

1973

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF THE SENATE
PAPER NO. 1404
DATE PRESENTED 23 AUG 1973
<i>J.R. Odgers</i> Clerk of the Senate

*Parliamentary Standing Committee on Public Works*

## REPORT

relating to the proposed construction of the

# PALMERSTON ARTERIAL ROAD

at

## Darwin, Northern Territory

(FOURTH REPORT OF 1973)

## C O N T E N T S

	<u>Paragraph</u>
The Reference	1
The 1972 Enquiry	3
The 1973 Reference	6
The Committee's Investigation	9
The Need	
Existing Arterial Roads	12
Population and Traffic Growth	14
Conclusion	15
Route of Proposed Road	18
Route 3	25
Route 1B4	29
Routes 1D and 1E	31
Route 5	32
Routes 6 and 7	33
Conclusion	34
Planning and Construction	40
Access to City	43
Environment	45
Estimate of Cost	46
Programme	47
Evidence	48
Recommendations and Conclusions	51
General Site Plan	
Aerial Photograph	

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

PALMERSTON ARTERIAL ROAD, DARWIN  
NORTHERN TERRITORY

R E P O R T

By resolution in the House of Representatives on 28 February 1973 and in the Senate on 1 March 1973, the proposal to construct the Palmerston Arterial Road, Darwin, Northern Territory was again referred to the Parliamentary Standing Committee on Public Works for investigation and report to the Parliament.

The Committee have the honour to report as follows:

THE REFERENCE

1. The proposal referred to the Committee involves the construction of an arterial road from the Darwin city business district to the northern suburbs terminating at the intersection of McMillans Road and Lee Point Road on the northern boundary of the R.A.A.F. Base.
2. Several alternative routes have been investigated and evaluated by the Government for consideration by the Committee and their estimated costs fall within the range \$5.3 million to \$9 million.

THE 1972 ENQUIRY

3. On 31 August 1972, the Committee reported to the Parliament on the reference "Palmerston Arterial Road, Darwin, Northern Territory". The Committee's report carried the conclusion that recent Darwin population growth rates will be maintained sufficiently to justify the estimates of

increases in the volume of peak traffic using Bagot Road. It was clear to the Committee then that the rapid expansion of Darwin's northern residential areas combined with the predominantly city area employment opportunities warranted the provision of a second arterial road between these areas. In reaching a conclusion on which of several alternative routes should be recommended, the Committee considered that a route through the Fannie Bay area i.e. the "Palmerston" route, was the only one practicable.

4. In all, the Committee examined evidence for four alternatives of the Palmerston route from the intersection of Ross Smith Avenue and East Point Road through the Fannie Bay area to the proposed junction with the extension of McMillans Road at Coconut Grove. The alignment proposed by the Northern Territory Administration, the coastal route identified as route 3, continues from Ross Smith Avenue along the cliff edge at Fannie Bay before swinging east across the golf links and Ludmilla Creek to join the prolongation of McMillans Road at the Bagot Road intersection. The route recommended by the Committee, route 1, leaves the coastline near the junction of Ross Smith Avenue and East Point Road and passes through the Fannie Bay residential area before crossing Ludmilla Creek to join up with route 3 at Coconut Grove.

5. In accordance with the resolution passed at a meeting of the Committee on 24 August 1972, it was recommended to the Parliament that

"Between Lee Point Road and Coconut Grove and between  
Ross Smith Avenue and Daly Street, the road should follow  
the route proposed by the sponsoring authorities.

Between Coconut Grove and Ross Smith Avenue the road  
should generally follow route 1".

THE 1973 REFERENCE

6. Following the tabling of the Committee's report in August 1972, the Committee and the Government received a number of representations in protest against the route recommended in the report. In particular, strong protests were registered by residents of Fannie Bay whose homes and properties would have to be acquired to make way for the road. It appeared that prior to the public hearing, many objectors had no knowledge of the likelihood of the proposal affecting their properties.

7. Having regard to the strong public reaction received, much of which had not been voiced at the time of the first public hearing, the Government decided not to proceed with the proposal and to refer it back to the Committee for further consideration.

8. The proposal now before the Committee encompasses seven alternative routes. Five are variants of the Palmerston route and two are proposals to link the northern suburbs to the city by easterly routes via Frances Bay.

THE COMMITTEE'S INVESTIGATION

9. The Committee received written submissions and drawings from the Departments of the Northern Territory and Works and took evidence from their representatives at a public hearing in Darwin from 18 to 20 June 1973 inclusive. There was considerable public interest in the proposal. We also took evidence and received written submissions from Members of the Legislative Council, Aldermen of the Corporation of the City of Darwin, representatives of community and professional organizations and from private individuals.

10. The Committee inspected sections of the alternative routes, including the cliff top at Fannie Bay, the residential areas likely to be affected by the proposal and East Point Road.

11. The Committee's proceedings will be published as Minutes of Evidence.

THE NEED

12. Existing Arterial Roads The present arterial road system between Darwin's northern suburbs and the city consists of Bagot Road along the western boundary of the R.A.A.F. Base and the Stuart Highway via Daly Street bridge with alternatives along Goyder Road and Gilruth Avenue to Smith Street or to Gardens Road and Daly Street.

13. At the time of the previous hearing, several measures were being undertaken to improve traffic flow along Stuart Highway and Bagot Road. These works which involve widening and improvement of Stuart Highway, widening of Bagot Road to six lanes and installation of traffic lights, have been completed. Further widening of Stuart Highway from Bagot Road to the airport entrance is now being undertaken and widening beyond is proposed for the future. We were told that other measures to improve traffic flow were being undertaken or considered for the near future, including the designation of some roads as clearways in times of peak traffic.

14. Population and Traffic Growth The Committee were told that traffic growth has continued at rates forecast at the earlier enquiry and that recent peak hour counts of inbound traffic on Bagot Road exceed the design limit for the road. Despite the addition of a third lane, provision of a pedestrian overpass at Ludmilla and installation of traffic lights at the Bagot Road/Stuart Highway intersection, Bagot Road still experiences serious traffic delays during the morning peaks and these will extend rapidly as traffic growth continues in the absence of an alternative route between the city and the northern suburbs. It was also noted that there has been no significant change in employment destinations during the

period since the earlier hearing, although it is expected that in the future there will be greater employment opportunities in the northern suburbs.

15. Conclusion Several witnesses supported a contention that by various measures including expansion of public transport systems, re-arrangement of traffic patterns and promoting increased medium and high density residential development in the city area, construction of a second arterial road could be delayed or even avoided altogether. The planned development to be carried out to the east of Darwin and the establishment of new regional centres to the north and east were also advanced as being major influences likely to remove a need for additional major links between the city and the northern suburbs.

16. The Departments of the Northern Territory and Works, however, are firmly of the opinion that traffic volumes will continue to increase and become well in excess of what can be handled by the Stuart Highway/Bagot Road corridor alone. There is also the ever present risk of a major disruption (by accident, new construction, maintenance etc.) and it would, therefore, be unwise to continue to rely on a single transport corridor.

17. In the opinion of the Committee, the evidence and data clearly point to a need to provide an alternative to the Stuart Highway/Bagot Road route and we therefore reaffirm the conclusion in the 1972 report that there is a need for a second arterial road between the city and the northern suburbs.

#### ROUTE OF PROPOSED ROAD

18. Because of the siting of Darwin on a peninsula and the proximity of the R.A.A.F. defence reserve, there is only a narrow corridor of land in which the second arterial road can be provided, excluding the possibility of a link around the eastern boundary of the airport which would involve constructing a road of over nine miles in length.

19. The Palmerston route favoured by the sponsoring authorities has its beginning as an extension of Cavenagh Street which is the widest of six parallel streets running from Daly Street into the central business area of Darwin. It then follows Gardens Road and Gilruth Avenue to East Point Road. The Departments of the Northern Territory and Works have investigated a number of alternatives which commence from approximately the area where the present East Point Road and Ross Smith Avenue intersect and five routes have been developed for consideration by the Committee.

20. The route favoured by the Department of the Northern Territory, route 3, is, with some modifications, the route proposed at the previous enquiry. It continues from Ross Smith Avenue along the cliff top at Fannie Bay to beyond Bayview Street and then swings east across the golf links, East Point Reserve and the mouth of Ludmilla Creek to join a prolongation of McMillans Road at Coconut Grove.

21. Route 1B<sup>4</sup> is essentially the one recommended by the Committee following the previous enquiry. It leaves the coastline near the junction of Ross Smith Avenue and East Point Road and passes through the Fannie Bay residential area and East Point Reserve before crossing Ludmilla Creek further inland than route 3 and joins up with it before the prolongation of McMillans Road. It varies from the original alignment to by-pass the Waratah Sports Ground oval and to avoid a timbered strip north of Ludmilla Creek. Two variations of this alignment, routes 1D and 1E, avoid passing through the residential area but both encroach on the Fannie Bay gaol.

22. Another alternative, route 5, requires a sharp corner through the gaol and then proceeds along Mayport Street before swinging north passing between Ludmilla Creek and the sub-division of Ludmilla to join up with McMillans Road near its intersection with Bagot Road.



23. From the prolongation of McMillans Road, the Palmerston route (and route 6) follow McMillans Road, which will be widened, to its intersection with Lee Point Road on the northern boundary of the R.A.A.F. area.

24. Routes 6 and 7 follow alignments to the east of the city along Frances Bay to join up with the southern end of Bagot Road in the case of route 6, and passing to the east of the R.A.A.F. Base to join up with the eastern end of McMillans Road in the case of route 7.

25. Route 3 The alignment of route 3 in the vicinity of the Fannie Bay cliffs has been altered since the previous hearing to reduce encroachment on the cliff face. The service road running south from Bayview Street has been deleted and the median strip made narrower, thereby allowing the road to be relocated some 40 ft further back from the cliff edge in the area of the caves. Some filling and rock protection would still be needed at isolated points along the cliffs.

26. These changes substantially increase the area of cliff top available for recreation purposes and all but eliminate filling of the caves and construction of protective works along the base of the cliff. A penalty is incurred by the denial of access to the frontages of six properties along the existing East Point Road but provision is made for construction of rear access to them from a new service lane off Bayview Street. Because the road alignment is nearer property lines than before, the noise factor will assume greater significance. We were told that the Departments of the Northern Territory and Works have not been able to accurately assess likely noise levels arising from both increased traffic in the area and the closeness of the road to homes but consider that it will not be beyond reasonable acceptable levels having regard to the intention to restrict vehicle speeds to the normal built up area limit of 35 m.p.h.

27. While route 3 is the longest of the Palmerston routes, although only marginally so, its overall cost, after taking into account likely acquisition costs would be less than several of the shorter routes.

28. The road will cross approximately half a mile of mangrove swamp and the mouth of Ludmilla Creek where a substantial bridge will be required. It is expected that the bridge structure will have some restrictive effect on tidal flow in Ludmilla Creek and that some ecological damage to the swamp will result from construction activities initially, and also in the long term.

29. Route 1B4 Construction along this alignment necessitates the resumption of 12 houses and several small areas of private property. It will also require the destruction of a particularly large banyan tree in an area now used as a children's playground. The alignment has been shifted slightly since the Committee's previous enquiry so as to by-pass the Waratah Sports Club oval but it still encroaches on the Club's lease and would certainly require reorientation of the oval. The Club's long term development plans would be prejudiced.

30. Although route 1B4 is one of the shortest and most direct routes, it is estimated to be more expensive than route 3, taking acquisition costs into account. Its alignment through the residential area will introduce noise and safety hazards into a hitherto quiet location. It will also tend to isolate a large area of the suburb from its shops, schools and a swimming pool. However, it allows the retention of the cliff top and the golf course areas which can be expected to become increasingly important for recreation space close to the city and would require excision of a smaller area of the East Point Reserve than would route 3.

31. Routes 1D and 1E These alignments were raised as possibilities at the previous enquiry but are not considered to have any advantages over the other Palmerston alternatives. Both pass close to a large complex of flats and both would require the construction of a curve through Fannie Bay Gaol.

32. Route 5 A road along this alignment would be the cheapest of all alternatives to construct, and it would have the incidental advantage of providing another access to Ludmilla. However, it would impose serious noise problems to flats in Fannie Bay and as for routes 1D and 1E, would require the construction of a sharp corner through the Fannie Bay Gaol and demolition of several of its buildings regarded by many as having considerable historical significance.

33. Routes 6 and 7 Both of these routes have substantially higher construction costs than the Palmerston routes. We were told that construction of either would at best only defer the need to construct a road along the Palmerston route because the Frances Bay route would eventually be fully utilised to link Darwin with the planned major development to the east. At the city end, the streets that would serve routes 6 and 7 are rather narrow and there are a number of obstructions which would present considerable difficulties in getting large volumes of traffic into the city. There are also doubts that route 7 would be of any real value at this stage, being a long and circuitous link between Darwin and the northern suburbs and therefore unlikely to attract sufficient traffic to relieve Bagot Road.

34. Conclusion In considering the evidence presented by the various witnesses, the Committee gave particular attention to the effects that the various alternatives would have on the environment and the likely disruptions to established social patterns. It was concluded that all routes,

unfortunately, have significant disadvantages and that the ultimate choice would depend on a judgment of the importance to be attached to the conflicting factors involved.

35. All Palmerston alternatives (but route 3 to the least extent) involve acquisitions of private property, disruption of an established suburb and would increase noise levels and traffic volumes. However, with routes 6 and 7 excluded for the reasons outlined above, the Committee concluded, again, that a route through the Fannie Bay area is the only practical one.

36. In assessing the weight of evidence given, it became clear that the revised proposal for route 3 overcame much of the objections originally raised against this alignment. At a meeting of the Committee following the public hearing of evidence, it was moved Mr. Kelly, seconded Senator Poyser that

" It be recommended to the Parliament that the road follow route 3 as proposed by the Department of the Northern Territory".

37. During the debate that followed, Senator Jessop expressed disagreement and supported route 1B<sup>4</sup>, i.e. the alignment previously recommended by the Committee. Senator Jessop was particularly concerned that greater importance be given to the long term advantages of route 1B<sup>4</sup>, that is, lower operating costs, retention of the cliff top and golf course areas which will become increasingly important for recreation and less interference to East Point Reserve. These, he considered, were of greater significance than the initial hardships which would result from compulsory acquisitions of private property in addition to possible noise and nuisance factors.

38. The Committee divided.

<u>Ayes</u>	<u>Noes</u>
Mr. Fulton	Senator Jessop
Mr. Kelly	
Mr. Corbett	
Mr. Whittorn	
Senator Poyser	
Mr. Johnson	
Mr. Keogh	

and so the question was resolved in the affirmative.

39. In accordance with this resolution, therefore, it is the recommendation of the Committee that the road follow route 3 as proposed by the Department of the Northern Territory.

#### PLANNING AND CONSTRUCTION

40. The road will be constructed initially as a four-lane divided carriageway which will be capable of being widened to six lanes for all of its length except for the section from Gardens Road to Daly Street. Earthworks and structures will be designed to suit the future six-lane width.

41. Major intersections will be located at the junctions of the arterial road with Ross Smith Avenue, Goyder Road, Gilruth Avenue and Daly Street. Traffic signals will be installed at the Bagot Road/McMillans Road intersection.

42. In built up areas, landscaping along the road is proposed. Shrubs will be planted in medians and outer separators to provide a screen against headlight glare, a noise buffer and a pleasant appearance. Street lighting will be provided in built up areas. Pedestrian overpasses will be provided at appropriate places and at various points along the cliff frontage access will be allowed to the cliff top area.

43. Access to City The road is currently planned to follow Gardens Road and proceed into the city as an extension of Cavenagh Street. An alternative would be via Gilruth Avenue to Smith Street although we understand that this route would present some difficulties. The Gardens Road route has been agreed to for some time between the Department of the Northern Territory and the Corporation of the City of Darwin but we were told at the hearing that just prior to it, the Corporation had resolved in favour of the Gilruth Avenue route.

44. It is understood that there would be little variation in overall cost whichever alignment is followed and under the circumstances, it is recommended that the matter be further discussed between the Government and the Corporation and be resolved without further reference to the Committee.

45. Environment The recommended route traverses an estuarine mangrove swamp and a tidal creek (Ludmilla Creek). This area which extends to the shore of Beagle Gulf is an important area for wildlife, particularly as a breeding and roosting ground for birds. It was noted that many other similar areas exist around Darwin but none are as close to urban development as this one. Its role as a refuge for wildlife will become particularly important as urban development around it intensifies. The Committee acknowledge that construction of a road in the area will cause initial damage and will bring about some long term changes to the present environment. Nevertheless, under the circumstances, the Committee consider that some damage is acceptable in order to provide a necessary and appropriate road link between Darwin city and the northern suburbs. In reaching this conclusion, the Committee were aware that the proposal had been examined and accepted by the Departments of the Environment and Urban and Regional Development.

ESTIMATE OF COST

46. The estimated cost of route 3 (excluding acquisition costs) when referred to the Committee was \$5.6 million. At the time of the previous enquiry, the estimate was \$5.4 million. We understand that the increase is largely due to increases in construction costs.

PROGRAMME

47. The Committee noted that construction of the road will be staged to suit availability of funds and build up in traffic volume. Staging is also based on the different time scales necessary to complete each section and it is proposed that all work be completed at the same time. The Department of Works estimates that documentation for the major section will take a further six months and construction will take two years from the date a contract is entered into.

EVIDENCE

48. A noteworthy feature of the Committee's enquiries into major works in the Northern Territory is the considerable interest taken by private individuals, professional groups and community bodies. At this new hearing of evidence on the proposed Palmerston Road, nineteen witnesses from non-Government sources appeared before the Committee and many written submissions were received.

49. To a degree not usually encountered, emotionalism was a dominant factor of much of the evidence received and members gained the impression that it led several witnesses to making misleading, and in one or two particular instances, untrue statements, during cross examination. It is appreciated that non-Government witnesses usually are not able to devote sufficient time and effort to fully research their contentions before appearing in an enquiry, but this cannot be accepted as excusing attempts to deliberately mislead the Committee.

50. It is not the wish of the Committee to discourage individuals from appearing before it, but it is felt that in this instance attention must be drawn to the rights and obligations of witnesses. It is hoped that the Committee's comments on this occasion and the publicity received at the time will not deter the citizens of Darwin from coming forward in the future to present independent, responsible opinion and evidence which will assist the Committee to examine objectively the proposals before it.

RECOMMENDATIONS AND CONCLUSIONS

51. The summary of recommendations and conclusions of the Committee is set out below. Alongside each is shown the paragraph in the report to which it refers.

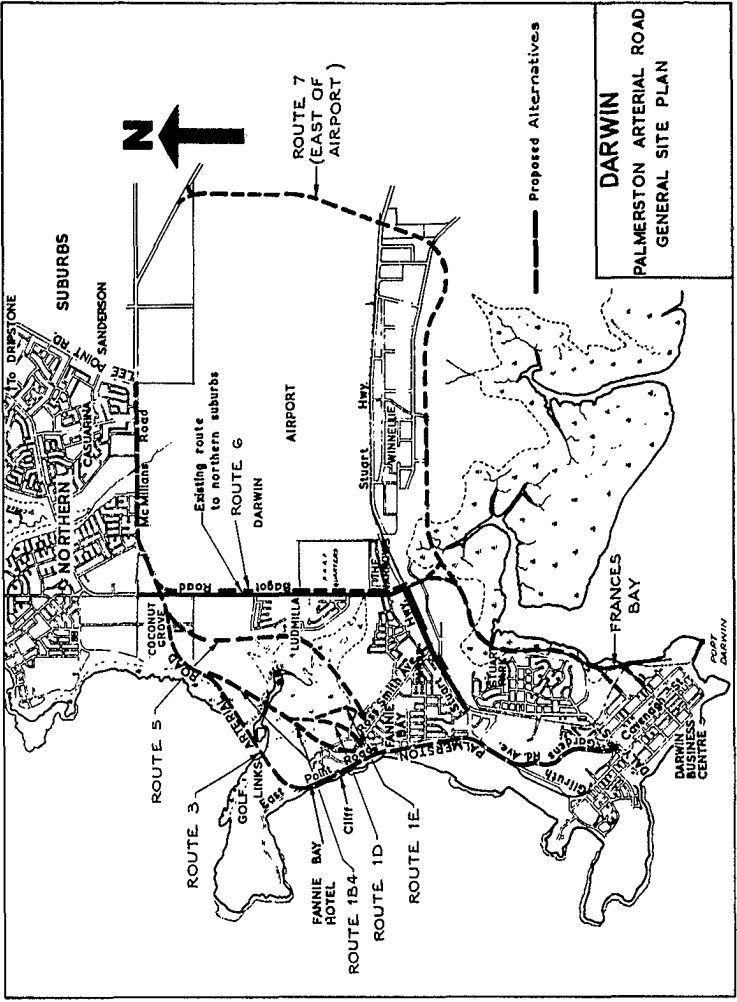
		<u>Paragraph</u>
1.	THE COMMITTEE REAFFIRM THE CONCLUSION IN THE 1972 REPORT THAT THERE IS A NEED FOR A SECOND ARTERIAL ROAD BETWEEN THE CITY AND THE NORTHERN SUBURBS.	17
2.	A ROUTE THROUGH THE FANNIE BAY AREA IS THE ONLY PRACTICAL ONE.	35
3.	THE ROAD SHOULD FOLLOW ROUTE 3 AS PROPOSED BY THE DEPARTMENT OF THE NORTHERN TERRITORY.	39
4.	THE ESTIMATED COST OF THE WORK WHEN REFERRED TO THE COMMITTEE WAS \$5.6 MILLION.	46

  
 (W.J. FULTON)  
Chairman

Parliamentary Standing Committee on Public Works,  
 Parliament House,  
CANBERRA, A.C.T.

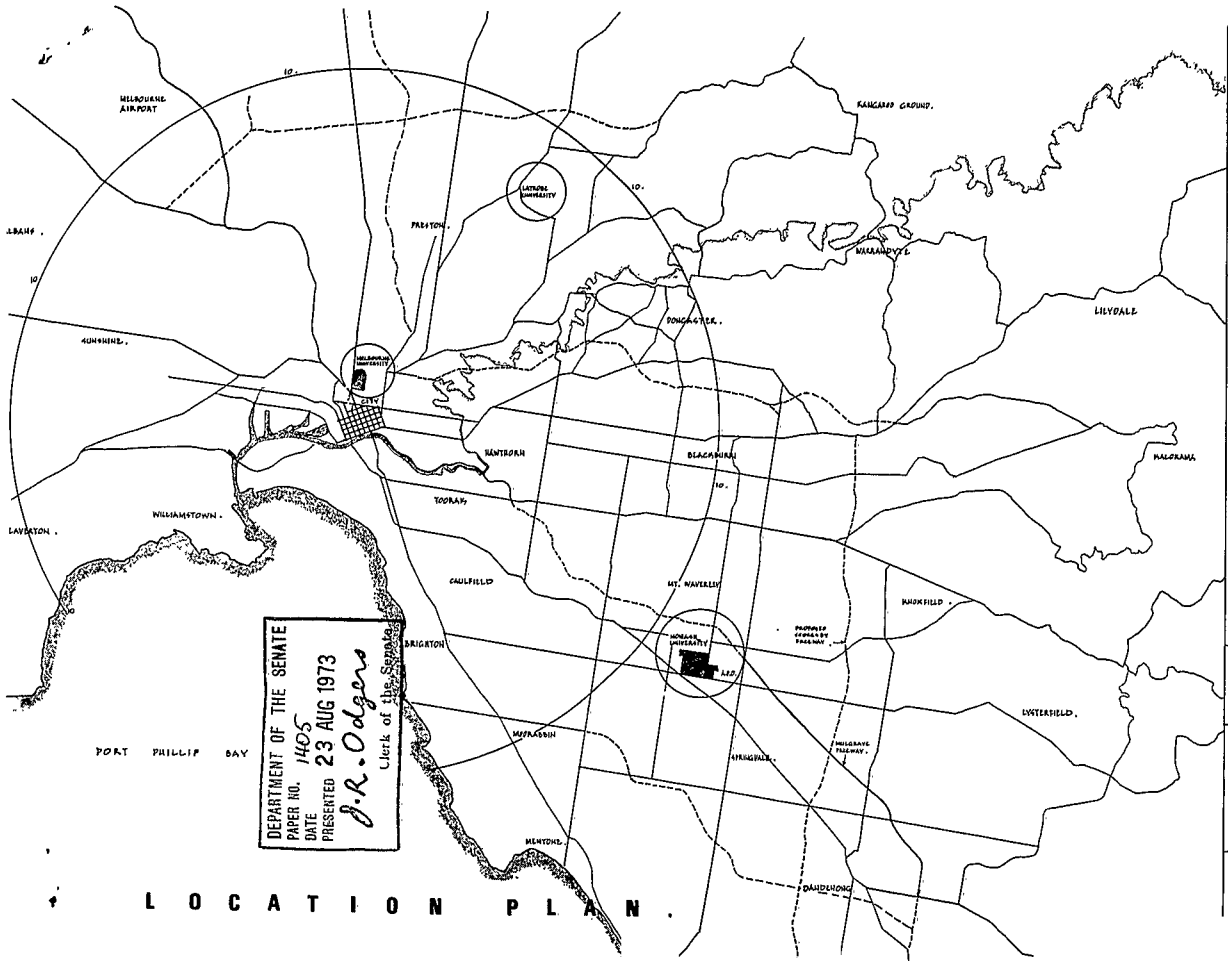
29 July 1973.





**DARWIN**  
**PALMERSTON ARTERIAL ROAD**  
**GENERAL SITE PLAN**





LOCATION PLAN



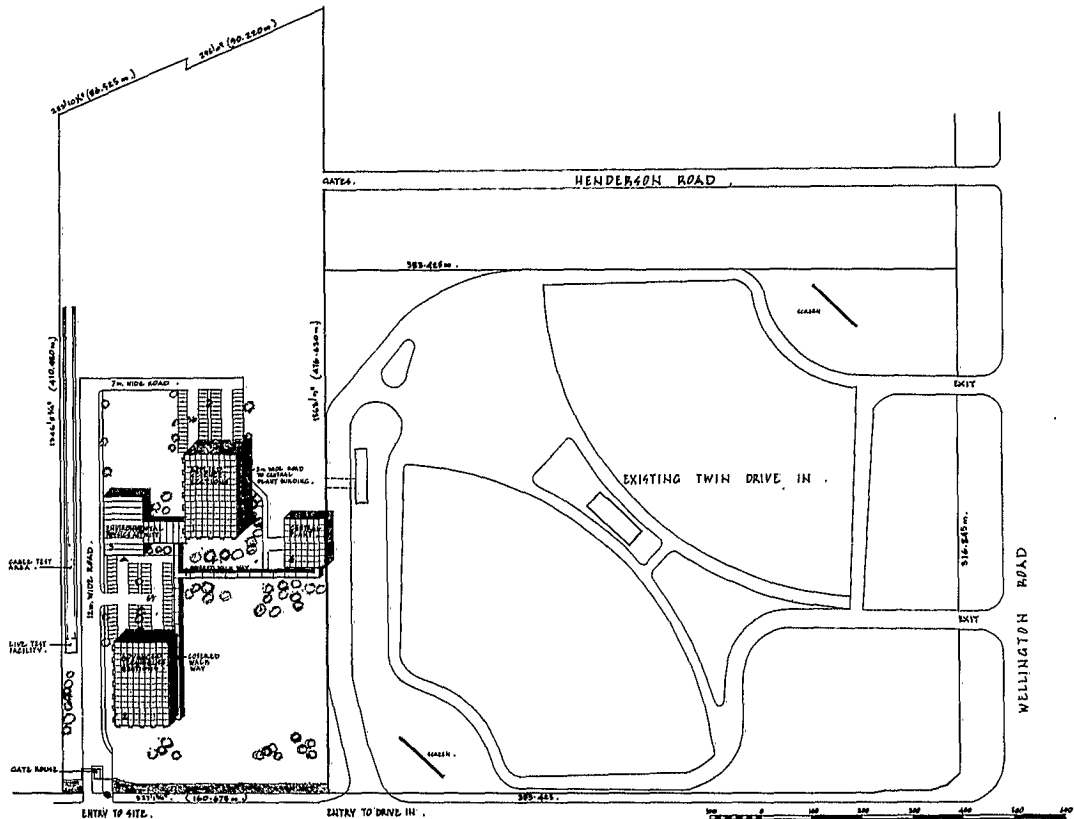
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