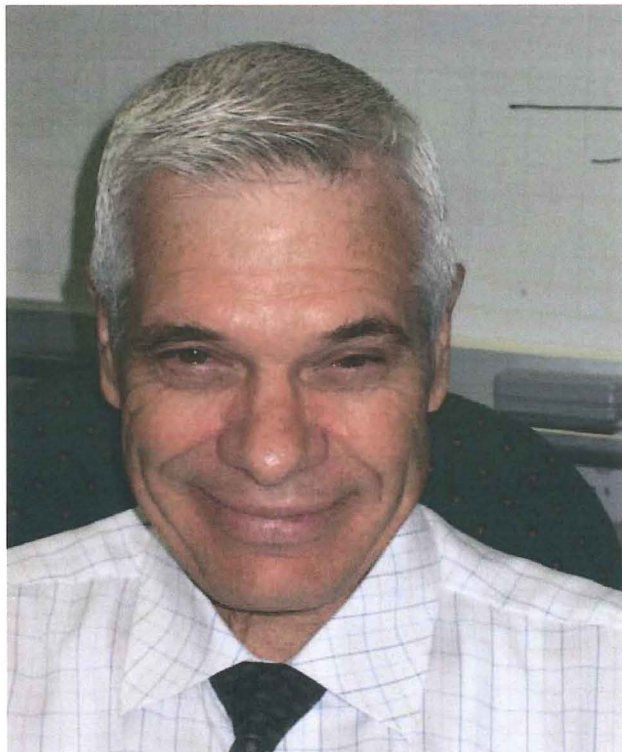


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## PART 2 - HISTORY OF BRISBANE'S MAJOR ARTERIAL ROADS – A MAIN ROADS PERSPECTIVE



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### Abstract

In 1964 Main Roads and Brisbane City Council jointly commissioned an American consulting engineering firm, Wilbur Smith and Associates, to undertake a transport planning study for Brisbane. The Wilbur Smith "Brisbane Transportation Study" was published in 1965 and made recommendations covering sixteen years to 1981.

The Gateway Bridge, Logan Motorway, Route 20, Hale Street and the Inner City Bypass are some of the projects explored in this article.

### Introduction

Part 1 of this article appeared in the March 2009 edition of Queensland Roads. Part 2 follows on from where the previous article left off. However, before proceeding, major events from the previous article will be quickly revisited.

Main Roads Commissioner Charles Barton made a trip to the USA in 1960 where he found that the state road authorities were getting involved in the road issues within cities. Prior to this Main Roads had generally only concerned itself with rural roads. When Charles Barton returned to Brisbane, he teamed up with Mr Clem Jones, Lord Mayor of Brisbane. Together they initiated a traffic study for Brisbane. An American consulting engineering firm, Wilbur Smith and Associates, was commissioned to undertake the study, which was completed in 1965. The state government and the Brisbane City Council (BCC) were both fully committed to implementing the plan that they jointly commissioned.

The Wilbur Smith plan proposed a "ring-radial" freeway system for Brisbane. Implementing the recommended changes was a major task as it involved significant land acquisitions and a large amount of freeway planning and design.

One of the more significant achievements was the completion of the South-East Freeway/Captain Cook Bridge/Riverside Expressway. The Wilbur Smith Plan had a proposed implementation period of sixteen years. However most of that time had been taken up building the South-East Freeway and the Riverside Expressway.

In December 1972, the Whitlam Labor Government was elected. It had a policy that was anti-urban freeways. However Federal funding was committed until June 1974. Nevertheless due to the impending withdrawal of Federal funding, it was clear that Brisbane's first freeway boom was over.

Whereas works on other elements of Wilbur Smith's ring-radial road plan had ceased, some other important road projects had been undertaken in the latter half of the 1970's. The Houghton Highway across Bramble Bay was built and major improvements were made to the Bruce Highway leading out of Brisbane to the north.

<sup>1</sup>This article documents the personal recollections of Mr Allan Krosch who worked as a Main Roads planning and design engineer during Brisbane's first freeway era.

In 1981 a check was made on how well Wilbur Smith had predicted population growth in greater Brisbane. Wilbur Smith's predictions were very accurate in regard to the total population, but failed to predict the extent of its geographic spread. The urbanisation had expanded over the boundaries of Brisbane out into the surrounding local authorities.

## **Continuation — Part 2 The Story of Gateway**

Circa 1977, the Honourable Russ Hinze, Minister for Main Roads, undertook a trip to Hong Kong where he saw a new road tunnel under Hong Kong harbour. He returned with a commitment to see a tunnel built under the Brisbane River in the Pinkenba area.

The Wilbur Smith plan had included a North-South Freeway skirting the city on its eastern side. At Pinkenba, a vehicular toll ferry named the Sir James Holt Ferry conveyed vehicles across the Brisbane River. At that time 4000 vehicles per day were using this ferry service.

To determine the traffic forecasts for the new bridge, the engineering company Rankine and Hill were engaged. They in turn engaged Dr Trevor Grigg from University of Queensland to assist with the design of origin-destination surveys and the analysis of the results. The findings were that a bridge, on opening, would carry 25,000 vpd if not tolled, or 12,500 vpd if tolled. The Minister for Main Roads was not deterred by this projected low usage in the early years. He directed that work proceed on the project.

In 1978, Main Roads called tenders for a tunnel or bridge with associated approaches, across the Brisbane River, between the suburbs of Eagle Farm in the north and Queensport in the south. In June 1980, negotiations were finalised and the contract was awarded to Transfield (Qld) Pty Ltd.

Also in June 1980, The Gateway Bridge Company was established to oversee construction of the bridge and, following construction, to maintain the bridge and collect tolls. The Gateway Bridge Company was a "corporations law" company owned by the Commissioner of Main Roads. [As the responsibilities of The Gateway Bridge Company expanded in later years it was renamed Queensland Motorways Limited (QML)].

The Gateway Bridge was officially opened on 11 January 1986 with the final cost for the construction of the bridge, the approach roads, toll plaza, toll system and land resumptions being \$140 million (2). Initially the approach roads extended only to Lytton Road in the south and to Kingsford Smith Drive in the north. The traffic volume in the first year of operation was 12,600 vpd!

The corridor for the southern approach road had been preserved over many years at low cost. Highway Planning Branch of Main Roads had studied each new subdivision proposal that impacted this future corridor and kept adjusting the corridor route for as long as possible so that the corridor option was preserved without the need to actually acquire land.

On the northern side there had been less effort expended in preserving the corridor. The alignment of the Gateway Arterial skirted along the Brisbane Airport site and adjacent to the Doomben race track (Figure 1). It then ran along the edge of the flood plain of Schulz Canal.

Minister Russ Hinze secured further funding for a two lane link from the Pacific Highway in the south to the Bruce Highway in the north. This link was constructed by the end of 1986. Work continued in stages over the next ten years to achieve a duplicated roadway over the whole length of the link to motorway standards.



**Figure 1. Northern approaches to Gateway Bridge skirting around Brisbane Airport**

## Recap on Wilbur Smith implementation

When the Gateway Bridge was opened in 1986, more than 20 years had elapsed since the Wilbur Smith Plan was released.

Most of the freeway-building effort had been from the Brisbane City Centre out down the south-east corridor and later out to the east of the City. There had been some effort in the south-west with the Western Freeway south from Toowong.

There had not been any efforts across the south of the city. In the north-west quadrant, there had been nothing at all.

In 1984, Main Roads had recognised the need to update its policy and objectives for a major road system in Brisbane and released a report entitled "Brisbane's Major Road System". Figure 2 shows a plan of Brisbane's future major road system. Note that the plan indicates the need for road improvements across the south of the city and in the north-west.

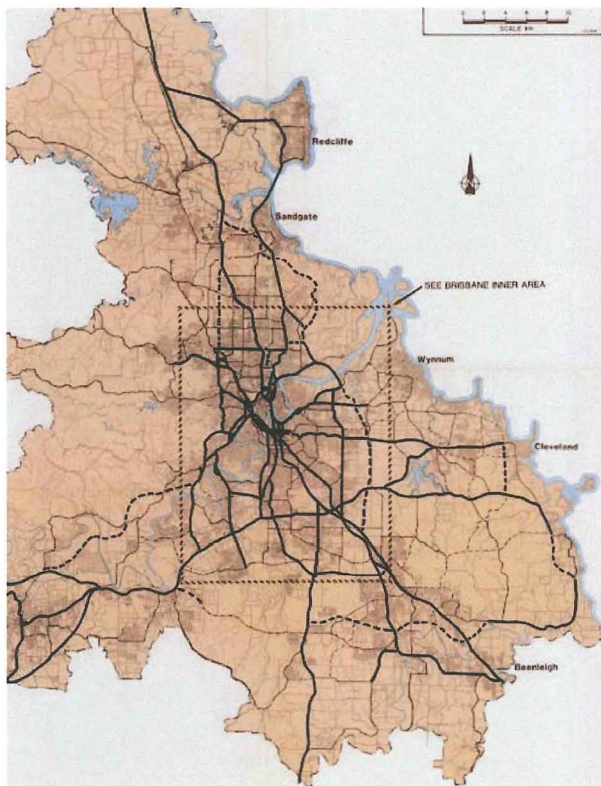


Figure 2. 1984 plan of Brisbane's major road system

## The Logan Motorway

A need was recognised to provide a motorway-class road across the south of the city. A new link, similar to the Logan Motorway route, was shown in the 1984 policy document mentioned above. A corridor had been preserved over many years by dedicated Main Roads staff. When the Logan Motorway was constructed, it needed much of that reserved corridor, though it departed from it at the eastern end.

The Logan Motorway Company was established to build and operate the Logan toll road. The Logan Motorway Company later became absorbed into QML.

Main Roads undertook the traffic modelling to produce the traffic forecasts for the Logan toll road. The modelling showed a usage, with tolls, of only about 6000 vpd at opening. Nevertheless, the toll road project went ahead and was opened to traffic in 1988.

Nearly a decade later, the Gateway Motorway was extended south from its interchange with the Pacific Highway and was connected to the Logan Motorway.

## The Route 20 story and the first Airport Motorway proposal

The Western Freeway was built to a two lane standard from Toowong to Moggill Road at Indooroopilly in the late 1970's. It was upgraded to a four lane standard by the end of 1987.

It became obvious that there was inadequate capacity in the roads that ran east and north from the Toowong roundabout. The idea of continuing the Western Freeway east of Toowong roundabout had been dropped — Milton Road and Coronation Drive would have to cope. Attention was focused on improving the capacity of the route that ran north to Everton Park. This route would start at Frederick Street and continue to South Pine Road and thereby provide a circumferential route on the western side of the city.

The notion of a circular route known as Route 20 had been conceived after the Gateway Bridge had been built and the East-West Arterial had connected Sandgate Road to the Gateway Arterial at Airport Roundabout. Plotted against Wilbur Smith's original plan, Figure 3 shows the western section of Route 20 that became infamous. Main Roads commenced planning as to how Route 20 might be upgraded to increase its capacity. An urban "freeway" was not intended but certainly an urban expressway was seen as a necessary improvement.

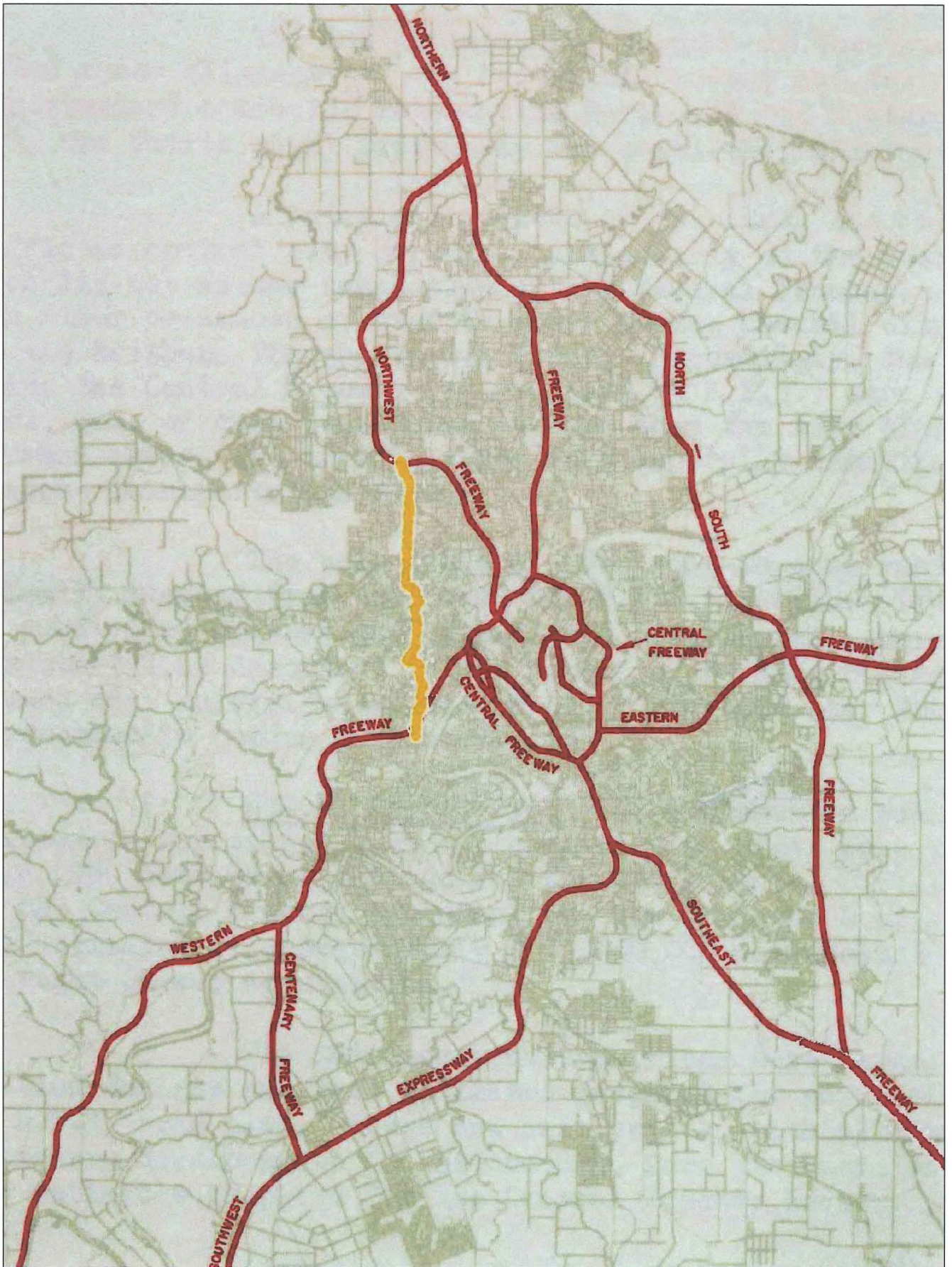


Figure 3. The western part of Route 20 (yellow) shown from Frederick Street to South Pine Road

There arose what was probably the first example in Brisbane of "participatory democracy" applied to oppose a road project. The movement called itself CART — "Citizens Against Route Twenty". The CART campaign went on for years — from about 1987 to 1990. With the election of the Goss Labor Government in late 1989, the Route 20 proposal was abandoned. CART then changed its name to "Citizens Against Road Transport".

At about the same time, another concept had been re-activated. Main Roads resurrected the idea of building an Airport Motorway — using the Northern Freeway corridor through Windsor and Albion, then cutting through Kalinga to the East-West Arterial Road near Toombul Shopping-town (Figure 4). The local community rose up against this idea and it was "axed" by the National Party government, prior to their defeat by the Goss government. It is interesting to note the resemblance between this alignment and the alignment of Airport Link, which is currently under construction.

### The Hale Street project and the Inner City Bypass

Sally-Ann Atkinson defeated Roy Harvey to become the Lord Mayor of Brisbane in mid-1985. Roy Harvey, Brian Walsh and Frank Sleeman had all been successors of Clem Jones in holding power as Labor Lord Mayor. From the time of Clem Jones, Main Roads and BCC had worked in close collaboration in implementing the "road plan for Brisbane". There was a Policy Committee involving ministers and the Lord Mayor, which met twice yearly; and a Technical Planning Committee of senior officers, which met monthly.

As incoming Lord Mayor, Sally-Ann Atkinson took an initiative by having BCC develop its own transport plan for Brisbane. This was done in consultation with the Government and with officers of Main Roads and Queensland Transport; but it initiated a "more independent" stance by BCC in the planning and provision of major roads in Brisbane.

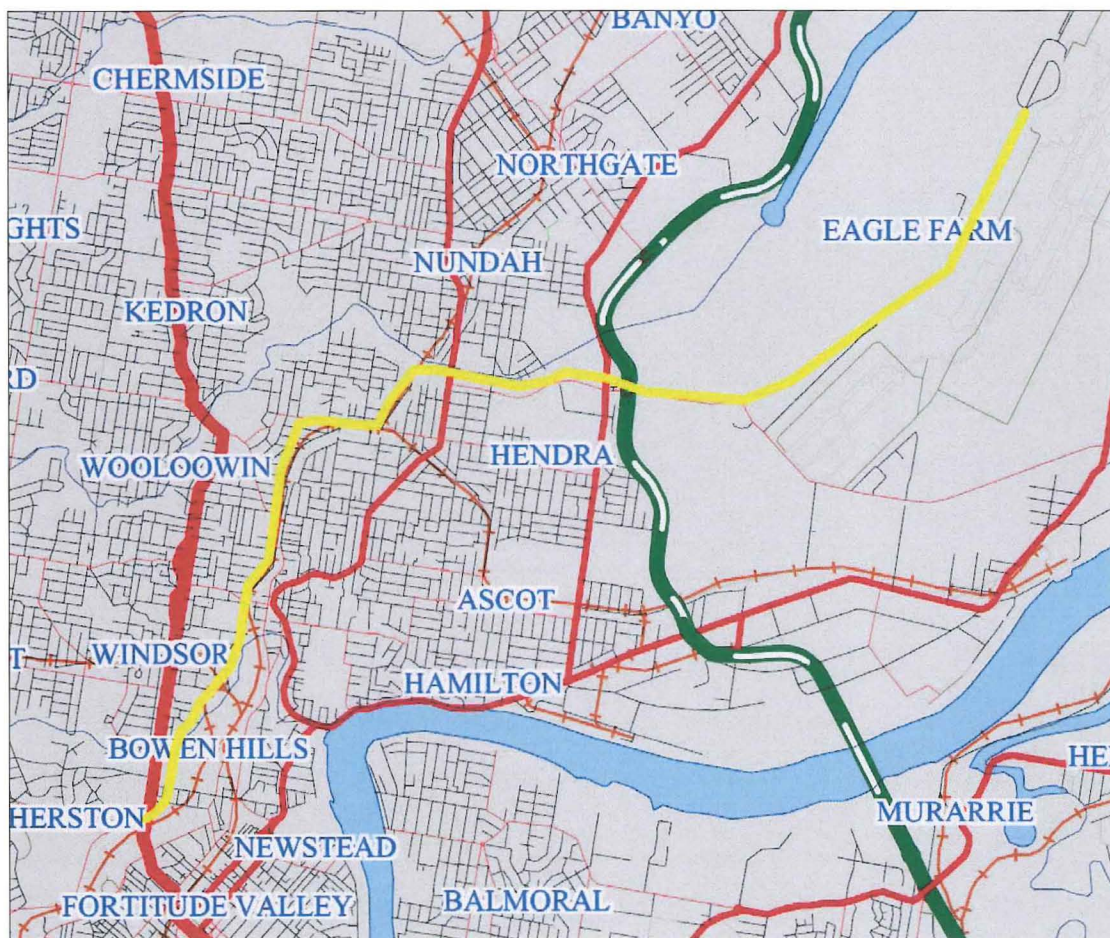


Figure 4. Proposed Airport Motorway (yellow)



Figure 5. Brisbane Traffic Study 1989 showing the ICB and a number of other concepts

BCC released its "Brisbane Traffic Study" in 1989. It had an horizon year of 1996. It is noteworthy that the plan provides for two "rings". There was an inner ring very much like the old Central Freeway, with work to commence on the Hale St project. The second ring was essentially Route 20. The plan also provided for a future Western Bypass of Brisbane.(Figure 5)

There was significant opposition to Sally-Anne Atkinson's plan to upgrade Hale Street. Nevertheless, council proceeded to upgrade Hale Street linking Coronation Drive through to Kelvin Grove Road along the eastern side of Lang Park (currently named Suncorp Stadium).

It seemed to me that there was confusion, in the minds of the general public, about the Route 20 concept and the Hale Street concept. Certainly the community opponents of each project received large amounts of media coverage. It seemed to me that in the minds of the general public, the two concepts had 'morphed' into one. The Hale Street project was still under construction when Lord Major Sally-Anne Atkinson went to a council election opposed by Jim Soorley.

Jim Soorley ran a strong anti-road campaign and he defeated Sally-Anne Atkinson, in what was regarded as a shock result. Whilst the public opposition to her Rochedale Dump proposal may have been a bigger factor, the outcry against the Hale Street project almost certainly contributed to her re-election defeat. Lord Mayor Jim Soorley started his term as an avid anti-roads man. However he ended up as the most "road-championing" Lord Mayor since Clem Jones; with that mantle now being passed on to Campbell Newman. Jim Soorley was involved in major upgrades to Coronation Drive and to Waterworks Road. The jewel in his crown was the Inner City Bypass (ICB) (Figure 5A) which ironically joined onto Hale Street – the very project that assisted him in defeating Sally-Anne Atkinson.

He also had the idea of following the ICB with a major tunnel under the river – the North-South Bypass Tunnel. However he didn't stay in office long enough to bring that idea to life! Lord Mayor Campbell Newman has brought that idea to life.

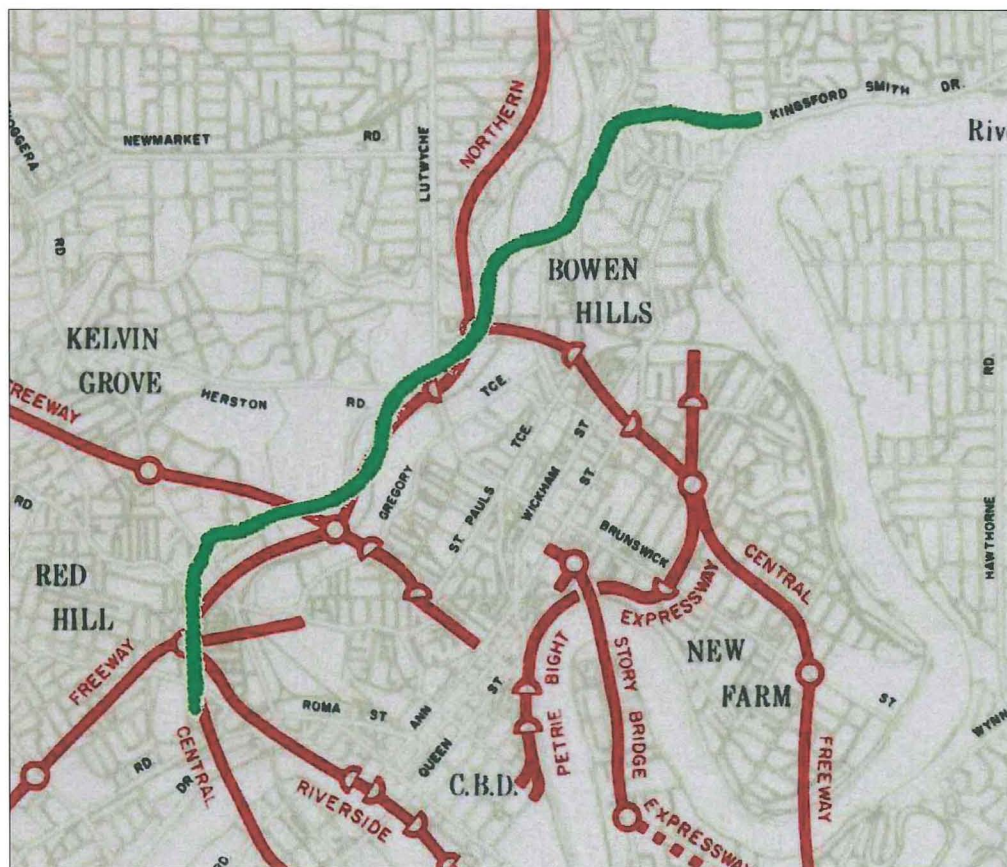


Figure 5A. Hale street and ICB projects (green line)

## The Pacific Motorway

In the Goss years, from late 1989 to early 1996, Main Roads lost its separate identity when it was subsumed within Queensland Transport. During that time, the state government did not undertake major new road initiatives in Brisbane. The Gateway Arterial was being progressively upgraded to dual carriageway standard and a series of grade-separations were carried out along Ipswich Road to create "Ipswich Motorway".

The great need that was emerging was to upgrade the capacity of the Pacific Highway, linking Brisbane and the Gold Coast – or alternatively build a parallel road corridor.

During the Goss years, a proposal was developed to build a route parallel to and east of the Pacific Highway from the Gateway Motorway to Helensvale – thereby averting or delaying the need to upgrade the Pacific Highway, which would have to be done under traffic. This proposal, which evoked considerable community opposition, became known colloquially as the "Koala Freeway" as it cut through many 'greenfield' areas involving koala habitat.

In 1996 the Goss government lost its majority at the state election with Rob Borbidge becoming premier. Whether this project proposal was the deciding factor in the election is a matter for conjecture; however the Goss government's experience with the "Koala Freeway" had a likely adverse impact on the preparedness of future governments to put "lines on maps" and to endeavour to preserve corridors for future road needs.

Rob Borbidge came to power on a platform of upgrading the Pacific Highway to an eight-lane, divided motorway. The upgrading of the Pacific Highway to the Pacific Motorway was initiated as quickly as possible and was completed in early 2000. It is my understanding that the Queensland Government's ability to finance the Pacific Motorway was related to the sale of SGIO. As Rob Borbidge's government lost office in 1998, he did not have the honour of officially opening the Pacific Motorway.

Some officers in Queensland Transport saw a further opportunity in Borbidge's promise to "eight-lane the Pacific Motorway". This was to allow two of the eight lanes to be a dedicated busway for the section from Springwood to the City — known as the South-East Transit (SET) project. This initiated a very successful busway program in Brisbane that now includes the Inner Northern Busway and the Boggo Road Busway; with the Northern Busway and Eastern Busway shortly to follow. In world terms, Brisbane is now a leading city in the provision of dedicated busways.

Partly to provide continuity of work for the road works construction industry following the completion of the Pacific Motorway, Main Roads activated the construction of the Port Motorway. Stage 1 of that motorway was completed in 2003.



**Figure 6. Intersection of the Port Motorway (left) with the Gateway Motorway**



The ICB was completed by BCC in 2002. A significant area of land that Main Roads had resumed in Bowen Hills in the early 1970's, for the Northern Freeway project had been transferred to BCC to assist with construction of the ICB. There were few other major road projects underway in Brisbane at that time.

One significant project was the upgrading of Old Northern Road, between Everton Park and South Pine Road at Albany Creek. Since work had been precluded on "Route 20", Main Roads progressively upgraded Old Northern Road between 1996 and 2006.

### **IRTP - 1997**

The Integrated Regional Transport Plan (IRTP) for South-East Queensland was published in 1997 and was intended to be a 25 year plan for the region.

Though published in 1997, I think it is fair to say that it represented a huge amount of work that had gone on in the early to mid 1990's. It also reflected the attitudes in Queensland Transport at the time as well as members of the community.

An enormous effort had been expended in gaining community input. The report stated that over 50,000 people had been involved in various aspects of this process.

This report recognised the growth pressures on the region and made claims to represent a new approach. Some of the following quotations from the report will serve to convey this new approach:

- This report has "changed the emphasis in transport planning: from moving vehicles to moving people".
- "The key aim is to moderate rather than serve to satisfy unrestrained traffic growth."
- "What is needed is a balance that limits new road capacity expansion and favours public transport and high efficiency passenger and freight vehicles."

It recognised the need to provide new road infrastructure, and stated — "It is important the current generation does not bequeath a legacy of inadequate transport

infrastructure which has somehow to be dealt with in the future."

However some of its recommendations are interesting to review just twelve years after they were made:

- "Roads that won't be needed (include) a motorway through the inner north-eastern suburbs." This is now referred to as Airport Link and is under construction.
- "Bus priority lanes (should be provided) on roads leading to and from the CBD and Fortitude Valley." (Campbell Newman later removed the bus priority lane in Ann Street through Fortitude Valley. However it is understood its reintroduction is being considered as part of a bus rapid transit project, known as the CityGlyder.)

It would be reasonable to say that the IRTP's aspirations were limited by capital funding expectations. Commonwealth funding was tight in that period, with the Howard government's focus on reducing the level of government debt and with GST not yet having been introduced.

In the early 2000's, there were virtually no major road projects underway in Brisbane.

### **A change in thinking**

It was my perception that the first people to call for a major new road investment program in Brisbane were King and Co – the Real Estate Agents. In 1998 they started to champion the need for tunnels, possibly influenced by the road tunnel construction that had occurred in both Sydney and Melbourne. The Courier Mail also started a campaign about addressing road needs in Brisbane. This campaign reached a high point in late 2003.

Campbell Newman became Lord Mayor in 2004. The centre-piece of his campaign was the "Trans-Apex" plan for a series of road tunnels in the city. The first of these, the north-south bypass tunnel (the same project devised by Lord Mayor Jim Soorley) was to extend from the South-East Freeway at Woolloongabba passing underneath the Brisbane River to Bowen Bridge Road at Bowen Hills. Campbell Newman has become the biggest roads man in Brisbane City Council since Clem Jones — perhaps even eclipsing Clem Jones. It seems most appropriate that the tunnel has been named the "Clem Jones Tunnel".

There came to be a realisation that much more work was necessary to provide the transport infrastructure for a growing city. Historians, reflecting from a later point in time, might be better able to see just what caused this change in perception.

At that time there was a minerals boom underway driven by the rise of China as an economic super-power. Population inflow to Queensland was occurring; and government resources were on the rise, partly due to the introduction of the GST and partly due to the long period of economic buoyancy starting in the early 1990's. The impact of increasing traffic on road congestion was starting to receive increased attention.

The state government hastened to get its planning in place with the South-East Queensland Infrastructure Plan and Program (SEQIPP).

A suite of new road investments was announced: the Gateway Upgrade Project (GUP); the Houghton Highway Duplication; Ipswich Motorway Upgrade; the Goodna Bypass (later abandoned in favour of further upgrading of Ipswich Motorway); Airport Link; the Eleanor Schonell transit Bridge; road and rail upgrading Darra to Springfield. BCC also commenced building Hale St Bridge and announced plans for the Northern Link Tunnel.

Currently, Brisbane is witnessing the biggest freeway building boom it has ever seen. (There is also record expenditure in South-East Queensland on infrastructure for public transport as well – both busways, heavy rail and light rail.)

### Wilbur Smith Plan re-visited — how some of the recent proposals fit in

The Wilbur Smith plan was essentially a ring-radial system, supplemented with an eastern outer circumferential (the Gateway Motorway). The Central Freeway ring was never built. The only radial that was fully built was the South-East Freeway. The outer part of the Western Freeway was built, but not the inbound section from Toowong.

The Northern Freeway, North-West Freeway and Eastern

Freeways were never built. In concept, the Clem Jones Tunnel is really the eastern half of the Central Freeway with a different topology. It starts and ends in the same locations as the Central Freeway eastern half.

The ICB continues the Central Freeway around the north-west sector of the central city and the Hale Street Bridge continues it a little further.

The Airport Link (Figure 7) is fulfilling the same function as the Northern Freeway and the later (aborted) proposal for an Airport Motorway. It is unfortunate that the corridor acquired for the Northern Freeway was never used; however the community will no doubt be happier with the tunnel solution.

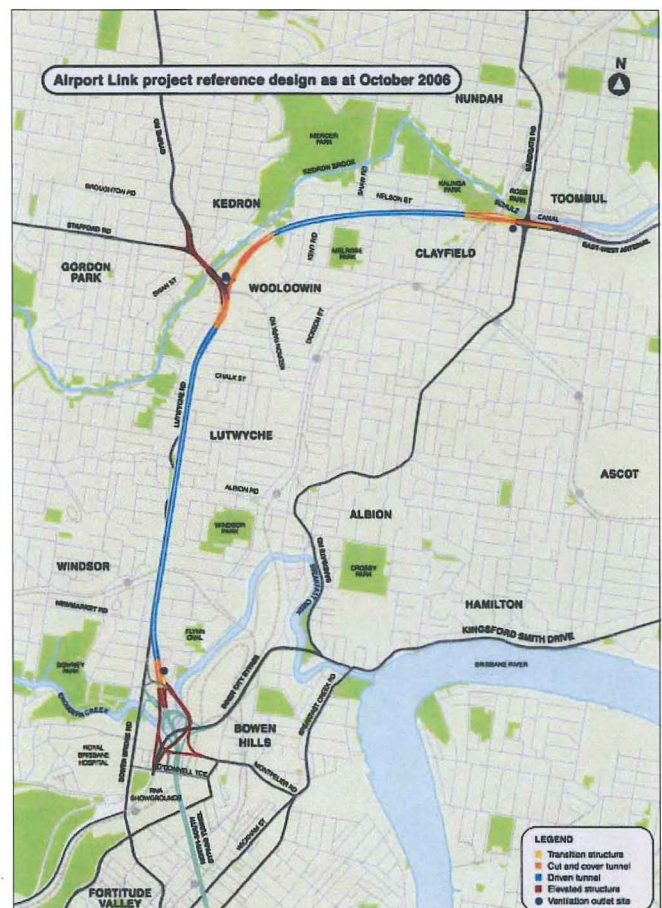


Figure 7. Airport Link

The Northern Link will complete the Western Freeway by linking the Toowong Roundabout to the ICB (Figure 8).

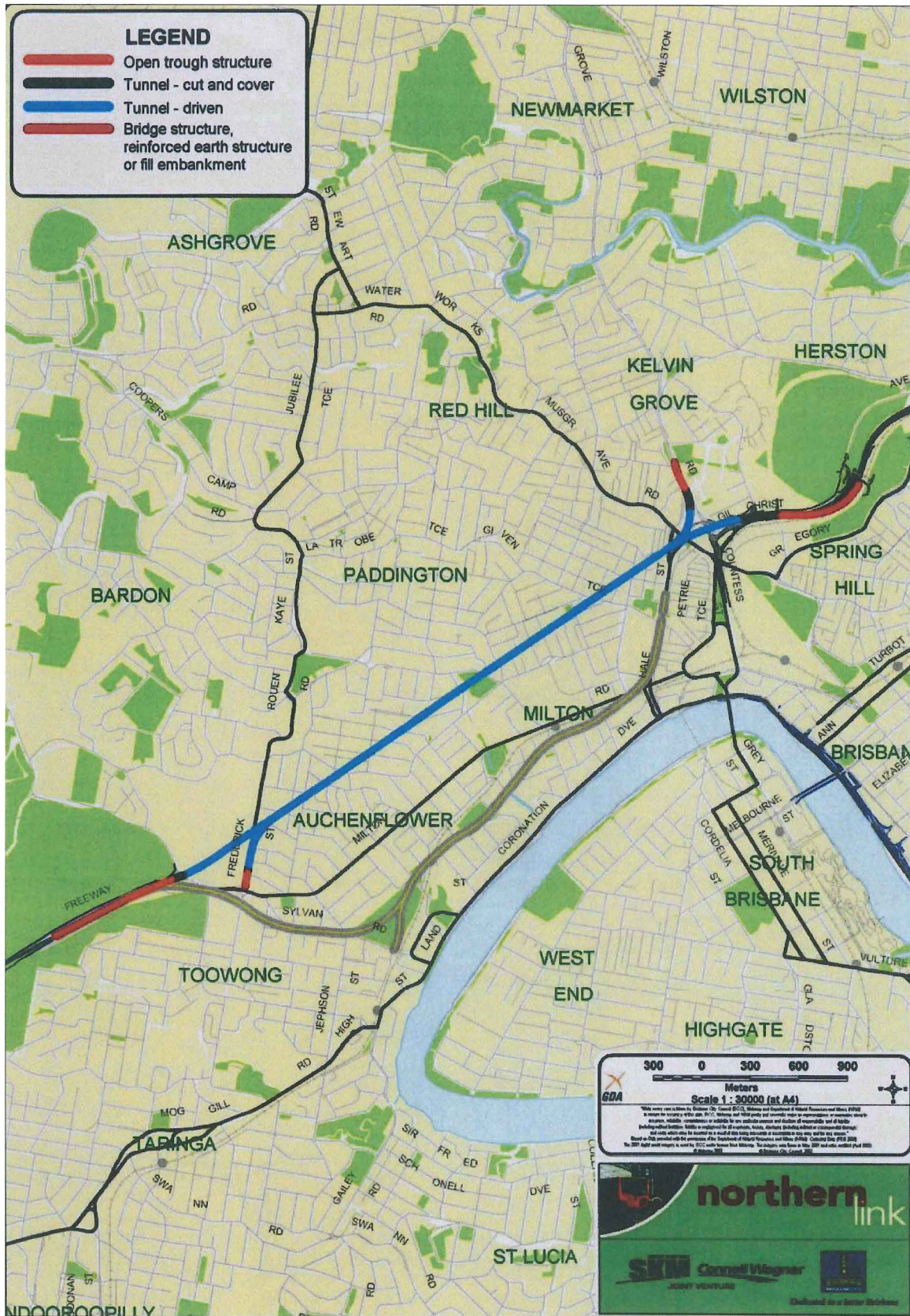


Figure 8. Northern Link

## Brisbane's new inner-northern road network

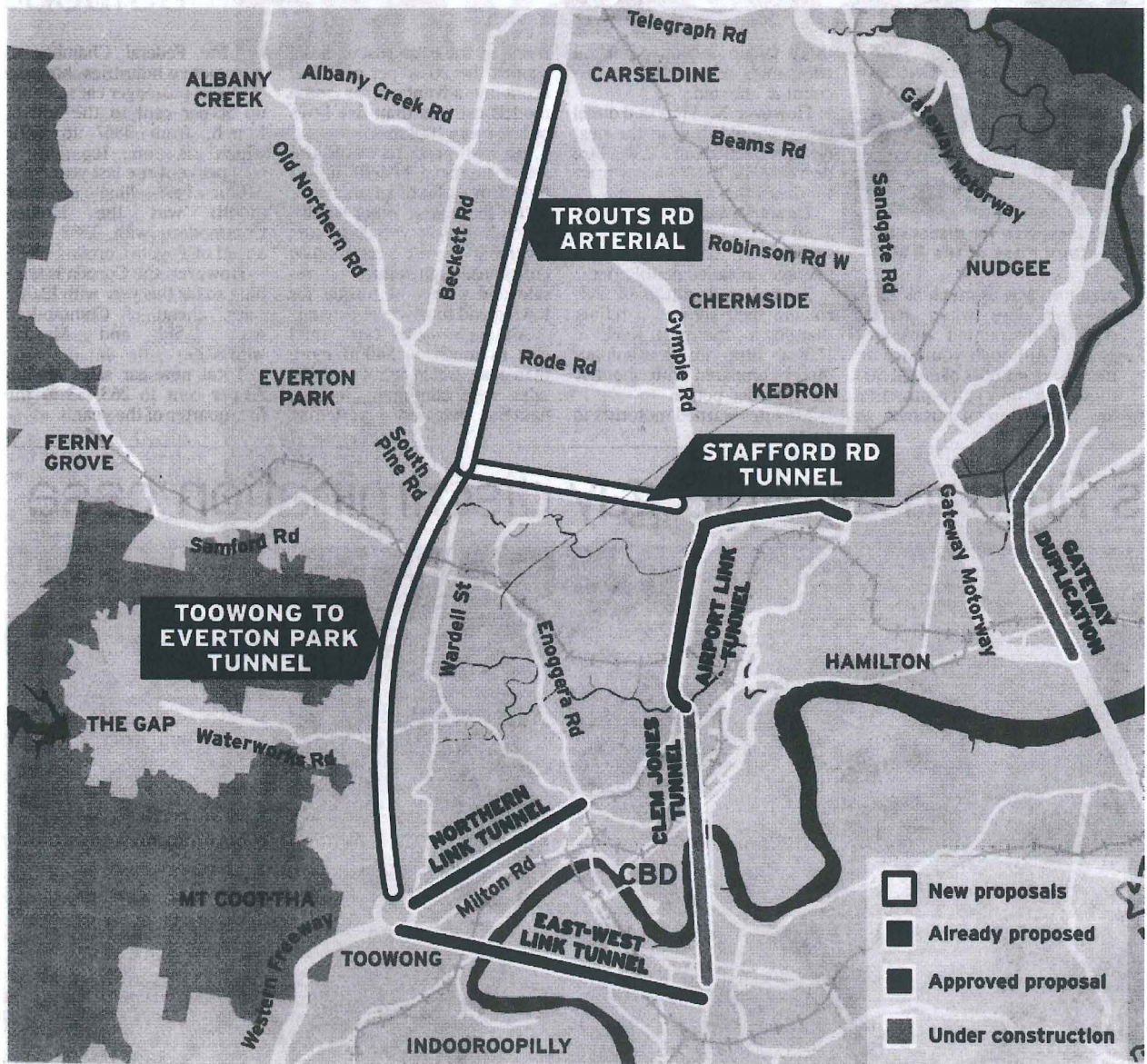


Figure 9. Route 20 in a tunnel concept

Even the Route 20 concept has re-emerged as a future possibility, but this time as a tunnel solution. (Figure 9)

### Brisbane Freeway Development at a Glance

Figure 10 tells the story of Brisbane's freeway system development in a time-line diagram. It shows the major road-building effort currently in progress, following a relatively quiescent period in the 1990's and early 2000's.

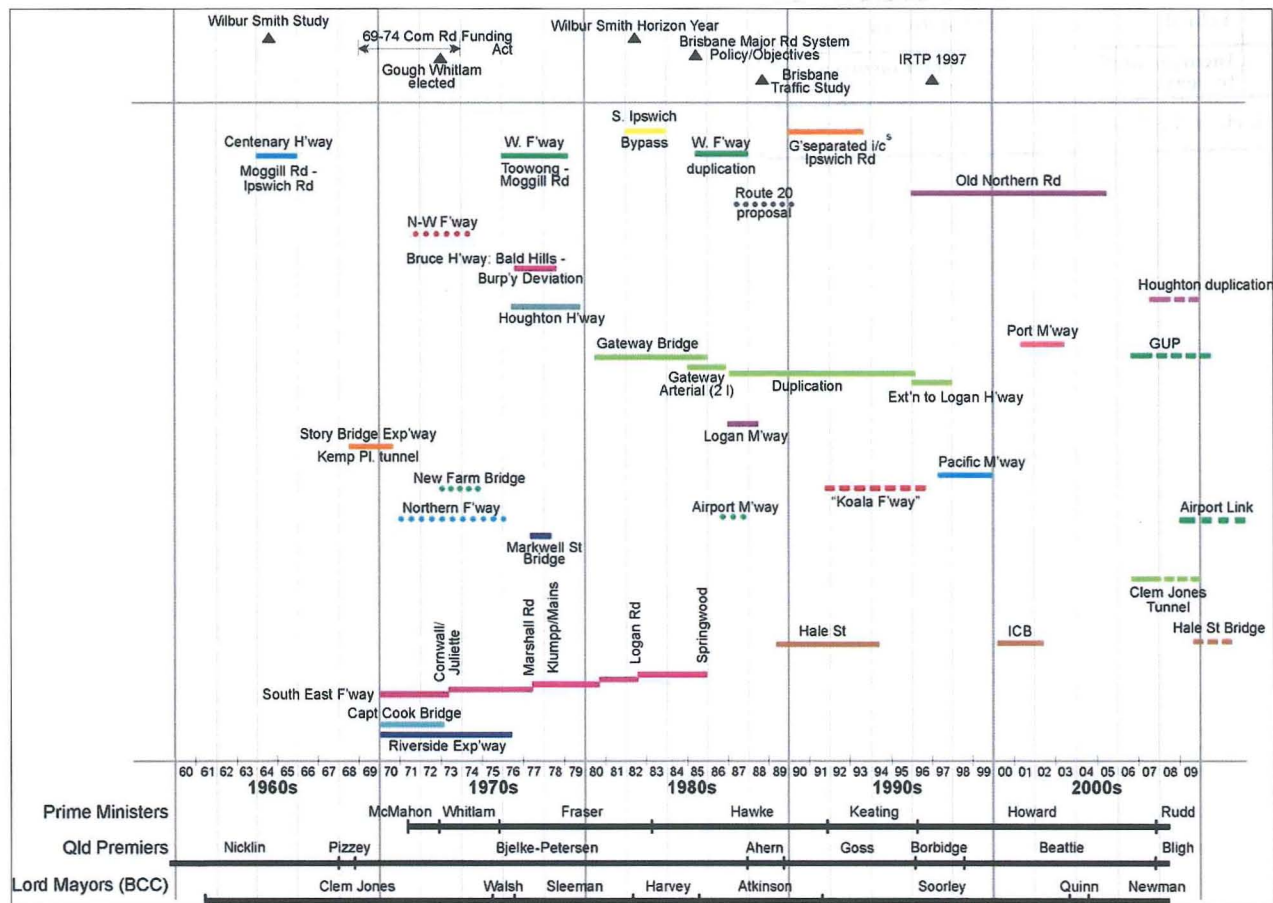


Figure 10. Chronological history of freeways in Brisbane

### Conclusion

I set out to document a brief history of Brisbane's freeway system — how the first freeway plan for Brisbane came about and what has happened since: what parts of the original freeway plan were built; what parts were not built; and how some contemporary projects compare with elements of the original freeway plan for Brisbane.

I hope this longer-term perspective is of some value to those engaged in the current freeway-building boom and those who will be our planners for the future.

### Acknowledgements

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