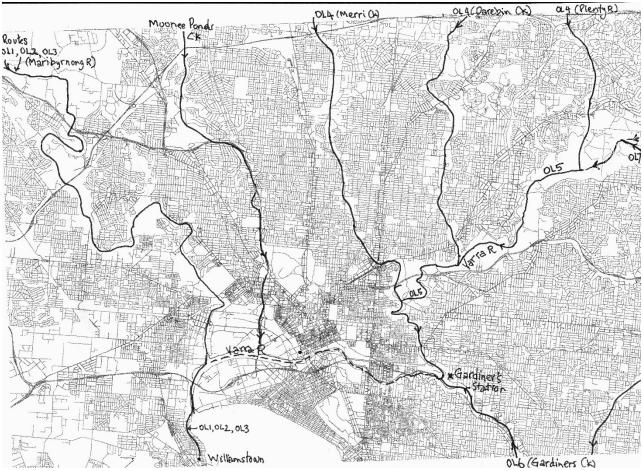
Chapter Three

Metropolitan Melbourne

3.1 The stock routes

The first ways created by European settlers were often stock routes for cattle and sheep and these would frequently have followed and then widened and incidentally destroyed pre-existing aboriginal paths. However, their prime locational requirement in this often waterless countryside was to stay near the permanent rivers and creeks. Due to their relatively ephemeral nature and lack of subsequent legal status, there remains today little or no trace of either the stock routes or of any preceding aboriginal paths. However, an understanding of the routes is an essential requirement for understanding the pattern of Melbourne's roads and it will become apparent that stockmen like John Gardiner, Captain John Hepburn, Joseph Hawdon and James Anderson left a permanent, if obscured, mark on the future city.²

There were many major stock routes adjacent to early Melbourne and the more relevant of these will now be discussed. They are designated by the same alpha-numeric system used for the later analysis of today's arterial road system and explained at the end of Sub-chapter 3.6. In contra-distinction to similar routes in many other countries, these routes did not develop to service the needs of the town – rather, their original purpose was to seek good pasture in the Port Phillip District at a time when Melbourne was neither a market nor a port nor an intermediate stop, but a small, almost irrelevant, village serving illegal settlers, before graduating ever so slightly to become a reactive, administrative outpost (Sub-chapter 1.1). The northern stock routes are shown in Map 3.1 (and the eastern stock routes in Map 3.4).



Map 3.1 Stock routes from Melbourne's north. See Map 3.4 for the eastern extension of this Map. *The author*

OL1 – up the Maribyrnong River

This route up the right bank of the Maribyrnong River was established by early cattle-owners and their large flocks of sheep when they arrived by ship in 1835 and 1836, landed at Williamstown, and then found the grassy, treeless plains along the Maribyrnong and its tributaries from Braybrook to Bulla (Jacksons Creek) to be most appropriate for their purposes.³ By 1837 the area boasted at least a thousand sheep – indeed Bonwick⁴ states that "Twelve months after the first location there were 15 000 sheep but not 200 settlers." The Brodie brothers, George and Richard, used this route in 1836 when taking their sheep from the ship at Williamstown to their sheep station at Bulla, however they then crossed the river at Solomons Ford [-7.770, +144.851] and proceeded towards Bulla and Mickleham on the left bank of the Maribyrnong (see Map 2.3 & 4.1).⁵ As indicated later in Map 4.4, one advantage in using the Ford was that it was the limit of the tidal saline waters of the lower Maribyrnong.

The various cattle-and sheep-owners did not hold title to any land but the term "squatter" that was commonly used to describe them implied that they had a real or de facto right to run their cattle in some broadly defined region.⁶ For example, when the system had codified in 1847 a leased "run of land" was defined as being able to support at least four thousand sheep or the equivalent number of cattle."⁷ "Selectors" were subsequent settlers who had first selected their land at a government office or land sale.

John Batman may also used the route in his famous "treaty" walk⁸ in 1835 (Sub-chapter 1.1), travelling as far upstream on the Maribyrnong River as Gumms Corner (see route MM4), which he named after one of his party.⁹ Traces of these routes can be seen in Darke's map of 1841 (Map 3.2).



Map 3.2 Portion of Darke's map of 1841. The full map covers the land between Melbourne and Geelong. The area shown above is somewhat fanciful and predates the images shown in Maps 2.3 & 2.7. The "river' shown heading north to Mt Macedon is probably the Moonee Ponds Creek.

OL2 - west of Mt Macedon

Most herds coming from NSW used route OL3. However, some of the first turned west at Violet Town in order to cross the Goulburn River at Murchison. They then travelled southwest towards Taradale, or west towards Bendigo, before heading south to enter Melbourne to the west of Mt Macedon, following Jacksons Creek down to the Maribyrnong River. The route often led into route OL1, usually by using a way near Milleara Rd and Canning St to cross the river at Solomons Ford [-37.770, +144.851].

When leaving Melbourne, route OL2 would have visually, but misleadingly, appeared to be the obvious way to avoid the steep hills of the Great Dividing Range.

Part of route OL2 was used by Thomas Mitchell when detouring to Mt Macedon whilst returning from western Victoria and Australia Felix in 1836. However, Mitchell crossed the Goulburn River further upstream at Mitchellstown. His basic route became known as Mitchell's Line. Blainey has remarked¹⁰ that it was Mitchell's rapturous praise after he returned from this trip that encouraged the journeys of many of the overlanders referred to elsewhere in this Sub-chapter. Mitchell was on top of Mt Macedon on 17 October 1836 oblivious to the fact that to the visible south his junior surveyor, Russell, was languidly surveying the environs of the new town of Melbourne (Sub-chapter 1.2).

OL3 – east of Mt Macedon

The first overlanders and their accompanying herds had been driven by drought in 1836 to journey south from Yass and Gundagai in the Murrumbidgee area of New South Wales. They approximately followed the route of the current Hume Freeway to head south-west. On reaching central Victoria they then mainly used Sunday Creek, a Goulburn River tributary, to lead their herds to a crossing of the Great Dividing Range near Kilmore and well to the east of Mt Macedon. Turning slightly westward, this crossing then led on to Deep Creek which the stockmen followed to the left bank of the Maribyrnong River. At Sydenham, route OL3 would have merged with route OL2.

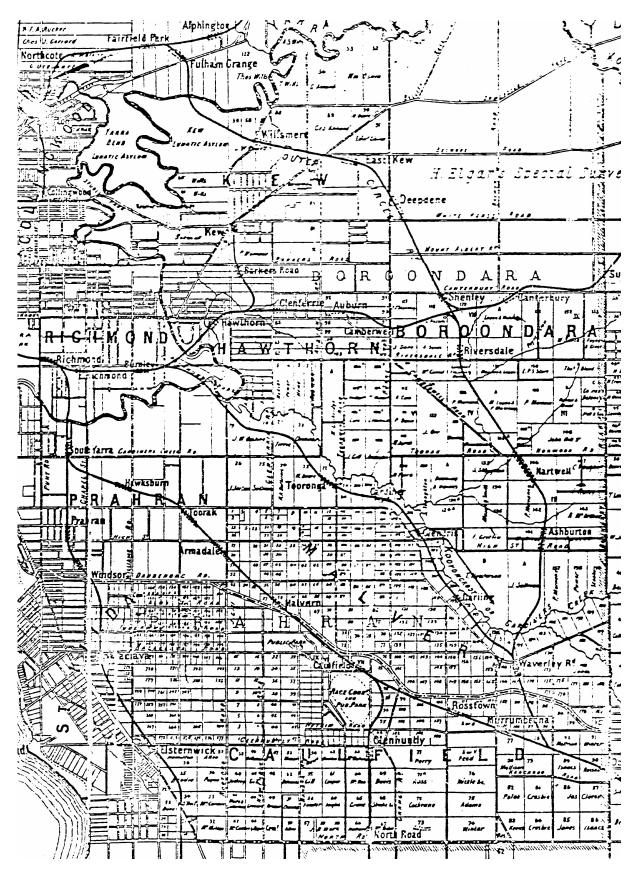
After the first herds, the route continued to provide an attractive and well-used northern entry for stock travelling to Melbourne.

An alternative southern leg of the stock route, using Moonee Ponds Creek rather than the Maribyrnong River, became Pascoe Vale Rd (see route MM5).

OL4 – down the creeks

Other overlanders crossed the Great Dividing Range in the manner of route OL3, but then turned slightly east at Kilmore, Broadford or Wallan to follow tributaries of the Yarra River such as Merri Creek, Darebin Creek and Plenty River. Following local flatter lands adjacent to the creek-sides, these routes led to the Yarra River and then followed it downstream to Dights Falls. Charles Grimes had encountered the Falls in 1803, when they hindered his boat-based exploration (Sub-chapter 1.1).

One of the first group of overlanders comprised John Gardiner, Joseph Hawdon (a cattle-breeder) and John Hepburn (a sea captain). Gardiner was an ex-banker and storekeeper who had embarked from Launceston with a flock of sheep, landed at Westernport on 31 January 1836 and then trekked overland to Melbourne. He liked what he saw and decided to bring cattle from southern NSW.¹² The three had chosen their route south from the Murrumbidgee region to the Great Divide after taking advice from Stapylton, a member of Major Mitchell's party earlier in 1836. The overlanders passed to the east of Daylesford. On reaching the Yarra River, they then pastured their 300 cattle at the site of Yarra Bend Park, crossed the Yarra at Dights Falls in December 1836, tracked down the left bank of the river to Gardiners Creek, and then proceeded up the creek to some pasture near the current Burke Rd crossing.¹³ Gardiner then settled in the area where the long-lost Hawthorn Creek entered the Yarra near the corner of Fordholm Rd and Hawthorn Glen (parts of the Creek exist today as a deep-sided, paved drain in the Grace Park, Barton St, Wyuna Ave area). Its earlier extent is traced in Map 3.3.¹⁴ It is reported that Gardiner allowed his cattle to roam from Bulleen to Brighton. However, he only farmed in the area for a year, ¹⁵ supporting the view developed below under route OL7 that the better grazing lands were further to the east. Gardiner left Victoria in 1853 to live in England.¹⁶



Map 3.3 Eastern portion of Department of Lands and Surveys 1892 map of Melbourne and Suburbs. Department of Lands and Survey. *SLV County of Bourke Atlas*

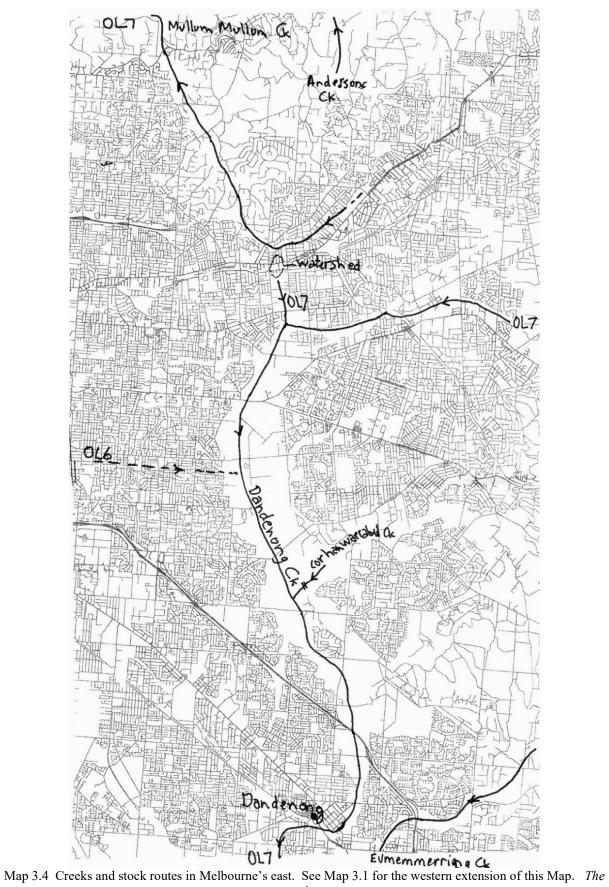
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OL5 - along the Yarra

Following the discussion in route OL4 of Gardiner's wide-ranging cattle movements, another stock route followed the course of the Yarra River (Map 3.1).¹⁷ By keeping to the left-side of the main valley, herds and their keepers avoided the volcanic basalt plains and deeper valleys associated with crossings of the right-side creeks (e. g. the Merri, Darebin and Plenty). Coming up and down the valley faces was often more challenging than crossing the stream itself and frequently carts and wagons had to be unloaded and later reloaded in order to traverse the steep grades of the valley sides. The first Bridge Superintendent - Lennox (Sub-chapter 3.3) - spent as much effort on easing these grades as he did on actual bridge building.¹⁸

The route formed the basis of the riverside way from Kew Junction to Warrandyte (see route TW6). The Yarra's course is tortuous and there is evidence of a couple of short cuts. South of the Junction, a common stock route followed close to the line of Princess St / Denmark St / Power St [4e] to travel across country and use Hawthorn Creek to reach the Yarra River again at Hawthorn. The route then followed the river south, edging around Gardiner's farm to cross Gardiners Creek at about the current Glenferrie Rd crossing. An alternative route left Denmark St before Barkers Rd and travelled diagonally to the corner of Riversdale Rd and Glenferrie Rd. There were no remnants of either route after the land was sold between 1846 and 1848.¹⁹

A third branch of the route left the Yarra near its Koonung Creek confluence and ran south-westerly across country, close to the line of today's Bulleen Rd, to reach Gardiners Creek near today's Glenferrie Rd crossing. It is shown as one of La Trobe's suggested main routes in Map 3.4²⁰ Indeed, proponents of a bridge across the Yarra between Eltham and Templestowe saw, as one of its key virtues, that it provided both Thompsons Rd and Bulleen Rd (see route TW8) which would then "connect with Gardiners Creek." A map produced by surveyor Henry Foot in 1850 showed four separate "parallel" tracks servicing this route, all crossing Barkers Rd [1n] between Auburn Rd [5e] and Burke Rd. This is also the path referred to in the discussion of Canterbury Rd (route CT1). At Gardiners Creek, the herds then used route OL6.



author

OL6 - heading east

A well-used route from the north-east (see route OL5) crossed Gardiners Creek a little east of Glenferrie Rd. This route then followed the left-side of Gardiners Creek upstream to Scotchmans Creek. It then used the creek to reach Oakleigh near today's Atkinson St. One branch then proceeded south-east to Dandenong, creating the beginnings of Dandenong Rd (route DN3&4).²² This version of the route then followed the line of Dandenong Rd, except to use a straight path between Malvern and Oakleigh whenever ground conditions permitted.²³

Another branch of the route tracked east along Scotchmans Creek. At the headwaters of the creek, it continued east near the line of High Street Rd (route CT9), crossing a watershed in Mt Waverley, to meet Dandenong Creek²⁴ and route OL7 near Wheelers Hill.

At its western end, this route also travelled down the left bank of the Yarra River to service the area south of the original village.

OL7 – south through Melbourne's far east

Other travellers crossing the Great Divide joined with route OL4 and followed the Plenty River to the Yarra but then turned upstream to Mullum Mullum Creek (originally Deep Creek) where they headed in a south-easterly direction along the creek to Ringwood. At the Yarra / Mullum Mullum confluence, Melbourne could be reached on route OL5, and the discussion of Blackburn Rd (see route NS8) suggests a third southern route near Blackburn Rd.

Travelling south from Ringwood, the herds crossed a small watershed and joined the Dandenong Creek, which they followed downstream to the attractive grazing lands to the east of Melbourne.²⁵ In 1827 Hovell had also followed Dandenong Creek south from about Vermont to Dandenong²⁶ and its Eumemmerring Creek, noting the good grazing. This system is shown in Map 3.4.

In 1837 Joseph Hawdon travelled overland with some 400 cattle from Albury to Dandenong. James Anderson overlanded cattle on the northern part of this route in 1838 and squatted at Andersons Creek,²⁷ near Park Orchards. By 1838 all the good grazing land to the west of Dandenong Creek had been taken²⁸ and by 1839 there were extensive grazing leases in the lightly-wooded Dandenong area.²⁹ Today, the southern part of this stock route is most closely approximated by Stud Rd (route NS10). A bridge over Corhanwarrabul Creek 200 m from its congruence with Dandenong Creek was noted in 1840 maps. It was presumably built to aid stock movement along Dandenong Creek.³⁰

Stock and travellers en route to Western Port could use this route to bypass Melbourne or could pass through Melbourne using either Dandenong Rd (routes CT11 & DN3&4), Canterbury Rd (route CT1), Burwood Rd (route CT3), Ferntree Gully Rd (route CT10) or Wellington Rd (route DN5).³¹

OL8 forerunners of major roads

Other stock routes became major roads and are not separately discussed. They are Nepean Hwy (route SK3) from Melbourne to the Mornington Peninsula, the Princes Hwy and Freeway from Melbourne to Geelong (route GL4-6), and Calder Hwy & Freeway from Melbourne to Bendigo (route MM4).

3.2 Towards independence (1838 – 1850)

After the work of Hoddle, Perry and Gipps in those embryonic early years discussed in Chapters 1 & 2, there was little systematic road planning for metropolitan Melbourne. Indeed, there were few funds available for roads, as government expenditure was initially concentrated on providing provisions for ships and, subsequently, on funding an extensive railway system. Settlers were expected to clear their own tracks and construct their own creek crossings. Thus, the town's arterial roads were created by timber cutters, graziers, stonecutters and farmers and then forced into

rectilinear shape by the short-range needs of the land developers. Many specific examples of this process have already been mentioned and more will be explored in Chapter 4. Tracks for timber cutters usually came first, as the sale of timber from cleared land was often the only income many settlers could expect during their early years. Bullock teams hauling timber rapidly destroyed many rural pathways. Stone for building and roadmaking was another early product that also led to rapid decay of road surfaces.

Sub-chapter 2.2 indicated that, at the same time that inner Melbourne was being subdivided, there had also been extensive farm subdivisions of *sections* north of the [3n] *section line* and between the Moonee Ponds Creek on the west, Reservoir³² [9n] and Macleod³³ [8n] to the north, and the Yarra River and Plenty River on the east. These sales began in September 1838. As an example, they continued in 1839 with the *section* bounded by Sussex St [1w], Gaffney St [6n], Merri Creek and Boundary Rd [7n]. Within a month this *section* had been subdivided into 24 allotments, averaging 10 Ha in area.³⁴

The inner land sales had been held in Melbourne but the outer land sales were usually held in Sydney. This openly encouraged speculators rather than local "improvers". A map prepared for the September 1839 land sales covers land as far north as the [17n] section line.³⁵ It refers to all the land south of Southern Rd [6n] as "Divided into 25 acre allotments, the greater part of which are already sold." This division would have been achieved by a double quartering of a square mile section. By 1840 most of this rural land as far north as Mahoneys Rd [9n] had been subdivided and sold; by 1852, the sales had extended further north to Somerton Rd [12n]. One land-owner of the time described the situation as "a goldfield rush without the gold."

There were major planning consequences of this process. Land-owners pleading for access roads discovered that the intervening land had been sold without any provision for road reservations. As a result of such complaints, the Colonial Secretary felt the need in early 1841 to formally instruct Superintendent La Trobe that roads were to be laid out when the land was surveyed and before it was sold. *Sections* were henceforth to be measured exclusive of roads.³⁷ Nevertheless, when corrective legislation was introduced in 1854, three parliamentarians shamefacedly confessed that they had bought mile square *sections* which they later found could only be accessed by trespassing over someone else's land.³⁸ John Fawkner (Sub-chapter 1.1) was one of the three.

Probably as a reaction to the Colonial Secretary's rebuke, the one piece of serious road planning which seems to have occurred during the settlement's early years was embodied in La Trobe's 1841 map showing his proposal for Melbourne's future roads (Map 3.5). He sent copies of the plan to the Colonial Secretary and the Surveyor-General in Sydney. Their response is not known. The details of the plan are explored in Sub-chapter 3.6.

Map 3.5 La Trobe's 1841 "Sketch of projected lines of road in the Port Philip District". Available at http://search.slv.vic.gov.au/permalink/f/1cl35st/SLV_VOYAGER681095, (SLV 821 GMBT, original at PROV).

As a second related consequence, consider the land north of Brunswick Rd / Westgarth St [3n] and between Moonee Ponds, Merri and Darebin Creeks. One can imagine the beguiling word pictures painted – often resembling Sydney's Hawksbury River – to describe the bountiful nature and watery abundance of these three meagre creeks to the Sydney auctions. The land was subdivided as long and narrow east-west strips (typically 2.6 km x 200 m) to maximise the number of blocks with "water" access (Figure 3.1). There were no road reservations.³⁹ This process gave rise to the preponderance of narrow east-west roads and dearth of north-south roads in this part of Melbourne.⁴⁰

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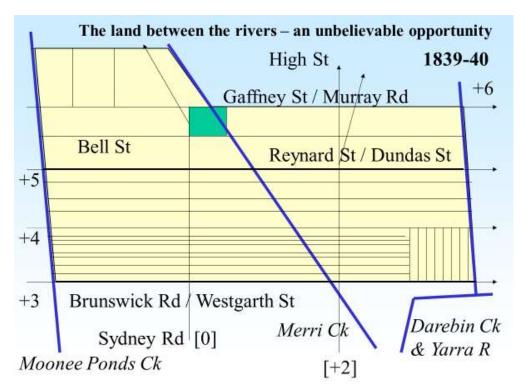


Figure 3.1 Diagrammatic view of the "between the rivers" subdivisions (see also Map 2.1)

Indeed, it will be clear from the map of radial routes (Map 3.5), that only a couple of north-south roads were created as a result of this policy. Sydney Rd [0ns] was one of these and it had originally been seen as no more than an access lane between water-access farms served by the Moonee Ponds and Merri Creeks. As another example, the narrow-gutted one-chain wide High St in Northcote [2e] arose as an essential north-south route between Sydney Rd and Heidelberg Rd (route PL6). Even it did not exist in the subdivision between Westgarth St [3n] and Beavers Rd [4n] on which the 1839-40 land sales were based (from Merri Creek to Westgarth St was a village reserve for Northcote township). The road only resulted from a subsequent resurvey by Hoddle in 1842 - fortunately an economic depression had ensured that the eight thin lots that he needed to split in two in order to create the road were still unoccupied.

The first local road body in the Melbourne area was the Heidelberg Road Trust (see route PL6) that was established in 1840 under a NSW Act of the same year. There is some dispute over the date. The necessary meeting was held in October 1840, but the Trust was not gazetted until 1841⁴². Its prime legal purpose was to "care for the road" but its practical purpose was to develop a pre-existing track into an arterial road. To achieve these ends, it could levy rates on land within 5 km of the road and – once it had expended in excess of £30 per kilometre – it could apply to also collect tolls from users. From the beginning, the Trust was ineffective and by 1844 it had "lapsed into obscurity", 43 a sad start for Victoria's first attempt at local government. 44 Indeed, it was to be Melbourne's only Road Trust. 45

In 1841 the Port Phillip Herald produced a list of the town's wants.⁴⁶ The road components were Princes Bridge, City Rd (route AY3) and the making of the streets of the original half square mile grid.

Following the economic depression in the Colony between 1840 and 1844, expenditure on public works was stopped in September 1842. Perhaps not surprisingly, two months later the government in NSW created the Melbourne City Council – the troublesome outpost would pay for its own infrastructure. Sub-chapter 2.2 showed that by this time the town was already rapidly expanding beyond its original boundaries. As discussed in Sub-chapter 7.1, the new Council's priority was fixed firmly on the appalling condition of the roads that it had inherited. Road planning was of little import. The situation was never reversed and no Council or other Authority has ever effectively controlled the entire Melbourne metropolitan area. La Trobe was unimpressed with the Council's role and wrote that:⁴⁷

Council's (role) has been to retard rather than facilitate. There has been not one road made or repaired under this charter.

The same source quotes a visitor to Melbourne in 1845:

Melbourne, although a very small city, had a corporation thrust upon it. A heavy town rate was imposed upon the inhabitants which was expended maintaining a number of idle officials, while the streets remained untouched.

A formal summary⁴⁸ of work from 1846 to 1850 suggests that the rate of change remained suppressed for the remainder of the decade. Very little arterial road planning and no road paving occurred in the decade following Hoddle's and La Trobe's initial plans (Maps 2.3, 2.7 & 3.4) and their underlying optimism in the long-term development of the township. Instead, the Melbourne road network developed by incremental locally-focussed additions. The speculation-driven process was rapid and its consequence was largely in place by 1860. An anonymous visionary plan for the city was published in 1850.⁴⁹ It included boulevards providing northern, eastern and southern bypasses of the city along Victoria St [1n] and Spring St (perhaps?) to a chain bridge over the Yarra and thence west along its left bank.⁵⁰

Michael Cannon, when commenting on Melbourne's development before 1860, noted:⁵¹ *In such ways, pastoral pioneers and land speculators rather haphazardly laid the foundation for today's urban society.*

The pattern was to alter little over the next 150 years.

3.3 Left to our own ways (1851-1900)

(a) The Select Committee

When Victoria was given its independence through Separation from NSW in 1851, roads were the prime issue confronting the government of the new Colony.⁵² In the first few years, the gold rush meant that there was no labour of any sort available to undertake any public works.⁵³ Nevertheless, the new government's expenditure on roads and bridges was an order of magnitude greater than the spending of its colonial predecessor.

During this stagnant period, the new Legislative Council appointed a Select Committee on Roads and Bridges under Henry "Money" Miller – a local investor and property developer.⁵⁴ A key issue for inquiry was the matter of road width. Hoddle told the Committee that:⁵⁵

We have adopted the Sydney practice of making them only a chain wide, which in my opinion is not sufficient. Recall from Sub-chapter 1.2 how Darling's Order had required a 1.5 chain width for main roads, but common practice had been to use only 1.0 chain. Hoddle argued strongly that "main" roads should be three chains in width, as with St Kilda Rd and Flemington Rd. Although, in practice, he received pragmatic support from the four-footed users of all those roads that also served as stock routes, his arguments suggest that he had in mind more his vision of a future city, rather than an absence of suitably wide stock routes. Hoddle also argued that any main road should be at least 1.5 chain wide. {note: a chain is about 20 m and a typical Melbourne residential street reservation is a chain wide.} A century later in 1950, three chains was still seen as the basic width for an arterial road, although the concept adjoining service roads was being gradually introduced. ⁵⁶

The stock route needs and bullock-team-turning-circle arguments advanced by some to explain Melbourne's wide roads were pragmatic rationalisations and substantiations of Hoddle's decisions. However, the evidence is strongly that he – almost alone – saw the young Melbourne as a future city, rather than as another farming village on another highway. For instance, the number of three- and four-chain radial routes that he provided – St Kilda Rd, Wellington Pde, Hoddle St (East Melbourne), Victoria Pde, Queens Pde, Royal Pde, Flemington Rd, and the motivations for Dandenong Rd east of Chapel St, Brighton Rd south of Carlisle St, and Geelong Rd - more befit a major central market town dominating a large hinterland. The cross-sections adopted for the three-chain roads also do not support the turning circle arguments as, in the manner of St Kilda Rd, much of the width was consumed by service roads and planted medians, even in the pre-car era.⁵⁷ The most pragmatic reason for the wide road reservations is that they increased the chance that animal-drawn vehicles would be able to find some relatively firm ground within the typical muddy, waste-covered and rutted road reservations.

Certainly, and regrettably, Hoddle's counsel and leadership were only selectively accepted during the formative 1840s (see Sub-chapter 2.3). With a stunning lack of foresight, most of the new arterials were created by subdividers and speculators as narrow (one chain) local extensions of Hoddle's original broad roads. Classic examples

are the changes from Wellington Pde to Bridge Rd, Victoria Pde to Victoria St [1n] in Richmond, Queens Pde to High St in Westgarth, and Royal Pde to Sydney Rd [0ns] in Brunswick. Harding's subdivision map of 1854 provides a case in point. It shows a 3 chain Royal Pde abruptly and deliberately narrowed at Brunswick Rd to 1 chain. The established Sarah Sands hotel opened in the same year to service diggers on the way to the Bendigo gold fields ⁵⁸. It is shown contentedly sitting across the other two chains, a position it still occupies today. And, as all Victorians well knew, to the north of Brunswick Rd stretched almost two thousand kilometres of Australia waiting to be serviced by the remaining, narrowest of roads.

Other evidence that Hoddle gave to the Parliamentary Committee is also quite revealing:⁵⁹

Q. Are you charged with the survey of lines of roads?

A (Hoddle). I am.

Q. What instructions have you received relative to the laying out of lines of roads?

A. I have received no specific lines of instruction.....I have received none since my appointment. And

Hoddle: I have widened the roads where I can to 3 chain, but where the land is sold, I cannot do this.

Miller's Parliamentary Committee presented its report in late 1852. It had been criticized for slowness and a lack of intensity. Of the existing roads it noted that:

- # their current location was often defective,
- # their reservations were too narrow,
- # their alignment was poor,
- # they were badly constructed,
- # there was often building encroachment into the reservation, and
- # they were in such a bad state, so close to a "state of nature", as to be impassable or ineffective.

In one colourful phrase, the Committee described the Colony's roads as a "succession of quagmires." The situation was not aided by the following surveying practices of the time:⁶⁰

- + as noted above, land had not been required to have road access,
- + roads were laid out after the land had been sold,
- + there was no funding source for land acquisition and subsequent road-making,
- + only the centrelines of the roads were marked, not the road reservation, and
- + even when road reservations were provided, it "would be a work of difficulty to construct roads on many of them."

The Committee therefore stressed that, for continued sensible settlement of the town to occur, there was a need for:

- * a general road plan,
- * the five radial roads out of Melbourne to be developed to higher standards: to Geelong and Colac (route GL6), Bacchus Marsh and Portland (route BT2), Bendigo (route MM4), Kilmore and Sydney (route KS7), and Gippsland via Brighton and Dandenong (route DN7),
- * further roads and bridges to be built,
- * reservations to be 3 chain wide,
- * macadam roads to be used wherever possible (see Sub-chapter 7.2),
- * adequate funding (the Committee believed that the government should fund road construction and tolls be used for road maintenance),
- * tolls on the roads to Geelong, Bendigo, Kilmore and Dandenong,
- * a Central Roads Board, and
- * Road Districts to manage specific roads.

(b) The 1853 Roads Act

The recommendation of Miller's committee that main roads be 3 chain wide was heeded and the 1853 Roads Act⁶¹ required main road reservations to be at least 3-chain wide, but by this time much of the damage had been done. An example of how far the blight had extended before the 1853 Act is that the widening of the Maroondah Hwy reservation to 3 chain was prevented at its western end and could not occur until east of Nelson Rd in Box Hill (see discussion in route HV1). Ham's map of 1853 shows that subdivision had occurred north of the highway to Middleborough Rd [10e], but that south of the highway was unsubdivided back to Nelson St [9e], where the 3-chain reservation could begin (Map 3.6). (The 3-chain width continued to be formally supported long after 1853.⁶²)

Map 3.6 Ham's 1853 map of the "Settled district of 25 miles round Melbourne" (Ham was an earlier commercial map-maker whose maps were widely used in the local community). Available at http://search.slv.vic.gov.au/permalink/f/1cl35st/SLV_VOYAGER1896674 (1854)

The 1853 Act also created a Central Roads Board (see (c) below) and gave it power to levy tolls and make roads.

As another example, Ham's map of 1852 shows that - by the time of the 1853 Roads Act - intensive subdivision had already occurred around St Kilda Junction in the 225 degree clockwise arc from Punt Rd [2n] to Fitzroy St and extending as far east as Chapel St and as far south as Carlisle St [3s]. Even though - compellingly - St Kilda Rd (route SK3) is:

clearly a route into significant hinterlands,

3 chains wide at and north of the Junction, and

provided for as a diagonal disruption to the subdivisions:

it nevertheless was only given a one-chain reservation. The shortness of vision is blatant. The situation was only retrieved a century later by diligent planning and demolition. Dandenong Rd (route DN3) east of Chapel St is an example of where the theme could be resurrected soon after the 1853 Act, as the swampy land south of the highway had remained unsubdivided.

A few roads such as Alexandra Pde and Kings Way are examples where wide reservations occurred by the fortunate accident in that they were originally routes for large storm-water drains.

When Hoddle retired in 1853, his successor as Surveyor-General was Andrew Clarke who showed little interest in maintaining the three-chain width policy.⁶³ On the other hand, on one occasion related to the Calder Hwy in 1855 both Clarke and the Central Roads Board favoured a three-chain reservation but were overruled by the Colonial Secretary, acting on appeal.⁶⁴

It should be notd that Hoddle was forced into retirement by Governor LaTrobe who felt that "Younger and firmer hands more fitted to perform --- the various duties of the office might be preferred ... the office had outgrown him ... functions beyond his physical power, and trying to his age and temper." It is a pity that the two men who had contributed most to shaping Melbourne should end their mutual work in this manner.

In the planning vacuum described above, the town expanded with little control or imagination, and the one-mile grid of *section* roads continued to reproduce itself, as in the belt of suburbs in the flat lands between Gardiners Creek and the Bay with its mile / half-mile north-to-south sequence of Toorak Rd [1s], Commercial Rd / Malvern Rd [1.5s], east of Gardiners Creek, High St / High Street Rd [2s], Alma Rd [2.5s], Carlisle St / Balaclava Rd [3s], Glen Eira Rd [3.5s], Glenhuntly Rd [4s], and then the major one-mile north-south sequence of North Rd [5s], Centre Rd [6s], South Rd [7s] and Highett Rd [8s]. This sequence orthogonally intersects the west-to-east sequence of High St / Hoddle St / Punt Rd / Barkly St [2e], Chapel St / Church St [2.5e], Burnley St / Williams Rd / Hotham St [3e], Orrong Rd [3.5e], Kooyong Rd [4e], Glenferrie Rd [4.5e], Auburn Rd // Kambrook Rd [5e], then there are some geometric stumbles in Malvern (see discussion in route NS4) and Carnegie until a little surveying sanity prevails with Queens Ave / Glenhuntly to Patterson railway line [5.5e] in Caulfield⁶⁶ and a final restoration at Chesterville Rd [7e] and then Warrigal Rd [8e].

By 1858 most of the eastern suburbs, from Nunawading south to Mordialloc, had been sub-divided into the current monotonous rectangular grid. Lack⁶⁷ has commented: "By the late 1850s Melbourne and its suburbs sprawled across an area larger than that covered by London". The extent of the subdivision process can be seen from the fact that Melbourne today has yet to grow into some of the early subdivisions. One of the author's favourite examples is at Mernda, some 28 km north of Melbourne off Plenty Rd (route PL5). Adjoining Bridge Inn Rd [16n] was the subdivision of the Township of Separation (1851) into 2 chain by 1 chain allotments clustered around a Fitzroy Square which itself contains its own Regents Circus. Regent St is in Melway (Map 390) and Findon Pony Club [c5e] – perhaps unknowingly - now sits aside the erstwhile Australian version of Regents Circus. The Findon Club was one of the best-known hunt clubs in the 19th century. It was named after Findon in Kew and initiated by Henry Miller ⁶⁸

Thus, grid planning without regard for topography remained commonplace. Melbourne City Engineer Adrien Mountain accurately observed⁶⁹ in 1910 that "frequently the roads that were left were simply arbitrary lines separating

selections, quite regardless of natural features." This was in spite of section 4 of Darling's Order 41 (Sub-chapter 2.1) which had said that section lines should only be used a property boundaries "when no natural features" were available. It was all too easy to use the section lines.

The few "diagonal"⁷⁰ roads were usually those that began life as wide stock-routes or bullock wagon ways in pre-subdivision days. The observation of the just occasional diagonal road in amongst Melbourne's rectangularity is, with hindsight, to be expected. It was seen in Sub-chapter 2.1 that the *sectioning* process had begun in 1837, and so a diagonal route needed a very strong "raison d'être" to stamp its mark on the orthogonal grid. Initially, non-conforming tracks were common but they often came to be blocked off by subdivisional fences. As a consequence, much of the south-eastern region of Melbourne consists of roads in the cardinal directions on a one or two mile orthogonal grid, leaving the surveyor's sullen *sectional* imprint on an already physically featureless land. There were a few exceptions - Andrew Clarke who succeeded Hoddle as Surveyor-General in 1853 had a reputation for insisting that old tracks be followed, but his general impact was beyond the metropolitan area.⁷¹

(c) The Central Roads Board and its successors

Recall that the Miller committee had recommended a Central Roads Board. The idea was not new. In 1847 the NSW Government had appointed a commission to "consider the question of the construction and maintenance of the roads and bridges of the Colony." It had recommended that the central government take responsibility for arterial roads and the local communities fund and manage all the others. The Miller committee proposed a structure to achieve this. Hoddle's map of 1847 is probably another consequence of the "commission's" work.

In accord with the Miller committee's views, a Central Roads Board - based on a South Australian⁷² model from 1849 - and an Inspector General of Roads were both established in February 1853 under the 1853 Roads Act,⁶¹ to take a broad view of the Colony's road system rather than to specially follow the Miller Committee's recommendations. Their powers were confused – the Board reported to the Colonial Secretary for policy, the Treasurer for finance and the Surveyor-General for the co-ordination of its works. The parliament had clearly favoured the UK model of decentralised control⁷³ over "the centralising system of the north of Europe." This was despite growing evidence from Europe of the benefits of central control. With the creation of the Board, the term government road came to be applied to roads funded by the Board.

The Board's initial Chairman was Francis Murphy, a local surgeon and politician representing squatters' interests. He stayed as Chair until 1856 when he resigned to become Speaker of the Legislative Assembly, a post he held for 15 years. Miller, who we met earlier in the Chapter, was also appointed to the Board. George Harris - a strong advocate of the conservative Telford method⁷⁷ of road construction (Sub-chapter 7.2) - was appointed Inspector General. The Board also brought in Samuel Brees – a railway engineer – as Acting Colonial Engineer. David Lennox had arrived in Melbourne from Sydney in late 1844 as Superintendent of Bridges was soon effectively in charge of the Colony's roads and bridges (Figure 3.2). He had achieved a splendid record as an engineer and had built many notable bridges in the Sydney region⁷⁸⁷⁹. As testimony to his skills, many of his NSW and Victorian bridges are still in daily use. However, his position with respect to Brees was perhaps deliberately unclear and this led to Lennox leaving in December 1853.⁸⁰ Lennox built 53 bridges in his 9 years in Victoria. Brees himself was forced to leave his post in the following year after two of his bridges failed (see discussion of route MM4) and questions were raised about the probity of some his contracts. Brees painted the well-known picture of gold-seekers in 1854 passing along Mt Alexander Rd in Flemington (Figure 4.5).



Figure 3.2 David :Lennox

The Board was soon so consumed by its immediate problems that it could provide little strategic input at a regional planning level. It devoted much of its early urban energies to Mt Alexander Rd, St Kilda Rd, Sydney Rd, Plenty Rd and Bridge Rd.⁸¹ In 1854 its main Melbourne expenditures were on Mt Alexander Rd / Bulla Rd (routes MM4&7), St Kilda Rd / Brighton Rd (route SK3), and Plenty Rd (route PL5).⁸² As discussed in Sub-chapter 3.4, in the same year the Board was given power to levy tolls and build roads on private land. This last power was made necessary by the need to correct the consequences of the earlier practice of selling land without road access (Sub-chapter 3.2). By 1857 the Board had extended its interests to a range of metropolitan roads, and these efforts are noted in Chapter 4.

Charles Pasley was a British army engineer who had become Colonial Engineer in 1854. When he took over from Murphy as President of the Board in 1856 he was unique in being both the professional and political head of a government body. ⁸³ He left Australia in 1857 after the Haines Government fell and the short-lived new government replaced him with Charles Duffy, who served in various related roles until 1859.

The 1853 Act⁶¹ also established Road Districts and the associated District Roads Boards with the power to levy tolls and maintain roads, concentrating on roads of local significance. Their proponents intended them to work in conjunction with the Central Roads Board with its interest in highways. This was to operate administratively by each District nominating a person to sit on the Central Board's advisory body. The model was too sophisticated for the embryonic government and was never achieved in law or in reality. A legal commentator later expressed some surprise at the way the government of the day simultaneously had set up two almost-rival groups.⁸⁴ Road tolls are discussed in Sub-Chapter 3.4.

By their very nature, the District Boards that did eventuate were too parochial and hard pressed to do even their specific tasks well. Their immediate concerns were with the almost impossible tasks of road and bridge maintenance and incremental improvement. What they had to do was burdensome enough. They understandably had little energy to devote to the planning and development of new infrastructure. In addition, the 1853 Act left the Board members directly liable for many of their decisions, leading to timid decision-making. They were also hindered by such mundane matters as the lack of suitable drawing paper on which plans could be developed and displayed. Nevertheless, the Boards multiplied in an administrative vacuum between 1858 and 1874 and were the forerunners of many later local government entities.

Traffic flows during a typical week in 1854 are given in the following Table which gives a numerate feel for road usage at the time.⁸⁷ In this usage climate, roads served only a local, parochial need. They required no grand plans. Their management could be safely left to the locals. Thus, in addition to the Heidelberg Road Trust and the inner Melbourne Council formed in 1842 (Sub-chapter 3.2), Melbourne was to be served by the following Road

Districts: <u>1854</u>: Boroondara, Epping, Upper Plenty. <u>1855</u>: Collingwood, Emerald Hill, Prahran, Richmond. <u>1856</u>: Gardiner, Templestowe, Williamstown. <u>1857</u>: Brunswick, Dandenong, Nunawading, St Kilda. <u>1858</u>: Brighton, Fitzroy. <u>1859</u>: Hotham. <u>1859</u>: Footscray. <u>1860</u>: Braybook, Heidelberg, Sandridge, Mt Eliza. <u>1861</u>: Essendon/Flemington. <u>1862</u>: Moorabbin, Wyndham, Berwick, Bulla, Upper Yarra. <u>1863</u>: Keilor. ** These data can be a little misleading – for instance, Dandenong District was proclaimed in 1857 but the members did not meet until 1862.

Road (route)	drays (2-wheeled carts)	four-wheeled carts	bullock carts
Mt Alexander (MM4)	1738	0725	523
Sydney (KS7)	0743	0244	187
Princes Bridge (SK2)	9684	1706	168
City (AY3)	2731	0561	
Heidelberg (PL6)	0341	0165	050
Upper Plenty (PL5)	0596	0219	303
Bridge (TW5)	2100	0471	342
proposed toll	6 pence	9 pence	12 pence

There were 240 pence in a pound.

At a meeting in January 1857, Pasley's Central Roads Board and the District Roads Boards agreed that the District Boards should be responsible for main roads as well as local roads. Ownership of a well-used tollgate (see Sub-chapter 3.4) was the main "spoil" to be distributed - otherwise, hard reality soon hit the newly chartered District Boards.

The Central Roads Board was abolished later in 1857, in the name of efficient administration. It was suggested that the Board had devoted too much of its attention to Mt Alexander Rd (route MM4) and the other roads to the goldfields and too little to the rural interests represented in Parliament. Nevertheless, it had built 570 km of road and 225 bridges (in Victoria) during its short existence and its work was well regarded by administrators. At the same time as the abolition, Thomas Higinbotham, an Irish engineer, was appointed Inspector-General of Roads and Bridges. The Office was not always well regarded. In 1862 a parliamentary standing committee on roads and bridges reported that – in at least one matter – "the Inspector was outstandingly negligent and incapable." 90

The Central Roads Board's oversight and arterial road functions were absorbed into a Board of Land and Works created in November 1857. The new Board also covered land, public works and railways. In 1858 John Steavenson was appointed its Commissioner for Roads and Bridges, with the Inspector-General reporting to him. Initially, money was "poured into the Board". Main roads were the chief item of Government expenditure until 1858, when rail took over as the high priority item (see Sub-Chapter 3.3e). The takeover was such that, by 1868 rail expenditure was 17 times larger than road expenditure, in 1870 the expenditure ratio was 36 times, and for the next decade it was 12 times. Not surprisingly, therefore, in 1862 the Commissioner of Roads and Bridges became the Commissioner for Railways and Roads. Hy 1867, the position was Commissioner of Roads and Bridges and it was filled by J. Sullivan. It was an office position, whereas the Inspector-General was a field engineering one.

A review in 1861 of the period since the demise of the Central Roads Board showed that Melbourne had 80 km of made roads, 20 km of partially made roads, 110 km of cleared roads, 34 bridges, 4 fords and (curiously) just one ferry. The five most financially favoured routes during this period had been, in order, Chapel St / Church St (route NS2), Melbourne - Ballarat (route BT7), High St / Upper Plenty (route PL4&5), Hawthorn Bridge (route PL6), and Dandenong Rd (route DN3&4). With hindsight, it is difficult to see the strategic imperative that could have given such high priority to Church St and its Yarra bridge. A Land Act of 1862 once again permitted land to be selected before it had been surveyed, resulting in another rash of poorly located roads.

The Road District and Shires Act of 1863 replaced the Roads Act of 1853. Commonly called the Local Government Act it was intended to strengthen the role of the District Roads Boards but proved counterproductive. It gave the Boards more responsibility for roads, but no useful way to exercise that responsibility. ⁹⁶ Dissatisfaction was widespread. The 1863 Act was replaced in 1869 by a Shires Statute that abolished the Roads Districts, converting them into Shires. ⁹⁷ Subsequently a "Consolidating Local Government Act" of 1874 effectively transferred the road responsibility of the Board of Land and Works to local government. This yet again, unhelpfully, reinforced a parochial approach to road management. For example, Sydney Rd became the responsibility of the various local government bodies along its way. The Act did provide some State funding for local government; these funds peaked in 1891. In an attempt to satisfy everyone, a myriad of minor works were favoured over a few major ones and frequent repairs received priority over capital construction of low maintenance facilities.

To fill the roads vacuum, in 1877/78⁹⁸ the Roads and Bridges Branch (or Office) was transferred from the Department of Railways and Roads to the Public Works Department. This was linked to a significant downturn occurred in local road revenue and so the Branch inherited a major administrative mess. In the aftermath, it struggled to even maintain the status quo and the pressure for corrective action grew increasingly. The Department rarely funded more than fifty percent of the cost of a project - the remaining funds were supplied by the local authorities. The Public Works Act of 1890 gave the Department a wider roads focus but did not solve any of the underlying problems. Road-making rarely occurred, particularly after the economic depression in 1894.

Even without allowing for inflation and considering country road expenditure as well, the figures are dramatic. For the 9 years from 1853 to 1861, State road expenditure averaged £580,000 per year, for 1866-68 it averaged £238,000 per year. This was a vast improvement over the £9000/year that Lennox spent on bridges between 1846 and 1850.⁹⁹ For the 45 years from 1870 to 1914, State road expenditure averaged only £38,000 per year and only exceeded £100,000 in one year (1874). In the 19 years from 1876 to 1894, State expenditure for roads averaged only 2.8% of State expenditure for rail.

As a further specific example, in the 1889 State budget, "forts and batteries" received £140,000, "wharves and jetties" £103,000 and "roads and bridges" for the entire State received only £86,000. A further major spending drop occurred in 1890 when roads and bridges received only £32,000, compared with £42,000 for police buildings and £39,000 for gaols. The roads and bridges expenditure for the decade in thousands was £60 ('91), £20 ('92), £11 ('93), £6 ('94), £3 ('95), 3k£0.6 ('96), £21 ('97), £14 ('98), £15 ('99) and £20 ('00). In the 20 years from 1893 and 1913 funding for roads and bridges typically represented just 6 % of the Public Works Department budget in each year and finished the period on 2 % in 1914. The halcyon days of 1889 were not to be repeated until the CRB spent £144,000 on roads and bridges in 1916.

Roads were clearly minor political items and of low governmental priority. As another indicator of the low priority, road lengths were not quoted in any government statistics until 1912 when the Victorian Year-book for 1911-12 on p187 quoted the results of a correspondence survey of municipalities that showed that Victoria then had about 16,000 km of "national" road. The data had been collected in the work leading to the formation of the CRB (Subchapter 3.5). Of course, part of this omission may have been due to the difficulty of defining and measuring such ephemeral pieces of infrastructure. (By 1916 the CRB appears to have established that it was maintaining about 4 800 km of Victorian roads.)

Some of the strongest voices against the deteriorating road system came from the growing band of cyclists, who were quick to realise how much more useful their machines would be if there were good surfaces on which to ride them. The story was repeated around the world. In Victoria, a leading campaigner was George Broadbent, who later became very active in the RACV. Broadbent formed a Good Roads Association in 1890 and a Cycle Pathways Association to act as organised protagonists for good roads and paths. In 1919, the Good Roads Association became part of the National Roads Association of Australia. In 1895 he produced Australia's first touring maps. Indeed, in 1896 Melbourne was said to be the cycling city of the world. In 1895 he produced Australia's Broadbent became a leading advocate for the creation of the CRB (Sub-chapter 3.5). In 1912 Broadbent signalled the end of an era when he noted of the previous 60 years "we have built expensive non-paying railways when good hard roads would have sufficed." 104

(d) Local government

The Municipal Institutions Act of 1854 allowed new local government bodies, commonly called councils to be created by petition, provided they did not exceed 9 square miles in area. The councils had the power to manage roads, to levy tolls on the roads, and to levy rates on land and houses. Suburban local government was created in the following year and, in distinction to the Central Roads Board, the Councils and Road Districts, suburban local government soon had an impact by localising road development. The creation of Emerald Hill Council was discussed in Sub-chapter 2.3. The citizens of Footscray and Brighton successfully petitioned for Councils in 1859, Hawthorn in 1860, and Kew in 1861. Nevertheless, most councils were not formed until a new Act in 1870 made it easier for road districts to become shires. Thus, the Road Districts had the dominant role from 1855 until after 1870. Even then, all the new councils took consistently parochial lines with respect to roads and most other matters, as if as a matter of general policy.

One of the road problems created by the proliferation of councils were the "boundary roads" inevitably found along the *section lines* that formed the municipal boundaries. The older council would have little interest in such a road, as its rate revenue was already maximised. For the newer council, the boundary road was where development activity was most likely to occur. As the legal boundary usually went down the middle of the road, this led to ludicrous situations where one side of the one-chain road was made and the other untouched. ¹⁰⁵

(e) Steam rail

The local and impoverished trend in road management discussed above was further emphasised by the widespread introduction of steam-powered rail services in the 1850s, as this technology provided substantially better transport services than had previously been experienced¹⁰⁶ and satisfied the voters' demands for area-wide transport. Quickly establishing its transport priorities, the new Colonial government had authorised three Railway Companies – servicing Port Melbourne, Bendigo and Geelong – before it turned its legislative attention to roads and the recommendations of Miller's committee. Rail had exerted an early attraction to the new settlement, and a "proposed rail road" running directly from the "turning basin" (Chapter 1.1) to the Port Melbourne foreshore is shown in Hoddle's 1840 map (Map 2.3). The railway companies were given strong controls over the land they needed. Consequently, even simple road crossings were often rejected. Governments also gave low priority to funding roads running in parallel to a rail track.

The first train operated on the Port Melbourne route in 1854 and in that year the Melbourne *Argus* argued that in all countries the ordinary road was being superseded by the railway. ¹⁰⁷ In his prize-winning Melbourne essay in 1856, Amsinck echoed the common and widespread belief that there was no point in spending money making arterial roads as they would soon be supplanted by a railway. So why not start off by building the railway? Railway funding in subsequent years was discussed above in Sub-Chapter 3.3c.

Rail also provided other benefits. When the notorious Victorian Premier Tommy Bent said - in justifying his government's relatively high expenditure on rail - that he had never heard of a road paying interest, ¹⁰⁸ he surely had in mind the interest on rail schemes being paid by investors and land speculators, rather than from the fare box.

However, rail was never successful in a private-sector sense, running at a loss or returning minimal profits. Animal-drawn vehicles were out-competing rail in 1894 and the rail response was, characteristically, that the competition was "a spasmodic attempt and not a permanent danger to the railways." ¹⁰⁹ By this time the railways were losing about a million pounds per year. The financial benefits created by the railways had largely accrued to land speculators.

3.4 Road tolls

Road tolls were commonplace in England in the 1830s¹¹⁰ and had been levied in Sydney since 1811.¹¹¹ In Melbourne, they were levied on the first:

- * ferries, beginning with Thomas Watts and John Hodgson when they began their private ferry services a little upstream from today's Princes Bridge in 1838 (route SK2),¹¹²
- * bridges, beginning with Thomas Main's vehicular bridge over the Moonee Ponds Creek on Mt Alexander Rd (route MM4) in 1839, and
- * main roads, beginning with the Heidelberg Road Trust's tolls on Heidelberg Rd (route PL6) in 1847.

The power to levy tolls was given to the District Roads Boards in an Act¹¹³ of 1853 and to Councils in the following year, although an Act¹¹⁴ of 1856 required Councils to seek government assent before levying a toll. The Central Roads Board's Act was amended in 1854 to allow it to levy tolls and build roads through private lands. The first toll schedule was gazetted on 23 May 1854 and is shown below:

Category	Toll in pence for each
sheep or pig	1/4
cattle	1
horse, ass or mule	3
two-wheeled conveyance (gig) drawn by one animal	6
two-wheeled cart (dray) drawn by one animal	9
four-wheeled conveyance (coach) drawn by one animal	9
gig drawn by two animals	9
dray or coach drawn by two animals	12
four-wheeled cart (wagon) drawn by two animals	15
dray drawn by three animals	15
coach drawn by more than two animals	18
dray or wagon drawn by four or more animals	18

By 1858, the one-horse dray toll had risen from 9 p to 12 p. 115

Exemption from toll paying was given to people in government service including politicians and soldiers, people going to and from church for worship or funerals, clergymen and people carting manure. Toll collecting was not an easy task. Cooper¹¹⁶ comments "No man could keep a toll gate for any time, without having the milk of human kindness in him turned to gall".

Toll evasion was commonplace. One technique used to reduce evasion was to put footpaths along the road near the toll gate and make it illegal to drive over the footpath. Tolls also caused travellers to divert to alternate routes and the discussion of route BT4 in Chapter 4 tells how three different agencies manipulated their tolls in order to influence the routes chosen by travellers. Similarly, when tolls were applied to Dandenong Rd (route DN3) in 1864 it was necessary to quickly impose a toll on nearby Malvern Road (route CT11) to prevent too many vehicles diverting to the poorer road. Likewise, the tolls on Mt Alexander Rd (route MM4) dictated the tolls on adjacent routes such as Racecourse Rd and Macaulay Rd (route WT2) and Dynon Rd (route WT5).

In 1853-56 tolls covered half the cost of improving urban roads.¹¹⁸ By 1857 Victoria had some 27 tollgates.¹¹⁹ The total toll revenue in 1858 was enough to construct just one kilometre of road.¹²⁰ A review showed that Melbourne had 5 government tollgates in 1861⁹⁵ (probably Mt Alexander Rd, Pascoe Vale Rd, Sydney Rd, High St (Northcote), Nepean Hwy) whereas this book lists some 60, and so most were in local or private hands. Even the government toll gates were leased for a tendered fee to private operators - in 1861 the Brighton Rd tollgate attracted the highest operator's fee. Some subtlety was brought into road tolling in the 1860s with the creation under the Local Government Act of 1863 of "common toll roads" which applied to roads, such as Nepean Hwy (route SK3) that passed through several districts. This allowed the tolls collected at a particular tollgate to be shared amongst the Districts served by the road, in a proportion agreed by the government. A manager was appointed for a road to ensure the collection and distribution of tolls.¹²¹ The tolls collected on Princes Bridge (route SK2) were distributed in this manner. Indeed, by 1864 most of the other major roads had become common toll roads.¹²² Nepean Hwy and Dandenong Rd feeding into St Kilda Rd were by far the largest sources of toll revenue.

By 1874 it could be said that all major roads were tolled (61 tollgate locations have been noted within this book), although the funds raised were insufficient to even maintain the existing roads. Road tolls were opposed with increasing vigour by Councils and citizens alike as they were inadequate, seen by users to be unfair, and forced much traffic off the main roads – thus causing more damage and taking customers away from businesses located on the main roads. Deliberate toll evasion was commonplace. There was also continual controversy between adjacent toll operators. Yielding to the pressure of strong electoral opposition to road tolls, the government abolished them in 1875 with the last tolls phased out in 1878. Barrett comments that this facilitated Melbourne's sprawl during the land boom of the 1880s. The actual motion to abolish was moved as an unexpected amendment from the floor of Parliament during a quiet time, and caught most by pleasant surprise. However, critics of the abolition pointed out that no reasons for abolition were given in either the debate itself or in the parliamentary record. Despite the obvious consequences of the decision, the government did not provide funding to replace the toll revenue. A replacement tax was introduced in the Main Roads District Act of 1876 in the form of an annual charge on vehicles known as a wheel tax. However, the revenue from this Act was never specifically directed at road construction or maintenance.

As a result, road conditions continued to worsen for the remainder of the century. Sydney Road (route KS7) and Dandenong Rd (route DN3&4) in particular became enormous burdens on the surrounding municipalities. To illustrate this with a specific example, the Upper Plenty District Roads Board maintained 30 km of Plenty Rd in 1869 with an annual expenditure of £2100, £1700 from tolls and £400 from land rates. Abolishing tolls but still maintaining the rates would have increased local land rates by 500%. ¹²⁸

The last tolled facility was the northern Church St bridge over the Yarra (route TW4). It stopped collecting tolls when declared unsafe in 1889.

Tolls returned to Melbourne when West Gate Bridge opened in 1978 (route GL8) and were removed in late 1985 in the light of poor patronage and to enable the Bridge Authority's financial liabilities to be transferred to the Road Construction Authority (Sub-chapter 3.5). Tolls had their third coming when they were applied in January 2000 to the Western Link of City Link (route MM9), in April 2000 to parts of the Southern Link (route DN10), and in December 2000 to the remainder of City Link (route DN11).

3.5 Road planning in the 20th century

(a) Creating the Country Roads Board (CRB)

In 1902 a Royal Commission established to examine the workings of the State's Local Government Acts recommended that all roads and bridges be placed under the control of local government. This parochial view was incorporated into the Local Government Act of 1903. It has been estimated that, in these dark ages of roads, local governments were spending about 60 % of their budget on roads – but nearly all of this went on maintenance. In February 1907 the newly-formed local automobile club ([R]ACV) wrote to Premier Bent:

"advocating that the State take over control of the main roads, as many country shires with scarce resources had lost interest in trying to halt their steady deterioration."

This was followed by savage attacks on the government's inaction in the Melbourne daily press: in the *Argus* in August of the same year and in the *Age* in February 1908.

Some sanity returned in 1910 when the Inspector General of Public Works, William Davidson, recommended the establishment of a Roads Board to take over the care of main roads. A Treasury official was asked to investigate and in 1911 he supported the need for a central authority. The Gippsland Shires also lobbied strongly in the second half of 1911. In 1912 the Geelong City Council resurrected the Good Roads Association, discussed in Chapter 3.3c above, in order to co-ordinate the efforts of local councils involved in the upkeep of the Melbourne - Geelong road (route GL6). The Association had an immediate impact. Nevertheless, a review of articles in the Victorian press in 1912 indicates a great deal of municipal opposition to the new Board, with many Councils advocating that the money to be given to the Board would be better distributed to the Councils.

Common-sense prevailed with the creation of the Country Roads Board (CRB) in 1913. In retrospect, the decision was the result of a number of convergent public factors:

- * existing road standards and conditions were poor and variable, and were leading to increasing concern over the state of rural roads, 134
- * the road network was beyond the interest of local Councils, whose views were predictably parochial, and had resulted in a road system which did not cater for through traffic,
- * Councils had an inadequate taxing base to provide the funds needed to satisfy the increasing demands of motor traffic.¹³⁵ The obvious alternative of vehicle-based taxes was beyond the powers of local government, and
- * there was a suspicion that Councils would misuse or redirect any government grants for roads.

The first meeting of the CRB was, within a month, exactly sixty years after the first meeting of the Central Roads Board (Sub-chapter 3.2).

The technical background to the situation leading to the creation of the CRB was later to be nicely summarized by the CRB in its 1927-8 Annual Report (p3):

.. during the period between the construction of the main lines of railway and the advent of the motor vehicle, the railways held a monopoly of all passenger and freight traffic ..., for the simple reason that it was the only form of traffic that was available or could meet the demands. The heavy and slow moving horse-drawn traffic had to give way to the faster and more efficient railway, and the roads were no longer necessary for through

traffic. But with the increasing mobility of the population, due to the popularity of the motor vehicle, came the demand for the restoration of the main road routes.

In the parliamentary debate¹³⁶ in late 1912 leading to the establishment of the Country Roads Board¹³⁷ there was much argument over which roads would be covered, particularly which roads in metropolitan Melbourne. The definition was finally left unresolved.¹³⁸ The Act was introduced by H. R. McKenzie, Minister for Lands who was asked what the word *Country* in the title of the Act referred to? He replied that the Act applies "to the whole of the State. (Country was only used as) a name had to be given to the Act." At times in the debate the Government said that the CRB would cover roads such as St Kilda Rd (route SK2) leading right into the City. In the end, the policy was left to the new Board to evolve.

The first Chairman of the CRB was William Calder. ¹⁴¹ It turned out to be a remarkably wise choice. Calder led the new organization with vigour and insight. He traveled the State and then the world and had a remarkable impact on Victoria's roads. However, from the viewpoint of this story, his impact was more on the country than on the city. He died in office in 1928, in the year the above quotation was written.

Initially the CRB was given two sources of funds. Maintenance and administration were financed from fees for registering vehicles, licensing drivers, fines under the Motor Car Act, and the like. Construction and reconstruction were funded from State Loan funds. With these resources, the CRB met about half the cost of maintaining and building declared Main Roads – the councils met the other half from their rate revenue. The councils had no option but to participate. Following recommendations from Calder's 1924 overseas tour, ¹⁴² in 1924-5 the Government introduced an Act¹⁴³ which gave the CRB power to declare roads to be State Highways. The councils did not have to make any funding contribution for these State roads. Initially, nearly all such roads were outside Melbourne.

Federal road funding began in 1922 under the provisions of a Loans Act, and was mainly spent on developmental roads in backward rural areas. In 1926 under the Federal Aid Roads Act, the Federal government began providing funds based on fuel excise.¹⁴⁴ The 1931 version of the Act permitted some funding of urban roads.

Within a short time of its formation, the CRB had noticeably assisted in the solution of rural road problems and specifically avoided the tasks of greater Melbourne. The Act that had created it did not restrict its activities to rural areas, but successive governments supported its rural priority and did little to encourage any interest in metropolitan matters. When CRB actions did concern the roads of Melbourne it was largely because those roads were outer suburban arterials yet to be subsumed within the metropolis.

The forerunner for a greater metropolitan interest was the Country Roads (Borrowing) Act of 1933 (#4188) that permitted funds to be used for roads connecting main country roads to the metropolis, to tram termini, or to metropolitan through roads. The first three projects were Beach Rd (route AY4), the Merri Creek bridge on Heidelberg Rd (route PL6), and Napier St in Footscray (route WT7).

The Melbourne metropolitan councils continued to find roadmaking and maintenance a major struggle and so, in 1935, Parliament voted the CRB further funds to work on a few specific metropolitan roads. The main recipients were three bridges - Lynchs on Ballarat Rd (route BT4), Hoddle over the Yarra on Punt Rd (route NS1) and planning for Swan St bridge on route CT5.

In 1937 the CRB Chairman W. McCormack, after a visit overseas, reported: 147

One of the great essentials of a successful road policy is long range planning. The constructing authority must plan for a number of years ahead.

The attitude clearly had a major impact on subsequent CRB thinking. Some actions were immediate, for in 1957 Chairman Darwin reported:

The Board has long foreseen that the time would come when the provision of additional traffic lanes would be required on many of our principle highways, especially those leading into the metropolis..... On some routes,the Board commenced action more than twenty years ago. 148

In the early 1950s the CRB was still spending only 7% of its funds on Melbourne roads - the figure had risen to 24% in 1964/65. However, George Dempster, then CRB Engineer for Plans and Survey, observed that the CRB was designing what were effectively metropolitan freeways in 1947 – there is no indication of the strategy behind its work, but Dempster's example was associated with Essendon airport development and so may have had some Commonwealth incentives. There is no suggestion of such work in the 1947/48 Annual Report (nor in the Town Plan

of 1929 discussed in sub-Chapter 3.5(b) below), although the Report on p21 does mention that the government had set up a Central Planning Authority. Certainly, in 1947 Dempster had argued: 151

The full required width of road reserve may be acquired initially, for little if any extra ultimate cost, because of the lower land values in the early stages of a project. ...it is desirable to acquire initially sufficient width of reserve for the ultimate development...

He gave planning for the outer portions of Tullamarine Freeway (route MM8) south of Essendon airport as an example of where this principle was being applied in 1947.

Thomas Russell - Chairman from 1978 to 1986 - recalled the policy coming from Dempster who had returned from a private study tour of the U. S. where he had observed the wisdom of buying land when it was still open farmland. Russell noted that the policy was not totally supported by the CRB executive, who preferred spending money on road-making. However, CRB Chairman Darwin (1949 – 1962) was a staunch advocate of securing adequate land for road reservations and in 1950 he wrote: 154

the CRB has over the years taken action to widen the one-chain sections of State Highway in the rural areas approaching the metropolis, but the jurisdiction has not extended in to sections of road traversed by tramways.

The "tramways" reference in the Darwin quotation stems from a requirement of the CRB Act of the time, preventing roads carrying trams from being declared Main Roads. On such roads, the tramways agency (MMTB) were required to pay for the 20 foot wide tramway within the roadway. In a sense, the tram network was used to define the limits of the CRB's metropolitan influence. There was strong political support for this work limit on the grounds that a tram service was reward enough for the lucky municipality.

The major legislative help had come from the Country Roads Act of 1948 (#5290) that gave the CRB full power to establish alignments and compulsorily acquire the associated land. Critically, the value of the land was at the date of acquisition. Under Darwin's leadership, the CRB in 1951 introduced the very successful policy of: 155 asking municipalities, before sealing any plan of subdivision adjoining any road under the CRB's jurisdiction, to submit such plans for the CRB's consideration. The CRB then may request the setting back of the property line a sufficient distance to permit of future road widening.

The CRB was thus able to obtain the land it needed for future widenings at undeveloped (so-called green fields) prices. It was a wonderfully successful policy in an expanding metropolis. By 1952 alignments had been fixed for Beach Rd, South Rd, Springvale Rd, Stud Rd, and Warrigal Rd. David Berry, a Deputy Chairman in the 1990s, ¹⁵⁶ noted the later value of the in-house policies that deliberately set about protecting existing reservations and planning, securing, and widening road reservations on the outskirts of Melbourne.

Neil Guerin - CRB Deputy Engineer in Chief in the 1970s - makes the point that in a planning context this de facto policy based on the tram system would leave the MMBW (the Melbourne and Metropolitan Board of Works, which was then the metropolitan road agency, sub-Chapter 3.5b) with almost intractable concerns with network deficiencies in the established areas, whilst the CRB could concentrate on the relatively simpler problems of providing for future growth in the undeveloped suburban fringe. ¹⁵⁷ It may well be that this policy accident gave Melbourne its relatively good network of outer suburban roads. Nevertheless, it must be said that the MMBW made some major contributions to solving its intractable task: e. g. (1) work on Kew Junction and the associated widening of High St (Kew) (route TW7), (2) the work on St Kilda Junction and the associated widening of Nepean Hwy (route SK3) and Dandenong Rd (route DN3&4), and (3) the creation of Kings Way (route SK4). These were big and difficult jobs, but their impact per dollar spent was to be far less than the impact of the CRB's green fields dollars.

Two independent pieces of legislation in 1954 were later to interact to determine the city's future road development. One Act¹⁵⁸ provided a fund (35% Government, 45% CRB, 20% Railways) to eliminate problem railway level crossings. The resulting program was not directly controlled by the CRB, but by a three-person committee from the CRB, Railways and Public Works department. However, the CRB undertook much of the associated work. Indeed, the CRB gained considerable respect for the urban component of its crossing work and for the consequent physical improvements. Many of the projects were within the tram network and therefore in areas where the CRB had not previously been involved. In 1974, funding for this program was transferred to a general fund and the program gradually terminated. The other 1954 Act was the Town and Country (Metropolitan area) Act¹⁵⁹ that gave the MMBW power to build and maintain roads, based on a special land rate. The funds were never to be sufficient for the task at hand. The planning aftermath of this situation is discussed in the following sub-Chapter.

The CRB Annual Report for 1956-7 (p12) has some interesting comments on the issue of reservations:

The CRB has long foreseen that the time would come when additional traffic lanes would be required on many of our principal highways, especially those leading into the metropolis.....On some routes....the CRB commenced action more than twenty years ago [au - i. e. in 1935 when funds first became available for metropolitan works] to acquire additional width of reserve.

The lesson of inadequate road reservations in the post-Hoddle era had eventually been learnt and Melbourne began to see wide reservations once again provided in the outer suburbs. However, it took generations before suburban development reached the new zones. In the interim, the reservations had to be maintained and protected. Roads in this category are the Western Hwy (route BT2) west of Ashley St [4w], Mt Alexander Rd (route MM4) north of Holmes Rd [3n], Sydney Rd (route KS7) north of Boundary Rd [7n], Plenty Rd (route PL5) north of Summerhill Rd [7n], Doncaster Rd (route TW10) east of Koonung Creek [7e], Maroondah Hwy (route HV1) east of Nelson Rd [9e], Canterbury Rd (route CT1) east of Middleborough Rd [10e], and Burwood Hwy (route CT3) east of Warrigal Rd [8e]. These locations, when matched against suburban development, confirm that the return to wide reservations began in the 1950s. Boundary Rd was so named as it was on the [1n] *section line* and the then boundary between the Parishes of North Melbourne and Doutta Galla.

(b) Metropolitan planning

The CRB actions described in (a) above had largely occurred in a planning vacuum. One of the major activists after the First World War was Frank Stapley, an architect who had been influenced by the American and British city beautiful" movements. A Victorian Town Planning Conference in 1919 led to the establishment in 1922 of a Metropolitan Town Planning Commission (MTPC) to "bring order to the city's expansion". The Commission conducted origin-destination surveys to aid its work. It reported with a set of far-sighted recommendations in the Melbourne Plan of General Development of 1929 [called the Town Plan of 1929], including an hierarchy of roads and improved public transport, but - partly because it was issued during the Great Depression - there were no committing actions linked to the report. Later parts of the book will note the specific instances where its recommendations have come to pass, but in retrospect many were planning fantasies.

The period after the Second World War had seen rapid population growth, rising incomes and increased car availability. This set of circumstances placed unforeseen demands on the transport system but provided no funds to meet those demands. Watershed decisions were necessary. However, the Government was ill-prepared for the task. The voting system favoured rural electorates and the Country Party had ruled as a minority government from 1935 to 1945. For eight of those years metropolitan Melbourne was not even represented in Cabinet. This was followed by ten years of relative instability before the Liberal Government held power for 25 years from 1955, with farmer Henry Bolte at the helm for the first 17 of those years. Furthermore, Federal road funding was biassed against a small State such as Victoria and over 90% of the funding that was received was directed to rural areas.

The Melbourne and Metropolitan Board of Works (MMBW) had been founded in 1891 to take care of matters such sewage and parks. A Royal Commission into the MMBW in 1943 recommended that it also be given metropolitan planning powers. However, the Town and Country Planning Act of 1944 instead created the Town and Country Planning Board. After the Second World War, this Board played a general planning role, but with little discernible impact. The State Government therefore introduced the Town and Country Planning (Metropolitan) Act of 1949 that required the MMBW to produce a planning scheme for Melbourne, including arterial roads. The MMBW created a Town Planning Committee and appointed E. Borrie - then Engineer for Sewerage - as its Planner. The resulting planning scheme was presented in 1953, published in 1954 and adopted in 1955. It was universally known as the MMBW 1954 Town Plan. A feature of the Plan was its City ring road - route 1 - using Footscray Rd (east), Hawke St, Victoria St, Spring St, a new river crossing, Grant St, the elevated section of the West Gate Freeway and Ferrars St.

The associated planning scheme was operated throughout its life under an Interim Development Order issued in 1955. After public comments and appeals, the plan was finalised in 1959. It has been described as a cautious "trend" plan. In particular, it under-predicted Melbourne's growth, with the city reaching its design population in 1971, just 12 years after the plan was issued.

In reviewing the history behind the 1954 Town Plan, the associated report almost incidentally foretold its own fate. In particular, the following words are particularly relevant: 166

In its 1929 report the MTPC pointed out the need for an authority to undertake responsibility for main metropolitan roads, and it suggested alternative means of achieving this. Nothing was done,

however, and within the urban area each individual municipal council is still solely responsible for all main and local roads within its territory. There is no authority responsible for planning and developing the main road system and of studying and coordinating the present and future needs of the city for road transport. The CRB, as its name implies, is a country road authority, and its responsibilities cease at the outskirts of the urban area.

The MMBW certainly lacked the power to implement its scheme. The problem was recognised, and partly addressed in 1956 when the new Bolte right-wing government made the MMBW - rather than the CRB, favoured by the Labor (left-wing) opposition - the main road authority for the metropolitan area.¹⁶⁷ The division was not total, as the CRB and Councils were still responsible for Main Roads under the CRB Act. Nevertheless, eight government bodies reporting to five Cabinet Ministers had some responsibility for metropolitan roads. Furthermore, the only MMBW funding was through an inadequate rate levy, and so progress was painfully slow. In the same year, another hard-fought Act¹⁶⁸ gave the CRB power to build town bypasses with controlled access from abutting properties. As a freeway is a road with such controlled access (and with no at-grade intersections), the CRB was correct when it later¹⁶⁹ describe this Act accurately as "Legislation giving the CRB power to construct freeways." The CRB's powers were redefined in the Country Roads Act of 1958 (Act 6299). Writing in 1977, Delaney observed that one of the major aspects of transport planning in the 1950s had been setting aside sufficient land to accommodate the ultimate development of each transport route.

In 1960 the CRB greatly expanded its declared road network in the metropolitan area by adding 27 km of State Highways and 137 km of Main Roads. Existing State Highways radiating out of the metropolitan area were extended further inwards. For example, Princes Hwy West's (route GL6) classification was extended east to Ballarat Rd, Ballarat Rd's (route BT2) east to Maribyrnong River, Burwood Hwy's (route CT3) west to Warrigal Rd, and Dandenong Rd's (route DN3&4) west to Waverley Rd.

From a technical viewpoint, it has been remarked that - up to 1960 - planning was largely by intuition, whereas the 1960s introduced a period of planning by using the computer to help model the transport system. The assumed ability of the models to predict system-wide effects led to the plans of the 1960s being grand plans producing long-term strategies. In retrospect, this assumption was grossly incorrect. Furthermore, the plans aimed for service standards well in excess of those currently being provided. In these contexts, in 1962 the MMBW recommended that a new plan be prepared for Melbourne.

(c) Coordinating committees

Following an enabling Act of Parliament, a Metropolitan Transportation Committee (MTC) was appointed in 1963 to advise on Melbourne's transport. The Committee was under the chairmanship of the Minister for Transport. Its eight representative members reflected the distribution of responsibility noted above and to avoid the problems this could bring, the Committee decided, inter alia, to commission a Study Team to conduct a Metropolitan Transportation Study (MTS) and produce a transport plan. The CRB's modest role in the process had been influenced by the fact that the failure of Kings Bridge in 1962 (see discussion of route SK4) had significantly dented the Government's confidence in the CRB.

While the MTC Study Team was at work, a State Planning Council was established to co-ordinate planning and works. In 1965 both the CRB and MMBW received the first of a series of grants for "Special Road Projects" in the metropolitan area. The grants were given under the Roads (Special Projects) Act of 1965, which obtained its funds from increased motor registration fees. The CRB also embarked on a well-regarded program duplicating major arterial roads such as Maroondah Hwy (route HV1), Dandenong Rd (route DN3&4) and Western Hwy (route BT2). These moves further strengthened the CRB's growing role in a city that now had two independent road authorities.

In 1967 an MMBW report¹⁷⁴ and two MTC reports recommended that Melbourne's urban form be a series of growth corridors radiating out from the urban area.¹⁷⁵ A Metropolitan Planning Scheme was gazetted in 1968 (with new versions in 1971 and 1980). The MTC reported on the MTS in 1969 via its Transportation Plan. The Plan used 1985 as its horizon year and recommended an ultimate 510 km of urban freeway, although it also foresaw the staged development of the network. The Government accepted the Plan in principle, although there was growing scepticism that it could ever be afforded. In hindsight, it was based on optimistic assumptions (e. g. a Melbourne population in 1985 of 3.6 million, whereas the actual population was to be 2.7 million).

In 1969 the Commonwealth Government, fortuitously for the Plan, began making specific grants for the construction of urban arterial roads under the 1969 Commonwealth Aid to Roads (CAR) Act. The Commonwealth action resulted from the recommendations of the new Commonwealth Bureau of Roads (CBR), created by Prime Minister Robert Menzies in 1964 (although it did not become active until 1967). The CBR initially promoted increased expenditure on urban road and this policy came into effect through the 1969 CAR Act.

Over the years 1969 to 1973 urban roads accounted for about 37 % of the State's road expenditure. Delaney, ¹⁷⁶ who had been Director of the MTS from 1966 to 1967 and then on the staff of the CBR, believes that it was this Commonwealth pressure that forced the State to release the 1969 Transportation Plan, six years after the MTC began work.

The Country Roads Act in 1969 allowed the CRB to drop the "bypass" pretence and begin calling its new roads "freeways". From its inception, the CRB had been the responsibility of the Minister of Public Works; in 1970 control passed to the Minister for Local Government, who also controlled the MMBW, and in 1972 the CRB became the domain of the Minister of Transport. A series of interdepartmental committees, such as the Joint Road Planning Group, were created to try to manage the divided responsibilities inherent in the then current administrative situation. The Group had begun in 1971 as the Joint Road Planning and Co-ordination Committee.

The MMBW released ¹⁷⁷ its planning policy and planning schemes in 1971 for government approval. The resulting 1971 edition of the Metropolitan Planning Scheme in particular assumed relatively high growth and attempted to incorporate the earlier "growth corridor" concept into the planning process. A 1979/80 amendment to the Planning Scheme introduced the idea of 14 preferred activity centres within the metropolitan area. Both the corridors and the centres had potentially major implications for the road system, but these implications rarely became a reality. One of the major impediments to implementation was that the Plan merely foreshadowed the need to reserve the necessary land – with great optimism it was assumed that the actual reservation of land would occur via existing planning processes.

(d) The Hamer inheritance

Sub-chapter 6.1 traces the strong community and government reaction to freeway proposals arising from the 1969 plan and culminating in Premier Hamer's public abandonment of many routes in 1973, 1976 and 1977, on social and environmental grounds. By 1973 the new federal Labor government began working to diminish urban road funding and the CBR was calling for federal involvement in urban road planning (mainly as a reaction to discontent with new freeway plans, see Sub-chapter 6.1). Perhaps as a result of all this - but largely in line with overseas trends - public participation became an essential part of all future planning studies. It is dangerous to localise the cause, as the same trend was occurring around the western world. 179

In 1972 the Bland Report on the Victorian Land Transport System recommended that all metropolitan road responsibility be moved from the MMBW to the CRB and the Councils. In 1974 the State Government passed an Act¹⁸⁰ that put the recommendation into law. There were many reasons for the move. The CRB was held in good regard by the government and was responsive to its Minister. On the other hand, the MMBW valued its independence and was perhaps more responsive to municipalities than to its Minister. From a roads viewpoint, the discussion in Chapter 6 will suggest that its approach to freeway design had proved timid and relatively unproductive.

In its 1974-75 Annual Report (p3) the CRB listed 14 projects in its "plan of its intentions for future major road projects in the Melbourne Metropolitan area." In 1976 it published¹⁸¹ a plan of Melbourne's future road needs, which added to the "intentions list". In 1978 the government released its "Transport Plan 1978 for Victoria" which included a quite modest 5 year plan and noted that it was a "draft for community discussion" and not "a longer term blueprint." In 1981 the CRB published¹⁸² "Melbourne's road needs". It listed six future projects – all have since been built except for a bypass of Lilydale.

In broader terms, the 1970s brought about a realisation that open-ended growth was unsustainable, that inner urban land had valuable community purposes beyond transport, that inner urban communities need not be slums, and that creeks could be more than rubbish dumps and sites for public utilities.¹⁸³

Road development since 1974 has been an incremental process, with each increment arising without a strong public context, but rather from the internal workings of the various transport ministries and their road authority (CRB

to 1983, Road Construction Authority (RCA) from 1983 to 1989, Roads Corporation or VicRoads from 1989 to 2019 and now part of the Victorian Transport Department. There were also bodies such as the Traffic Commission established in 1956, quickly followed by traffic engineering departments in the Melbourne City Council and the CRB. A Road Traffic Authority was created in 1983. Each of these groups had some responsibility for road operations. ¹⁸⁴ In particular, the 1980-81 CRB Annual Report on p15 noted that its strategy for Melbourne roads included:

* seeking adequate road reservations in the Melbourne Metropolitan Planning Scheme, and

* complying with Government road development strategies.

As a consequence of these various influences and inputs, the freeway system initially developed as a scattering of unconnected and discontinuous road lengths. Fortunately, the plans that had survived would later allow many of these lengths to be connected.

In 1983 the urban planning powers of the MMBW were transferred to the Ministry of Planning and Environment. In 1989, the Department took over from the Ministry. 1983 also saw the commencement of the METRAS (Metropolitan Arterial Road Access Study) project intended to produce strategy options for roads for the next 10 years, with an emphasis on improvements to existing arterial roads.

The Government in 1987 released a new planning policy for metropolitan Melbourne called "Shaping Melbourne's future". It implied no major changes to existing road planning¹⁸⁵, other than an emphasis on outer ring routes. The road component of that plan was contained in METRAS and a Metropolitan National Roads Study. The work gave emphasis to the task of providing Melbourne with a continuous and coherent system of major roads.

In 1994 the Minister for Roads and Ports issued "Linking Melbourne", which was a road network strategy. Central to the Plan was an outer ring road around Melbourne based on the Western Ring Road from Werribee to Greensborough (Sub-chapter 6.4), and the Scoresby Corridor. A gap still existed in the Eltham area (see Sub-chapter 6.10). This was followed by "Transporting Melbourne", a strategy document issued in 1996. It identified a number of transport corridors to be given priority for integrated transport and land-use development. Planning in the 21st century is a story for others to tell.

Sub-chapter 6.1 pursues the freeway aspects of these various Plans in some detail. In focusing on the big picture, by and large, the various Plans listed above did little for public transport and for the development of Melbourne's non-freeway road system.

3.6 Radial routes

Melbourne's first road plans were Russell's map of 1837 (Map 1.1) and the various editions of Hoddle's map of 1837 (e. g. Map 1.2). Map 1.1 shows the planned inner road grid (Sub-chapter 1.2) and two existing tracks to "the Saltwater² River and Geelong" and to "the Beach" at Port Melbourne. Hoddle's maps cover the lands around the inner grid and show two "proposed" roads, leading from inner Melbourne, one towards Toorak Rd (route CT6) and the other towards Heidelberg Rd (route PL6). In an inauspicious beginning to Melbourne's metropolitan planning, neither of Hoddle's early proposals resulted in road reservations, let alone constructed roads.

As mentioned in Sub-chapter 3.2, in 1841 La Trobe was stung into planning for the provision of functioning routes in and out of the small township. The routes that he chose are shown Map 3.4 and are listed in column 2 of Table 3.1 below. As the later text will reveal, they were a mixture of the stock routes discussed in Sub-chapter 3.1 and aftermaths of the early sub-divisions (e.g. Hume Hwy - route KS7, High St north - route PL4, and Plenty Rd - route PL5), seeking fertile land, fresh water, links to other settlements, or a way to the hinterlands. Recall from Sub-chapter 3.3 that the Miller Select Committee in 1852 was also to recommend special attention to five key radial routes out of Melbourne. These are shown as m1 etc in column 2. These five routes are the same as those that arose as priority routes in discussions between La Trobe and Hoddle in 1848. The effect of the first decade of sectioning and subdivision discussed in sub-Chapters 2.1&2 is shown in Map 3.7. The absence of any roads in the south-eastern segment was due to the swampy nature of much of that region.

One of the practical features of many of these radial routes dating from a period with few maps and direction signs is that many pointed directly at sighting points. Heading towards Melbourne travellers on a clear day could be guided by the smoke from the settlement's many fires. Travelling out of Melbourne many routes relied on geographic

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² Now called Maribyrnong River

features. For example, the first stage of the track to Geelong headed straight for You Yang peaks, the track to Bendigo was initially focused on Mt Macedon, to the east (Maroondah Hwy) on Mt Dandenong, and to Dandenong on the campfires of the cattle station on the Eumemmerring Creek.

Table 3.1

Planned radial routes for Melbourne.

Notes. The dated "Plans" are described above in Sub-chapters 3.2 and 3.5.

Column 1 The sequence of the named routes corresponds to the clockwise sequence in Chapter 4.

Column 2 From La Trobe's plan of 1841 (from Map 3.4) or Russell's 1837 Map 1.1 (denoted by r)

Column 3 From Ham (Map 3.6, denoted by h) and Miller's 1852 Select Committee (denoted by m)

Column 4 From Town Plan of 1929 or Sheet attached to the Plan (denoted by p)

Column 5 From Melbourne Metropolitan Planning Scheme of 1954 (denoted by s)

Column 6 From Melbourne Transportation Committee of 1969 (denoted by F)

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۱	()		/	FIGURE	Chamer 4	

		1			_
Col 2	Col 3	Col 4	Col 5	Col 6	Col 7
I I					Current route
		TP1929 (p)	MMPS (s)	MTC (F)	(c2000)
Russell (r)	Miller (m)				
		•			•
			s2		Hyde St /
					Douglas Pde
LaT					WT2, WT8
 					
	h1				GL2, GL3
LaT	h2	Sheets 1&5			WT5, GL4-6
			s1,9&10	F9	BT2, GL9
	h2, m3	p2&3	s10	arterial	GL6-8
		p4	s11		BT3, GL9
		Sheet 5			
r1	h3				BT2, BT4,
					GL9
LaT					WT1
	h4, h5	p5	s12	F12	WT5, BT2
	h5, m4				MM1, BT7
LaT					MM2, KS2
	h6	p6	s13	F4, F14	KS3, MM4
LaT	h7, m2	p7	s3&13	F14	MM2, KS2
			s14		KS2
					KS5
		p8&9			
LaT	h8, m1	p8,9&10	s15	F2	KS7
		p11			PL1
LaT	h9	1	s2, s16	F1	NS1, PL3,
					PL4
		p12	s6	F6	
		1			
LatT	h9				PL5
LaT	h10	p14	s17	arterial	PL3, PL6
	h10	p13			PL8
	h11	•	s18	F7	PL6
	Col 2 c1840 La Trobe (-) Russell (r) LaT LaT LaT LaT LaT LaT LaT La	Col 2 Col 3 C1850 Ham (h), Russell (r) Ham (h), Miller (m)	Col 2	Col 2 Cl 840 Cl 850 La Trobe (-) Russell (r) Miller (m) TP1929 (p) MMPS (s)	C1840 C1850 Ham (h), Russell (r) Ham (h), Miller (m) TP1929 (p) MMPS (s) MTC (F)

to Warrandyte	LaT					TW6, TW7,		
						TW8		
Eastern Fwy				s19	F19	TW13		
Doncaster Rd			p15&16			TW10		
to Kew	LaT					TW3		
Maroondah Hy		h12				HV1		
to the east								
Canterbury Rd			p17	s20		CT1, CT2		
Burwood Rd			p18	s21	F9	CT3		
			Sheet 10					
Monash Fwy			p19	s22	F9, F14	DN11, DN12		
Dandenong Rd	LaT		p19,21	s23		DN3&4		
from Brighton		m5	p20, 22	s26	F2	DN7		
to the eastern wat	to the eastern waterside							
inland to	LaT					DN3&4, DN9		
Western Port								
to the Peninsula			p20	s27	F2, F6	SK3, SK5		
Bayside		h13	p22	s27, s28	F2	SK5, AY4		
Bay St	r2		p1			AY3		

Map 3.7 Ham's 1849 map of "The purchased and measured lands, counties and parishes of Melbourne and Geelong." SLV LB821 BJF 1849 Ham. Produced as a commercial venture. Available at http://search.slv.vic.gov.au/permalink/f/1cl35st/SLV VOYAGER797213

Although the routes were initially predominantly in open country and through Gipps' large farming *sections*, they now form the basis of much of modern Melbourne's suburban road system. Their predominant purpose was to serve the adjoining *sections* and the adjacent regions focused on timber gathering and modest farming. In this respect, their permanence in the development of Melbourne was atypical by world standards. What was far more typical was that the intervening rectangular grid of Melbourne's street system paid scant heed to these radial, diagonalising major routes. As such, the more extreme still show out as geometric incompatibilities in the maps of present-day Melbourne. At a smaller scale, many wandering tracks which had existed before subdivision, and had even made subdivision a viable prospect, were vigorously straightened – first by the surveyor's pencil and ruler, and then by the new landowner's unforgiving and ever-straight line of fencing along his *section* boundaries. For example, some maps show Barkers Track lying up to 400 m distant from the surveyors' final line for Maroondah Hwy in Blackburn (route HV1). A further difficulty was that where these tracks had been made by walkers, horses, cattle, or bullock teams they often created an alignment that was too curved or too steep for modern wheeled traffic.

The number of radial routes had grown to 22 by 1860 and had been vastly influenced by the traffic to and from the new goldfields. In 1861, Minister Gavan Duffy optimistically boasted that the main lines of road were now completed. These have been maintained to the present day and are discussed in Chapter 4. Chapter 6 shows that the freeway era has added three more – the West Gate (route GL8), Eastern (route TW13) and Monash (routes DN10, 11 & 12) freeways. The Town Plan of 1929 proclaims: 188

The Commission has classified 22 principal radial routes in the suburban area as radial roads. The MMBW 1954 Town Plan contained 20 radial routes, all keyed into its inner-city 3ring road (Sub-chapter 6.1). The 1969 Transportation Plan had 16 radial routes. Table 3.1 collects these together, where possible using the nomenclature of the particular Plan. The last column allows a comparison with the route identifiers used in this book.

Planning up to 1850 was clearly based on the premise that Melbourne would primarily be the port-based centre of a modest farming region. As noted in Sub-Chapter 3.3, from 1850 to at least the end of the First World War government funding for local transport was almost totally devoted to the construction and operation of the new railway system. Roads and bridges were in an increasingly parlous state and only local streets were kept relatively passable. The situation was further exacerbated by the rapid up-take of motorized cars and trucks following the end of the War. Many communities around the world found themselves in similar situation. The resulting problems and their consequences were increasingly obvious and in Melbourne led to the creation of the Metropolitan Town Planning Commission in 1922 (sub-Chapter 3.5b) and Country Roads Board in 1923 (sub-Chapter 3.5c). Their planning work and that of subsequent agencies has been discussed above. Chapters 4 to 6 below will discuss the specific roads and

streets that now exist in Melbourne as a result of all the historical, practical, commercial, social and engineering factors described in these first three chapters.

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Notes for Chapter 3
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- ¹ Lay 1984, p1; Lay 1992, p5-6
- ² See, for instance, Harcourt 2001, Chapter 21, and Bonwick 1856, pp74-5
- ³ Lack 1991, p11
- ⁴ Bonwick 1858, p73
- ⁵ Symonds 1985, p27
- ⁶ Spreadborough & Anderson, 1983
- ⁷ Clark 1950, p255
- ⁸ Grant & Serle 1957, p19
- ⁹ Jennison 1997, p70
- ¹⁰ Blainey 1984, p26
- ¹¹ Newell 1938, Figure 21
- ¹² Blainey 1980, p2
- ¹³ Cummins 1971, p4 and Barnard, p6
- ¹⁴ Cannon & McFarlane 1988, p137
- ¹⁵ Bonwick 1858
- ¹⁶ Cooper 1935, p14
- ¹⁷ See also Thomas' map of 1840, Wells' map of 1840 and an unsourced 1843 map reproduced in Cannon 1991, p395.
- ¹⁸ La Trobe 1850
- ¹⁹ Peel et al 1993, p21
- ²⁰ See Thomas' map of 1840.
- ²¹ Argus, 26 Mar 1862, p5
- ²² See Wells' map of 1840.
- ²³ Cooper 1935, p14
- See Thomas' map of 1840.
 Brennan 1973, pp2-4
- ²⁶ Hibbins 1984, p2
- ²⁷ Keogh 1975, p4
- ²⁸ Priestley 1979, p5
- ²⁹ Harding 1993, p4 & Thomas 1994, p4
- ³⁰ See Nutt's map of 1840.
- ³¹ Brennan 1972, p7
- ³² Forster 1968, p1&7
- ³³ Garden 1972, p7
- ³⁴ Burchell 1999, p6
- 35 Crofs 1839
- ³⁶ Annear 1995, p282
- ³⁷ Alsop 1984, p8
- ³⁸ Argus, 1 April 1854, p4
- ³⁹ Lemon 1983, p7
- 40 loc cit, p35
- 41 loc cit, p7
- ⁴² Garden 1972, p57
- ⁴³ loc cit, p58
- 44 Barrett 1979, p36, disputes this "first" claim.
- 45 loc cit, p37
- ⁴⁶ Port Phillip Herald, 26 October 1841.
- ⁴⁷ Greig 1922, p171
- ⁴⁸ La Trobe 1850
- ⁴⁹ Davison & May, p173
- ⁵⁰ loc cit, p176
- ⁵¹ Cannon 1991, p380
- ⁵² Barrett 1979, p85
- ⁵³ Cannon 1993, p18

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<sup>54</sup> Rogers, p65
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- ⁵⁶ Darwin 1950, pp8-10
- ⁵⁷ Coanes 1908, p166
- ⁵⁸ Barnes 1987, p14
- ⁵⁹ Coanes 1908, p166
- ⁶⁰ Chappel 1966, p23
- ⁶¹ An Act for making and improving roads in the Colony of Victoria. 16 Victoria 40, Assented 8 Feb 1853.
- 62 Argus, 24 Jan 1857, p6
- ⁶³ Cannon 1993, p251
- 64 Chappel 1966, p38
- 65 Colville 2004, p263
- 66 e.g. Murray & Wells 1980
- ⁶⁷ Lack 1978, p47
- ⁶⁸ Payne 1975, Rogers 1973, p65
- ⁶⁹ In Anderson 1910, p109.
- ⁷⁰ The author first saw it used in Perry 1975, p447.
- ⁷¹ Muntz, p27
- ⁷² Donovan 1991, p5. South Australia had become a Colony in 1834.
- ⁷³ Lay, 2018, Chapter 17a
- ⁷⁴ Greig 1922, p236
- ⁷⁵ Lay 1992, Chapter 4 (p112-7)
- ⁷⁶ Barrett 1979, p86
- ⁷⁷ Lay 1992, Chapter 3
- ⁷⁸ Lay 1984, p5
- ⁷⁹ Port Phillip Herald, 29 November 1844.
- 80 Alsop, 1985a & b, p9 & p6
- 81 Barrett 1979, p85-7
- 82 Argus, !3 Dec 1854, p5
- 83 Dunstan, p156
- 84 Jenks, p169-71
- 85 loc cit, p92
- 86 Blainey 1980, p15
- 87 Argus, 1 April 1854, p4
- 88 Lack 1991, p55
- ⁸⁹ Argus, 20 to 24 Jan 1857, p6
- 90 Borchardt
- ⁹¹ Serle 1963, p143
- ⁹² VGG, p1459
- ⁹³ Alsop 1896b, p7
- 94 Jenks 1891, p286
- ⁹⁵ Argus, 5 July 1861, p5, which is based on Brooke 1861.
- ⁹⁶ Anderson 1994, p21
- ⁹⁷ Barrett 1979, p298
- 98 VGG, 1878, 8 Oct
- ⁹⁹ La Trobe 1850
- ¹⁰⁰ Lay 1992, p180-3
- ¹⁰¹ Record 1941
- ¹⁰² Lay 1984, p28
- ¹⁰³ Birch and Mc Millan 1962
- 104 Argus, 6 July 1912, p8
- ¹⁰⁵ Argus, 11 April 1863, p5. See the list of Boundary Rds in the Index.
- ¹⁰⁶ Lay 1984
- ¹⁰⁷ Barrett 1979, p91
- 108 Curr 1980
- ¹⁰⁹ Age, 21 Sept 1895, p7; Victorian Year Book 1894, p546
- ¹¹⁰ Lay 1992, p104+.
- ¹¹¹ Turnpikes 1951, p107 & Lay 1984, p6

⁵⁵ Hoddle's evidence in Select Committee on Roads and Bridges, p2, Victoria 1853.

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<sup>113</sup> 16 Vic 40
114 19 Vic 16
<sup>115</sup> Argus, 21-12-1858, supp
<sup>116</sup> Cooper 1935
<sup>117</sup> loc cit, p75
<sup>118</sup> loc cit, p154
<sup>119</sup> Alsop 1985b, p6
<sup>120</sup> loc cit, p235
<sup>121</sup> Alsop 1986b, p7
122 VGG 1864, e.g. p178, 208, 873, 895
123 Curr 1980
<sup>124</sup> Cooper 1935, pp71-77
<sup>125</sup> Barrett 1971, p51
<sup>126</sup> Cooper 1935, p80
<sup>127</sup> Age, 21 Jan 1878, p2
<sup>128</sup> Payne 1975, p24
129 Linge 1979
<sup>130</sup> Priestley 1983, p28
131 CRB 1963, p14
<sup>132</sup> Anderson 1994, p48-9
<sup>133</sup> Priestley 1983, p28
<sup>134</sup> The story of the CRB is well told in Anderson 1994. See also Guerin, p1 and Torrens, p1.
135 See Chapter 6 of Lay 1992.
<sup>136</sup> Victorian Parliamentary Debates, Vol 131, p1725-
137 The Country Roads Act of 1912, Act no. 2415.
<sup>138</sup> Anderson 1994, p50
139 Victorian Parliamentary Debates, Vol 131, p1729
<sup>140</sup> loc cit, p2026
<sup>141</sup> Anderson 1994, p61
<sup>142</sup> CRB 1963, p20 & Calder 1924.
<sup>143</sup> Act 3379, The Highways and Vehicles Act.
<sup>144</sup> Data from Torrens.
145 Guerin, p2
<sup>146</sup> CRB AR1934-5, p24
<sup>147</sup> CRB 1963, p38
<sup>148</sup> CRB AR1956-7, p12
149 Torrens, p43
<sup>150</sup> Dempster 1947, p14
<sup>151</sup> Dempster 1947, p14
<sup>152</sup> Joe Delaney, recalls that another major benefit of Dempster's trip was that he then introduced the concept of
  transition curves to Australian road alignment design.
153 Private communication, 9/2000
154 Darwin, p14
155 CRB AR 1950-1, p33
156 Private communication, 4/2000
<sup>157</sup> N. S. Guerin, private communication, 3 Feb 2001.
<sup>158</sup> Act 5791. The country roads and level crossings funds Act.
159 Act 5834
160 Davison 1992, p178-192
<sup>161</sup> Lay 2009, Section 31.3.1
<sup>162</sup> Blainey 1984, p187
<sup>163</sup> Dingle and Rasmussen 1991
<sup>164</sup> Dingle & Rasmussen 1991, p241
<sup>165</sup> Sandercock 1977
<sup>166</sup> MMBW 1953, p89
<sup>167</sup> Dingle & Rasmussen 1991, p243
168 Country Roads Act 1956, Act 5978
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¹¹² Lewis 1995, p32-3 & route SK2

- ¹⁶⁹ CRB 1963, p13
- ¹⁷⁰ Delaney 1977, p2
- ¹⁷¹ Ogden 1985, p3
- ¹⁷² Lay 2005
- ¹⁷³ Delaney 1977, p7
- ¹⁷⁴ MMBW 1967
- ¹⁷⁵ Young 1991, p153
- ¹⁷⁶ J. Delaney, private communication, 6 Sep 2001
- ¹⁷⁷ MMBW 1971
- ¹⁷⁸ Commonwealth 1973b, p47-72
- ¹⁷⁹ Lay 1992, p319
- ¹⁸⁰ Metropolitan Bridges Highways and Foreshores Act
- ¹⁸¹ Melbourne's road needs. CRB News, 34:9-11, Dec 1976
- ¹⁸² CRB News, 45, Feb 1981, p6-7
- 183 Delaney 1977, p2 184 Anderson 1994, p147 185 Young 1991, p153 186 See Scurfield 1995

- Argus, 26 Dec 1861, p6
 Metropolitan TPC 1929, p62