1971

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

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Parliamentary Standing Committee on Public Works the Sana

## REPORT

relating to the proposed construction of

# NORTHERN TERRITORY DEVELOPMENT ROADS

(1971 REFERENCE)

(EIGHTH REPORT OF 1971)

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#### PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

## NORTHERN TERRITORY DEVELOPMENT ROADS (1971 REFERENCE)

#### REPORT

By resolution on 2 April 1971, the House of Representatives referred to the Parliamentary Standing Committee on Public Works for investigation and report to the Parliament, the proposals for construction of Northern Territory development roads - a sealed road between Alice Springs and Erldunda and the sealing of the Timber Creek to Dingo Gap road.

The Committee have the honour to report as follows:

#### PART I. - INTRODUCTION

## THE REFERENCE

- 1. The work involved is of two parts, viz:
  - construction of 91 miles of sealed road, 20 ft wide, from a point near Orange Creek on the Stuart Highway, some 26 miles south of Alice Springs, to the Ayers Rock turn-off, 1½ miles north of Erldunda;
    - sealing to a width of 12 ft the 102 miles of gravel surfaced beef road from Timber Creek to Dingo Gap near the Western Australian border.
- The work is estimated to cost \$5.4 million.

#### THE COMMITTEE'S INVESTIGATION

- 3. The Committee received written submissions and drawings from the Northern Territory Administration and the Department of Works and took evidence from their representatives at public hearings in Alice Springs and Darwin. The Committee also conducted public hearings at Henbury Station, Timber Creek and Katherine.
- 4. In addition to the departmental presentations, we took evidence from representatives of the Department of National Development, the Northern Territory Reserves Board, the Northern Territory Tourist Board, Ansett-Pioneer, Central Australian Tours' Association Pty. Ltd., the Alice Springs-Port Augusta Road Development Organization, the Alice Springs Tourist Promotion Association, the Northern Territory Tourist Bureau, Northern Meat Exporters Pty. Ltd., Northern Agricultural Development Corporation Ltd. and seven private witnesses. Several written submissions were also received.
- 5. The Committee inspected the existing road between Alice Springs and Erldunda as far south as Henbury Station, some 80 miles from Alice Springs. We later travelled by air to Timber Creek and inspected about 10 miles of the gravelled road to Dingo Gap.

#### BEEF ROADS

 Since 1962, the following beef roads have been completed in the Northern Territory.

#### Alice Springs Area

Stuart Highway to Yuendumu - 168 miles (unsealed)
Stuart Highway to Plenty River - 128 miles (unsealed)

#### Western Barkly Tablelands

Barkly Highway to Anthony Iagoon - 140 miles (sealed) Anthony Iagoon to Borroloola - 162 miles (sealed)

Daly Waters to Cape Crawford - 168 miles (sealed)

#### Victoria River District

Dunmarra to Moolooloo - 135 miles (unsealed)

Timber Creek to Western Australian border - 114 miles (unscaled)

Katherine - Willeroo - Top Springs - 180 miles (sealed)

7. Roads under construction include:

Top Springs to Wave Hill - 100 miles (sealed)

Willeroo to Timber Creek - 99 miles (scaled)

Mataranka to Roper Bar - 108 miles (sealed)

- 8. The Committee reported to the Parliament on the Top Springs to Wave Hill road on 22 September 1963 and 18 March 1965, on the Western Barkly Tablelands roads on 3 May 1965 and on the Willeroo to Timber Creek and Mataranka to Roper Bar roads on 17 September 1968.
- 9. Objectives and Benefits The Commonwealth sponsorship of beef roads not only in the Northern Territory but also in northern Queensland, Western Australia and in South Australia arose primarily from the prospects of increasing export income through increased beef production. However, it was recognised when the first programme of roads was approved in 1962 that there would also be considerable benefits in the form of accelerated economic development of remote northern areas and assistance to other industries.

  These benefits have increased to the point where the term 'development roads' is a more accurate description.

- 10. These roads provide pastoralists with improved accesses to outlets so that beasts can reach their destinations in better condition and younger than previously. Improved transport facilities resulting from better roads produce immediate gains through the recovery of cattle not previously marketed. Greater production can also be expected in the long term through improvements made to properties and stock and through more intensive land use.
- 11. The basic benefits to the cattle industry of effective surface communications might be summarised as
  - fast delivery of cattle to meatworks without loss of weight compared with droving;
  - utilisation of a wider range of cattle including types formerly lost to the industry or unavailable, such as young prime fats, trapped scrub cattle and culled-for-age stock;
  - precision in meatworks programming;
  - extension of the killing season and consequently increased export production;
  - flexibility in herd management, particularly in times of drought; and
  - more efficient integration between breeding and fattening areas.
- 12. In relation to the Victoria River district, we noted that since 1963 the number of cattle transports based at Katherine has doubled and some stations now have their own transports. In the same period, the percentage of cattle moved by road transport in the Northern Territory has grown from 41.8% to 92.08% representing in 1969/70 271,368 head of cattle. In the Alice Springs area, the upgraded roads have enabled drought weakened cattle which would otherwise have perished to be sent to market or agistment.

- 13. The roads have produced other substantial benefits which whilst not being major factors in original planning, have nevertheless become increasingly important in recent years. The most significant of these benefits have been to the tourist and mining industries. Since the first roads programme was approved, the value of the tourist industry to the Territory has increased from 33.8 million in 1963 to \$19 million in 1970. The advantage of an extended system of sealed all-weather roads to further develop these activities is obvious.
- 14. <u>Sealing of Roads</u> Until the Committee investigated the Top Springs to Wave Hill proposal, beef roads in the Northern Territory were surfaced with gravel. In the examination of that reference, the Committee closely studied the benefits of bitumen sealing and recommended that in that instance the road should be sealed. Since then new roads have been bitumen sealed and some existing gravelled roads have been upgraded by sealing.
- 15. Besides being less costly to maintain, a sealed road results in
  - savings in transport charges through lower operating costs;
  - lower losses of cattle in transit through bruising, horning and dust asphyxiation;
  - improving the possibility of year round access to properties; and
  - increasing development of the tourist and mining industries.
- 16. Width of Seal Study When reporting to the Parliament on the Western Barkly Tablelands roads on 3 May 1967, the Committee commented
  - " 52. The Committee took the opportunity during the present enquiry to look into the matter of the deterioration of the shoulders of sealed 12-ft beef roads due to climatic factors and vehicles passing each other. We also received information about maintenance and reconstruction costs.

- 53. In the light of this information and the extensive network of existing and proposed beef roads, we believe that some long term investigations should be undertaken into the capital, maintenance and reconstruction costs of beef roads of various widths. For example, we suggest that sections of one of the more frequently used beef roads should be constructed to an 18-ft width and costs over a period analysed in the way suggested. The same sort of inquiry night also be made into the bitumen priming of the shoulders of a 12-ft beef road and other shoulder protection methods. "
- 17. The Department of Works undertook the suggested investigation on several Northern Territory roads and reported to the Committee during the public hearings on the present reference the conclusions reached so far.
- 18. Briefly, the Committee were told that
  - provided adequate standards of horizontal and vertical alignment can be achieved economically, single lane 12 ft sealed roads are satisfactory for up to 100-150 vehicles per day depending on climate, type of traffic and available roadmaking materials. Widening sections to two lanes is necessary where alignments cannot be achieved economically. This practice is now being followed;
  - priming of shoulders as a protection method is uneconomic.
    The answer to the problem of significant shoulder and edge wear,
    other than possibly alignment improvement, is to widen the seal
    width as traffic increases.
- 19. The Department's report commented that the collection of data on road maintenance costs under different conditions such as traffic volume and type, topography, climatic factors and available roadmaking materials, is

necessarily a long term task and it would be unwise to draw final conclusions from the work already done. It consequently proposes to review the problem as a continuing task as more information becomes available.

#### PART II - ALICE SPRINGS/ERLDUNDA ROAD

#### THE NEED

- 20. Development in the Northern Territory is continuing at a rapid rate as shown clearly in recent years by population increases of the order of 11% per annum in Darwin and Alice Springs. Allied with this phenomena, three major factors affect the future use of the Alice Springs/Erldunda road, viz. tourism, the cattle industry and interstate freight traffic.
- 21. Tourism "The Centre" is a major tourist attraction drawing increasing numbers of international and local visitors. Due to its location, Alice Springs is the major departure point for tours of the Centre and it is estimated that visitors to the town will increase from about 38,000 in 1969 to over 200,000 in 1980 and up to 600,000 by 1990, if facilities are available. Most of these visitors are expected to visit the Ayers Rock/Mount Olga National Park. Of the 27,000 visitors to Ayers Rock in 1969/70, nearly 22,000 travelled by private car or bus, most using the Alice Springs/Erldunda section of the South Road. Substantial tourist traffic not associated with Ayers Rock also used this section.
- 22. Harris, Kerr, Forster and Company, international travel industry consultants, recently indicated in their "Tourism Plan for Central Australia" that the sealing of the Alice Springs/Erldunda road should be in the first priority category if the industry is to realise its full potential. Fcasibility studies are now under way concerning their recommendations for improvement of facilities at the Ayers Rock/Mount Olga National Park.

- 23. The Committee were told that 29 interstate coach companies operated to Ayers Rock via Erldunda during 1970 and five local companies operated seven services per week along the same route during the tourist season. It is considered that an improvement of the South Road will increase tourists undertaking "family car" tours and result in more people visiting other attractions in the Territory as far north as Darwin.
- 24. <u>Cattle Industry</u> Eleven pastoral properties depend wholly or portly on this road. Together these properties had a cattle population of nearly 25,000 in June 1970 and an annual turn off in 1969/70 of about 10,000. Although some cattle are trucked at sidings along the Central Australian Railway, most are taken by road to Alice Springs for slaughter or for railing to the southern Earkets.
- 25. Most pastoral properties in Central Australia receive cattle for fattening, restocking or agistment from elsewhere in the Territory or from South Australia which involves using the road for cattle transport to the stations as well as from the stations to markets. In addition, road transport is used for materials and supplies to support the stations' operations.
- 26. It has been established that bruising, horning, trampling and mortality of cattle transported by road are related directly to poor road surface conditions. Wastage of cattle has been estimated to be in the order of 2% per 300 miles on bitumen roads compared with 10% on gravel. Considering as well the added advantage of cheaper haulage costs on scaled roads, the benefits to the cattle industry of constructing the proposed road are clear.
- 27. <u>Interstate and Other Freight Traffic</u> The Alice Springs/Erldunda road is part of the only direct road link between the Northern Territory and Port Augusta in South Australia. Several Alice Springs based hauliers

operate weekly road freight services to and from Adelaide and also refrigerated transports to carry frozen meat from the Alice Springs abattoirs to Adelaide, and return with other frozen foods. They consider the Alice Springs/Erldunda section of the South Road to be the worst and late model trucks are often used in an attempt to reduce breakdowns and delays. At least one company uses steel corded tyres for the same reason. Indicative of the road haulage industry's importance to Alice Springs is the fact that there are 26 operators with headquarters or branches in the town besides others who operate to Alice Springs from interstate.

- 28. The road is also used to convey fuel, perishables, groceries and general materials to the Docker River Aboriginal settlement and is used increasingly by parties active in mineral exploration in the centre of Australia.
- 29. <u>Traffic Volume</u> Traffic counts taken since 1968 at a point 20 miles south of Alice Springs have averaged 61 vehicles per day from May to September, the peak tourist season, and 45 vehicles per day from October to April. Prior to 1968, counts were irregular and therefore a complete record is not available on which to base future traffic volume projections. However, a formula based on the "road user component" predicted the following average daily traffic figures.

	1975	1980	<u> 1985</u>	1990
With the existing road	93	133	501	287
With a gravelled road	107	147	241	345
With a sealed road	127	192	295	424

These forecasts assume that a standard gauge railway will connect Alice Springs and Port Augusta by 1980 and that the section of the South Road between South Australia and Erldunda will not be improved before 1990.

- 20. Present Road Conditions

  The South Road is sealed from

  Alice Springs to the Pinc Gap turn-off (10 miles) and at the Hugh, Finke and

  Palmer River approaches, an overall total of 19 miles. The sealed sections

  are generally 18 ft wide and have a design speed of 60 miles per hour.

  In 1970, a contract was let for sealing to a width of 20 ft a further 16 miles

  from the Pine Gap turn-off south to Orange Creek. This work is expected to

  be completed in 1972.
- 31. The bridges built in recent years over the Hugh, Finke and Palmer River crossings have considerably improved conditions in these areas. The remainder of the read to Erldunda is a graded sand-clay road with some limestone sections badly potholed. Surface conditions are generally poor with sections depressed six to nine inches below the natural surface and washouts occur in times of flood. Vehicles travelling over the road are likely to suffer excessive wear and tear and its poor condition has contributed to a number of serious accidents.
- 32. Maintenance of the unsealed road has shown that benefits from grading can be achieved only when the road surface is wet after rain. Otherwise, grading lasts only a few days and frequent grading in dry conditions tends to lower the road level below the natural surface. The lack of regular rainfall has therefore resulted in the road remaining ungraded for extensive periods.
- 233. Committee's Conclusion The Committee believes that there is ample evidence of the economic justification for the proposed road. Benefits include savings in vehicle operating costs, passenger time, road maintenance costs and savings through reduced wastage of cattle. Not only is the road required if the full potential of the local pastoral and tourist industries is to be realised but it is also important in the general context of national development. We therefore agree that there is a need for the construction of a scaled road between Alice Springs and Erldunda.

#### CONSTRUCTION

- Northern Territory, the road is to be designed to carry cattle transports and other vehicles conforming to the permitted weight and dimensional requirements of the relevant legislation. It will generally be trafficable at all times except for short periods when the depth of water at the floodways makes the road impassable. The design speeds used will depend on the type of terrain and will generally be 70 m.p.h. in flat, 60 m.p.h. in undulating and 50 m.p.h. in hilly country. The standards proposed are based on the current guides and recommendations on rural roads of the National Association of Australian State Road Authorities.
- 35. The new road will generally be in the vicinity of the existing road particularly where the road has already been improved by gravelling or where the alignment is eatisfactory. The road formation including the pavement and shoulders will have a usable surface of 32 ft. The gravel pavement will be 21 ft wide and 5 in. to 9 in. thick, depending on the strength of the underlying ground. In sandy sections shoulders will be strengthened for occasional traffic use. The central 20 ft of the gravel pavement will be bitumen scaled.
- 36. The road formation will generally be 6 in. above natural ground level but in flood plains and low lying areas, the formation height may exceed 12 in.

  Gravelled roadside parking areas will be provided at intervals of about 20 miles.
- 37. <u>Drainage, Bridges, etc.</u> Permanent drainage structures will be provided in the form of bridges, culverts, causeways and inverts depending on local conditions. As it is not economical to provide, in all cases, drainage attructures above maximum flood level, designs will permit occasional flooding of structures and approaches.

- 38. Bridge decks which will be submersible, will be near flood plain level. They will be 24 ft wide between kerbs for two lane operation. Bridges will be constructed of concrete with steel and/or concrete foundations, the same standard as the bridges at the Hugh, Finke and Palmer Rivers. Flood protection works will be constructed at all bridges and other drainage structures as necessary.
- 39. Scope of Work The length of road to be constructed is about 91 miles commencing near Orange Creek, 26 miles south of Alice Springs and terminating at the Ayers Rock turn-off near Erldunda.
- 40. The road from Alice Springs to Pine Gap turn-off is approximately 10 miles long and already sealed to 18 ft. It is not proposed at this stage to widen this section to 20 ft except during necessary reconstruction. However, a deviation of about one mile at Roc Creek will be necessary. From Pine Gap turn-off to near Orange Creek, the road is at present under construction to a width of 20 ft and will require no additional work.
- 41. Most of the 29 miles of road from Orange Creek to Hugh River is to be on a new alignment. The country traversed is generally of sand-clay, through sandhills for the first 20 miles and then winding through the rocky hills and outcrops of the James Range. Major Culverts will be required at Orange Creek and at unnamed creeks 49 and 52 miles south of Alice Springs.
- 42. In the section of 17 miles from the Hugh River to near the Finke River, the existing road from the 60 mile peg to the 63% mile peg and between the 69% mile and 72 mile pegs will be retained as it has recently been reformed and gravelled. The rest is either of poor alignment or of no value. A bridge will be constructed over Maloney's Creek near the 75 mile peg. The country in this section varies from flat sand clay areas to rocky and sandy hills.

- 43. From the Finke River to the Palmer River, some 13 miles, the terrain is mostly flat and about 6 miles of the existing road will be retained with some improvement to curves. The balance of the road will be on a new alignment and a major culvert will be provided over Five Mile Creek at the 81 mile peg. The road generally passes over sand-clay or through limestone ridges.
- 44. The 30 miles of road from Palmer River to the Ayers Rock turn-off near Erldunda passes through either flat or sandhill country. Some 15 miles of the existing road has been recently improved and is to be retained but with some curve improvements. A bridge will be constructed over the creek at the 105 mile peg, and at the turn-off to Ayers Rock a formed connection to the road south will be constructed.
- 45. Materials Although limestone gravel deposits of suitable quality exist, it is thought that some crushing of local rock will be necessary to supplement these supplies. No difficulty is expected in obtaining suitable stone for concrete and sealing aggregates. Water for construction purposes will be drawn from existing bores but additional bores may be necessary due to the uncertainty of supplies from dams along the road.
- 46. The Committee's Conclusion The Committee recommend the construction of the proposed sealed road between Alice Springs and Erldunda.

#### ESTIMATE OF COST

47. The estimated cost of the work when referred to the Committee was \$3.4 million.

#### PROGRAMME

48. After an approval to proceed is given, the work is planned to commence late in 1971 and be completed by mid-1974.

#### PART\_III - TIMBER CREEK/DINGO GAP ROAD

#### THE NEED

- 49. The Victoria Highway stretches from Katherine to its junction with the Duncan Highway near the Western Australian border. It is sealed 12 ft wide between Katherine and Willeroo and sealing of the Willeroo to Timber Creek section to the same width is almost complete. The section between Timber Creek and the border was constructed as a gravelled surface beef road between 1962 and 1967. The Duncan Highway is sealed 18 ft wide between the Western Australian border and Wyndham. As part of the seven year programme of road construction approved by the Commonwealth Government in 1967, the Western Australian Government is to seal to the same width the 8½ miles between the Western Australian border and Dingo Cap in the Northern Territory.
- 50. The proposal now is to seal the road from Timber Creek westwards as far as Dingo Gap, thus providing an all weather connection between Katherine and Wyndham. The road as proposed would beable to take cattle transports and other vehicles conforming to permitted weight and dimensional requirements and is an important link especially for the pastoral industry and the export meatworks at Wyndham and Katherine.
- Victoria River District

  The area served by the proposed road is rated as fair to good for pastoral purposes with some areas of rugged terrain of limited value. It is intersected by the Victoria River and in the south-west, the Negri and Behn rivers and Stirling Creek drain to the Ord River. These water courses provide good grazing areas with many permanent waterholes. Away from the rivers, the country is arid and sub-artesian bores are necessary to sustain cattle. Rainfall varies from 20 in. in the south to 35 in. in northern areas. In lower rainfall areas, good pickets of Mitchell and Flinders grasses occur. Taller grasses predominate where rainfall is higher.

- 52. Seven properties covering over 11,000 sq. miles are expected to benefit most from the proposed road. In the past, there has been only limited development of properties but the Committee were told that since the Katherine and Darwin Meatworks were built, improvements have been accelerated. Field trials are being conducted on several properties above the 25 in. rainfall line with Townsville style and grain sorghum with the long term aim of increasing carrying capacity, and giving more intensive cultivation, improved quality beasts and earlier turn off of fats. The cattle population of these seven properties was 80,000 in 1969 and the turn off was over 15,000. Most cattle in the Victoria River district are shortherns but there is a growing tendency towards the introduction of tropical breeds particularly Santa Gertrudis.
- 53. The campaign against pleuro-pneumonia, brucellosis and tuberculosis is proceeding but its success depends a great deal on quick and ready access to properties throughout the year as control measures require continuity. The northern part of the district includes several properties suspected to be the last stronghold of pleuro-pneumonia in the Territory. With better road access and improved effectiveness in combating disease, final eradication could be expedited.
- 54. <u>Tourism</u> The tourist industry is now a major factor in the economy of the Northern Territory, the number of visitors having risen from 18,000 in 1963 to 75,000 in 1970. The value of the industry for that period increased from 33.8 million to 319 million. Tourist bus operators use the road from Timber Creek to Dingo Gap as part of the route of round tours of the Territory and also on round Australia tours. The Ord River scheme is a significant tourist attraction in the area and is included on the tour itineraries of the operators and private tourists. The Committee were told that the

proposed sealing of the road between Timber Creek and Dingo Gap, which when completed will provide a sealed link from Darwin to Wyndham, will induce motorists and tourists to make greater use of the road.

- Ord River Irrigation Scheme Construction of the main dam on the Ord River will allow development of a further 150,000 irrigable acros of which 50,000 will be in the Northern Territory. The most likely outlet for fat cattle produced in association with this irrigation would seem to be Wyndham, assuming that the killing season can be extended but in any case general traffic movement between Kununurra and Katherine will certainly increase. It is also thought that quantities of supplementary grain foodstuffs may move eastwards into the Territory as Kununurra is emerging as a dependable source of this type of high quality produce.
- Traffic Volume The Committee were told that traffic studies indicated some 31 vehicles per day (v.p.d.) used the road in 1970. Heavy haulage occurs mainly during the killing season but with the scaling of the Willeroo/Timber Creek section of the road, traffic including tourist use is expected to increase to 95 v.p.d. by 1975, 150 by 1980, 228 by 1985 and to about 340 vehicles per day by 1990. However, depending on the region's development, the latter figure could be as high as 430.
- 57. <u>Present Road Conditions</u> The nature of the paving material in the prosent road which is a mixture of decomposed shale and limestone, presents a difficult maintenance problem. It disperses readily under traffic and corrugates badly and thus in addition to providing a harsh riding surface, it has been found that resheeting of about 20% of the road's length is required each year.

- 58. Other Benefits Although there is no established mining operation which this road will serve directly, there has been a considerable amount of prospecting in recent years in the northern part of the Northern Territory. This type of enterprise will clearly benefit from an extended system of sealed all weather roads.
- there is economic justification for the proposed road. Not only is it important in the general context of national development providing a bitumen sealed link between the north-west of the continent and the eastern states via the Stuart, Barkly, Victoria and Duncan Highways but it will allow the full potential of the pastoral industry to be realised. It will also facilitite access to the area for such activities as disease control, pasture improvement, soil conservation, tourism, supply of materials and mining operations. The Committee therefore agree that there is a need for the sealing of the road between Timber Creek and Dingo Gap.

#### CONSTRUCTION

60. <u>Design</u> The construction of this road to gravelled standard commenced in 1962 as part of the Dunmarra/Western Australian border road and was completed in 1967. It is designed to include long straights with large radius curves, gentle grades with 60 m.p.h. vertical curves for two lane operation, a formation width of 26 ft and a gravel pavement of 18 ft. It has 14 bridges, 14 ft wide between kerbs, full width culverts and numerous gravelled inverts. Bridge approaches and protected culverts have been sealed. The road is open, except in times of floods when water depth at the bridges makes the road impassable for short periods.

- 61. Alignments will be designed for traffic speeds of 60 m.p.h. but
  70 m.p.h. will be possible in flat terrain. The depth of gravel will be about
  6 in. to allow for minor shape correction and additional pavement thickness
  required for sealing. The road formation will generally be raised by about 6 in.
  above natural ground level but in flood plains and low lying areas the formation
  may exceed 12 in. Gravelled roadside parking areas will be provided at 20 mile
  intervals.
- 62. Read Width The pavements formation and shoulders are proposed to be 26 ft wide, with the central 12 ft of the gravel pavement bitumen sealed. But when single lane sight distance cannot be economically provided at crests, these will be sealed to 20 ft. These design standards are in accordance with National Association of Australian State Road Authorities guides and recommendations for rural roads having the traffic volumes and type of usage expected on this road in the next 10 to 15 years.
- 63. A number of witnesses advocated sealing the road to 20 ft and the matter was debated at some length by members at a private meeting of the Committee before our recommendations were finalised. The following extract from the minutes of that meeting reflects the views of members on this matter.
  - " It was moved Mr. James, seconded Mr. Corbett that the Committee agree that the sealed surface of the road be 12 ft.

Debate ensued. Senator Branson expressed his view that he did not believe that the evidence supported the proposed sealing to 12 ft and that in the circumstances the sealed surface should be 20 ft wide.

Discussing the Department of Works' study on the widths of sealed roads in the Northern Territory and the conclusions arrived at so far, Senator Prowse stated that he did not consider the investigation explored the problem to the extent which might have been expected in the time available and did not provide a proper basis for the Committee to yet determine the expediency of constructing 12 ft beef roads.

The Committee divided.

Ayes

Noes

Mr. James

Senator Branson

Mr. Corbett

Senator Prowse

Mr. Kelly

Mr. Johnson

and so it was resolved in the affirmative.

- 64. The Committee thus agree that the sealed surface of the Timber Creek/ Dingo Gap road should be 12 ft wide.
- 65. <u>Drainage, Bridges, etc.</u> Most permanent drainage structures in the form of bridges, culverts and causeways have already been constructed but some gravel inverts will require rebuilding. The deck levels of the existing submersible bridges are mostly higher than the approaches and where possible these approaches will be raised. Some additional protection works will also be required at culverts and bridge approaches frequently inundated by floods.
- 66. Scope of Work The length of road to be sealed is about 102 miles which excludes the existing sealed bridge approaches. Temporary side tracks will be provided to ensure minimum interruption to traffic whilst construction is in progress.
- 67. <u>Materials</u> Suitable gravel is available within reasonable distances of the road, the average haulage distance being about 13 miles. No difficulty is expected in establishing quarries for sealing aggregate. Although it will be necessary to supplement the natural water supply by bores, these will be kept to a minimum by working in dry areas during the wet season.

68. <u>Committee's Conclusion</u> The Committee recommend the proposed work on the road between Timber Creek and Dingo Gap be approved.

#### ESTIMATE OF COST

69. The estimated cost of the work when referred to the Committee was \$2 million.

#### PROGRAMME

70. After an approval to proceed is given, work is planned to commence late in 1971 and be completed early in 1973.

#### PART IV - CONCLUSION.

#### RECOMMENDATIONS AND CONCLUSIONS

71. 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.

Paragraph

#### Alice Springs/Erldunda Road

1. THERE IS A NEED FOR THE CONSTRUCTION OF A SEALED ROAD

BETWEEN ALICE SPRINGS AND ERLDUNDA. 33

"

2. THE COMMITTEE RECOMMEND THE CONSTRUCTION OF THE PROPOSED

SEALED ROAD BATWEEN ALICE SPRINGS AND ERLDUNDA. 44

3. THE ESTIMATED COST OF THE ALICE SPRINGS/ERLDUNDA ROAD WHEN REFERRED TO THE COMMITTEE WAS \$3,4 MILLION.

47

#### Timber Creek/Dingo Gap Road

4. THERE IS A NEED FOR THE SEALING OF THE ROAD BETWEEN
TIMBER CREEK AND DINGO GAP.

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5•	THE SEALED SURFACE OF THE TIMBER CREEK/DINGO GAP	
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6.	THE COMMITTEE RECOMMEND THE PROPOSED WORK ON THE ROAD	
	BETWEEN TIMBER CREEK AND DINGO GAP BE APPROVED.	68
7•	THE ESTIMATED COST OF THE WORK WHEN REFERRED TO THE	
	COMMITTEE WAS \$2 MILLION.	69
	2011	

(C.R. KELLY) Chairman

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

3 August 1971.