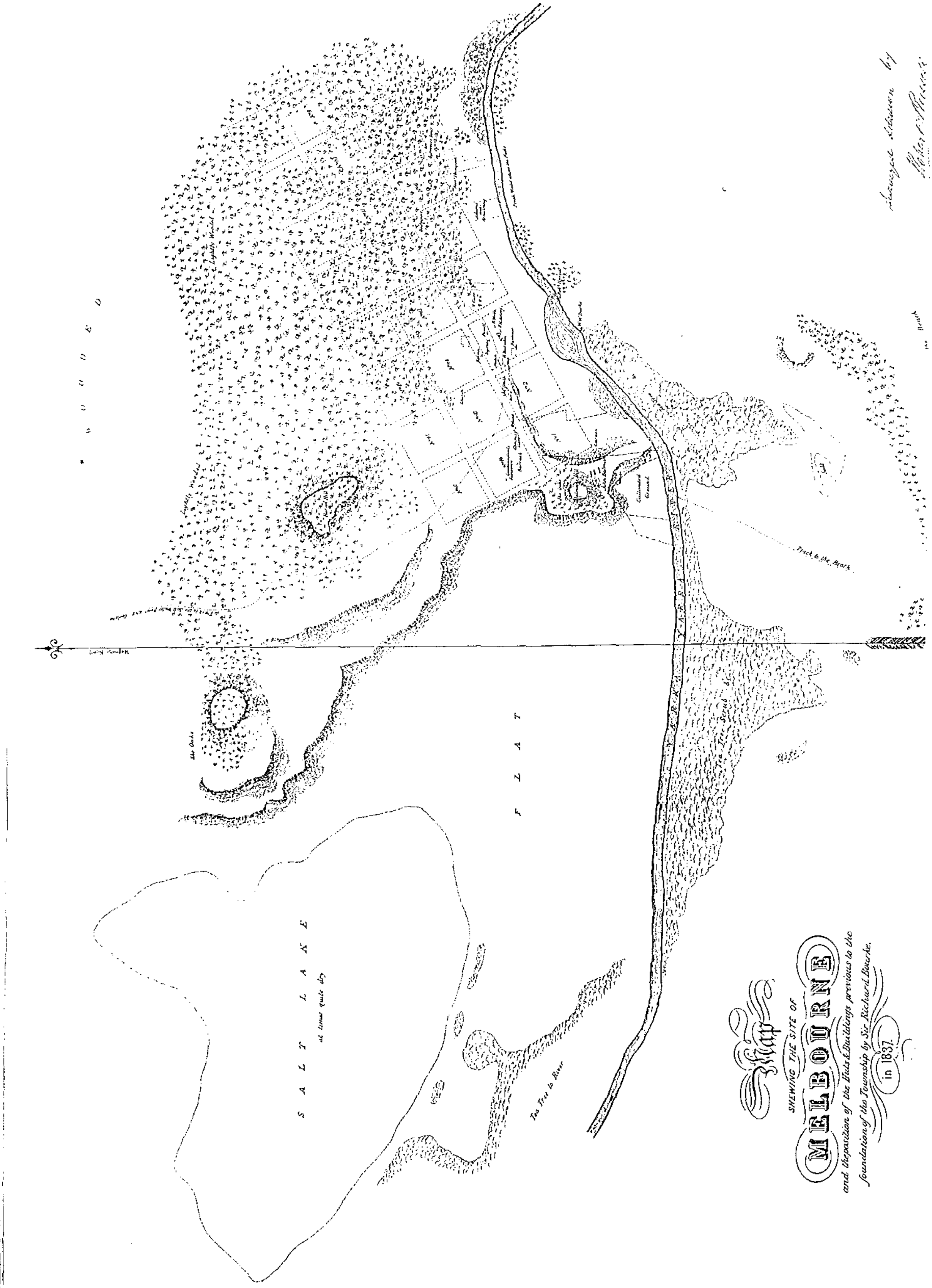
— A large salt-water lagoon variously known as Batman's Swamp or the West Melbourne Swamp,
— Marshy flats surrounding the lagoon and on either side of the Yarra River,
— The river itself which had natural raised levee banks with a scrub vegetation of saltmarsh and tea tree, and
— An escarpment to the north and east which included Batman's Hill and a tongue of lava flow to the north.

The West Melbourne Swamp was an irregular shaped shallow salt-water lagoon about two kilometres east to west and one and a half kilometres north to south. Its southern shore was about 500 metres from the River Yarra and its western end a kilometre from the city. Between the river and lagoon was an area of tea-tree scrub while the remainder of the flats appear to have been treeless grass and marsh. The openness of the country is evident from, John Pascoe Fawkner's comment that he "took the first ride in a chaise... (going) down to the salt lagoon and returned back another way very good driving and although through the trees found no inconvenience from the dead wood", **1 .** Solid blue clay formed the bottom of the lagoon and underlay the alluvial silt which comprised the deltic deposits of the Yarra. The alluvial flats were about one metre above sea level and the lagoon was barely above the high water level of the river. Floods were quite common up to the 1890s with as much as (2.1 metres) of water covering the land. During summer the lagoon often dried out. **2.**

The term Batman's Swamp appears to have been originally applied only to the lagoon, but later both Batman's Swamp and the alternative West Melbourne Swamp referred to all the low lying land north of the Yarra and west of the main trunk railway.

Batman's Hill, also called Mount Pleasant, was a low mound of resistant sedimentary rock rising from the bank of the Yarra. It fell away to the river flats on three sides and was connected to high ground by a saddle on the north east and a narrow ridge ran south almost to the river bank. It was at the top of this ridge that John Batman established his house. **3•** An escarpment, steep in places, ran roughly north west from Batman's Hill coming within about 200 metres of the lagoon and then following the east side of Moonee Ponds Creek. On the west side of the creek a tongue of basalt rock from lava flows extended south to the very edge of the lagoon terminating in a steep cliff. **4.**

This environment was probably rich in birdlife and aquatic species of flora and fauna and would have provided a valuable food source for Aborigines. Reference is occasionally made to the abundance of wildlife in the area, and even into the 20th century the isolation afforded by the swampy nature of the ground and the river barriers protected nesting waterfowl from predators. **5** •


Map
SHEWING THE SITE OF
MELBOURNE
and the position of the Huts & Buildings previous to the
foundation of the Township by Sir Richard Bourke.
in 1837.
SALT LAKE
at times quite dry
FLAT
WOODED
Tea Tree to River
Track to the Beach
Surveyed & drawn by
Robert Russell

The geology, topography and general environment of the area was a principal factor influencing historical development and has dictated land use up to the present day.

3.2 EARLY SETTLEMENT AND INDUSTRIAL DEVELOPMENT

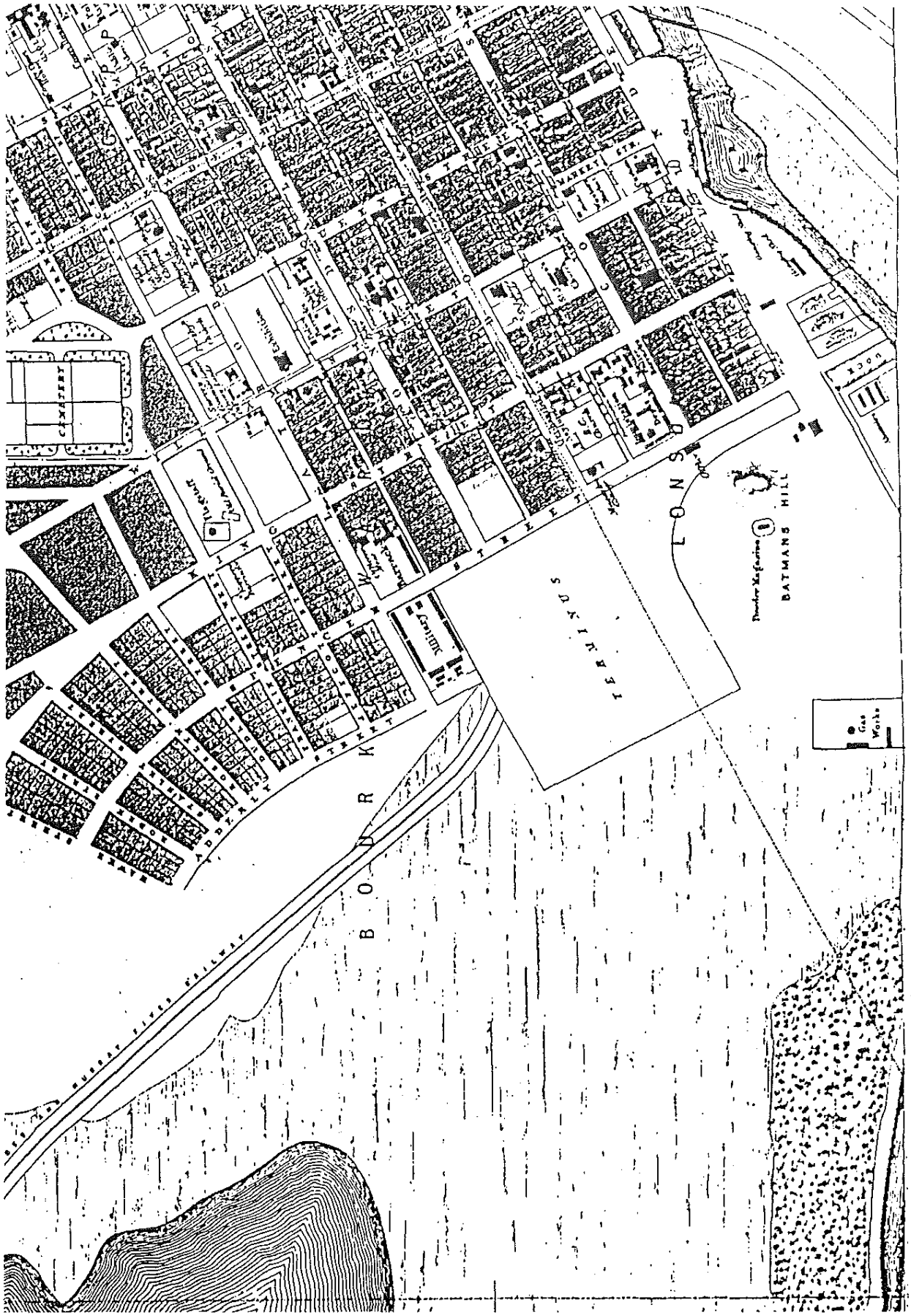
Knowledge of Port Phillip Bay came to navigators and settlers in New South Wales only 14 years after European settlement had begun in Australia when on 5.1.1802 Lieut. John Murray, aboard the "Lady Nelson"", observed what was 'apparently a fine harbour of large extent' through the heads which guard the entrance to Port Phillip Bay. Two months later, on a second visit, he entered the bay and took possession of the port in the name of King George III. Seven weeks after this Captain Matthew Flinders, aboard the Investigator, sailed into the bay and reported an 'extensive harbour' surrounded by country which had 'a pleasing, and in many places a fertile appearance'. **6**.

On the basis of the reports from Murray and Flinders, Governor King dispatched · his Surveyor-General, Charles Grimes with instructions to explore the shores of the bay. On 4.2.1803 Grimes and his party rowed a small boat up the course of the Yarra River to its tidal limit. Flemming, a member of his party later, described this place as 'the most eligible place for a settlement that I have seen'. **7 •**

Following unsuccessful settlements at Corinella and Sullivan's Cove, notice was eventually taken of Flemming's words and two separate parties set out in 1835 to take up land on the river at the head of the bay. Melbourne's first white settlement was in the vicinity of Batman's Hill near the eastern edge of the future Docklands area. It can be located today only from documents. No physical evidence of the first period of settlement is likely to be found because of the extensive excavations and reclamation works associated with river improvements, railway construction and city buildings which have occurred since that time. Nevertheless, the topographic features which identified the site, such as the high ground adjacent to the river and swamp, can be identified by the informed observer.

John Batman built his huts on the south east side of the crest of the hill. Russell's 1837 map of Melbourne shows three long narrow buildings at the top of a ridge which led down to the river. On either side of this ridge, paddocks had been cleared and fenced for crops. The eastern paddock is marked as 'Garden' and the west as 'Cultivated Ground'. **8.**

When the Government survey was carried out under Hoddle's supervision the streets were laid out around the existing huts to the east of Batman's farm to take advantage of the high ground on the north bank of the Yarra and to avoid the swamps altogether. This geographic influence continued to determine all future land use in the area. As blocks around Melbourne were surveyed and sold, the higher and more fertile areas were given preference and the swamps and river banks were reserved for future public purposes.



Section of Kearny's map of 1855, showing the land reserved for railway purposes, the Gas works, Batman's Hill, the Little Dock and the eastern portion of the West Melbourne swamp.

The first export from the Port Phillip District was wattle bark used to tan hides . When grazing became established and until 1852 when gold also became an export, other exports included wool, hides, skins and horns. 9 From 1842 to 1852 imports of wooden and iron houses and bricks were significant. The mouth of the River Yarra, however, was blocked by a bar of mud which only had 1.5 metres of clear water above it. From the earliest days therefore, the lighterage of cargo to William Street was a necessity. The lighters, or small vessels, passed along the tortuous course of the River Yarra to their destination at the Falls.

During the late 1850s and 1860s, passenger disembarkations were concentrated at Port Melbourne and most goods transhipment took place at the Government's railway pier; Williamstown. Here, the Railways established their workshops from as early as 1858 for the assembly of locomotives, wagons and carriages delivered from England. Nearby were the patent slip, and later, the graving dock. 10

Because of cheap leases, convenience to water transport and relative isolation from, but at the same time, proximity to Melbourne, the land on the perimeter of the West Melbourne swamp and the banks of the lower Yarra River became the preferred site of several early industries including gasworks, railway installations, an explosives magazine and the North Melbourne pottery. This process of industrialisation was begun in the 1840's but made only a small impact on the area. Melbourne's first explosives magazine was positioned on the west side of Batman's Hill by 1340, the intervening hill possibly providing blast protection for the city in the event of an explosion. 11 By 1859 it had been relocated to Footscray due to public concern. The North Melbourne Pottery was established by about 1855 on the northern edge of Batman's Swamp to utilize the local clay which was otherwise such a liability. By 1864 several small huts had been built near the railway line possibly associated with clay digging. **12**

A number of noxious trades were established in the vicinity of the swamp lands. They too were attracted by their isolation and running water and included fellmongeries, tanneries, meat and meat by-product works, blood and bone desiccators, abattoirs, rubbish depots and destructors. **13**

As early as 1855 the abattoirs was constructed on the river bank below the Spencer Street Dock to supply meat to Melbourne. When established it was probably suitably removed from places of habitation and convenient to the existing river wharves for shipment of hides and tallow but it was the precursor of many meat and animal by-product works to take up riverbank leases downstream of Melbourne . Beyond the gasworks several small sheds were constructed for the fellmongeries where the wool was removed from sheep skins obtained from the abattoirs and washed. They included Brown's, Gollin & Co., W. Brown Junior and Walker. The wastes, of course, went into the river. Some of these works had primitive docks where small boats bringing skins and hides from the abattoirs and meatworks along the Yarra and Maribyrnong could be unloaded on the banks. **l4**

On the south side of the river were the Sandridge abattoirs, boiling-down works and bone mills. These included C. Fitts, The Australian Bone Mills, Hester, Cockbill and Mullinger (who later had works in Newmarket and Braybrook) and Baster. The last three were located on land later excavated for construction of the Coode Canal whilst most of the other sites disappeared as a result river widening. In 1873 there were about 20 noxious trade licenses for soap and candle works, boiling down works, fell mongers and wool washers on the Yarra. **15**

Henry Walker conducted separate works for tallow melting, soap and candle making and stearine candlemaking from about 1856. One works was on the river below the gasworks and another faced the swamp in West Melbourne. In 1867 he was fined for polluting but later claimed to have renewed his plant and was no longer a nuisance. Eugene Ascherberg's boiling-down, bone dust and artificial manure establishment nearby was probably typical of the factories, having several buildings of timber and iron without stone foundations or paved floors. Only one, where machinery was installed, had an asphalted floor; while offensive drainage oozed over and through the soil and 'a quantity of filthy rubbish and a heap of hoofs was exposed on the ground without cover of any kind'. At J.B. Scott's works men filled vats with sheep's heads from which the fumes were- carried by pipes to the furnaces and the only odours came from the carbolic acid and ammonia used as a deodoriser. In 1873 there were **14** by product works on the lower Yarra employing 232 hands. **16**

Considerable public concern was expressed about the pollution of the area and in some res9ects it was seen as the worst affected part of c1lelbourne, also taking the drainage of Moonee Ponds Creek which was lined with tanneries at Flemington . However, the efforts to rid the more populated areas of noxious industry were not carried through to the Lower Yarra and Batman's Swamp which, if anything, became even more polluted as industries located further downstream and moved from the eastern to the western side of Melbourne . Several convictions were made against the boiling down works but it was really only with the compulsory removal of the works for river improvements that any change was effected . In the 1870s it was said that:

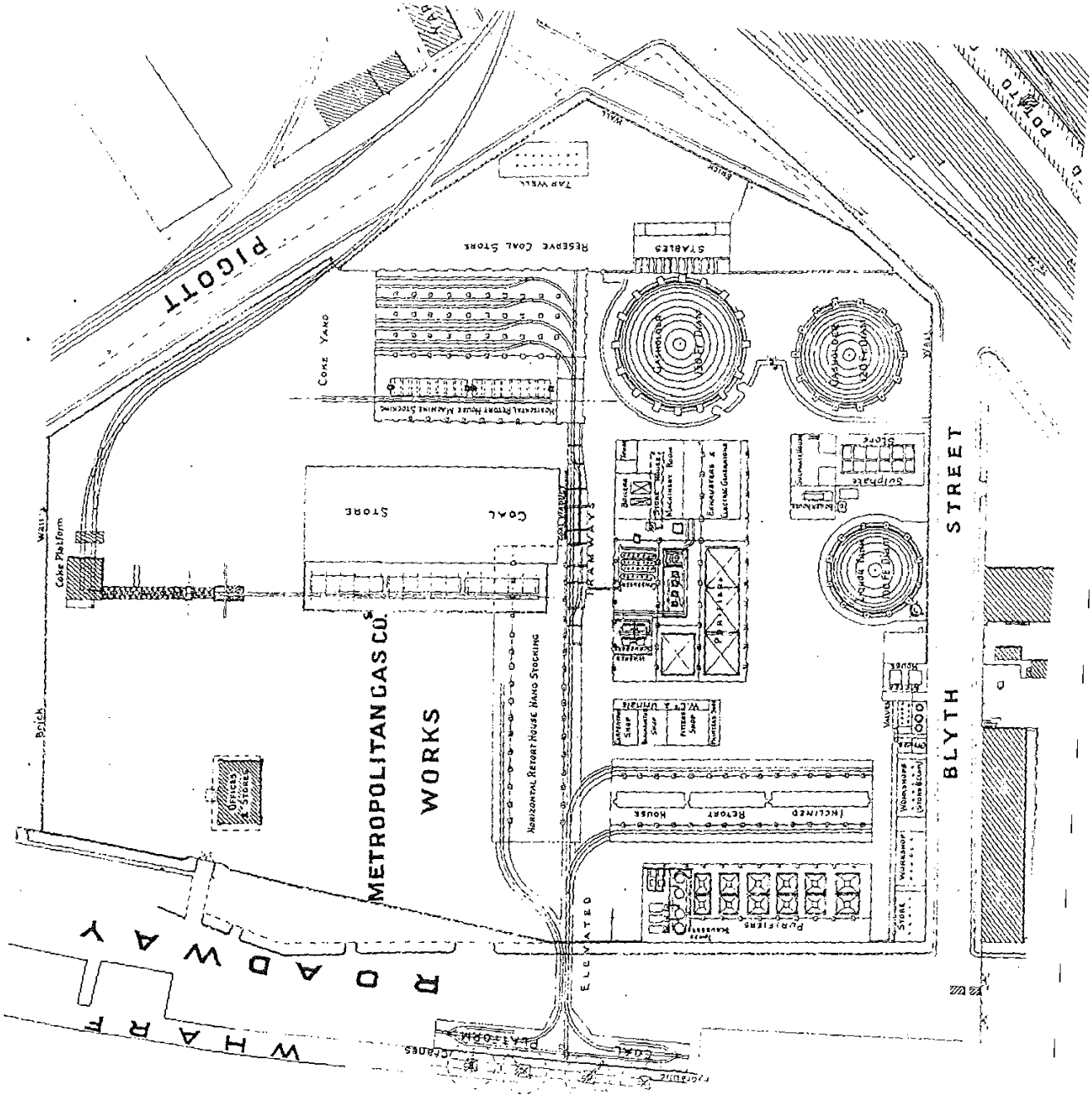
'at the very threshold of Melbourne immediately below the gasworks a boiling down establishment diffuses a sickening stench and shocks the sight with a reeking mass of putrescence and mire where filthy swine and some scarcely less filthy human beings find congenial habitation.' **17**

In 1877 the Harbour Trust began to terminate or refuse renewal of leases and licences as a precursor to dredging and realignment of the riverbanks downstream of the gasworks. **18**

3.3 THE GAS WORKS

The West Melbourne Gasworks was one of the largest and earliest coal gas plants in Australia, its location taking advantage of both proximity to Melbourne and river transport . The original gasworks structure included a 130 foot long retort house of dressed bluestone on 3 feet deep foundations of red gum and concrete and a dock connecting it with the river. It underwent several changes including the construction and later replacement of an overhead tramway for coal delivery and addition of more modern retorts before its eventual closure and demolition. The major events in its history may be summarized as follows: **19**

23/8/1850	City of Melbourne Gas and Coke Co. founded.
12/1/1853	Gasworks construction bill passed in parliament.
21/9/1853	Alex Kennedy Smith contracted as design manager.
July 1854	Construction of Gasworks dock.
1/12/1854	Foundation stone laid
Oct. 1855	195 foot chimney stack completed as commemorative breakfast held on top of shaft.
17/12/1855	Lighting of the first fires
1/1/1856	Gas turned on in Melbourne
20/12/1877	Melbourne, Collingwood and South Melbourne gasworks amalgamated to form the Metropolitan Gas Company.
March 1885	Major expansion, No. 3 retort house extended
1886-87	New gasholder constructed, new purifiers and workshops, reconstruction of retorts houses 1 and 2, new coal handling plant and elevated tramway.
1890	New retort house constructed.
1891	West's automatic stokers installed.
1902	First inclined retort constructed.
1907-8	Reconstruction of No. 2 retort house with De Brouwer stoking machinery.
1911-13	Dessau vertical retorts constructed, No. 3 retort demolished.
1914-16	Installation of Woodall Duckham continuous vertical retorts.
1914-18	Labour shortages due to 1/5th of gasworkers enlisting.
1922	Additional Woodall Duckham units constructed.
Dec. 1933	Conveyor system for coal handling from wharf commissioned.
1942	Coal discharge system used by other gasworks, industry and Victorian Railways, with new bunkers and rail lines made.
6/12/1950	Gas & Fuel Corporation formed and takes over Metropolitan and Brighton Gas Companies.
May 1955	Waste gas from Altona Vacuum Oil refinery piped to works.
1956	Institution of gas blending using coal gas, refinery gas and Lurgi (gas made from brown coal and piped from Morwell).
1961-2	Construction of Onia-Gegi oil gas plant.
1969-70	Conversion of gas supply and appliances to Natural gas.
1970	Coal and Oil gas production ceases and plant closed.
1974	Demolition of the works.



The Gas Works site during the late 1920 s, features of which may be discerned today.

Source: Victorian Railways Plan of Melbourne Yard, c.1925.

Today, in spite of almost complete demolition, several site features may be distinguished; including the tessellated porch tiles of the superintendent's residence, a portion of the coke siding, concrete lined tanks and sections of the perimeter wall.

The Gasworks grew with Melbourne, at times barely keeping pace with demand . Its resources were stretched by the boom years of the 1880s and by the need to construct new pipelines into newly developing suburbs . Wasteful competition often resulted in areas being overserviced and the Company cut prices to consolidate its hold on the market by establishing a partial monopoly through the takeover of smaller firms.

3.4 THE PORT AND RAIL YARDS: FORMATIVE YEARS (1850s – late 1870s)

Prior to the founding of the Colony of Victoria in July, 1851, ships drawing over 10 feet of water could not use the Yarra River and were obliged to unload their cargoes in the Bay where a jetty was constructed for the sum of £1,000. 20 In 1857 the City Surveyor was engaged to survey the river with a view to ascertaining the best means for direct communication between the settlement and the Bay, In the same year, the Colonial' Architect tabled a report in the Legislative Council concerning improvements to the port . It foreshadowed the construction of a mole for 60 ships, a wharf at Williamstown, works to the river and a canal from Melbourne to Hobson's Bay. 21 By 1852, plans were in hand to extend Queen's Wharf as far as Cole's Dock and to form a wharf on the south bank, generally on the downstream side of the falls which represented a barrier to shipping . The Melbourne City Council joined with the Chamber of Commerce in requesting the establishment of a harbour trust but failed in its endeavours. By 1854, the population and economic growth sustained by the Colony following the discovery of gold in 1851 had placed enormous pressures on the port . Melbourne, at this time, established its reputation as the commercial and financial capital of Australia and the Chamber of Commerce continued to draw attention to the inadequate port accommodation.

A Select Committee was appointed late in 1858, to consider the establishment of a River and Harbour Trust and it concluded in the following year that harbour works were an urgent necessity and that a Harbour Trust or similar body was required to carry them out. 22 A Royal Commission followed in 1860 and reported that all Crown lands north and south of the River Yarra near its mouth should be retained. It too recommended that a Harbour Trust be formed.

By this time, the Government rail lines from Spencer Street to Williamstown and Sunbury had been opened to traffic, train services commencing on 13.1.1859. The decision, however, to establish a major country and suburban terminal at Spencer Street may not have been consciously taken, for this site was originally determined by Lieutenant-Governor La Trobe's grant of 50 acres to the Melbourne, Mt Alexander and Murray River Railway Co. This Company, was formed in 1852 with the purpose of building railways from Melbourne to Williamstown and Echuca, situated at the gateway to the New South Wales Riverina. It was one of a number of companies to which land was allocated on the perimeter of Hoddle's grid for rail terminal purposes.

The others were the Melbourne and Hobson's Bay Railway Co. at Flinders Street and the Melbourne and Suburban Railway Co. at Princes Bridge. As early as September 1853, Thomas Oldham, a Melbourne engineer, had advised La Trobe that the Batman's Hill site was unsuitable for a general terminus. **23** At that time, however, the failure of the Mt. Alexander Co. and the Government's decision to purchase its property and interests could not be anticipated and would not occur until March, 1856. Only then did the potential importance of the 1853 land grant become clear for it had now become the only terminus
accommodating Government operated railways in the Melbourne Corporation area. By this time, also, it was clear that only the Government had access to resources of a magnitude sufficient to build the foreshadowed Colonial railway system.

In November 1860, plans were prepared for alterations and improvements to the station complex but the works were deferred on the grounds of cost. 24 Uncertainty as to the future location for a Government railway terminal was increased when the Essendon Railway Co. was popularly supported in a deputation to the Commissioner of Railways, John Houston on 22.10.1861. The company proposed that a central passenger terminus be established at the north end of Elizabeth Street on a site formerly occupied by cattle yards. It was in the block bounded by Elizabeth, Victoria and Peel Streets and was favourably received by a specially appointed Parliamentary Select Committee. The proposal, however, failed, and the cattle yards were sold off in 1864. **25**

All these events took place prior to the opening of the Sandhurst and Ballarat railways when the traffic being handled at Spencer Street was derived from lines to Williamstown, Geelong, **26** and Woodend (from 8.7.1861) . Messrs Latham and Co. were acting as freight forwarders for the Victorian Railways from 1.3.1859. Their offices, centrally situated at 46 Elizabeth Street, were available for the receipt of "goods and parcels" for their despatch over the fledgling rail network and also for delivery. **27**

Station buildings erected by the Government on its lines up to the time of the extension of the Murray River railway as far as Woodend had been of timber construction. In this respect, the much maligned Spencer Street passenger station building of 1858 was no different to others at Holden, Sunbury, Woodend and Williamstown. With the exception of Williamstown, however, which remains as the Colony's oldest Government built station building, they have all been demolished. Yet the symmetrical form and hipped timber posted verandah of Williamstown station enable the observant traveller to glimpse a little of the Government's "house style" for its station buildings prior to the adoption of masonry construction late in 1861 . Similarly, the surviving corrugated iron goods sheds of Clarkefield (1861), Gisborne (1862) and Woodend (1861?) are not unlike those of the Spencer Street yard erected in 1858-1859.

At a time when the private companies were building permanent masonry station buildings at Werribee and St Kilda, the Government, under the direction of the Railway Department's engineer-in-chief, George Darbyshire, and Robert Adams, chief draughts man, persisted with timber and iron buildings . The station and yard at Spencer Street is shown in 1864 on Cox's plan of Hobson's Bay and the River Yarra with the following buildings:

— passenger station with arrival and departure platform,
— the engineer in chief's offices,
— the carriage shed, opposite the passenger station,
— the engine shed, immediately west of the carriage shed,
— goods sheds nos. 2, 3, 4 (including Customs) and 5, and
— the Sandhurst, Ballarat, Geelong and Echuca shed to their immediate west.

The entire yard was laid out on the 50 acre allotment to the north of Batman's Hill with the goods sheds towards the Adderley Street end and the passenger station and offices at Collins Street. It was a cumbersome arrangement to the extent that arriving and departing goods trains were obliged to undertake reverse manoeuvres in order to discharge and collect freight. Only the No. 1 shed was conveniently accessible whilst the customs shed (No. 4), which, may have held goods being conveyed under bond between the colonies, was also only accessible following reverse movements. Each goods shed was timber framed with metal trusses. Ridge lanterns augmented by skylights were characteristic and they were corrugated iron clad with timber sliding doors. Internally, loading platforms had covered rail access and the outside platforms were equipped with cranes. Contract No. 16, signed by W. Williams on 11.1.1859 was for an approximately 26 metre wide double gable roofed structure accommodating one platform and four running lines . A row of cast iron columns carried the line of the valley common to both gables and the contract drawings were witnessed by Robert Adams, the chief draughtsman, and countersigned by George Darbyshire.

Although the goods sheds and station building had been erected by 1860, works continued with the construction of the engine shed by W. Porter in 1862 and the conversion of the carriage shed into another goods shed in the same year. The shape of things to come, however, was foreshadowed by Overend, Robb & Co.1s contract of 23.10.1863 for the extension of the terminus by excavating Batman's Hill. This firm also undertook construction of Tasmania's first railway from Launceston to Deloraine commenced towards the end of the decade and Robb was later contracted to undertake the excavation of the Victoria Dock . By the end of May, 1864, Thomas Higinbotham, engineer-in-chief, was able to report that the contract also involved the formation of an embankment in 11the swamp adjoining" and that the works were half completed. **28**. They were 11far advanced towards completion, and the site11, Higinbotham reported in April, 1865, 11is admirably adapted for a goods station". **29** But funds for its further development were lacking and within two years the Department was turning business away on account of the inadequacy of the goods station's facilities. On the Williamstown line, 25,000 tons of goods were lost and the wool traffic from the Ballarat and Murray River trunk lines was seriously inconvenienced by the working of all such traffic through the one shed. Higinbotham advised the Governor in Council in mid-1867 that over the year 11the goods traffic was more than once nearly brought to a dead lock, it being only by unremitting labour, night and day, and the co-operation of the Customs Department that such a result was avoided".**30**

Minor works continued to be undertaken with the replacement of timbers on the Dudley Street bridge with iron girders in 1863/69 and additions to the No. 4 goods shed in 1869, 31 The prospect of the opening of the North-Eastern railway to Wodonga, however, necessitated a major increase in accommodation leading to the letting of a contract to John Thomas on 7.10.1870 to erect a new No. 1 Goods Shed. Messrs Wright and Edwards supplied the points and Thomas subsequently erected an imposing iron footbridge connecting the platforms within the shed. It was the first shed to occupy the site made available through the excavation of Batman's Hill and therefore the first shed to occupy a site generally in the location of the present sheds. It was built to last and to impressive dimensions. The breadth was approximately 35 metres achieved with a triple gable roof carried on cast iron columns. It was 263 metres long with another 200 metres of double outside platforms. The walls were of brick construction relieved with a Lombardic gable treatment and the outside platforms extended further south than the Flinders Street alignment necessitating a deviation in the alignment of the extension as in the figure.

In 1874 a contract was let for the construction of a nevi engine shed close to the Adderley Street/La Trobe Street intersection and in the same year a plan was developed for the re-arrangement of the Melbourne terminus with new country and suburban passenger platforms and new goods sheds. This involved the removal of the No. 1 shed, completed for the sum of £47,572.00 just over a year previously. The scheme also envisaged the construction of a massive wool and grain terminal on the site of the existing passenger station. **32**

It was the first of several such plans designed to make good past mistakes and was adopted by the Department in 1877, though never realised. Associated with the installation of the McKenzie and Holland safe working apparatus from October 1876, local contractors supplied components for the system including William Bertram and Thomas Tozer, for semaphore fittings, and William Bertram for ladders. In 1877 an additional goods platform was erected immediately to the north-west of the No.1 shed to an alignment which conformed to the 1874 plan . It survived at least until 1908 serving as the "Northern and South Western" platform at that time. From its inception, however, most of the farm and agricultural produce traffic was handled from this point.

Further to the west, where the swamp land had been drained and filled, but to a lower level, timber sidings were established to serve the increasing timber trade, presumably associated with Melbourne's booming building industry . This yard, which extended west from the land now occupied by the No. 3 Goods Shed (with tower), accommodated some 30 0 timber allotments and was also used for firewood traffic. **33**

In 1873 a Royal Commission was appointed to

> 'enquire into the best means of making available the low lands adjacent to the western and southern sides of the City of Melbourne, situated on both banks of the River Yarra to suggest what portions of the above lands ought to be specifically reserved for canals, docks, wharves roads, tramways and other works of public utility'

BATMANS HILL GOODS STATION

VICTORIAN RAILWAYS.

No 1 SHED

General Plan of Melbourne Station Ground

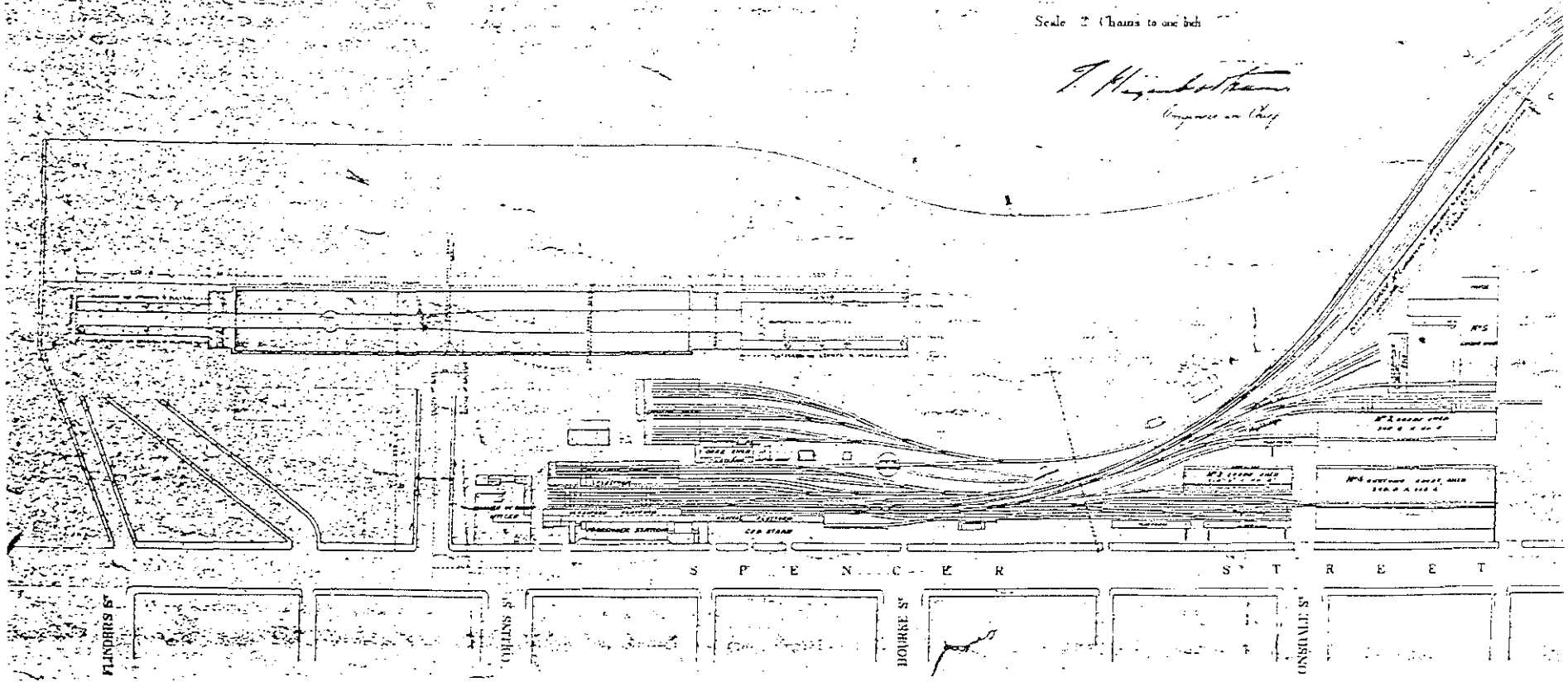
as at Present

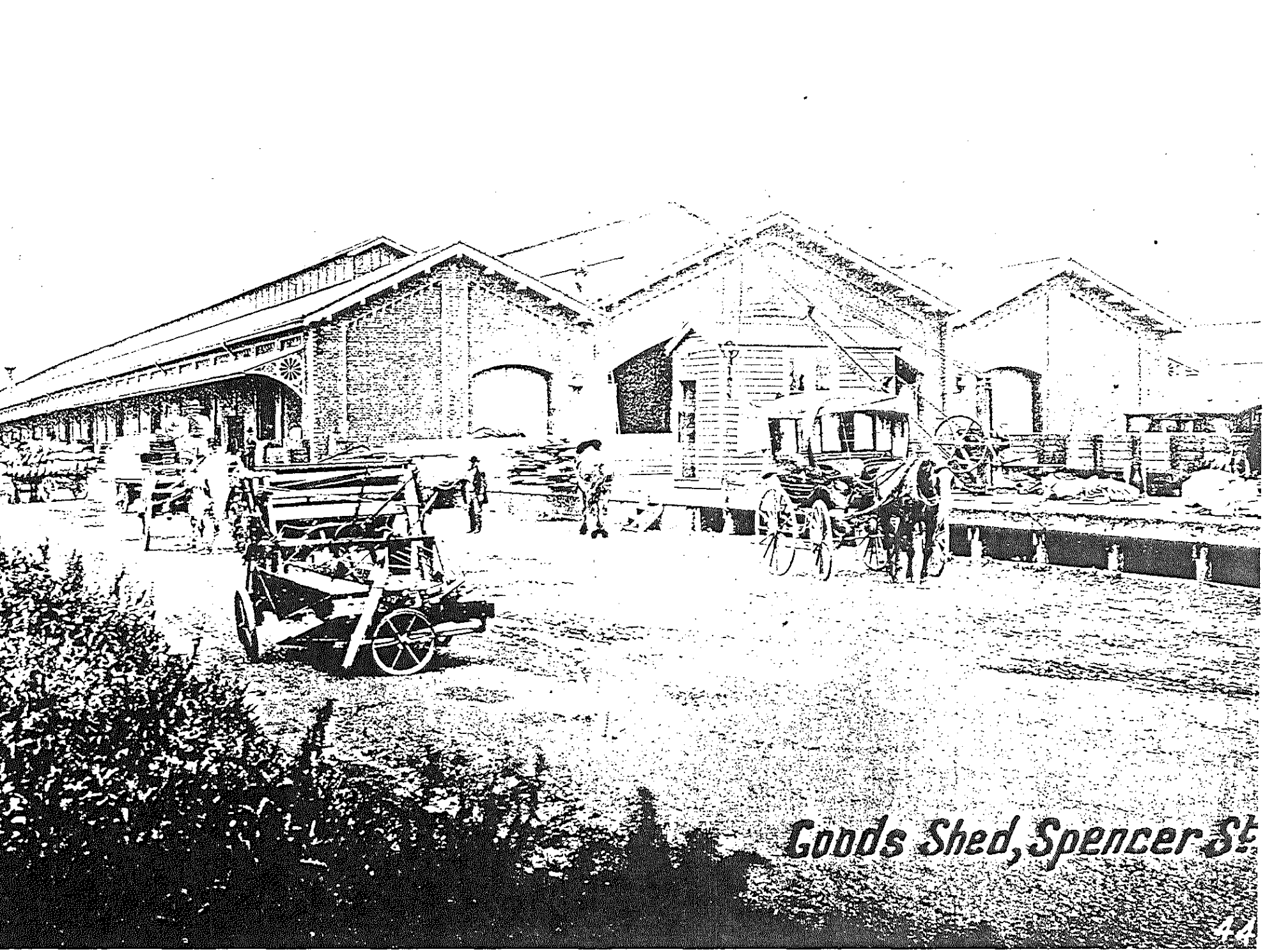
and also proposed New Goods Station

The existing buildings are shown by a neutral tint. Those of the proposed New Goods Station by a pink tint.

Scale 2 Chains to one Inch

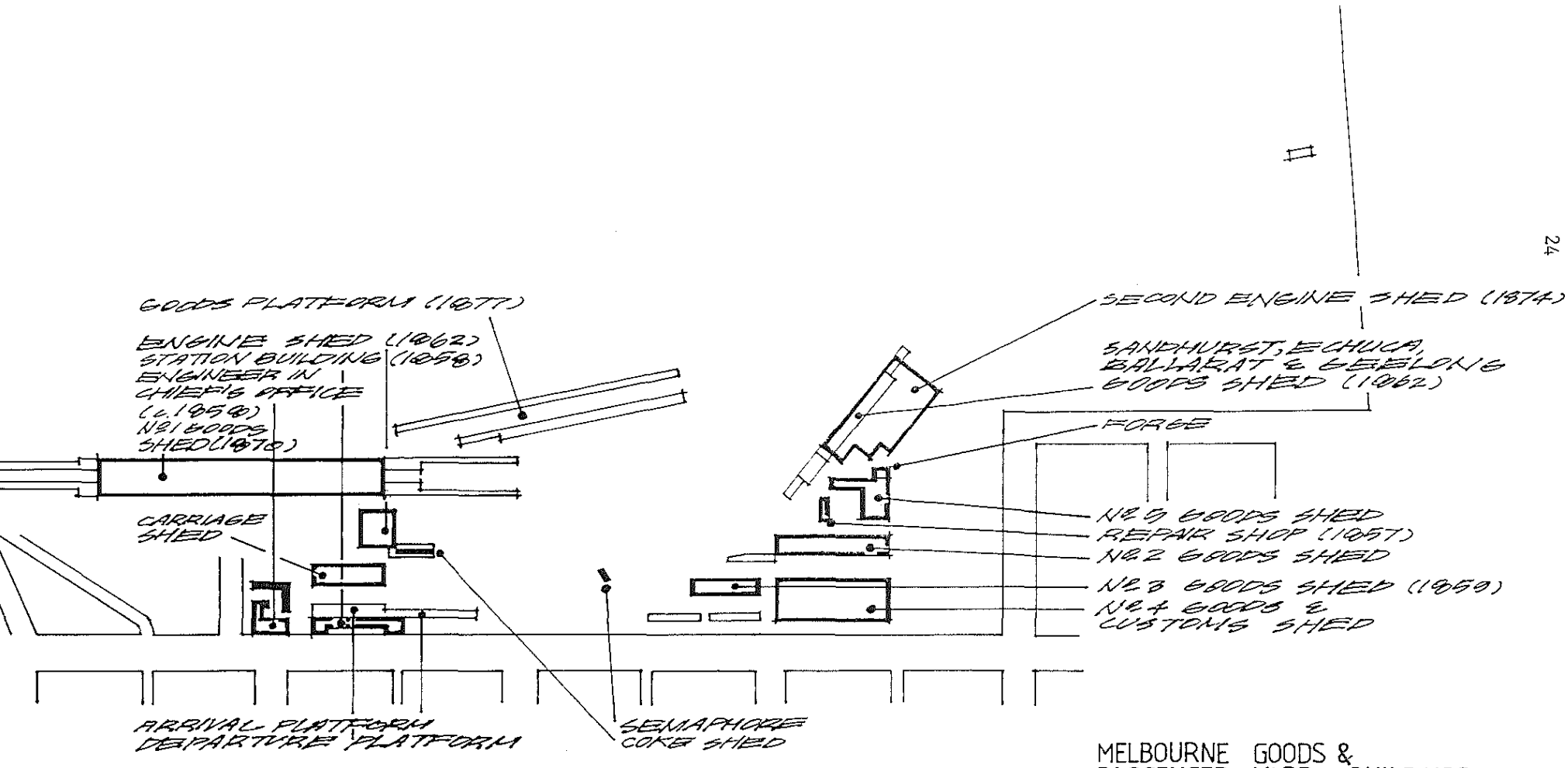
Engineer in Chief





1870-71 goods shed, built immediately prior to the opening of the North Eastern railway, now demolished.

ce: A.R.H.S. Archives.



MELBOURNE GOODS & PASSENGER YARD - BUILDINGS

1850's - 1870's

The commissioners reviewed three schemes for river and dock improvement, identified the causes of flooding on the banks of the river, assessed the cost, worth and practicality of draining and reclaiming the swampland and took evidence of the navigation hazards.

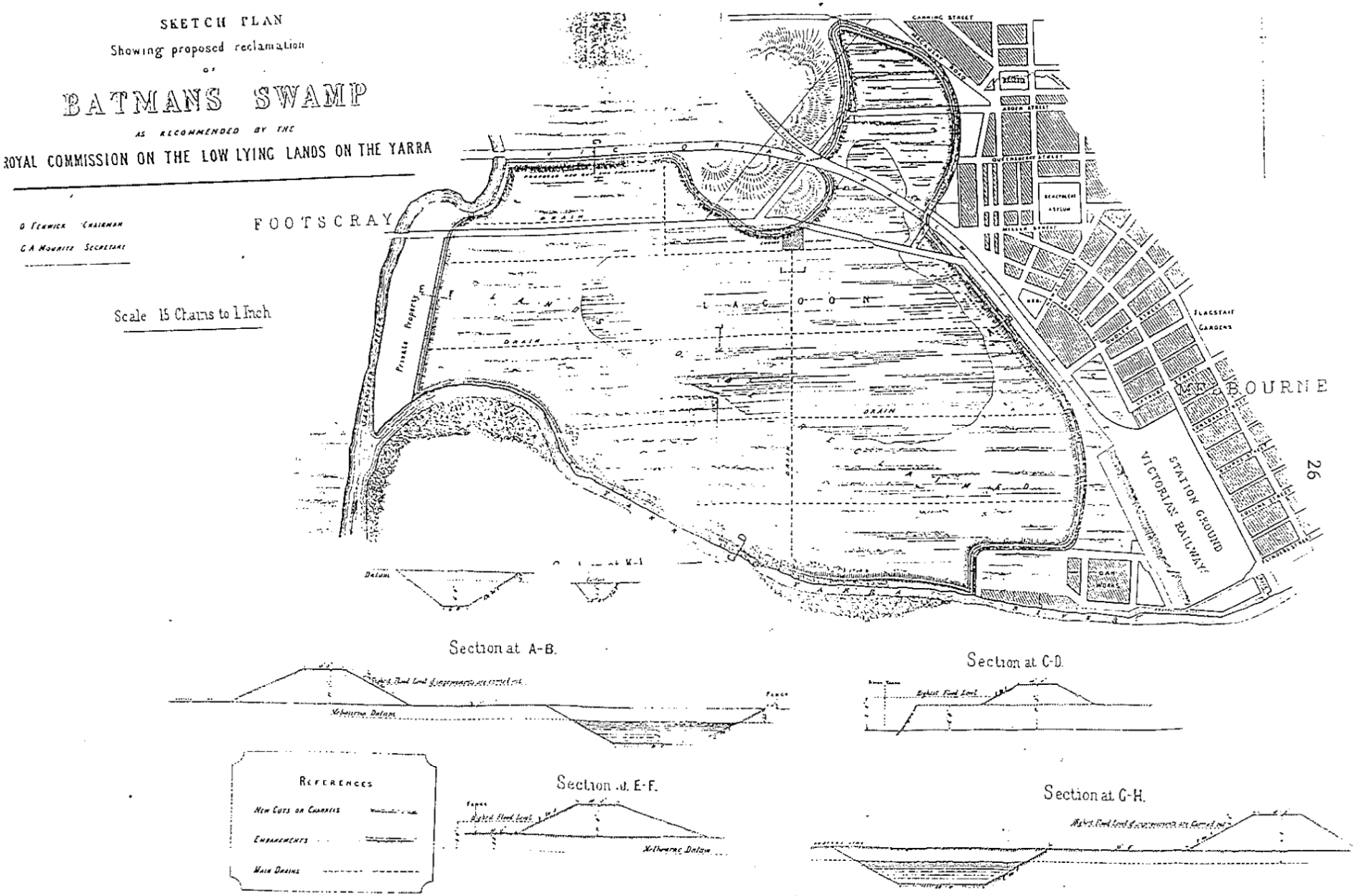
> (The Commissioners)... arrived at the conclusion that it would be inexpedient to incur the enormous expenditure requisite to render any portion of the low lying ground west of the railway eligible for the extension of the city . The West _c-Melbourne Swamp) should be enclosed and drained for...recreation as a park or cultivation for grazing but not in any case for residences or as sites form manufactories' (and the) lowland on both sides of the river ... should be reserved from sale' **35**

Proposals for the use of the land included the reservation of:

> '100 acres adapted for residential purposes in connection with the extension westward of the City of Melbourne . The rendering of a large extent of ground fit for the establishment of manufactories and stores in the vicinity of the Yarra and of the proposed dock . (The remainder being) well adapted for growing ordinary garden produce, sugar beet, lucerne, grasses etc, and rendering salubrious a disgusting swamp as repulsive in its present aspect as it is pestilent in its influence . (Unreclaimed land was to be used by dairymen and) a considerable extent of such ground could be reserved for a public park for West Melbourne, It would be the finest piece of grassland in any part in Melbourne'. **36**

The basic recommendations of the Royal Commission were carried out and remained the general approach to land use in the area for the next fifty years . The drainage scheme appears to have been successful and resulted in the provision of grazing ground for Melbourne's milche cows and parcels of reserved land were later used for various public purposes such as the Victoria and Appleton Docks, Bubonic Sanatorium, and the Railway Canal.

Whilst the period to the mid-1870s witnessed the formation of the rail yards generally along the lines of their subsequent development, it saw a range of organisations and reports continuing to direct their attentions to the formation of a harbour trust. By 1875 a joint commission of the Chamber of Commerce and the Underwriters Association was reporting to the Minister for Trade and Customs, again recommending the establishment of a harbour trust.



Low Lands Commission Report map showing the extent of the West Melbourne Swamp and lagoon and the way in which transport routes skirted its northern edge.

Charles Edward Bright (1S29-1915) was a business leader in Melbourne's mercantile community and president of the Chamber of Commerce. In this capacity he urged for improvements to the docks by means of river widening and increasing berthage. He was also a member of the Melbourne Harbour Improvement Committee and successfully advocated the creation of the Harbour Trust. The Harbour Trust Bill of 1876 was introduced into parliament in that year and followed by an Act to approve its establishment in January, 1877. Bright, with Thomas Loader and Frederick Sargood were appointed commissioners, representing the merchants and traders of Melbourne, Shi[) owners were also represented, by *Mess*rs. Pigott, Paterson and Reid, along with the Corporation of the City of Melbourne and other municipalities. The Trust commenced work immediately to improve the Yarra River berths which had lacked the ca9ital funds bestowed upon the railyards from their inception.

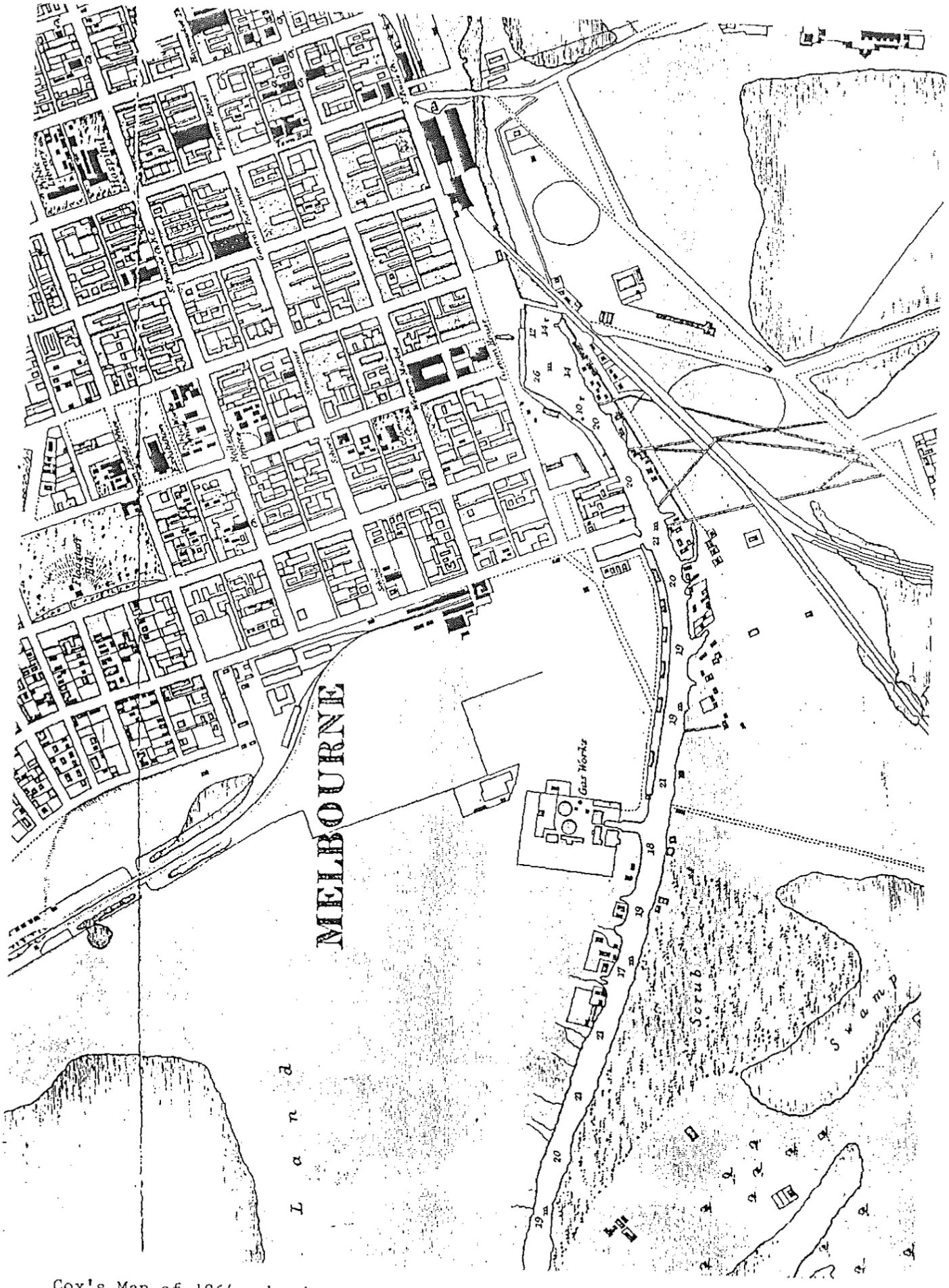
Cox's plan of 1864, viewed in conj1111ction with the De Gruchy isometric plan of Melbourne of 1866, enable the scene to be described. The north bank of the river and the Little Dock of 1849 **37** appear to be fully laden with building timber and have very little free berthage. The exhaust from at least two steam powered cranes can be seen along the river's edge and the Gasworks dock of 1854 is shown on Cox's Plan. This plan shows that the Australian wharf from the Gas Works to the swinging basin at Queens Whad is fully developed with at least seven shipping sheds, some of which are seen in the De Gruchy view. The south bank, however, and the north bank west of the Gasworks appear to be in a natural state and unavailable for shipping.

The system of hiring labour on the docks involved ship owners and merchants recruiting from the idle gangs of labourers assembling at the wharves each morning men were taken on for the day only, from the pool of under employed and unorganised workers in accordance with the irregular nature of the work. The system lent itself to open and sometimes violent competition between rival stevedoring gangs and ships crews whilst the nature of the employment system attracted the outcasts of society, its criminals and ex-convicts, the homeless and habitually violent and poor.

The system of unloading cargo onto open wharves and leaving it unattended also encouraged pilfering and crime. Organized crime developed with rackets in extortion and bribery, pilfering and even recruiting of prostitutes from the immigrant ships, During the 1850s wharf labourers were themselves at risk of being shanghied onto a ship who's crew had deserted to the gold fields,

Labourers at Williamstown and Port Melbourne finally organized themselves in the 1870s with the formation of the Port Phillip Labourer's Eight Hours Association, later known as the Port Phillip Stevedores Association, The Association struck in 1872 against the use of outside labour. In an attempt to counter the wharfies' bad reputation the convicted were barred from membership and the intellectual needs of the members were provided for by a library, lecture nights entertainment and debates. **38**

By the late 1870[1]s, the River Yarra Wharves showed ample evidence of their piecemeal development and lack of substantial public works, The rail yards, by contrast, represented a planned though inadequately funded investment which, in spite of its shortcomings, was comparatively well organised and supported by appropriate safeworking, train running and goods and passenger handling infrastructure.



Cox's Map of 1864, showing the rail terminus and River

The De Gruchy Isometric Plan of Melbourne (extract) showing the Rail Terminus and River Wharves in 1866.

Source: State Library of Victoria.

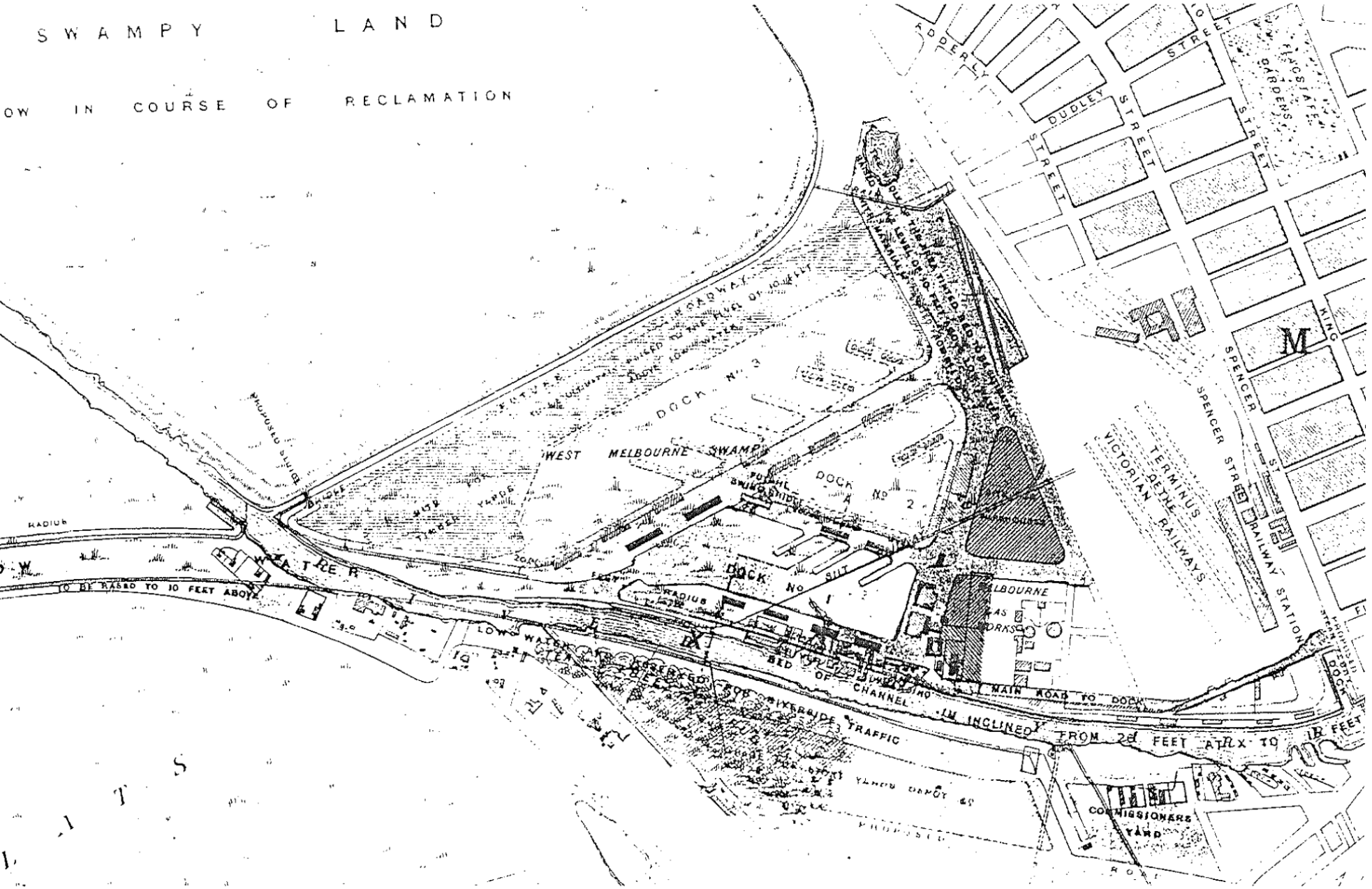
3.1 BOOM AND DEPRESSION (late 1870s - 1890s)

The late 1370s marked the beginning of a new era in goods transhipment both by sea and by rail. Not only was the Melbourne Harbour Trust formed in that year but the Victorian Railways first "General Plan of the New Melbourne Terminus" was adopted by Commissioner, John Woods at the same time. In 1877 the railway reserve embraced all of the land currently occupied by the Victoria Dock and Woods envisaged the construction of a Railway Dock served by rail sidings in this area. His initiative, however, was taken up by the new Harbour Trust which immediately resolved to appoint an eminent engineer· to make recommendations on a comprehensive scheme for the develo9ment of the Port of Melbourne. This scheme would increase the goods handling capacity of the Yarra Wharves and by so doing increase the level of competition with the supporters of the Williamstown and Hobson's Bay wharves. Sir John Coode was appointed, late in 1877 to undertake the work.

Whilst the study was in hand, the Trust let contracts for minor works including repairs to the Little Dock and widening and reforming the approach road at the rear of the Australian Wharf. In the meantime, John Woods, who had control over the land to the north of the river, took matters into his own hands. He had been obtaining supplies of silt for the purpose of raising the level of the Melbourne Yard from the Trust through its dredging activities. By 1879 the arrangement was proving inadequate and Woods resolved to commence excavation of the Railway Dock in order to speed up the supply of fill. By June, he was able to report that some 170,000 cubic yards of spoil had been obtained by this means. At the same time he envisaged that as soon as accommodation was available within the railway reserve vessels would convey the Department's coal directly to the Melbourne Yard. **39**

The excavation of the Railway Dock may have been symptomatic of a power game being played between the Railways and the Trust for the former would, have been fully aware of Coode's work which was tabled and subsequently adopted by the Trust in May, 1879 . Yet, Woods continued to excavate his Railway Dock which was situated generally in the vicinity of Coode's Nos 1 and 2 docks but in an area which was ultimately to be built up again to form the south side of Victoria Dock.

Sir John Coode (1816-1892) had worked in James Meadows Rendel's engineering office in Plymouth as an apprentice . On the adoption in 1847 of Rendel's recommendations and design for the formation of a harbour at Portland he was appointed as resident engineer, a position he retained until 1856 when, on Rendel's death, he was appointed by the Admiralty as Engineer-in-Chief, a position he held until 1872. Portland harbour was the largest area of deep water of any artificial harbour in the United Kingdom at the time . At the completion of this work in 1872 he was given a knighthood. During his career Coode was consulted on many harbour schemes. In 1873, after completion of Portland harbour, he was appointed consulting engineer by the Crown Agents for the Colonies to supervise the construction of Colombo Harbour, which entailed an expenditure of about £700,000 up to 1885.



Sir John Coode's proposal for the development of the present "Docklands" (1879), showing three docks, bounded by the Dudley Street extension to the north and the rail yards to the east.

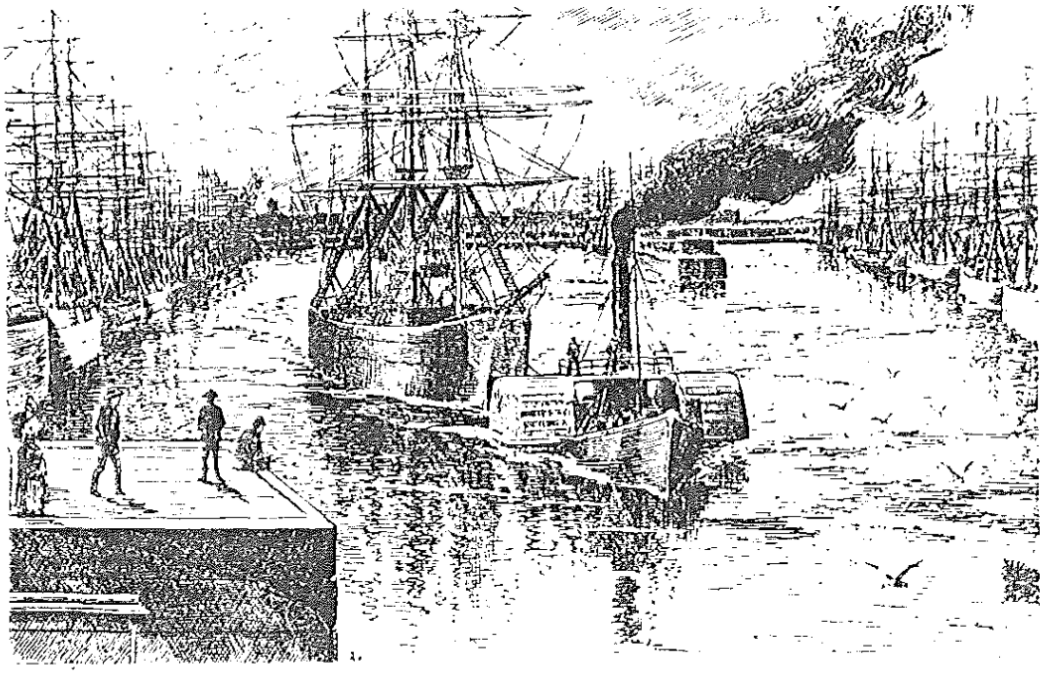
In conjunction with his Melbourne commission he also aided the Government on harbours at Portland and Warrnambool, river improvements at Port Fairy, entrances to the Gippsland lakes and Geelong Harbour. In 1830 he visited Lisbon and Oporto at the request of the Portuguese Government, and returned to Australia in 1885 to advise the Government of Western Australia on the construction of a harbour at Fremantle. This gave him the opportunity to make a second report on the construction of Victoria Dock for the Melbourne Harbor Trust, to advise the South Australian Government on the development of an outer harbour at Poet Adelaide, and to examine ports and harbours in New South Wales and Queensland for their respective colonial governments. During this time Coode was also consulted by other British colonies.

His report of 1879 to the Trust Commissioners recommended the cutting of a new channel through the flats to the south of Fishermen's Bend; the construction of three docks in the general area of the gas works, with the soil excavated used to raise the general level of the land to 10 feet above low water; and the widening and deepening of the River Yarra. The estimated cost of this project was between £1,000,000 and £1,400,000.

In 1880, 229 acres of land were set aside for the cutting of the canal recommended by Coode and in February, 1834, a contract was let to Mark Gardner and Co. for its construction, The canal was officially opened by the Governor, Sir Henry Loch on 11.9.1886 although it was sometime thereafter that it was made navigable for shipping.

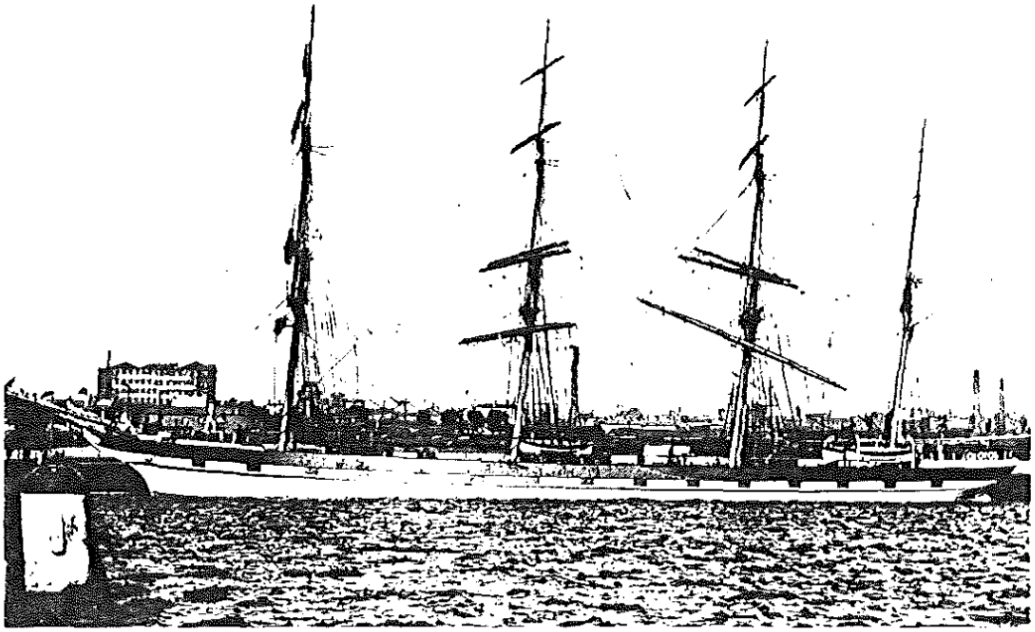
By 1882 the widening of the river had resulted in the removal of the Australian wharf and its replacement on adjoining Railways' land on the condition that it be made available for landing railway coal. **40** In the following year the commissioners resolved to dredge the river to a depth of 20 feet (6.1 metres) below low water so that ships drawing 21 feet 6 inches of water could safely navigate the river up to the Melbourne Wharves. In August 1883, tenders were accepted for the construction of the Middle Swinging Basin which remains today immediately west of the "Charles Grimes" bridge. In the following month, a contract was let for the extension of Flinders Street through the south end of the rail yards.

The excavation of the West Melbourne Dock, later known as the Victoria Dock, commenced in 1887 and by 1892 some 3,000,000 cubic yards of earth had been removed. About a third of the spoil was used to improve the land around the dock and presumably to fill the hole dug by the Railways over a decade earlier. The bulk of the spoil, however, was used by the Railways in the extension of the Goods Yard and for the filling of the West Melbourne Swamp, The dock berths were built on timber piles recommended by the Trust's engineer, J, Brady, rather than on concrete blocks proposed by Coode. The depth of excavation was also altered by the commissioners on the recommendation of Brady from 27 feet to 22 feet at low water.



Artist's impression of 1889 showing how the Victoria Dock would appear when completed.

Source: P.M.A. Archives.



A sailing ship moored at no.15 Victoria Dock, prior to the construction of the cargo shed in 1912.

In March 1892 tile sluices to the river were opened and it took six days to fill the ninety-six-acre excavation. A mile of wharves lined its boundary, but their construction was not complete until 1903. The Trust's dredges finished the work of opening the dock to the river. A pontoon bridge, 238 feet long and twenty-five feet wide, connected Melbourne and Footscray across the dock entrance and remained in place for nearly ten years and was then removed only under protest.

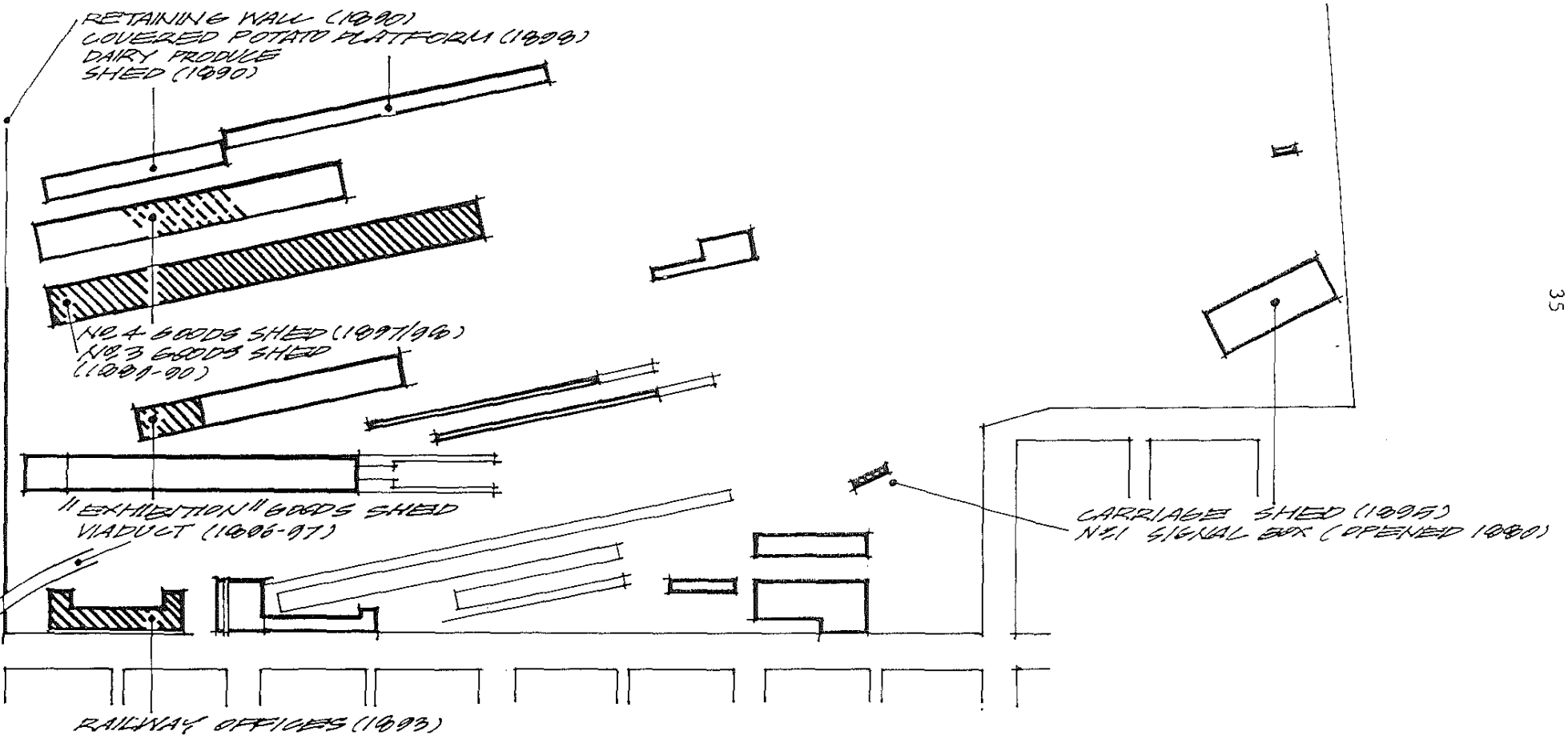
In 1892 the Commissioners changed the name from the West Melbourne to the Victoria Dock. First to use it was the Lund Line's SS "Hubbuck", which berthed there in February, 1893. The advantages of its proximity to the City, however, were not to be felt for some time, being, overshadowed by the economic climate of the 1890s. **41**

The Depression, which gained momentum following the bank crashes of 1891/92, was associated with increased numbers of homeless families. Squatters illegally occupied humpies on the wastelands of the West Melbourne swamp. Later on, during the depression of the early 1930s, the settlement of homeless and unemployed located at the south end of Dudley Street became known as "Dudley Flats". It was periodically raided by the police who moved people out and demolished their dwellings, Even today it is possible to find the occasional humpy built by the homeless on the wastelands of the port area.

The waterside workers formed the Melbourne Wharf Labourers Union in 1885-86 following an unsuccessful strike in 1884 which gave birth to an arbitration process having ramifications for the Labour Movement. The log of claims included the eight hour day and improvements in wages and working conditions. During the boom period of the 1880s the ship owners competed for the available labour but in the ensuing decade, the years of depression enabled them to form an aggressive cartel, fixing freight charges and wages through the Australian Steamship Owners Association.

In 1890 the wharf labourers joined seamen in a strike aimed at forcing recognition of the Marine Officers Association. The strike spread as other unions come out in sympathy on the issue of the right to organize. Miners, coal loaders, transport workers and gas workers joined and Melbourne industry all but came to a halt. Strike breakers were given police and military protection but this did not prevent fights at picket lines. The strike was a failure in the end and its consequence was a weaker union movement while the depression of the 1890s brought further defeat and hardship to the dock workers.

By 1884 the inward and outward goods traffic of the Melbourne Goods Yard stood at 751,735 tons comparing with 562,769 for the year ending 31.12.1877. A revised plan for the terminus was developed at this time. It represented a less ambitious scheme than its predecessor to the extent that the country passenger station was to remain in its present location with cab stand and horse and cart docks directly accessible from Spencer Street. By this time, however, the capacity of the No. 1 shed had been increased by the construction of a grain shed alongside. The Australian Wharf and dock excavation were serviced by sidings and William's rolling stock factory, situated on the site of the future Blyth Street/Cowper Street intersection, also had rail access.



MELBOURNE GOODS & PASSENGER YARD - BUILDINGS

1880's - 1890's

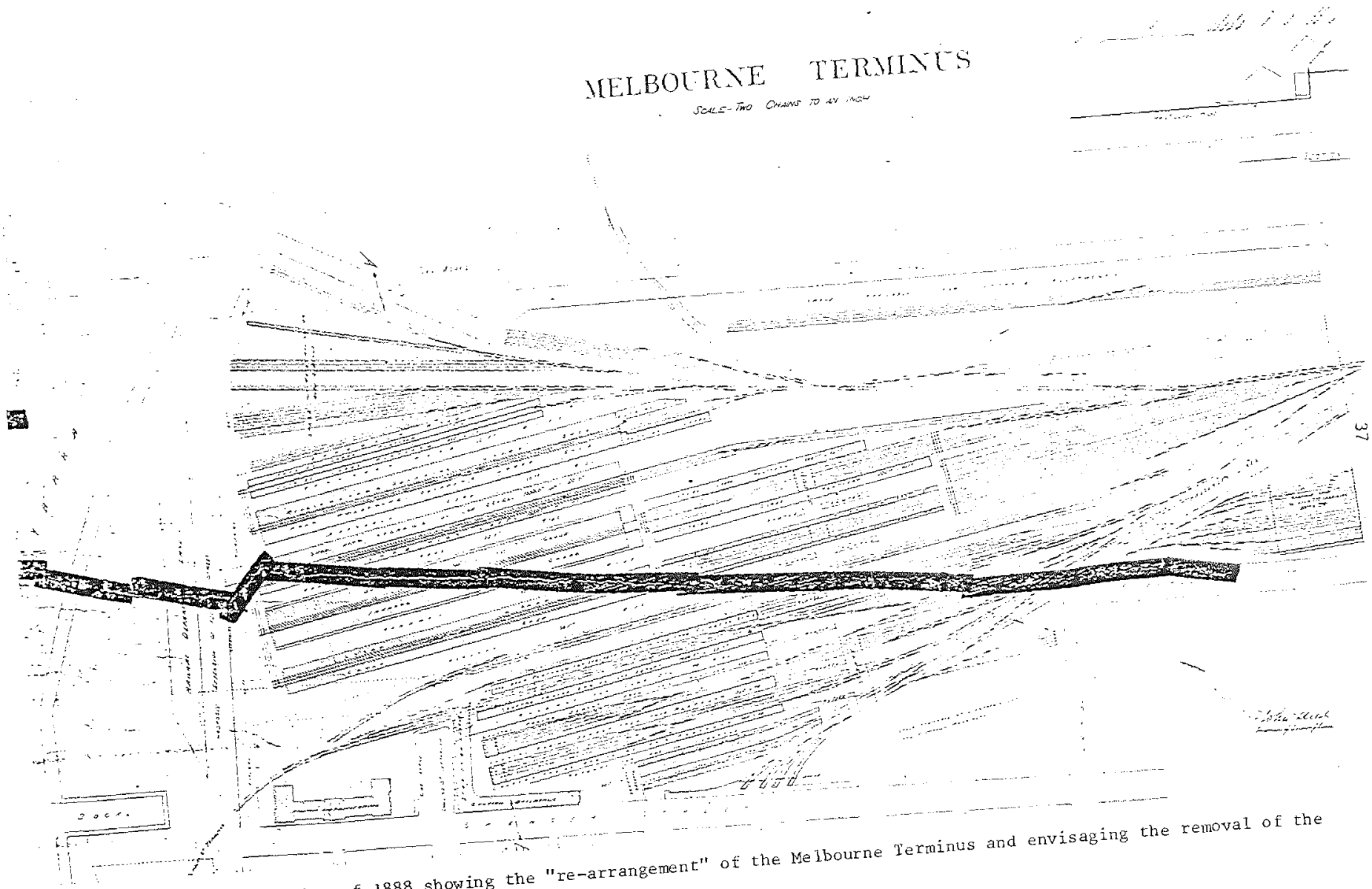
Apart from generating an acknowledged increase in the levels of passenger· traffic, the Melbourne International Exhibition of 1330 created an opportunity for the acquisition of additional goods shed accommodation. Following its closure, tenders were called for the purchase of the temporary annexes to the north of the “Great Hall" and the Department was successful in obtaining its new No. 1 goods shed from this source, Believed to have been designed for the Exhibition by Reed and Barnes, noted Melbourne architects who also designed the permanent buildings for the Exhibition Trustees, it was marginally smaller than the No. 1 shed of 1870-72, Built entirely of timber and corrugc1ted iron clad, it was formed of three bays with a high mansard roofed central section, Although of a "temporary" design, it became the first permanent goods shed to be erected on the alignment endorsed by the 1874 master plan and was last used for the Gippsland lines loading prior to partial demolition early in 1988.

The latter years of the 1880s were, not surprisingly, crucial in the implementation of the 1874 scheme for not only was it re-confirmed in 1383, and further refined in 1892, but the grandiose "A" shed, now No, 3 shed, was built by A. Tozer and Co. in 1889/90 **42** By this time, much of the plan for the redevelopment of the Melbourne Good yard had been realised and it was scarcely slowed down by the depression of 1892/93.

Messrs Woodruff and Crosbie undertook to construct the Flinders Street Extension retaining wall in 1890 using polychrome brickwork in a design unconsciously memorialising the place occupied by Batman's Hill over a quarter of a century previously. Today, the base of the hill is defined by the retaining wall on its south side and by a second wall on its west side running parallel with the east elevation of the old "A" shed, The Dairy Produce Shed at the west end of the yard followed in the same year, the No, 4 goods shed in 1897 /98 and the potato shed, attached to the Dairy Produce Shed in 1898, It was also during the late 1890’s that the Department's electric and gas lighting plant was erected at the Spencer Street/La Trobe Street intersection using plant obtained from the 1838 Exhibition.

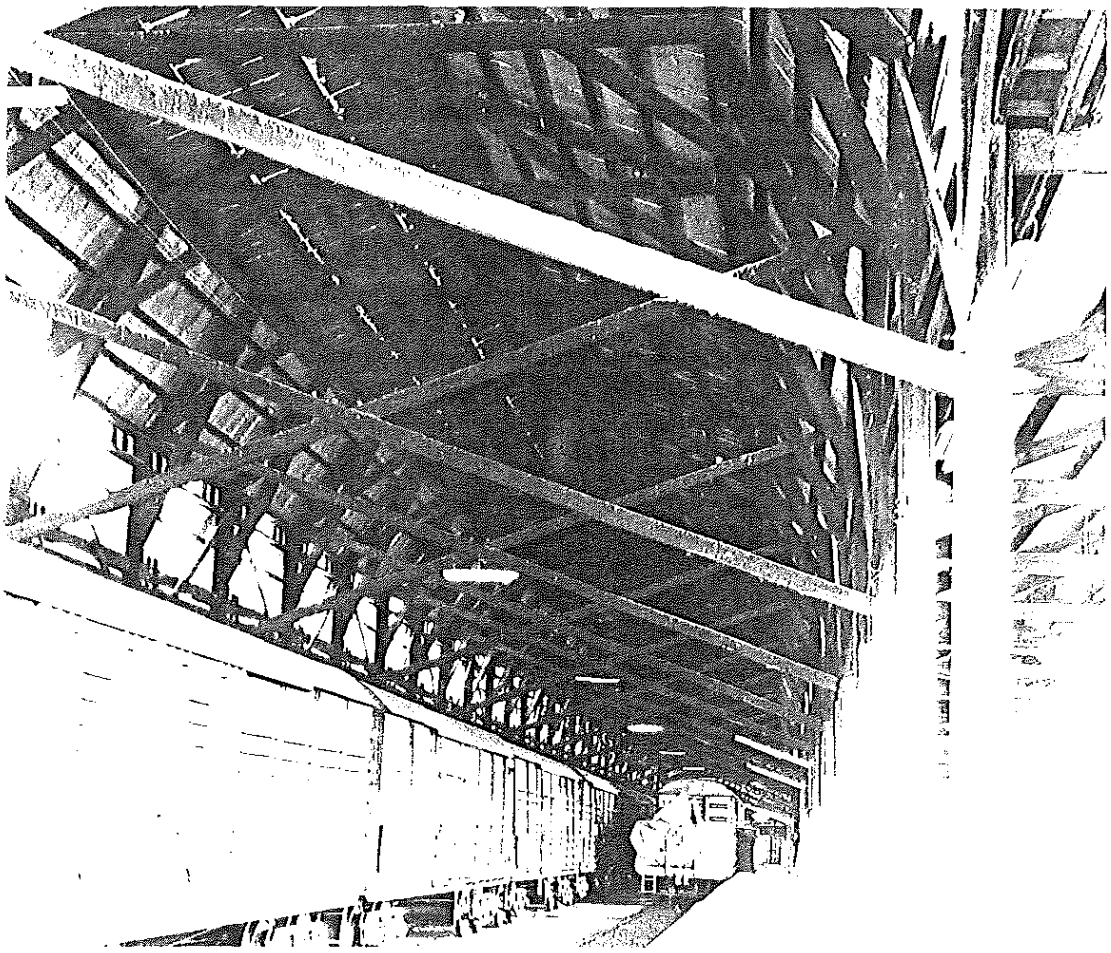
All of these works were undertaken in the face of declining passenger and goods revenue caused by reduced traffic levels and fare reductions designed to assist the populace and to meet competition from water and road transport, By 1895 the value of goods handled by the Department had dropped to its level in 1888 and that of passenger traffic to its 1886 level. The amount of dairy produce and frozen meat, however, showed prospects of further expansion following the construction of an ice making plant in the Melbourne Yard for use in the growing fleet of insulated trucks.

In 1895 George Sims, chief draughtsman, prepared drawings for the Dudley Street carriage sheds which were of timber construction with bow string truss roofs. They were erected by day labour later that year and remained in use until demolition early in 1985.

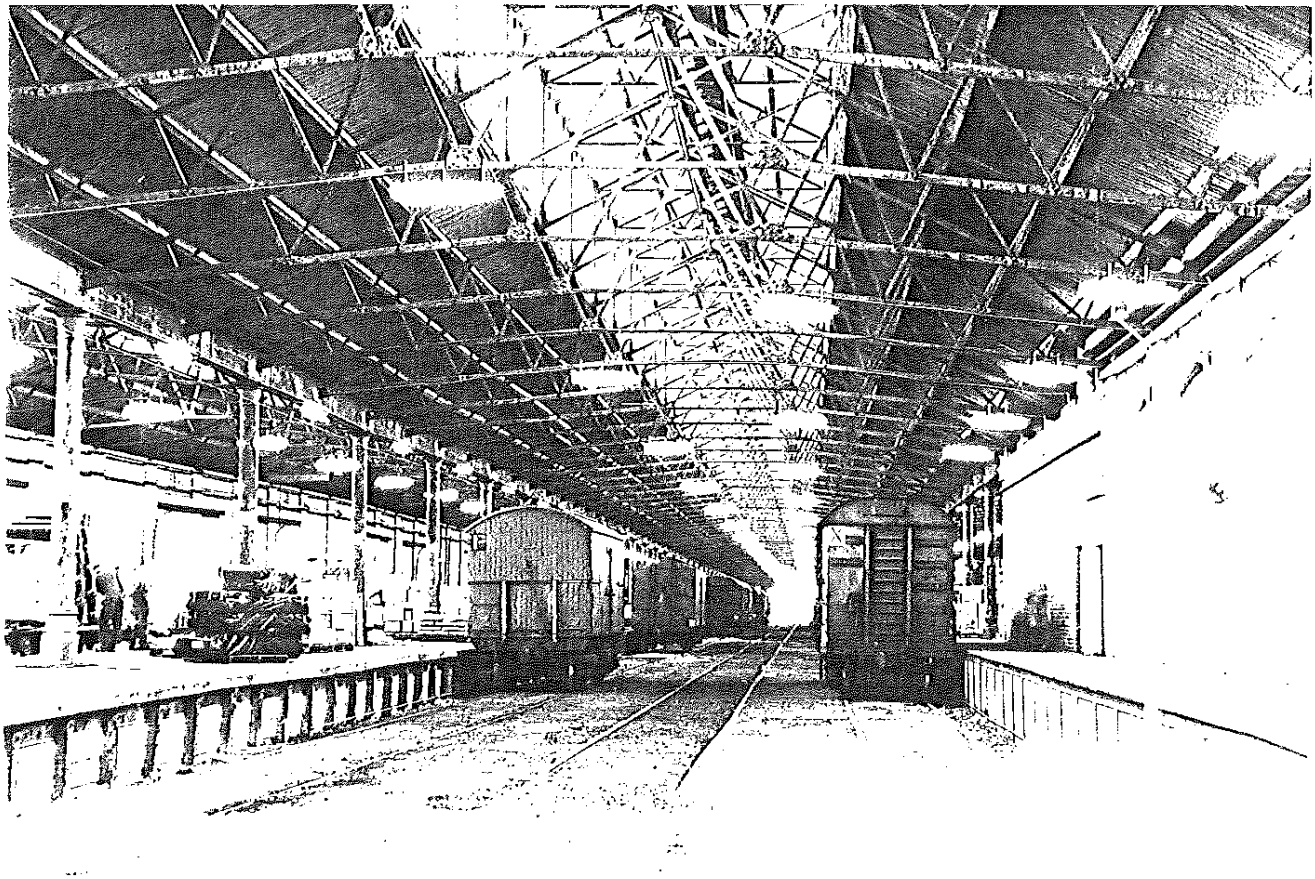


Victorian Railways Plan of 1888 showing the "re-arrangement" of the Melbourne Terminus and envisaging the removal of the substantial goods shed of 1870-71.

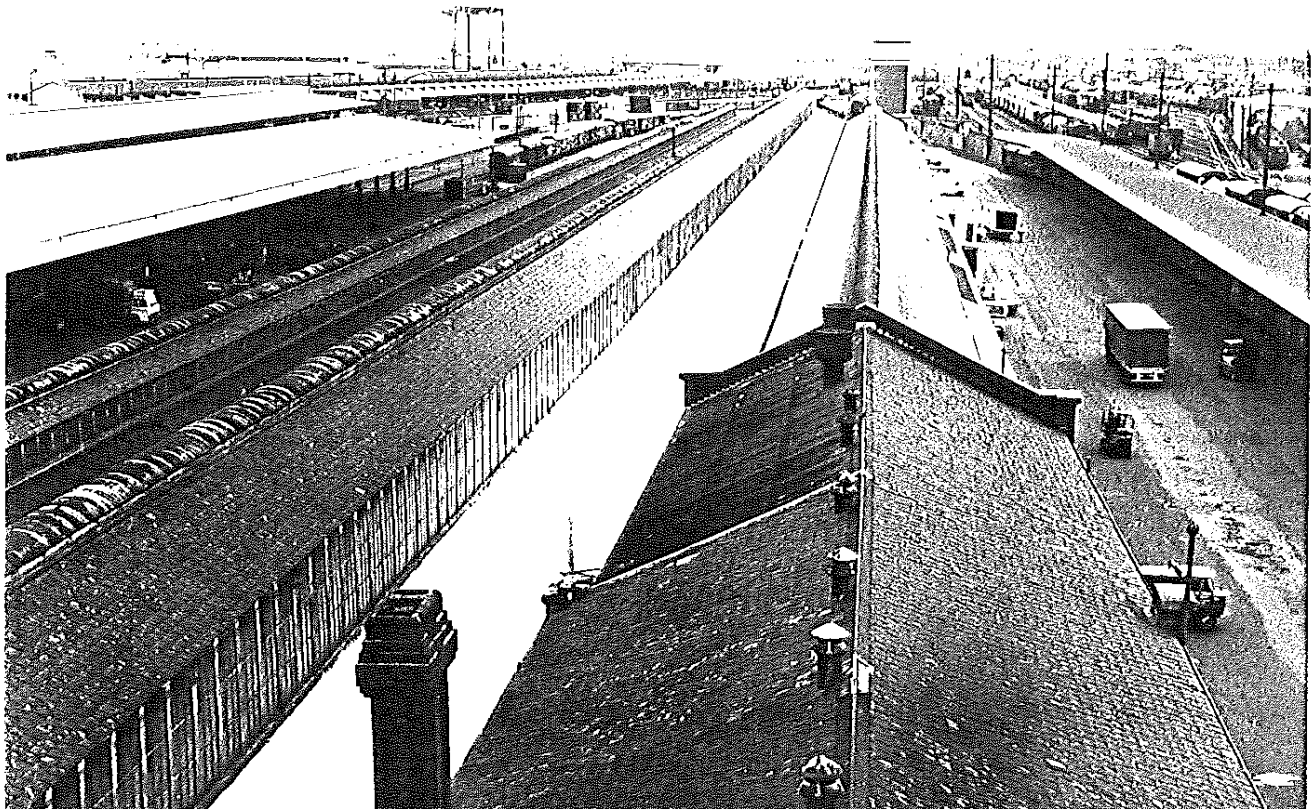
Source: V/Line Plan Room.



The Exhibition Goods Shed, prior to the demolition of its north end, (1981). Source: A.Ward.



The present No.3 shed, giving an idea of the size of this building.



An interesting casualty of the widespread economic depression was the failure of Messrs Wright and Edwards' carriage and wagon building enterprise at Braybrook Junction. Some of the company's large sheds were purchased by the Department from the liquidators and had been re-erected as a caniage and wagon repair shop at North Melbourne by August, 1898. The present shops are believed to be the former Wright and Edwards buildings and consist of a large erecting shop with perimeter mezzanine and offices and remain as the largest timber shed continuing in use by V /Line.

By the turn of the century, the slump in goods and passenger revenue which had been characteristic of the 1390s was showing improvement with a corresponding reduction in the net deficit. The works associated with the establishment of a gravitation scheme were commenced in June 1899 and involved the reconstruction of the Dudley Street bridge in 1899/1900,

3.2 DOCKLANDS HEYDAY (1900s - 1940s)

Towards the turn of the century the Melbourne Harbor Trust was able to claim the following benefits conferred upon the Colony:

— A reduction in costs per· ton for lighterage from five shillings to seven and sixpence,

— a reduction in the labour costs of goods handling·,

— a reduction of charges on the exported produce of the Colony and

— the elimination of flooding west of Princes Bridge. **43**

Its receipts had returned to their 1886 level by 1900 and it was the river berths and the Victoria Dock which were accommodating most of the shi9ping with only a small trade attributable to the bay piers and the Yarraville and Footscray Wharves. 44 The Victoria Dock, however, was underutilised to the extent that the finger wharf had not yet been built and its transit sheds were confined to the Australian Wharf Road and Mountain Street berths. Rail access was entirely lacking and restricted to the Pigott Street siding serving a limited section of the Australian Wharf. **45** Here the coal supplies for the Gas Works were conveyed from ship to bunkers by elevated tramway and the Victorian Railways Department had only recently vacated the lower Australian Wharf which it used as a coal dock in favour of Victoria Dock. Later, it was to lay a second siding along Pitt Street c, 1905 where coal would be off loaded into trucks and taken to the Department's locomotive depots throughout the State.

The Victoria Dock's pre-eminent position was consolidated during the following years, Olaf Ruhen noting that by 1908 ninety percent of Victoria's imports were handled at Victoria Dock. **46** Here, vessels could save on the double handling associated with the transfer of goods by rail to the Department's shipping shed at Normanby Street. With the deepening of the river, the Trust could bring the largest steamers in the Australian trade to the Victoria Dock, on the edge of the city and with direct connections to the Melbourne Goods Yard.

Its capacity to handle increasing traffic was fully exploited by the Trust in the ensuing decades. In 1912 the wharf aprons to the north-east and north-west wharves were increased in width from 40 feet (12.2 metres) to l00 feet (30 metres), thereby providing the space necessary for the construction of additional shipping sheds. They remain today, the corrugated iron sheds at berths 3 and 15 (north east wharves) being substantially intact.

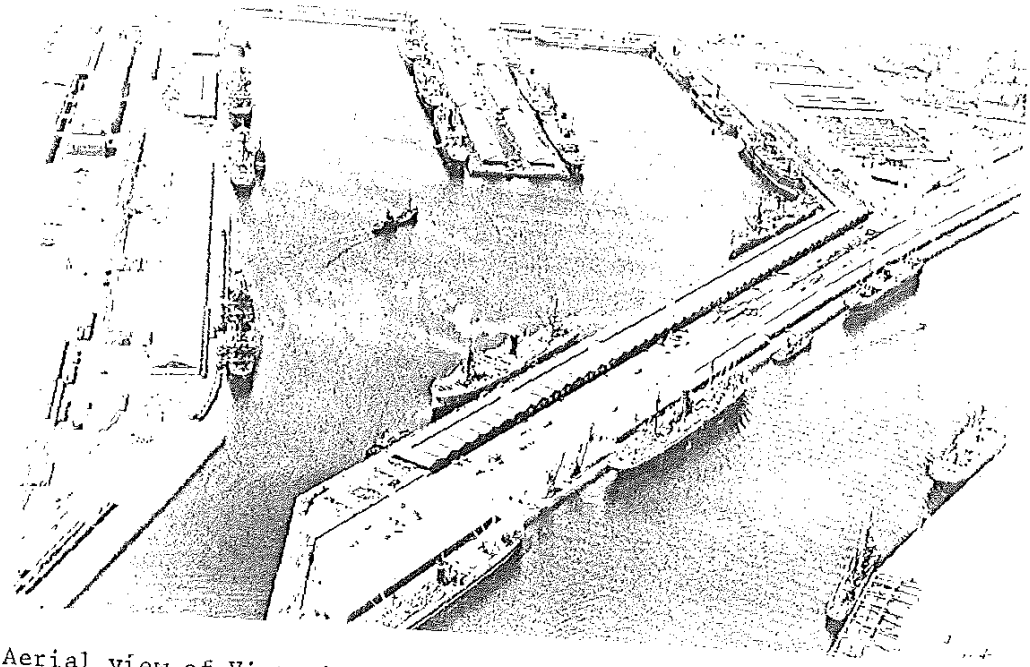
In the following year the Mountain Street wharf apron was increased in width by 20 feet (6.1 metres) and in December, 1914, R.O. Law's tender to build the central (finger) pier with an average length of 1,630 feet and width of 250 feet was accepted. This pier was to be constructed of timber with a wood block roadway on reinforced concrete plates. It included six shipping sheds, with 300 feet of closed shed and 93 feet of open shed at each end, whilst the option of running a siding up the centre was considered though abandoned owing to space limitations, **47**

Now the hub of the British trade, the land about the Dock vias sought by Melbourne's merchants, Cool stores, free and bond stores and warehouses, transport companies, stevedores and shipping agents were all located in close proximity to the docks and railways. A butter factory, wool dumpers, wool stores and manufacturing industries were located to take advantage of immediate access to docks for export of their products or importation of their raw materials. Included here are the Victoria Freezing Company and Victoria Co-operative Butter Factory, established around 1890, The Wool Pressing Company, Lysaght Galvanised Iron Pty. Ltd,, Massey Harris, the Renard Fertilizer Co., Armand Guilhou wool and skin merchant, Houghton's Wool Stores, and the Yarra Free Stores.

Shipping agents were located in Flinders St. Extension, Pigott St., Mountain St., and Lorimer St., near the South Wharves. Among them were Inglis Smith, Howard Smith, Huddart Parker, Adelaide Steamship, and the Melbourne Steamship Co, Substantial warehouses were built along Mountain St. and Siddeley St. for both the bonded and free goods. The Melbourne Harbour Trust maintained the 'Wet Shed' for the bonded storage of alcohol in order to reduce pilfering. Henry Berry had constructed a brick store on the corner of Pigott St. and Australia Wharf Rd, by 1890 and Goldsborough Mort purchased Railways land nearby but does not appear to have constructed its stores.

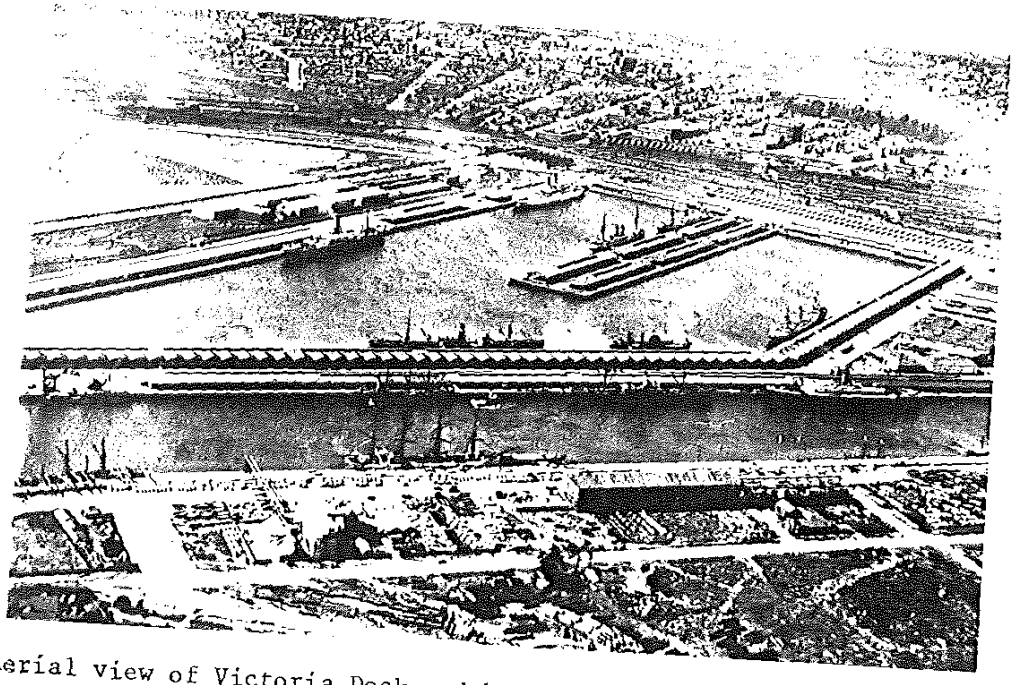
The Stevedoring companies, who contracted for the loading and unloading of ships were close to the wharves, the Victorian Stevedoring Co. and Patrick Stevedores being in Pigott St. at the turn of the century.

The Government Cool Stores were erected in Pitt St. in 1911 as part of a program designed to enhance Victorian primary produce. Victorian produced butter, cheese and fruit destined for export were kept in the extensive timber and iron buildings which were later connected by a continuous conveyor to loading facilities on the north side of Victoria Dock. A fire damaged the stores in 1937 but they were rebuilt and continued in use up to 1978.



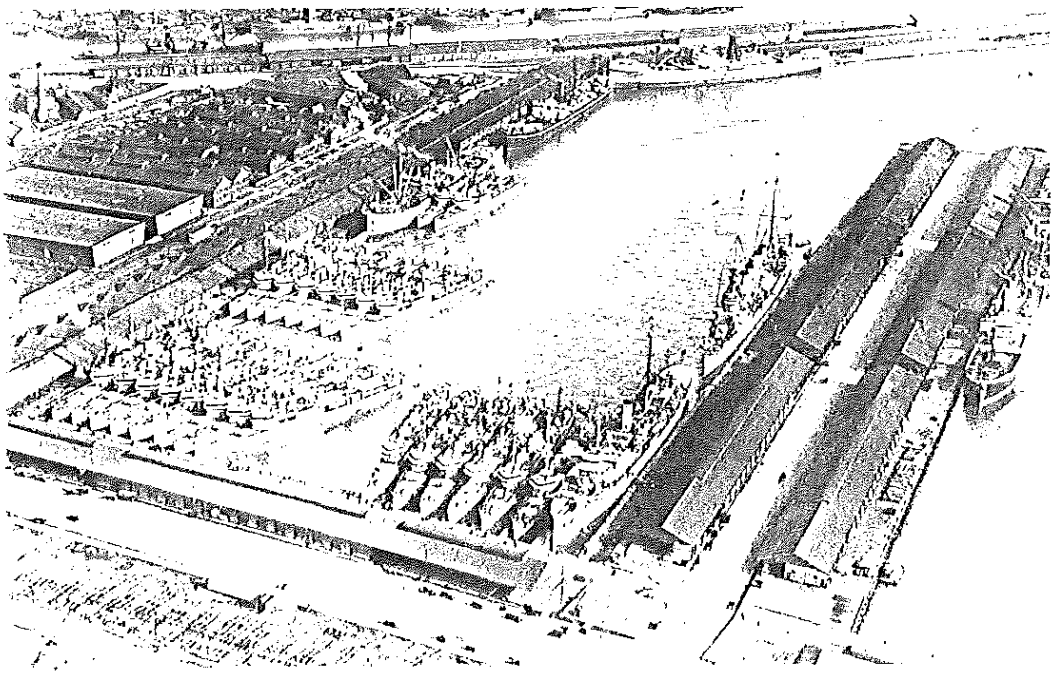
Aerial view of Victoria Dock and berths 10-16, North Wharf, 1930. Notice the cargo shed running continuously along the south sides of Victoria Dock and the Government Cool Stores and sidings in the top left hand corner.

Source: P.M.A. Archives.



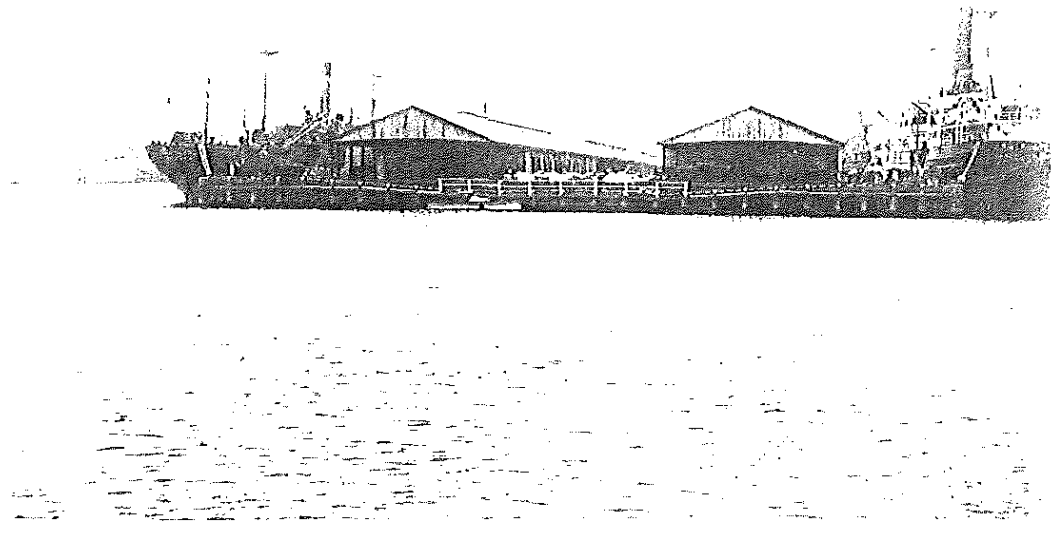
Aerial view of Victoria Dock and berths 10-16 North Wharf with the rail yards in the background.

Source: P.M.A. Archives.



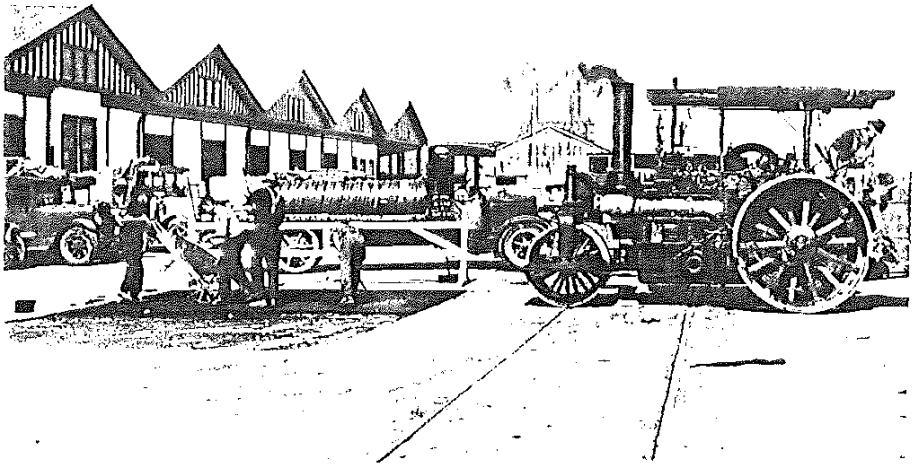
Flotilla of United States Navy destroyers in Victoria Dock, August 1925. Notice no. 8 shed, with its closed central section and open ends and the complete Central Pier.

Source: P.M.A. Archives.



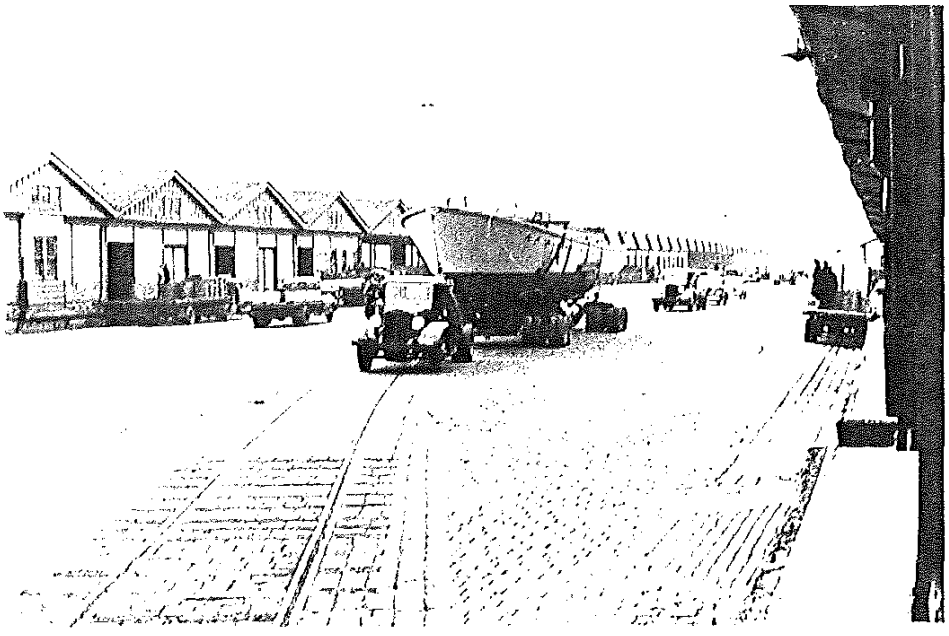
The outer end of Central Pier, showing the open ends of cargo sheds at berths 11 and 12, 1927.

Source: P.M.A. Archives.



Repairing the road surface along North Wharf Road, west of Mountain Street, c.1925.

Source: P.M.A. Archives.



Vessel being transported along North Wharf Road prior to being launched by the steam crane. Notice the "Telford" pitching and rail siding, which remain today.

Source: P.M.A. Archives.

The stores and stevedore's buildings were generally single storey timber and corrugated iron sheds which by the 1920s filled almost all uncommitted land between the rail yards and Victoria Docks. These stores and the extensive wharf sheds reflected the old methods of goods handling where individual crates, barrels, bags, boxes and such were man-handled from ship to shore and then to under-cover stores to protect them from the weather and from pilfering or customs avoidance before being transferred to their final destinations. In an attempt to combat pilfering, the Trust established a police station in fountain Street and elected a perimeter fence with check gates for the Dock.

In 1917 the depth of the Dock was increased to 30 feet (9 metres) and in April, 1918, Commissioner Holden announced that the area of the Middle Swinging Basin would be increased by 74 percent with a view to accommodating larger ships.

During the 'twenties the entrance to the Dock was widened and the old pontoon bridge, forming an essential link in the "new" Footscray Road of 1892, demolished. In its place, a new road to Footscray was built to provide direct communication with the western suburbs. As a part of these works a portion of Blyth Street was incorporated in the new road which ran parallel with Cowper Street.

During the 1920s, the growth of the metropolis combined with an increased use of motor vehicles were factors precipitating the construction of the Spencer Street Bridge. The Trust's vulnerable position in so far as the retention of the Princes and South Wharves upstream of Spencer Street was concerned was made worse by the ample availability of land downstream for new docks. The Trust itself had envisaged construction of the Appleton Dock for some years previously. The Princes and South Wharf trade would be transferred to the coal wharves and the timber trade to "Siberia", at the extreme west end of the River wharves. The Queens Wharf trade would move to the Australian Wharf which became known as North Wharf following the opening of the bridge in 192G. These events provide the earliest example of the threat to the "top end" wharves represented by the growth of the City and one which now threatens not only the Victoria Dock but also the Melbourne Goods and Passenger Yards.

Throughout the 'twenties, the capacity of the Dock and river berths to handle the increasing traffic was a matter of concern to the Trust. Not only was accommodation inadequate at Williamstown, but in November 1925, the river berths were almost fully occupied. All of the cargo sheds were full. By 1927 the Trust employed more than 1,000 men and had practically full control of the eighth largest deep water port in the British Empire. Trade levels, however, dropped by a million tons in 1930 during the first full year of the Depression.

By 1932, however, the economic upturn allowed the Trust to resume construction works by the continuation of the compound wall along Flinders Street near North Wharf and the filling of the Little Dock in order to consolidate the interstate wharves. A new crane was installed at berth 21, Victoria Dock . Also in 1932, Henry Berry and Co.'s building at the corner of Pigott and North Wharf Road was demolished along with the Yarra Free Stores at the other end of Pigott Street.

The mid 'thirties witnessed the introduction of electric wharf cranes and the formation of a new road from Mountain Street to "Dockhead" at the junction of Victoria Dock and North Wharf. Here, a picturesque two storeyed octagonal watch office called Dockhead was built to replace an earlier single storeyed structure. Portions of the decking of Victoria Dock were strengthened to cope with 3 ton loads comparable with the capacity of the cranes being introduced. Berths 15 to 21 were selected as the location for the first electric cranes.

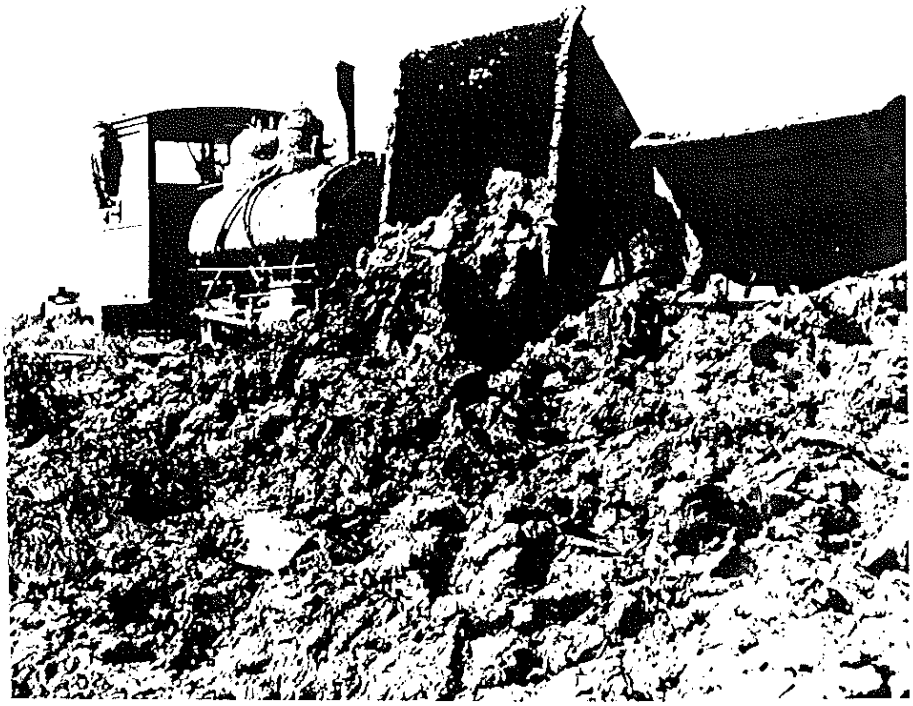
In 1939 the Trust called tenders for the first twenty-one berths at the Appleton Dock, thereby foreshadowing the post war era of new docks accommodating larger ships downstream of the Victoria Dock.

The Waterside Workers Federation was formed in 1902 to take over from the earlier Unions and became a seeding· ground for Labor politicians, many of 111hom commenced their careers as WWF executives. They included prime ministers, Gilly Hughes and Andrew Fisher.

In a normal year little more than half of the 1200 or so labourers who turned up each morning found work and during the 1930s the slump in shipping left nearly 90% of the casual dock-workers out of work. In 1923 the wharfies received a blow in the form of the Beeby Award which reversed many of their hard won conditions. Criminal penalties were instigated to prevent strikes under the Transport Workers Act which became known as The Dog Collar Act . The consequent waterside strike of 1928 proved disastrous due to the union's indecision and failure to appreciate the economic conditions. 48

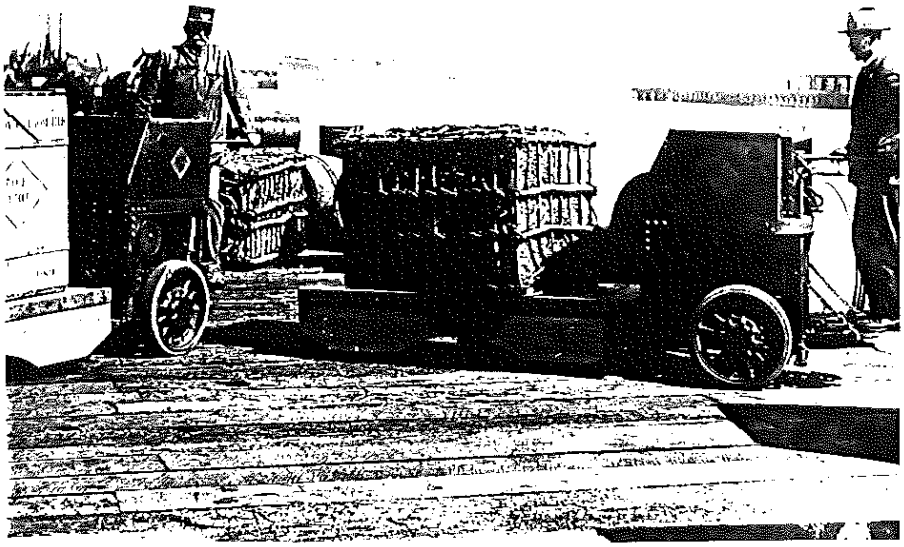
Violent confrontations ensued from the bitter feelings among wharfies and a series of bombings shook Melbourne in 1928 for which watersiders were blamed. The tension culminated in a battle at Port Melbourne where several unionists were shot by police. **49** Union power was cur tailed for many years as a consequence and it was not until the 1940s that the long shifts and poor conditions were perceived as a problem leading to inefficiencies in goods transhipment. A Chamber of Manufacturers investigation in June 1942 found that 1,1elbourne had the worst sanitary conditions and workers amenities in any Australian port, lacking adequate washrooms, toilets, shelters or meal facilities. Improvements were carried out in conjunction with the refurbishment of shipping sheds erected around the time of the First World War. Today, the provision of workers' amenities within each shed is commonplace throughout the Victoria Dock.

By the end of the first decade of this century, the Melbourne Goods Yard consisted of a vast area of individual yards and sidings facilitating the sorting of trucks and storage and transhipment of goods. It was defined on its eastern side by the three running lines off the Flinders Street viaduct and on its western side by the City Markets line and sorting sidings. The viaduct lines were served by carriage sidings in the vicinity of La Trobe Street to service Flinders Street station but also having a point of connection with the Spencer Street country platforms. Today, two goods lines continue to define the Yard's eastern limits but the City Markets line has been replaced by the present No. 5 shed.



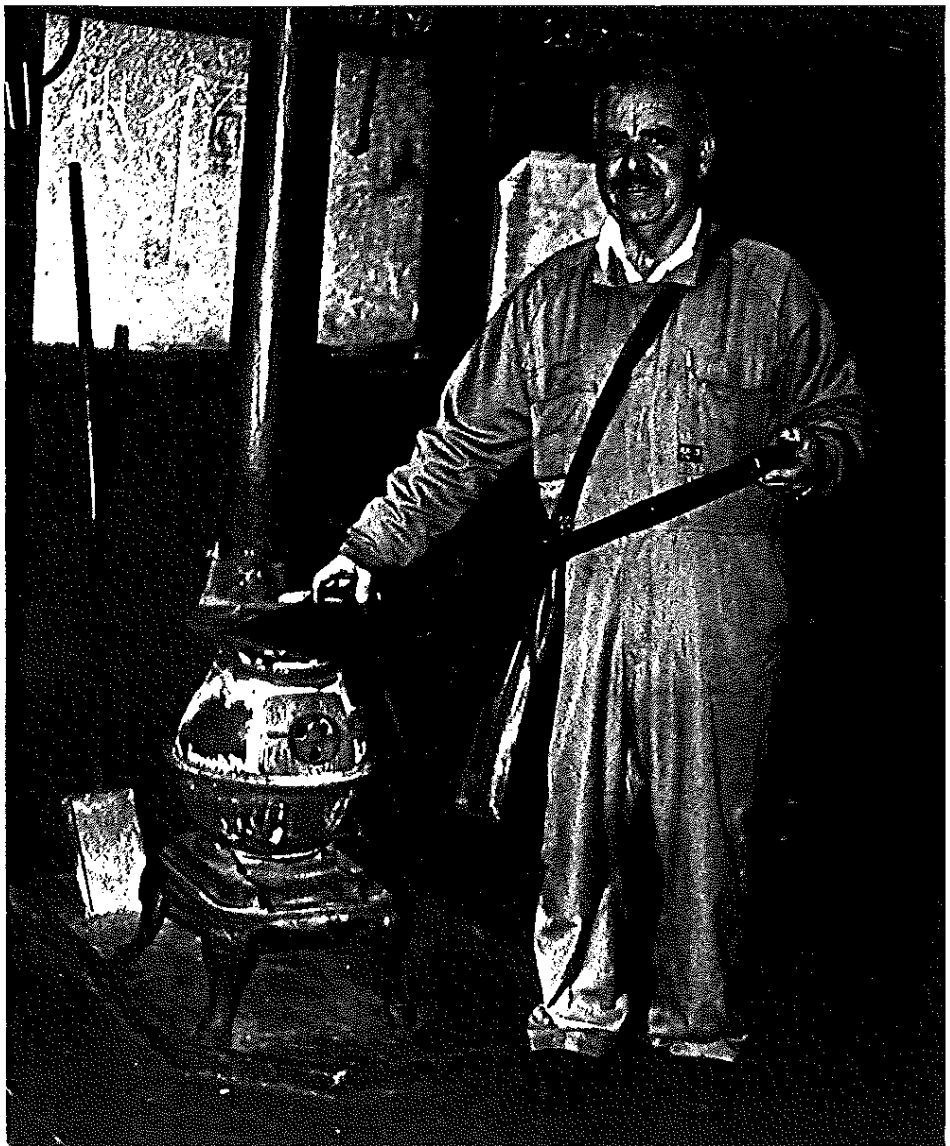
Silt dumping from M.H.T. dredging operations, c.1900.

Source: P.M.A. Archives.



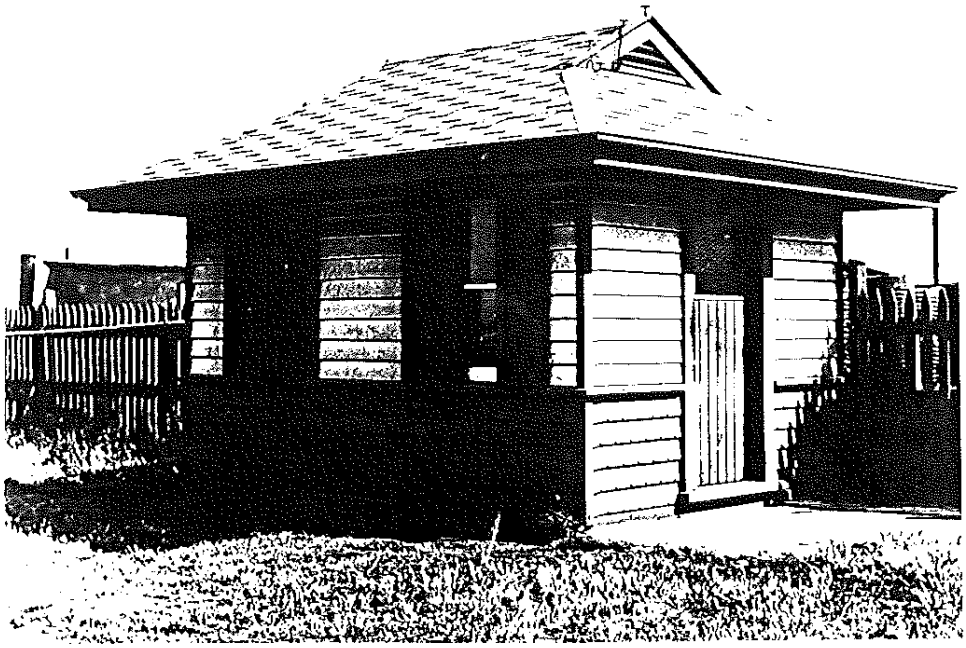
Motorised pallet truck on Victoria Dock, c.1920.

Source: P.M.A. Archives.

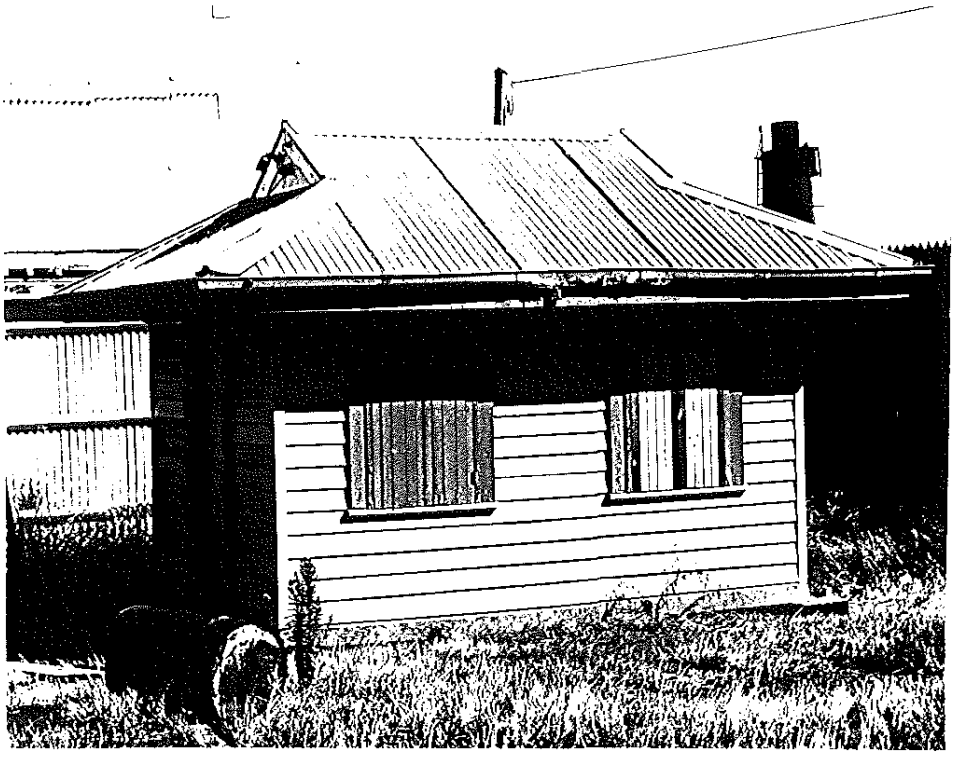


Past work practices, a sweeper beside the security fence on Pigott St., c.1939, and a worker at the North Melbourne shops firing the solid fuel stove, 1991.

Source: P.M.A. Archives, (upper view).



Checking clerk's cabin, c.1940.
Source: P.M.A. Archives.



A similar cabin near the M.C.C. stables, 1991.

Source: P.M.A. Archives.

To the north, the goods sidings were to some extent constricted by the Dudley Street bridges whilst to the south they terminated at the platforms and sheds abutting the Flinders Street Extension. Although these basic determinants remain today, the configuration of sidings is very different. In 1908 the No, 1 shed of 1870-71 survived on its old alignment, parallel with Spencer Street and representing the era which immediately preceded the adoption of the general plan for the "New Melbourne Terminus" by Higinbotham in 1877 . The newer sheds (Nos. 2-5) were oriented a little to the west, and on the general alignment of the yard's axis preceding north across Dudley Street.

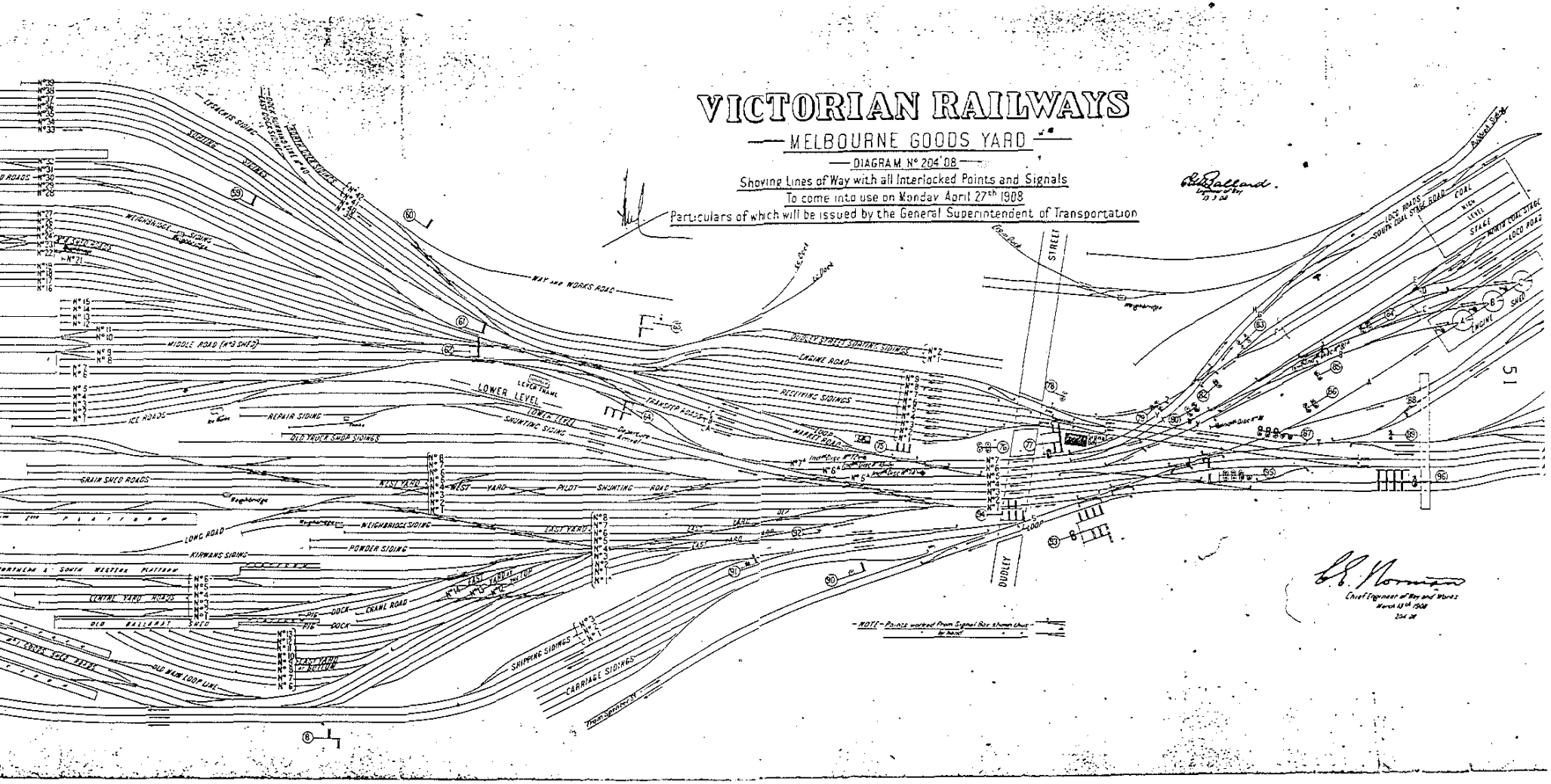
Between Nos. 1 and 2 sheds was a group of sidings with platforms known as the "East Yard". This yard served the No.l shed, the "Old Ballarat Shed", and the "Northern and South Western" platform. It included the "Powder siding", "Kirwan's siding", pig docks, crane and weighbridge sidings. The "East Yard" departure and arrival roads made their ·nay by a series of compound points to the main goods lines off the Flinders Street viaduct.

Immediately to the west, the "West Yard" served the "Grain Shed" (no. 2 shed) and the "North-eastern platform", making connection at Dudley Street with the main goods lines.

In 1908, the balance of the yard to the west was situated at a lower level and was separated from the "East" and "West Yard" by the "old truck shop sidings", and "repair sidings" . The lower level sidings south of Dudley Street connected with the main goods lines and formed a balloon of "receiving sidings" with the "engine road" on its west side and the City 01larket line on its east. To the south, a shunting neck facilitated the movement of rolling stock towards the Nos 3, 4 and 5 sheds via a total of 32 sidings.

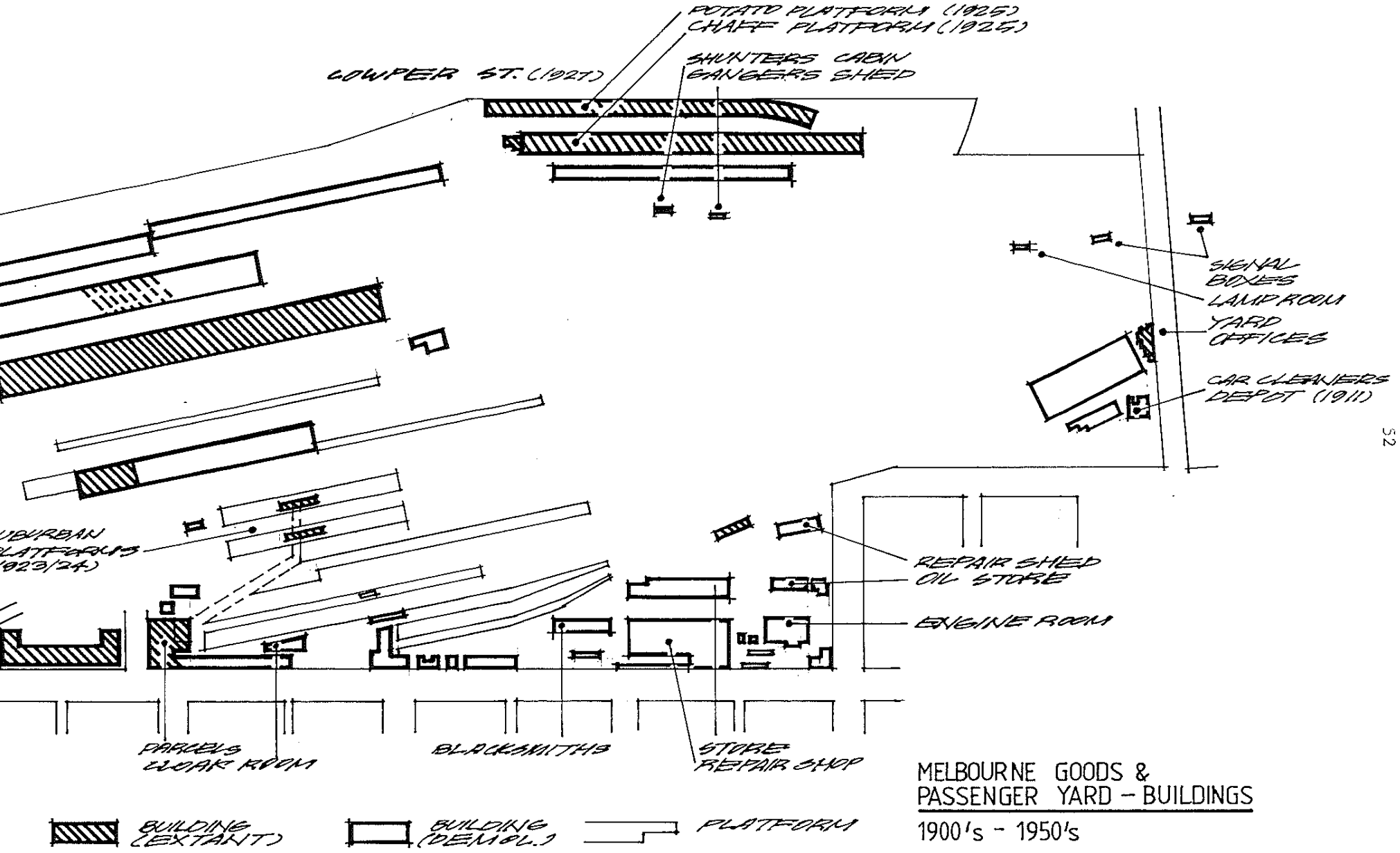
Further west again, the City Market line with its associated sorting sidings also provided the points of departure for the North Wharf and Victoria Dock sidings. Although the Pigott Street sidings had direct access to the lower level shunting neck, the Pitt and Dudley Street tracks made connections only by means of reversing manoeuvres from sidings to the yard.

By 1924, the total staff of the terminus numbered 758 under the control of the Melbourne yard superintendent, his assistants and foreman, 3 engine control officers, 32 clerks, 92 signal men, 28 block recorders, 188 guards,
317 shunters and 22 number takers, the balance comprising weighers, lampmen and point cleaners. The number of trucks handled varied from 4,000 to 6,500 per day, according to season. The business handled at the Dairy Produce ("Perishable") shed was very heavy at the time and was conducted mostly between midnight and 9.00am in time for consignments to be made available for the early morning markets. For the week ending 9.2.1924, the following commodities were handled:



Victorian Railways Track and Signal Diagram for the Melbourne Yard, 1908.

Source: J. McLean.



MELBOURNE GOODS &
PASSENGER YARD – BUILDINGS

1900's - 1950's

Cream – 75 tons
Butter (local and export) – 831 tons
Fruit – 3,631 tons and
Rabbits – 86 tons,

necessitating an inward movement of 1188 wagons and an outward movement of 282, In the same week, chaff and cereals received amounted to 156,001 bags and wool 1027 bales . Outwards loadings to country stations totalled 8,538 tons conveyed in 1967 trucks and a total of 700 tons was handled at the outside timber platforms. **50**

In that year the surviving yard superintendent's office was opened in Dudley Street and a total of £400,000 was allocated for the duplication of passenger tracks between Spencer Street and North Melbourne. This work involved the demolition of the old No. 1 shed of 1870/71, then known as the Shipping Shed, and the transfer of its business to the Montague Shed, demolished in 1990. Four new suburban passenger platforms were brought into service in that year. To assist in the marshalling of trains a new gravitation yard was opened at Tottenham.

3.3 THE POST WAR YEARS (l940s-1990s)

Records of cargo handled by the Victoria Dock and North Wharf show that these berths consistently handled about half of the total Port of Melbourne trade from the 1920s to the early 1940s . From this point, the tonnages handled did not markedly change but their proportion of the total port trade diminished as new wharves and transhipment methods were introduced . The table provides a record of cargo handled at five year intervals and enables a view of the decline of the Melbourne Wharves to be formed.

Table 1: Cargo handled in millions of tons at Victoria Dock and North Wharf compared with the Port of Melbourne (1921-1986 at 5 year intervals)

Source: M.H.T. Annual Reports

Year	North Wharf and Victoria Dock	(%)	Port of Melbourne
1921	1.8	(46.0)	3.9
1926	2.5	(51.0)	4,9
1931	I. 7	(51.5)	3.3
1936	2.7	(45. 7)	5.9
1941	3.3	(52.4)	6.3
1946	2.6	(35.6)	7.3
1951	3.4	(41,0)	8.3
1956	2.9	(35.4)	8.2
1961	1. 7	(17 .7)	9.6
1966	2.0	(18,9)	10.6
197 2	2.9*	(19.0)	15. 3
1977/78	4 .1 *	(24.0)	17. 1
1980/81	4.6*	(30,0)	17.7
1985	0,9	(3. 7)	24.2

*approximate

The decline in relative importance which set in during the immediate post war period may be attributable to the modernisation of South Wharf which commenced with the partial reconstruction of No. 15 shed (1941-43 by day labour), No. 27 shed (1942-43 by day labour) and its replacement in 1946. Other works included the installation of approximately 550 metres of crane rails from berths 27 to 30 in 1943 and deck reconstruction in 1949. These works infer that the South Wharf west of the old Middle Swinging Basin emerged during this period as a major centre of activity within the port. During the 1950's the steel trade, which had been handled by conventional means at berths 1-4. Victoria Dock, was also relocated to no, 21, South Wharf.

The declining role of the Victoria Dock and North Wharf continued relative to the whole of the port in spite of the upsurge experienced during the 1970s. This "indian summer" may be attributable to the roll-on/roll-off trade of the Union Steamship Co. which was transferred from North Wharf, at the site of the World Trade Centre, to the south berths of Victoria Dock following the opening of Charles Grimes bridge in 1974, The subsequent decline was brought about not only by the opening of new docks to handle the burgeoning container trade but by the prolonged demarcation dispute between the Transport Workers Union and the Waterside Workers Federation affecting the use of the container wharf on the north side of Victoria Doc!< . This wharf was transformed following the demolition of the Government cool stores in 1978 to accommodate container traffic but was never satisfactorily utilised and remains today, available for traffic but seldom occupied by ships.

During the war years the level luffing cranes installed to serve berths 16 to 21 on the north side of Victoria Dock conveyed tanks, aircraft, guns, bulldozers and heavy road vehicles as a part of the United States Pacific War campaign, Ruhen notes that at one stage, heavy deck-stowed war tanks were being put ashore at the rate of one every six and a half minutes, 51 The Central Pier was partially rebuilt and nos. 9, 10 and 14 sheds reconditioned by day labour.

In August 1956 the Australian Shipping Board's collier "River Hunter" became the first vessel to use the Appleton Dock. The high degree of mechanisation of berths E to F was designed to facilitate the development of this deck as the coal loading centre for the port . Here, cranes discharged into 70 ton hoppers thence into rail trucks on the Appleton Dock Road sidings or to a retained storage area . Their commissioning enabled the Trust to transfer its coal loading facilities from five other berths at Victoria Dock and South Wharf.

From the 1960s, the advantages of carriers built to handle containerised cargo had revolutionised the trans-Atlantic trade and in 1965 the world's first specially built cellular container ship "Kooringa" introduced a container service between Melbourne and Fremantle, It foreshadowed the shape of things to come. Except in scope, writes Ruhen, traditional port facilities had remained unchanged for centuries and were characterised by "comparatively narrow wharf aprons backed by a transit shed sandwiched between the apron and an equally narrow roadway... Efficiency now decreed that this whole system give way to an 'area' development in which large spaces furnished with highly sophisticated handling equipment...backed onto a relatively small number of highly specialised berths, catering for container and unit-load ships with their quick turnaround". **52** The rate of change was rapid, the percentage of general cargo handled by containers rising from 14.7 in 1969 to 38 the following year. On 7.3.1969, the Victorian Governor, Sir Rohan Delacombe, officially opened the port's first overseas container berth at Swanson Dock. It was followed by improved facilities at the Webb Dock from 1969 (no. 3 berth).

Inevitably, the very features of the Victoria Dock, including the many comparatively small berths with limited manoeuvrability for large ships and the narrow wharf apron with transit sheds were out of place in the new shipping environment. The Trust's attempts to revamp the Dock by the provision of a large container area adjoining the berths has enjoyed limited success, as has been noted, but nevertheless served to transform the physical environment of berths 2-6 and 16-21. Today, the Cowper Street berths and the central pier, berths 8-15, best recall the traditional goods transhipment methods that prevailed prior to containerisation.

Rail operations in the Melbourne Yard also underwent profound changes during the post wat' period, With the introduction of diesel electric locomotives in 1952 and the immediate conversion of the interstate expresses and other services from steam power the consumption of black coal declined from 391,000 tons, system wide, in 1952/53 to virtually nil in 1970, The enormous coal dump maintained at the North Melbourne depot was no longer required and the sheds themselves, built by A. Tozer in 1888 were demolished in 1965 after the Lilydale "pilot" engine had ceremoniously pulled the front gable down with a steel hawser.

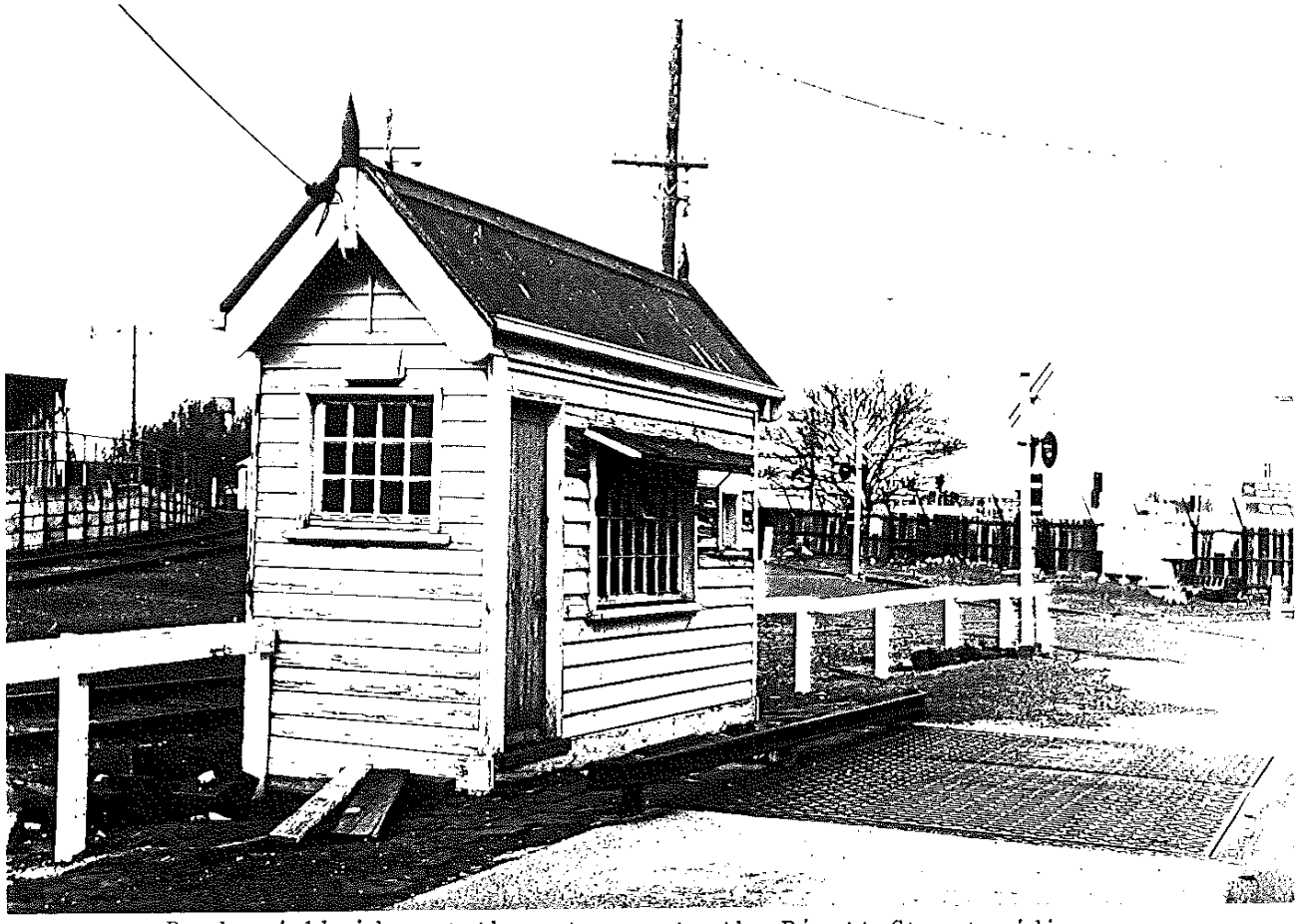
It marked the end of an era and the occasion was attended by retired drivers who recalled the days when 160 engines would be prepared for the road each day and the working lives of nearly 1,000 railwaymen centred around it. With the shed and coal gears removed, the site was temporarily occupied by icing van storage sidings and later by car storage sidings.

In 1960, plans prepared in conjunction with the chief architect of the Way and Works Branch, Dudley White, envisaged the replacement of the collection of temporary buildings serving as the passenger station at Spencer Street. The new station would have three levels with provision for air rights development, and a car park on the site of the East passenger yard. It was opened in December, 1963 and the old timber and steel framed concourse relegated to the status of a service yard for trolley movements and "motorail" traffic. Below ground level a tunnel was built to connect all platforms with the Inwards and outwards parcels office and the PMG's Mail Exchange across Spencer Street.

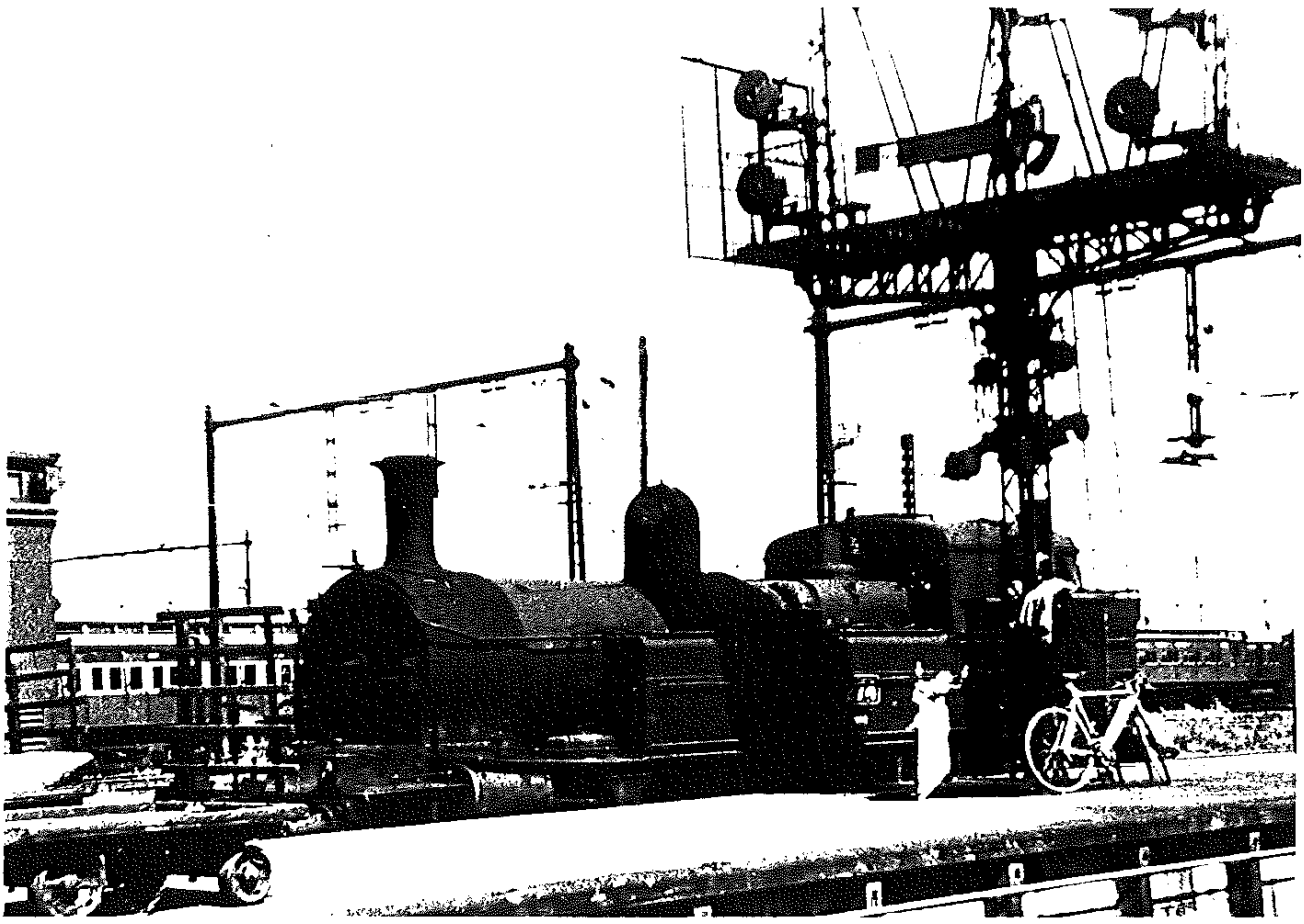
In the following year, a £4,000.000 reconstruction plan was announced for the Melbourne Goods Yard bringing it effectively into the present era. Hump shunting, incorporating the remote controlled braking and weighing of moving wagons was the "lynch pin" of the works programme, representing the first application of its type in Australia,

The arrival sidings balloon provided direct access to the hump which was built immediately to the north of the Dudley Street bridges. To their west a small group of sidings had direct access to the "Victoria" and "Appleton" Docks. Four sorting balloons were built on the site of the Old Yard (balloons "A" to "D") and "make up areas" were located immediately west of the main goods lines and at the "Centre Yard".

The new works involved the almost complete reconstruction of the No. 4 shed (1897-98) and the replacement of No, 5 which was brought into use on 25.7.1966. Tenders were called for the construction of the "West Tower" to replace the Dudley Street signal box in November 1967 and by 1968 most of the capital works had been completed.



Road weighbridge at the entrance to the Pigott Street sidings, now demolished, (1981). Source: A. Ward (both views).



Shunting engine, removed from suburban passenger service and

Sadly, the entire programme of works for the Melbourne Goods Yard was founded on the presumption that the quantities of general intrastate goods traffic would grow, or at worst, remain at a constant level. This was not to be the case, however, for the branch line closures of the 'fifties and 'sixties had already commenced to erode the traffic base . Border hopping and the issue of "as of right" licenses to road hauliers who successfully argued before the Transport Regulation Board that they could handle specific goods transhipment tasks more effectively than the Railways contributed to the decline.

In 1972 the Bland inquiry recommended that "major changes must be made in the Railways if they are to take their proper place in the Victorian land transport system". 53 These changes involved further the closure of unprofitable lines and stations with a consequent diminution in the number of rail services and the continued diversion of rail traffic to road.

The VicRail Board, established in 1973, introduced the freight centres network from 1976, and when the State Transport Authority's V /Line was constituted, following the Transport Act of 1983, the intrastate goods business was in its final phase of decline . Today, the Fast Track service to regional freight centres is operated mainly by road from "Melbourne Goods" and has led to the closure of all but the No. 3 Shed for general goods traffic.

SOURCES

1 C .P . Billott Melbourne's Missing Chronicles by John Pascoe Fawkner Quartet Books 1982. p.14.

2 Royal Commission of Low Lands South and West of the City of Melbourne (Low Lands Commission) appointed 12 August 1872: Progress Report VPP 3, 62, 1873; Evidence of I-Ion. T . Loader, Government Surveyor.

3 Map Shewing the Site of Melbourne, and the positions of the huts and building previous to the foundation of the township by Sir Richard Bourke in 1837 . Surveyed and drawn by Robert Russell, Published by Day and Haghe, London.

4 Geological Survey of Victoria 1860; Cox map 1866?

5 See the Advertiser Press: Footscray's First Hundred Years, City of Footscray, 1959: 1150 ,000 waterfowl were shot for the table" and Presland, G., The Land of the Kulin, Penguin, 198 5, pp. 11-20

6 R.D . Boys, First Years at Port Phillip, 1959, 1834-1842, Melbourne

7 Flemming, J., A Journal of the Exploration of Charles Grimes 1802-03, Ed. J,J, Shillinglaw, Facsimile Edition, orig, pub. 1878.

8 Map Shewing the Site of Melbourne, (note 3 above)

9 Greenaway, R.L., "The Historical Usage of the Lands 1834-1989 formerly portion of the West Melbourne Swamp bounded by Dudley Street, the North Bank of the River Yarra and Footscray Road" (abbrev.), n.d., p.2.

10 Key dates associated with the development of the port at Williamstown are as follows:

- Feb., 1839: First jetty erected 1853: Ann Street pier constructed
- June, 1854: Railway pier built, 896ft long September, 1856: work commenced on Patent Slip. April, 1857: new pier
- October, 1857: extension of Ann Street pier June, 1858: extension of Ann Street pier
- 1853: Railway pier extended to 1871ft . Gellibrand pier built.
- 1864: Construction of Alfred Graving Dock commenced.

11 Map of Melbourne, Kearny 1855 (London)

12 Ibid,

13 Lack, J., Davidson, Melbourne,"Worst Smelbourne: 1/lelbourne's Noxious Trades", in G., Dunstan, D., Mcconville, c., The Outcasts of Allen and Unwin, N. Sydney, 1985, p.182.

14 Ibid.

15 See Melbourne Harbour Trust General Plan showing improvements as recommended by Sir

John Coode in his report of 17.2.1879.; Low Lands Commission Evidence of Fredk. Harding, District Surveyor, and also Sands and McDougall Dir., 1870-75.

16 Low Lands Commission, Evidence of Clement Hodgkinson, Henry Walker, Sergeant Fullarton, Appendices 2 and 3.

17 Low Lands Commission, Appendix 6, City of Melbourne Health Committee report.

18 J. Lack, "Worst Smelbourne: Melbourne's Noxious Trades' in Davidson The Outcasts of Melbourne.

19 Proudly, R., Industry in Victoria, Corp of Vic. 1987.Circle of Influence: A History of the Gas Hargreen Publishing Co. and Gas and Fuel

20 Austin, K.A.,"Gateway to Gold. Early Years in the Port Pt. 2 1848-1858" "in Port of l. elbourne Quarterly, 14, No.I, January March 1963.

21 Annual Reports, MHT, 1877.

22 Hoare, B., Jubilee History of the Melbourne Harbour Trust compiled from the original records of the Trust and from tl1e Victorian Hansard, Melbourne: Peacock, 1927.

23 Harrigan, L .J., Victorian Railways to '62, Victorian Public Relations and Betterment Board, 1962, p. 179.

24 Harrigan, L .,J., op. cit., p. 180.

25 See Harrigan, pp . 180, 182 for a more detailed account of this proposal.

26 A line from Greenwich, near Newport, to Geelong was opened by the Geelong and Melbourne Railway Co . on 25.6.1857.

27 The Age, 1.3.1859

28 Victorian Railways: Report of the Board of Land and Works for the year ending 31.12.1863

29 Victorian Railways: '·'Report of the Board of Land and Works for the year ending 31.12.1864.

30 Victorian Railways: Report of the Board of Land and Works for the year ending 31.12.1867, p.4.

31 V/Line Contract Books

32 Victorian Railways: Report of the Board of Land and Works for the Year Ending 31.12.1877, "General Plan of the Melbourne Terminus"

33 Refer "General Plan of Melbourne Terminus - Nov. 1884". 34, Low Lands Commision, Final Report, Introduction.

35. Ibid,

36. Low Lands Commission, Progress Report, Summary and Evidence of Commissioner Clement Hodgkinson.

37. See R.L. Greenaway, op, cit. p.2. for information on this dock.

38. Lockwood, Waterfront p,75. R., Ship to Shore: and its union struggle . Hale. A History of Melbourne's and Iremonger, 1990

39. Victorian Railways: Report of the Board of Land and Works for the Year ending 31.12.1878.

40. R.L. Greenaway, op. cit., p.3.

41. Ruhen, O., Port of Melbourne 1835-1976, Cassell, Australia, 1976, p.156.

42. Refer Lithos prepared by the Railway Department in August, 1888 "General Plan of Re-arrangement of 1elbourne terminus" and Feb., 1892: "General Plan of Melbourne Terminus - Proposed Re-arrangement t[11].

43. Ruhen, 0., op. cit., pp. 171-2, citing the Report of the Melbourne Harbour Trust for 1896.

44. Ruhen, O., op. cit., p. 182.

45. Refer Melbourne Harbour Trust Plan B/462/21. 7 .00, signed by John Halliday, Trust Engineer 23/8/01.

46. Ruhen, O., op. cit., p. 191.

47. Melbourne Harbour Trust Annual Reports for 1914, p.15, for 1915, pp. 37-38.

48. Healy, J., A brief History of the Australian Waterfront and the Waterside Workers Union, WWF Federal Council, 1955.

49. Lockwood, R., op . cit., p.282.

50. The Victorian Railways Magazine, March, 1924, pp . 120, 150-151.

51. O. Ru hen, op. cit., p. 264.

52. 0, Ruhen, op. cit., p. 297.

53. Report of the Board of Inquiry into the Victorian Land Transport System, Gov't Printer, 1971-72, p. 172,