

# SOCIETY FOR SOCIAL RESPONSIBILITY IN ENGINEERING

P.O. Box N84, Grosvenor Street, Sydney 2000

Contact Telephone 02-498 5058

The Registrar,  
Land and Environment Court,  
Box 3565 GPO,  
SYDNEY. 2001

Dear Sir,

## Access Roads to Glen Bin Pty. Ltd., Lismore Shire.

We have been approached by Glen Bin Pty. Ltd. to comment on certain development conditions specified by Lismore City Council in regard to their development application.

It appears that Council has specified that portion of the existing gravel road which gives access to Glen Bin's property should be upgraded, partly at applicant's cost. This road is known as Stangers Road. It runs past Glen Bin's property and it connects with a gravel country main road known as MR 141 A. We understand that Council has proposed that the 2 km length of Stangers Road between Glen Bin's property and MR 141 A should be sealed and that about 100 metres of it should be widened. We understand that the applicant does not object to contributing towards widening and the provision of passing areas as specified in Report to Council Meeting 2/9/86 para. 2 (a) & (b). The applicant does, however, contest the proposal for sealing. We would like to comment upon the latter.

In our opinion the sealing of a short portion of roadway in a network of gravel roads cannot be justified on economic, safety or aesthetic grounds except in special circumstances. There appear to be no such circumstances in the case of Stangers Road. We understand that the road is not flood prone, it is not unduly steep, there are no dust or noise problems and the traffic volume is very low.

## Road Sealing Decision Making - Cost Benefit Analysis.

Road authorities both in Australia and overseas have made extensive use of Cost Benefit Analysis to improve the rationality of the decision making process in many different types of engineering construction work including road sealing.

In the case of road sealing, the principle adopted is that the estimated costs of the project are compared with the benefits which are expected to accrue to the community being served if the project is carried out. The factors which contribute towards costs and benefits may be divided into two classes:

- (a) those which can be quantified and
- (b) those which are difficult or impossible to quantify but which are, nevertheless, important.

Quantifiable factors include the objective economic factors such as the capital cost and maintenance costs of the project and the value to the community of benefits such as savings in vehicle operating costs, travelling time and lower accident rates.

The second category includes political factors, for example whether certain classes of development are to be encouraged or discouraged (e.g. tourism). In addition, there is an important group of factors which relate to environmental considerations, some of which may be subjective such as noise, dust, riding comfort and aesthetic considerations.

By means of analysis of the economic factors in category (a) a threshold traffic volume may be calculated for the project under consideration. For gravel roads carrying traffic above this level the community is able to save money if sealing is carried out. Where, however, the traffic volume is below the threshold level a financial burden is placed on the community. This burden increases as the traffic volume decreases. Traffic volumes are normally expressed as the Annual Average Daily Traffic (AADT).

Although the published literature on Cost Benefit Analysis is extensive, relatively little has been published in Australia on the method as applied to road sealing. However, during discussions with senior engineers from the N.S.W. Department of Main Roads we were informed that the Department carried out, in 1981, a study on the sealing of gravel roads in the Central Western Division of N.S.W. The result of this survey gave a threshold of 270 AADT as the economic "break even" traffic volume. Below this volume, sealing of "typical" roads in that area cannot be justified on economic grounds.

Threshold volumes vary from district to district according to local construction and maintenance costs. For some areas the value may be as high as 350 AADT. Only in unusual circumstances would the threshold be below 150 AADT.

Stangers Road appears to have a traffic volume of approximately 50 AADT. Even if this is increased by 20% to 60 AADT in order to allow for any likely future growth in population, this is still well below the threshold range of 150 to 350 AADT quoted above. Thus it is difficult to see how sealing of Stangers Road could be justified on economic grounds.

Calculation of the threshold volume is not difficult. The basic statistics giving the costs of vehicle operation, accidents, travelling time, road construction and maintenance costs for both gravel and sealed surfaces are available from a number of sources. It seems to us, therefore, that councils should employ Cost Benefit Analysis more extensively so that the community is not burdened with unnecessary costs. Also, this form of analysis permits projects to be ranked in priority order so that available funds may be disbursed in the most economic manner.

#### Maintenance Costs.

In general, the cost of maintaining a sealed road when calculated over a long period, say 10 to 20 years, is considerably higher than would have been the case if the road had remained unsealed. The ratio of costs varies widely from locality to locality, but it can exceed 2 to 1 in some rural areas.



Because of high maintenance costs and limited funds, a number of shires and municipalities in N.S.W. is considering reversion from sealed surfaces to gravel surfaces for some roads in their areas. We understand that examples of councils which have adopted or are considering adopting this policy are Murrurundi and Corowa. According to an N.R.M.A. report published in "Open Road" Feb./ Mar. 1982 various other shires, including Lismore, were finding that maintenance of some sealed roads was uneconomic. It appears that Kyogle Shire is now in the same position.

From a study of the D.M.R. publication "Roads 2000", it appears that many of the gravel roads in the Kyogle and Lismore Shires will remain gravel in the foreseeable future. For example, MR 141A which, according to latest available D.M.R. statistics, has a traffic volume at its north-western end of 110 AADT will remain gravel. So, also, will that portion of MR 141 to which MR 141A connects. At its junction with MR 141A, MR 141 has a traffic volume of 220 AADT. In these circumstances if Stangers Road, which branches off MR 141A, were to be sealed, maintenance costs are likely to be unusually high because it would be a small and isolated "island" of sealed roadway in a predominantly gravel network. The inducement to revert Stangers Road to gravel would be high. It would be most unsatisfactory if Glen Bin were to be required to contribute substantially towards meeting sealing costs only to find that the surface was reverted to gravel at a later period because Council found it uneconomic to maintain adequately.

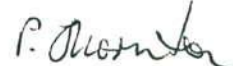
#### Safety.

Whilst it is generally accepted that accident rates for well maintained sealed roads are lower than those for gravel roads, this may not continue to apply if maintenance standards are reduced. Also, an isolated section of sealing may result in higher accident rates instead of lower rates because it becomes an inducement to speeding. In the circumstances it is unlikely that sealing of Stangers Road would result in a substantial reduction in its accident rate.

#### Conclusion.

The decision as to whether a particular road should be sealed ought to be based upon a rational assessment of the relevant objective and subjective factors involved. In the case of Stangers Road, economic justification for sealing does not appear to be possible. In regard to subjective factors, there appear to be none which would justify sealing. Sealing, if carried out and funded as Council apparently proposes, would impose a punitive burden on Glen Bin and an unreasonable and unproductive impost on the community at large.

Yours faithfully,



P. Thornton.  
Secretary.

# *The Council of the City of Lismore*

*Council Chambers,  
Molesworth Street, Lismore, N.S.W.*

TELEPHONES:  
ADMINISTRATION: 21 1501  
ENGINEERING: 21 1499  
PLANNING: 21 1497, 21 1523  
HEALTH AND BUILDING: 21 1479

P.O. BOX 23A,  
LISMORE, 2480  
DX 7761



ALL COMMUNICATIONS TO  
BE ADDRESSED TO  
THE TOWN CLERK

CONTACT **Mr. Lancaster**  
FOR FURTHER ENQUIRIES

17th September, 1986

REFERENCE FWL:LW:79037:P2-1:P2-3:R5-13:R3-2

The Secretary,  
R.R.T.F.,  
P.O. Box 62,  
NIMBIN. N.S.W. 2480

Dear Sir,

In reply to your letter of 7th August, 1986, addressed to the Department of Main Roads, I desire to advise as follows:-

1. Answered by Department of Main Roads.
2. The traffic on M.R. 141A is such that bitumen sealing is very desirable; however, Department of Main Roads' funding for reconstruction is not available nor likely to be so for at least 10 years. Council is anxious to seal the worst hilly section with Commonwealth funding, but there is a dispute over standards. Negotiations are continuing.
- 3,4, 5 & 6 No specific data is available for costs of maintaining gravel and bitumen roads, but in general costs increase with bitumen sealing as against gravel maintenance. However, this comparison ignores the cost to the community which, for heavily trafficked gravel roads, can be considerable when considering accidents, repair costs of vehicles etc.

Yours faithfully,

A handwritten signature in blue ink, appearing to be 'F.W. Lancaster'.

(F.W. Lancaster)  
For the Town Clerk.



# Poverty: 800,000 and it's rising

By AMANDA BUCKLEY

CANBERRA: A major report into homelessness has found that up to 40,000 Australians are forced to sleep out of doors or in refuges each night, with a further 60,000 on the verge of homelessness, without secure tenure and totally dependent on welfare benefits.

A further 700,000 households in Australia had insufficient income to pay mortgages or rent and still maintain themselves at the poverty line, with 135,000 families on the waiting lists for State housing authority accommodation.

The report, commissioned by the Federal Minister for Housing and Construction, Mr West, and undertaken by the finance consultants Coopers and Lybrand W. D. Scott, recommended a "massively expanded public housing program by acquisition, construction and redevelopment", or else a substantial boost in welfare and income maintenance payments.

The worst affected groups were women, lone parents, young people and the aged, Aborigines, migrants, the disabled and caravan dwellers.

Paradoxically, the report found that housing stock was growing faster than the population but the rental sector of the market was not meeting housing needs.

"The rents paid by low-income earners could be too low to overcome planning regulations, personal preference, income tax and pension eligibility barriers and attract an adequate response from owners of existing housing ... rents are too high to be affordable by low-income earners and too low to attract an adequate supply," the report said.

Occupancy rates in Australia were low and falling with almost 79 per cent of Australian households living in separate dwellings and a further 13 per cent in medium density housing.

Sixty-eight per cent of Australians owned or were buying the home in which they lived, 18 per cent occupied private rental housing and 5 per cent occupied public rental housing.

The report found that there were few hostels available and a diminishing number of boarding houses capable of operating at rents which low-income groups could pay.

"Single-sex refuges for young girls with and without children are lacking and there are proposals for encouraging families to provide board for these girls," it said.

The report was commissioned in April 1984 to review the large amount of unco-ordinated information about homelessness and housing inadequacy in Australia. Coopers and Lybrand W. D. Scott received submissions from 73 organisations and individuals in answer to its request for information.

Estimates of the number of homeless were arrived at from number in refuges, reports into homeless youth and single parents and State and Federal Government statistics.

Single women with children were most prone to poverty and the accompanying housing distress. Because they were vulnerable to sexual harassment, relatively low numbers of young women presented themselves at youth shelters.

For many women, domestic violence was the reason for leaving secure shelter; it was the largest single reason for women entering women's refuges in NSW in 1982, with nearly 50 per cent of refuge-seeking women giving it as their reason.

Young people were another large group among the homeless, the report found, with a growing proportion of young people leaving home before they were able to support themselves.

"Very young people who leave home seek independence but often actually need supervision and assistance to succeed."

Only about half resident Aboriginal households in some towns in Australia had permanent accommodation of their own, with the rest sharing, living in camps or in short-term accommodation such as hostels.

Mr West said the report represented the first serious attempt by any Federal Government to document the true extent and the causes of homelessness amongst Australians.

He said the report would be valuable in helping the Government refine its public housing programs, and would be an important weapon in the long-term assault on housing poverty in Australia.

2  
PLANNING DEPARTMENT

LEVIES 1987

SUBDIVISIONS

Open Space - Development (based on 115 m <sup>2</sup> per lot) contribution in lieu .....	\$2.80 per m <sup>2</sup>
Provision of Land .....	\$5.00 per m <sup>2</sup>
Water Supply - Lismore Augmentation .....	\$455.00 per lot
Lismore Mains Extension .....	\$365.00 per lot
City Acres Augmentation .....	\$455.00 per lot
City Acres Mains Extension .....	\$680.00 per lot
Clunes, Dunoon and Nimbin Augmentation .....	\$800.00 per lot
Clunes, Dunoon and Nimbin Village Zones Mains Extension .....	\$380.00 per lot
Clunes, Dunoon and Nimbin Rural Zones Mains Extension .....	Actual Cost
North Woodburn .....	Actual Cost
Richmond Hill (fixed by Richmond River County Council)	
- adjacent to trunk main .....	\$907.00 per lot
- all other connections .....	\$1,814.00 per lot
Sewerage - Augmentation .....	\$520.00 per lot
Mains Extension .....	\$985.00 per lot
Trunk Mains/Pump Station .....	\$855.00 per lot
Rural Road Improvement .....	\$2,440.00 per lot
Urban Road Improvement .....	\$650.00 per lot
Underground Telecom Cable (joint trench with water supply) .....	\$110.00 per lot

FLAT DEVELOPMENTS

	<u>Second Unit</u>	<u>Successive Units</u>
Open Space - Development .....	80.00	201.00
Provision of Land .....	144.00	360.00
Water Supply .....	114.00	284.00
Sewerage .....	130.00	325.00
Road Improvement .....	162.00	406.00

MULTIPLE OCCUPANCY

Rural Road Improvement - Minimum .....	\$1,500.00 per dwelling
Maximum .....	\$3,500.00 per dwelling

All levies are payable when the final subdivision plan or the building plan relating to the approved development is submitted for approval.

The levy applicable to a subdivision or development consent shall remain fixed for a period of twelve months from the date of the consent. Thereafter, the amount shall be that fixed by the Council from time to time and current when the final plan or the building application is submitted for consent.



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CONTACT **Mr. Norris**  
FOR FURTHER ENQUIRIES

**March 18, 1987**

REFERENCE: MN/LP/82586/R5-13/T4-1/M1-7 & B2-1

Mr. Dave Lambert,  
Secretary,  
Rural Resettlement Task Force,  
P.O. Box 62,  
NIMBIN 2480


Dear Sir,

I refer to your letter of 30th January, 1987, concerning the estimated number of dwellings within the vicinity of the Newton Drive, Tuntable Creek Road, Tuntable Falls Road and Rose Road area.

You are advised that following a survey by Council's officers the number of dwellings was estimated at:

- (a) Rose Road - 24 Dwellings
- (b) Tuntable Creek Road - 27 Dwellings
- (c) Newton Drive - 9 Dwellings
- (d) Upper Tuntable Road - 10 Dwellings and an estimated 100 dwelling units in Co-ordination Co-operative.

Yours faithfully,

  
(J.S. Douglass)  
For the Town Clerk

REPORT TO LOCAL ENVIRONMENTAL PLAN STEERING COMMITTEE 5/2/85  
- CONFIDENTIAL -

-9-

STRATEGIC PLANNER'S REPORT TO CHIEF PLANNER

SUBJECT: SUBMISSIONS ON EXHIBITION OF RURAL STUDY  
(FILE: MPR:JBG/P2-1-16)

17. Department of Main Roads (61506)

- \* Stating that road failure can be largely attributed to increased traffic flows and Council's policy of sealing gravel roads at the expense of resealing and maintaining existing roads. The Department strongly supports the concepts of the Strategy and requests that Council ensures that new subdivision and village expansion do not use the main roads as frontage.
- \*\* As it is sound practice to ensure that where land adjacent to a main road is serviced by a secondary road, it is envisaged that this would apply to all village expansion. The Department's point is valid but does not require a change to the Strategy.

RECOMMENDATION: No change to the Strategy.



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Yours faithfully,

(F.W. Lancaster)  
For the Town Clerk. -

# ACCESS

No 3. July 1987

## **Minister Urges Engineers to Adopt Managerial Role**

The 'build big at any cost' approach adopted by many engineers is no longer appropriate for the needs of Local Government, according to the Minister for Local Government and Minister for Water Resources, Janice Crosio.

In her opening address to the Annual Conference of the Local Government Engineers Association in Sydney (April), Mrs. Crosio stressed the need for Government, community and environmental needs to be taken into account in engineering considerations.

'It is not manpower or cost efficient to leave the engineer in his traditional role,' Mrs. Crosio said.

'The engineer must also become a manager, taking into account such things as Government, community and environmental needs, rather than simply responding to a technical problem.

'When deciding whether a road should be sealed, or a park provided in a particular location, it is necessary to look beyond the technical merits of the case and consider the needs of the local community.'



SPEECH NOTES FOR THE HON. JANICE CROSIO, M.P.,  
MINISTER FOR LOCAL GOVERNMENT AND MINISTER FOR  
WATER RESOURCES, 1987 LOCAL GOVERNMENT ENGINEERS  
ASSOCIATION OF N.S.W. ANNUAL CONFERENCE OFFICIAL  
OPENING, MONDAY, 6TH APRIL, 1987.

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ACKNOWLEDGE MAIN GUESTS:

BOB REGNIS, ASSOCIATION PRESIDENT.

TERRY GIBSON, TREASURER.

DON SHEFFIELD AND

RAY TRESTRAIL, VICE PRESIDENTS,

DON HAINS, SECRETARY.

ALLAN FIFIELD, PRESIDENT, SHIRES ASSOCIATION.

THANK YOU BOB FOR THAT WARM WELCOME AND INTRODUCTION. ONE OF THE GREATEST ASSETS OF LOCAL GOVERNMENT IN THIS STATE IS THE QUALITY OF THE PROFESSIONAL ORGANISATIONS WHICH REPRESENT THE MANY TALENTED AND CONSCIENTIOUS PEOPLE INVOLVED IN THAT LEVEL OF GOVERNMENT.

IT IS INDEED A GREAT PLEASURE TO BE INVITED HERE THIS MORNING TO OFFICIALLY OPEN THE 1987 ANNUAL CONFERENCE OF THE LOCAL GOVERNMENT ENGINEERS' ASSOCIATION OF NEW SOUTH WALES.

SINCE THE INCEPTION OF LOCAL GOVERNMENT, ENGINEERS HAVE PLAYED A MAJOR ROLE IN THE PROVISION OF THE MANY BASIC, BUT VITAL, SERVICES NOW ENTRUSTED TO LOCAL COUNCILS.

OVER THE LAST, SAY, 100 YEARS, THE RESPONSIBILITIES AND EXPECTATIONS OF LOCAL GOVERNMENT HAVE DEVELOPED AND CHANGED TO THE POINT WHERE COUNCILS PLAY A VASTLY DIFFERENT, BUT MUCH MORE SIGNIFICANT, PART IN THE PROVISION OF SERVICES TO RATEPAYERS.

EVEN IN THE LAST 10 YEARS, THAT CHANGE HAS BEEN APPARENT. AND, AS THE COMMUNITY NEEDS, ATTITUDES AND VALUES HAVE CHANGED, THOSE IN LOCAL GOVERNMENT - AND THE PUBLIC SECTOR IN GENERAL - HAVE HAD TO RECOGNISE AND RESPOND TO THAT CHANGE.

ALONGSIDE THE CHANGE IN COMMUNITY ATTITUDES HAS BEEN A GRADUAL TIGHTENING OF THE ECONOMIC RESOURCES AVAILABLE TO ALL LEVELS OF GOVERNMENT.

THE PACE OF CHANGE IS SUCH THAT IT IS NECESSARY FOR AUTHORITIES AND THOSE WHO MANAGE THEM, TO BE IN A POSITION TO RESPOND RAPIDLY AND EFFECTIVELY.

WE HAVE SEEN SOME URGING TO RECOGNISE THIS CHANGING ENVIRONMENT THROUGH EFFORTS TO MAKE PUBLIC UTILITIES MORE RESPONSIVE AND ACCOUNTABLE, AND TO CONSTANTLY REVIEW STRUCTURES AND MANAGEMENT SYSTEMS.

IN MY OWN PORTFOLIO I HAVE RESPONSIBILITY FOR FIVE DEPARTMENTS OR AUTHORITIES, COMPRISING THE SYDNEY WATER BOARD, HUNTER DISTRICT WATER BOARD, THE DEPARTMENT OF WATER RESOURCES, DEPARTMENT OF LOCAL GOVERNMENT AND VALUER GENERAL'S DEPARTMENT. I AM ALSO RESPONSIBLE FOR THE ADMINISTRATION OF LORD HOWE ISLAND, COBAR WATER SUPPLY AND THE BROKEN HILL WATER AUTHORITY.

OVER THE PAST FEW YEARS, THESE AUTHORITIES HAVE HAD TO REASSESS THEIR ROLE, EXAMINE THE RELEVANCE OF THE SERVICE THEY ARE PROVIDING AND, IN SOME CASES, MAKE SUBSTANTIAL CHANGES TO THEIR STRUCTURE AND MANAGEMENT.

WITHOUT THESE CHANGES, ALL PUBLIC AUTHORITIES RUN THE RISK OF BECOMING UNRESPONSIVE AND TIED TO OUTDATED PROCEDURES AND SYSTEMS. IN SHORT, OF BECOMING IRRELEVANT.

LOCAL GOVERNMENT HAS ALSO HAD TO FACE UP TO THIS CHANGING ENVIRONMENT. GIVEN THAT COUNCILS ARE IN CONSTANT AND DIRECT CONTACT WITH THE COMMUNITY, IT IS EVEN MORE IMPORTANT THAT LOCAL GOVERNMENT BE AWARE OF AND RESPOND TO THESE CHANGES IN COMMUNITY ATTITUDES AND VALUES.

AS MINISTER FOR LOCAL GOVERNMENT, I BELIEVE I HAVE A RESPONSIBILITY TO ENSURE THAT THE CONTEXT IN WHICH LOCAL GOVERNMENT OPERATES IS CONDUCIVE TO CHANGE, AS WELL AS PROVIDING LOCAL COUNCILS WITH SUFFICIENT FLEXIBILITY TO ALLOW FOR PAROCHIAL DIFFERENCES.

THE REVIEW OF THE LOCAL GOVERNMENT ACT, WHICH IS CURRENTLY UNDERWAY, WILL ENSURE THAT LOCAL GOVERNMENT IS WELL EQUIPPED TO MEET THE CHANGING NEEDS OF COUNCILS AND THE COMMUNITIES THEY SERVE THROUGH TO THE 21ST CENTURY.

THE INTENT OF THE REVIEW IS TO PRODUCE A NEW ACT WHICH IS SIMPLE AND CLEAR. IT WILL ACCOMODATE THE INTENT OF THE PROVISIONS OF THE PRESENT ACT WHICH ARE STILL RELEVANT TO LOCAL GOVERNMENT, BUT WILL BE FLEXIBLE ENOUGH TO MEET THE EMERGING NEEDS OF COUNCILS.



THE FIRST STAGE OF THE REVIEW IS NOW COMPLETE, AND A DISCUSSION PAPER HAS BEEN PREPARED. THIS PAPER LOOKS AT THE FUNCTIONS AND POWERS OF LOCAL GOVERNMENT, AND WILL BE USED AS THE BASIS FOR A SERIES OF SEMINARS WITH MAJOR LOCAL GOVERNMENT GROUPS, INCLUDING THIS ASSOCIATION.

HOWEVER, WHILE I AND MY DEPARTMENT CAN FOCUS ON NEW STRUCTURES AND SYSTEMS TO BECOME MORE RESPONSIVE TO CHANGING COMMUNITY VALUES AND EXPECTATIONS, THIS COUNTS FOR NOUGHT IF THE PEOPLE WITHIN THOSE STRUCTURES ARE NOT WILLING TO CHANGE OR DO NOT HAVE THE SKILLS TO RECOGNISE AND DEAL WITH CHANGE.

ONE OF THE CRYING DEMANDS IN BOTH THE PUBLIC AND PRIVATE SECTOR TODAY IS FOR BETTER MANAGERS. MANAGERS WHO CAN DEAL WITH AN ARRAY OF PROBLEMS AND MANAGE IN THE BROADEST POSSIBLE SENSE. THEY MUST BE ACCOUNTABLE NOT ONLY FOR FUNCTIONAL AND TECHNICAL MATTERS, BUT ALSO FOR PERSONNEL, FINANCE, STAFF WELFARE AND INDUSTRIAL RELATIONS ISSUES.

HIGHER EDUCATION AUTHORITIES IN AUSTRALIA TRADITIONALLY PRODUCE ENGINEERS WITH A HIGH LEVEL OF EXPERTISE AND PROFESSIONALISM, AND FOR THAT THEY SHOULD BE CONGRATULATED. THERE ARE TYPICAL ENGINEERING STRENGTHS SUCH AS ANALYTICAL SKILLS, PROBLEM SOLVING AND MANAGEMENT OF TECHNICAL ISSUES. BUT THERE ARE ALSO RECOGNISED CLASSICAL WEAKNESSES SUCH AS KNOWLEDGE OF FINANCE, LAW, ECONOMIC AND MANAGEMENT THEORY, AND PERSONNEL AND COMMUNICATION SKILLS.

ENGINEERS NOW NEED TO PLUG THOSE GAPS.

IT IS NOT THE ROLE OF THOSE INSTITUTIONS TO TEACH ALL THOSE SKILLS. THEY ARE SKILLS LEARNED THROUGH EXPERIENCE - AS MANY OF YOU HERE TODAY WOULD KNOW - AS WELL AS THROUGH CONTINUING FORMAL AND INFORMAL EDUCATION. CONFERENCES SUCH AS THIS CAN BE AN IMPORTANT LEARNING EXPERIENCE.

IN TODAY'S CLIMATE, MANAGERS NEED TO WIDEN THEIR SPAN OF CONTROL USING A NUMBER OF SKILLS AND RECRUITING THOSE WHO HAVE SKILLS THEY DO NOT POSSESS THEMSELVES.

IT IS NOT MANPOWER OR COST EFFICIENT TO LEAVE THE ENGINEER IN HIS TRADITIONAL ROLE. THE ENGINEER MUST ALSO BECOME A MANAGER, TAKING INTO ACCOUNT SUCH THINGS AS GOVERNMENT, COMMUNITY AND ENVIRONMENTAL NEEDS, RATHER THAN SIMPLY RESPONDING TO A TECHNICAL PROBLEM.

FOR EXAMPLE, THE SO CALLED 'BUILD BIG AT ANY COST' SYNDROME OF THE PAST IS NO LONGER APPROPRIATE. ISSUES SUCH AS DEMAND AND RISK MANAGEMENT MUST BE CONSIDERED. IT IS OFTEN EASIER TO BELIEVE THAT SUCH ISSUES ARE NOT RELEVANT TO YOUR COUNCIL OR YOUR OWN AREA OF RESPONSIBILITY WITHIN COUNCIL. HOWEVER, YOU WILL IGNORE THESE AND OTHER MANAGEMENT ISSUES AT YOUR PERIL.



WE ARE ENTERING A PERIOD WHERE FUNDS ARE TIGHT AND WHERE COMMUNITY SCRUTINY OF PUBLIC AUTHORITIES IS INCREASING, YET WE MUST ASK OUR EMPLOYEES TO BE FLEXIBLE, TO BE ENTREPRENEURIAL AND TO CONTRIBUTE NEW IDEAS IF WE ARE TO DO OUR JOB PROPERLY. MANAGEMENT AT ALL LEVELS HAS THE RESPONSIBILITY TO CREATE THE ENVIRONMENT IN WHICH IDEAS AND INNOVATION FLOURISH.

YOU AS MANAGERS HAVE A RESPONSIBILITY TO HELP PEOPLE EXERCISE THEIR SKILLS, TO MATCH JOBS AND PEOPLE, TO HELP EMPLOYEES TO GROW IN THE JOB AND ENCOURAGE POTENTIAL LEADERS. GAINS IN EFFICIENCY ARE FREQUENTLY ACHIEVED BY GIVING STAFF THE CHANCE TO CONTRIBUTE AND SHOW WHAT THEY CAN DO.

COUNCILS AND OTHER PUBLIC AUTHORITIES HAVE A HISTORY OF STANDARDISING PROCEDURES. IN SOME WAYS IT IS EASIER TO MANAGE IN SUCH AN ORGANISATION. BUT PROCEDURES NEED TO EVOLVE TO MEET COMMUNITY NEEDS BECAUSE THEY CAN AND DO BECOME UNFAIR AND OUT OF DATE.

YOU NEED TO CONSIDER WHETHER THE PROCEDURES MAKE SENSE IN TODAY'S CONTEXT. IN MANY CASES THE APPROACH TAKEN NEEDS TO BE SHAPED BY THE LOCAL WORKING ENVIRONMENT AND THE SECTOR OF THE COMMUNITY TO BE SERVED. WHEN DECIDING WHETHER A ROAD SHOULD BE SEALED, OR A PARK PROVIDED IN A PARTICULAR LOCATION, IT IS NECESSARY TO LOOK BEYOND THE TECHNICAL MERITS OF THE CASE AND TO CONSIDER THE NEEDS OF THE LOCAL COMMUNITY.

PROPER MANAGEMENT ENABLES COUNCIL TO BETTER FACE THE DIFFICULT FINANCIAL PERIODS AHEAD, WITH THE NECESSARY GAINS IN EFFICIENCY AND PRODUCTIVITY.

THE MAJOR CHALLENGE FACING LOCAL GOVERNMENT IS TO CONTINUE A HIGH STANDARD OF SERVICE, PROFESSIONAL CAPACITY AND SKILLS WHILE FINANCIAL RESOURCES DIMINISH.

MANY COUNCILS THROUGHOUT AUSTRALIA ARE NOW RE-ASSESSING THEIR ROLE, FUNCTIONS AND OBJECTIVES IN ORDER TO POINT THEMSELVES IN THE RIGHT DIRECTION. THE NEED FOR NEW MANAGEMENT TECHNIQUES TO SUPPLANT TRADITIONAL MANAGEMENT STYLES IS BEING RECOGNISED. THESE CHANGES WILL ALSO MEET THE REQUIREMENT FOR INCREASED ACCOUNTABILITY AND RESPONSIVENESS TO THE COMMUNITY.

THE LOCAL GOVERNMENT ENGINEER, AS TECHNICAL ADVISER AND MOST IMPORTANTLY AS A MANAGER, HAS AN IMPORTANT ROLE TO PLAY IN MAKING SURE THAT LOCAL GOVERNMENT REMAINS RESPONSIVE TO CHANGE, AND THEREFORE RELEVANT TO THE COMMUNITY IT SERVES.

I WISH YOU WELL IN YOUR DELIBERATIONS AND TAKE PLEASURE IN DECLARING OFFICIALLY OPEN THIS CONFERENCE. THANK YOU.



*Lumore Shire*

*Draft*

GUIDELINES FOR ROAD AND MAJOR CULVERT AND BRIDGE UPGRADING  
----- FOR MULTIPLE OCCUPANCY DEVELOPMENT. -----

NOTE:

- (i) This guideline is to be used as an indication of possible upgrading at the full cost of the developer or the applicant and Council reserves the right to impose other conditions as each case merits.
- (ii) It is anticipated that Council may not impose the rural road improvement levy where there are substantial road improvements required to serve a particular development.

Item 1. For a road system of up to approximately 20 dwellings, including existing dwellings on adjacent properties. [Subdivision or Multiple Occupancy Development of these properties will attract further upgrading of the road network at the development consent.]

- (a) Upgrade to a 6.0 metre wide gravelled formation with minimum compacted pavement depth of 250 mm - providing the longitudinal grade shall not exceed 16%: if 16% is exceeded a 5.0 metre wide bitumen sealed pavement will be required for part or full length of the road; *\$60,000. gravel*  
*\$85,000. bitumen*
- OR (b) Upgrade to a 6.0 metre wide gravelled formation with a 5.0 metre bitumen sealed pavement for the following situations:- *\$85,000.*

- (i) The proposed road is less than 1 km long and leads from an existing bitumen sealed road;
- or (ii) The proposed road passes several existing dwellings located close to this road and prevention of a dust nuisance is required;
- or (iii) The proposed road has a history of notorious maintenance and repair of sections.

Item 2. The road system has from approximately 20 to approximately 40 dwellings, including existing dwellings [as in Item 1 above]. *\$85,000.*

- (a) Upgrade to a 6.0 metre wide gravelled formation with a 5.0 metre bitumen sealed pavement.

Item 3. From approximately 40 to approximately 100 dwellings. *\$110,000.*

- (a) Upgrade to a 8.0 metre wide gravelled formation with a 6.0 metre bitumen sealed pavement.

Item 4. Major culverts and bridge upgrading.

*\$400./m<sup>2</sup> bed area* (a) Up to approximately 40 dwellings, the structure may be a low level type with a water way to cater for a flood discharge frequency of one in five years and a minimum width of 6.0 metres between kerbs;

*\$575./m<sup>2</sup> bed area* (b) From approximately 40 to 100 dwellings, the structure shall provide a waterway to cater for a flood discharge frequency of one in fifty years and a minimum width of 8.0 metres between kerbs.

All of the abovementioned works will require design plans to be approved by the City Engineer prior to the commencement of any work on the road system or the erection of any dwellings within the land.



The Blue Pearl Trust,  
C/- Mr. G. Crosby,  
Siddha Farm,  
P.O. Nimbin. 2480

28th October, 1985

Mr. P. Reynders,  
Lismore City Council,  
Planning Dept.,  
P.O. Box 23A,  
LISMORE. 2480

Dear Mr. Reynders,

RE: Development Application 84/3052 - Multiple Occupancy.

In the course of our meeting on 13th Sept. 1985 to discuss the road access conditions that may be applied to the above application, one of the options raised was that of purchasing Young Road, thereby making it a private access road, which would remove the responsibility for its upgrading and maintenance from Council. This option was subject to the approval of the person whose property the road goes through and he has refused to give his permission for various reasons. The main reason being that the road reverting to private ownership would effectively cut a 4OHA block in half which would make it difficult to sell at a later date. If the 4OHA block were able to be further subdivided into two titles the owner would allow the purchase of the road but you have informed us that under existing guidelines this is not possible. The owner is willing to purchase the road in his name and allow us right of way, but this has also been ruled out under existing Council policy. Unless the Planning Dept. is aware of any further legal avenue that would enable us to purchase Young Road then the road must remain a public access and the question of responsibility for upgrading and maintenance would need to be resolved to the satisfaction of both parties.

Should the Council see fit to reject our Development Application on the grounds of unsuitable access or seek to impose the conditions mentioned in your letter of 30th August 1985 then we would contest the decision through every avenue open to us. We feel that the conditions which may be imposed on our Development Application by the Engineers Dept. would be arbitrary and unjustified in our case.

Objections to Councils proposed conditions on access road.

A number of road authorities have recommended the use of cost benefit analysis to assist in determining when sealing of rural roads may be justified. The principle adopted is that the benefit which accrues to the community being served should exceed the cost of sealing if this work is to be carried out.

The benefits may be classified as -

1. Objective economic factors such as savings in the cost of vehicle operation and travel time and
2. Subjective factors which cannot easily be quantified such as reduction in noise and dust and aesthetic considerations.

The costs include the cost of the capital invested in carrying out the work plus road maintenance costs.



### Objective Factors.

One major authority in N.S.W. has established that for typical rural roads, it is uneconomic to undertake sealing unless the annual average daily traffic exceeds 350 vehicles per day. In the case of Young Road the total volume of traffic at the present time has been found to average 6 vehicles per day. Even if all the Shareholders were living here the daily traffic would not exceed 50 vehicles per day, assuming everyone used the road everyday. A recent survey shows just the opposite.

In the Barker Survey (LCC 1985) it was found that 75% of surveyed M.O. households owned their own vehicle and that "most people leave their community on one or two days each week". It is further noted that some 76% left the community on 3 occasions or less each fortnight. From our own observations the traffic pattern of our access road is consistent with the findings of the Barker Survey.

As the only reason for Young Roads existence is to give access to our property, the road is used only by residents and a few visitors and not by the public at large. It thus appears that sealing cannot be justified on economic grounds.

### Subjective Factors.

In regard to factors which can only be estimated subjectively, dust is not a problem because of the absence of residents along the road. From an aesthetic viewpoint a gravel road is often considered more appropriate in this type of development which the Planning Dept. stresses should be low profile. If Young Road were sealed the result would be a short piece of bitumen through a farm property between two gravel roads. A sealed surface would increase speeds dramatically. At present cattle graze on the road verges at no risk to themselves or road users. The road would have to be fenced off on both sides of its length if speeds were to increase. This extra cost would be borne, we presume, by the party responsible for the upgrading and maintenance of the road.

The cost of maintaining a sealed road, when calculated over a fifteen year period, is approximately twice that for a gravel road, assuming that traffic, location and width are the same. For this reason and because of limited funds, a number of Rural Shires and Municipalities in N.S.W. are considering reversion from sealed surfaces to gravel surfaces for some roads in their areas. Priority 3 roads (access to properties) such as Young Road are bottom of the list for maintenance and will be deliberately allowed to degenerate to gravel surfaces. Murrurundi Council for example has already adopted this policy. It would be most unsatisfactory if the Blue Pearl Trust was required to meet the very high cost of sealing its access road only to find it was later converted back to gravel because the responsible authority was not able to afford the cost of maintaining it adequately. In fact, the party who would be responsible for maintaining the road has not yet been made clear to us.

It appears to us that the Planning Dept. is prepared to familiarize themselves with each M.O. Application and understands that each one is unique in that its size, needs and life style vary greatly. If these factors are taken into consideration then the decision is based on the merits of each case. If the Engineers Dept. however, did not arbitrarily demand the maximum road standard permissible under the present rigid guidelines, in our case without bothering to find out that the access had already been improved, the potential for lengthy debates and possible court cases would be greatly



diminished. Their demands often bear no relationship to traffic useage. Some N.S.W. Councils, notably Coffs Shire Council (LEP No.21) and Tweed Shire Council (LEP No.6) have adopted a more flexible interpretation to road access under Section 90 of the EP & A Act and state - "the availability of an all weather access road to the land" as being adequate for M.O. development.

The current thinking from the Dept. of Environment and Planning in Multiple Occupancy - A discussion paper - DEP 1985. Section 6 - Environmental and Locational Criteria - states "The following matters should be dealt with in a concept plan. Access - access to M.O. developments should be by public roads and not by rights of way. Different road standards should apply depending on the volume of total road use."

#### Objections to Councils Proposed Conditions on Bridge.

##### Structural Stability.

The wooden bridge over Tuntable Creek at the end of Young Road was built many years ago and shows no sign of structural deterioration. The load bearing capacity of the bridge has been greatly increased by laying longitudinal timbers over the existing decking and to date a 20 tonne tip truck has made over 30 trips across the bridge to lay gravel on our internal roads. It is highly unlikely that vehicles heavier than this will be needed for the community's development. The bridge is well anchored from floods by a massive boulder on the downstream side.

##### Emergency Access and Exit.

Last year (1984) was an extremely wet one and the bridge went under water on several occasions. However, the water did not appear to cover the decking by more than 300mm and the water receded in a matter of hours. From our own experience we have found that the bridge is negotiable by 4wd vehicle when the water is above the decking. If the bridge were swept away in a flood and an emergency situation arose then we have access to Wallace Road and thence to The Channon via our own forest road.

If a bridge were constructed to above the 1 in 5 year flood then we would have an expensive white elephant because we would be unable to drive a vehicle for more than a few kilometres in either direction. We have found from experience that when our bridge is under water then the concrete fords on Tuntable Creek Road between our property and The Channon are also impassable and that in the other direction Tuntable Falls Road is also severed by floodwaters as it approaches Nimbin.

We would therefore submit that the proposed bridge conditions Council may impose on our D.A. would be an unjustifiable expense and completely unwarranted until the Council has upgraded the existing public road system in the area so that it too is above the 1 in 5 year flood level.

##### Road Improvement Levy.

We would strenuously oppose any effort by Council to impose road upgrading conditions under Section 90 and a contribution under Section 94 of the EP & A Act. In the Council's own words, from - Guidelines for Road and Major Culvert and Bridge Upgrading for M.O. Development - "It is anticipated that Council may not impose the



rural road improvement levy where there are substantial road improvements required to serve a particular development."

Councils must establish a need for upgrading of community services if contributions are to be sought under Section 94 of the EP & A Act. The findings of the recent Barker Survey (LCC 1985) concluded that "residents of M.O.'s are not regular users of community services in nearby towns." Some of these services are either funded or subsidised by the State Government.

The Dept. of Environment and Planning also expresses concern over the level of Section 94 contributions in its - M.O. in Rural N.S.W. - A discussion paper - Section 9, (Monetary Contributions) and suggests financial guidelines for Councils. The D.E.P. is also of the opinion that contributions under Section 94 should not be sought if road upgrading is required under Section 90.

#### Access Development Needs from the Community's Point of View.

The 25 Shareholders who purchased shares in the Blue Pearl Trust did so with the common purpose of establishing a Spiritual Community on the property. Many at present have family and business interests elsewhere and do not intend to settle on the property for some years. The property had 700 established fruit trees on it when we took over and several families moved here to care for these orchards. There are currently five families living on the property and a recent survey of our shareholders shows that we could not expect a total of more than ten families living here before the end of 1987. We can only anticipate this slow development pattern will continue.

The Blue Pearl Trust is aware of the Council's, or more specifically the Engineers Depts.' concern to protect itself from any future demands for upgrading Young Road. Our access situation is somewhat unique in regard to M.O. The Blue Pearl Trust is the only ratepayer on Young Road and as there is no possibility of further subdivision along the road this would rule out future demands for road upgrading by other parties. Any agreement entered into would only need to be negotiated between The Blue Pearl Trust and the Council. At no point in the course of our dealings with Council have we suggested that the ratepayers should carry the cost of roadworks, nor are we about to.

Since taking over the property we have already shown good faith by using our own funds to upgrade Young Road from a dirt track, impassable in the wet, to a single lane all weather road. The bridge decking has also been considerably strengthened and can now safely carry 20 tonne vehicles. For the last 12 months the access to our property has proved adequate in all weathers for the five families using it.

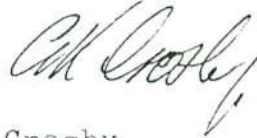
From our own experience we know that as the population increases we will have to upgrade the access and our intention to do this has already been stated quite clearly in our Development Application (paragraph 5.10) "As the development will occur over a number of years and the nature of the development is not an extensive trip generator the property owners intend to gradually upgrade the road to an appropriate standard, reflecting the user demands, and regularly maintain it at their own expense."

The Blue Pearl Trust feels that if it is to accept the responsibility and therefore the substantial cost of upgrading and maintenance of Young Road and the bridge over Tuntable Creek that the standard of the work should reflect user demand. In this way the needs of the

community would be best served.

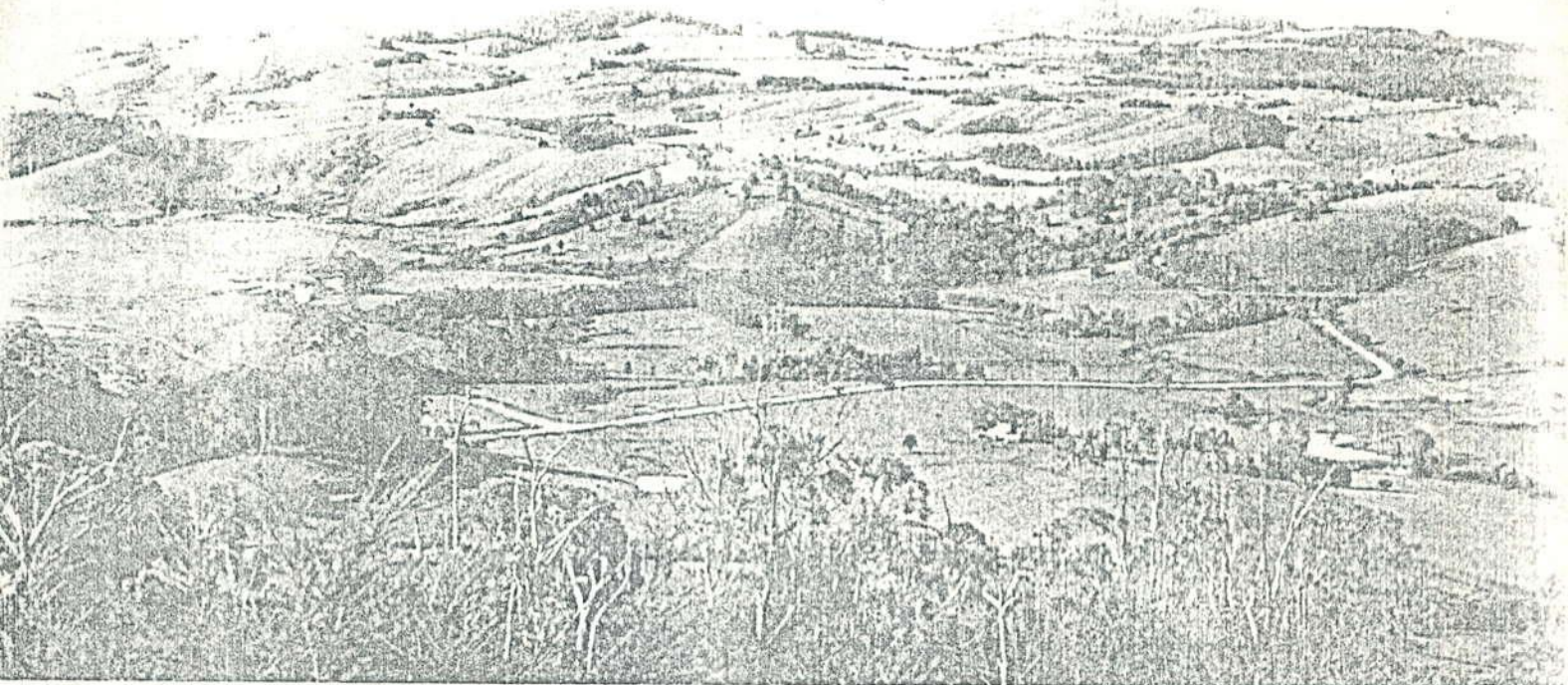
We trust that further discussion between the Planning Dept., Engineers Dept and ourselves can resolve the issue to our mutual benefit.

Yours faithfully,

A handwritten signature in cursive script, appearing to read "G.K. Crosby".

G.K. Crosby,  
Trustee for The Blue Pearl Trust.





The countryside is a much sought-after place to live — but at what personal and public cost?

# Costs of Servicing Rural Sprawl

Robert J Smith

*Regional Liaison Officer, Department of Agriculture*  
and

Peter B Reynders

*Chief Planner, Lismore City Council*

## Introduction

THE movement of population from the cities to the country is an international phenomenon evident since the late 1960s and attributable to improved transportation, increased affluence, deteriorating quality of city life, improved provision of rural services and the image of idyllic country living. How this demand is met varies greatly in different overseas countries (Smith 1985).

Since World War II, most of the population increase in rural parts of Europe and the United Kingdom has been confined to towns and villages through infilling of vacant land and

with limited expansion of urban and village boundaries.

Many redundant farm buildings, including barns and workers' cottages, have been sold off and renovated for rural living. Very few new rural settlers have been able to obtain planning approval to erect dwellings in the countryside because of strict controls (Department of Environment) to protect the countryside.

By contrast, in the United States, Canada and Australia, much of the population increase in rural areas has been accommodated in farming districts on allotments typically ranging from 0.5 to 10 ha. The terms Rural Residential

and Hobby Farms have commonly been applied to holdings in this size range, depending on the use of the land.

Much of the settlement has been *ad hoc* ribbon development along existing country roads, but there is now an increasing trend towards the release of estates to cater for this market.

With *ad hoc*, thinly dispersed rural subdivision, available utility and community services including roads, reticulated water, communications and social services, soon fail to maintain acceptable levels. The increases in public servicing costs as rural communities become more urbanised can place heavy burdens on other sectors in the community.



Whilst the New South Wales State Government is pursuing an urban consolidation policy to maximise the use of existing urban infrastructure and to limit the need for capital investment in new services, the situation in rural areas is still almost the opposite.

Rural residential development is widespread internationally and has substantial implications for the countryside. A review of the literature (Joseph and Smith, 1981) has demonstrated a paucity of theoretical, ethical and empirical evidence on the nature of these implications.

Much policy is formulated in the absence of reliable information and rigorous analysis, particularly policy relating to land use control and service provision.

The purpose of this article is to review available local and overseas information on servicing costs of rural residential and hobby farm development and illustrate the likely implications for planners, policy makers and the community in general.

## Rural Settlement Costs

### 1. Australia

An Australian review on rural retreating (McQuin, 1978), citing a case study in the New England Region, concludes that rural retreaters have not only imposed impacts upon commercial farmers, but also imposed heavy workloads upon various extension services and public facilities.

Kiernan and Dwyer (1983) found that in New South Wales the user pays principle does not apply to rural services and urban-rural cross subsidies of services including those supplied by electricity and telecommunications authorities, are normal. Rural subdivisions were found to have higher service costs than urban subdivisions, and concessional allotments place high servicing demands on local Councils.

The study lists the factors to be considered so that rural subdivisions may be developed without cross subsidy. This list includes assessment and documentation of market demand, engineering services, future maintenance of services, waste collection, bush fire protection, recreation facilities, land valuation and the need for differential rating.

The latter issue, of course, is also relevant for developments where more than one dwelling per property occurs, such as dual and multiple occupancies.

Barker and Knox (1985) suggest that multiple occupancy involving communal rural lifestyles through use of car pooling and self-help would have less need for public investment in rural infrastructure than conventional rural subdivision for equal population densities.

However, the increasing trend in multiple occupancy is away from true communal lifestyles (Woodward 1986(a)) and towards freehold title. Hence, the difference in demand for infrastructure

is likely to be marginal in the longer term.

Woodward (1986(b)) suggests a \$1500 contribution be required per dwelling for road costs for multiple occupancy development, via s.94 of the EPA Act. However, he does not provide calculations or differentiation between sites along sealed roads or in remote locations or large versus small developments.

The loose legal requirements regarding the granting of 'concessional lots' requiring the council's satisfaction of the 'intention of agricultural use' have caused less rural servicing costs to councils which have closely scrutinised rural subdivision on agricultural viability, than to those councils which have allowed thousands of such lots without such up-front investigation.

The knowledge that rural residential and hobby farm growth means more public investment via cross subsidisation by urban tax/ratepayers is not necessarily sufficient to change rural settlement policies.

For example, in identifying 64 problems in rural areas, Ryan *et al* (1983) presented three basic growth concepts to Lismore Council. These were: (a) no rural (non-agricultural) population growth; (b) moderately concentrated rural growth, with additional population in or close to the facilities of existing villages; and (c) dispersed rural growth.

The concentrated option was adopted aiming at cost minimisation and service maximisation objectives. Many of the subsequent growth strategies and policies developed towards these aims were not adopted for local political reasons and with the result that implementation of the resulting draft plan will be closer to the dispersed option.

### 2. North America and Europe

The overseas literature is dominated by a small number of major studies emanating from the United States of America, the United Kingdom and Ireland. The report by the United States Council of Environmental Quality (1974), titled *The Cost of Sprawl* provides a detailed examination of the costs of three urban communities' settlement patterns ranging from low density sprawl to combination mixed and high density planned communities.

Whilst the findings apply to urban settlement, they give an insight into the likely impacts of lower density rural residential and hobby farm settlement in rural areas. The major conclusion of the study is that for a fixed number of households, sprawl is the most expensive form of residential development in terms of economic and environmental costs, natural resource consumption and many types of personal costs.

In terms of alternative development patterns for a given site, the study indicates that better planning will reduce

all types of costs, especially on government.

Detailed economic analysis of forms of rural settlement in the United Kingdom is illustrated by a comparison of clustered and dispersed village growth (Shaw, 1976). The study has similar findings to the earlier United States' study and concludes that the annual costs overall would be about one-third higher under a dispersed villages' strategy compared with a concentrated urban strategy.

The study which most closely parallels the New South Wales situation was conducted in Ireland in 1976. The confidential report, titled *Urban Generated Housing in Rural Areas*, provides a detailed analysis of the social, economic and environmental implications of rural sprawl. The report concludes that rural settlement requires some form of clustering to reduce costs yet maintain the aspirations of the majority.

It also advocates conservation of the rural areas from continuous urban sprawl and use of or development of the existing settlement infrastructure. The report concludes that while new clusters could be formed, in most cases it is best to build on existing settlements. A related study by Suffren (1977) suggests that the Australian concept of urban cluster housing is a most suitable alternative to unplanned rural housing in rural Ireland.

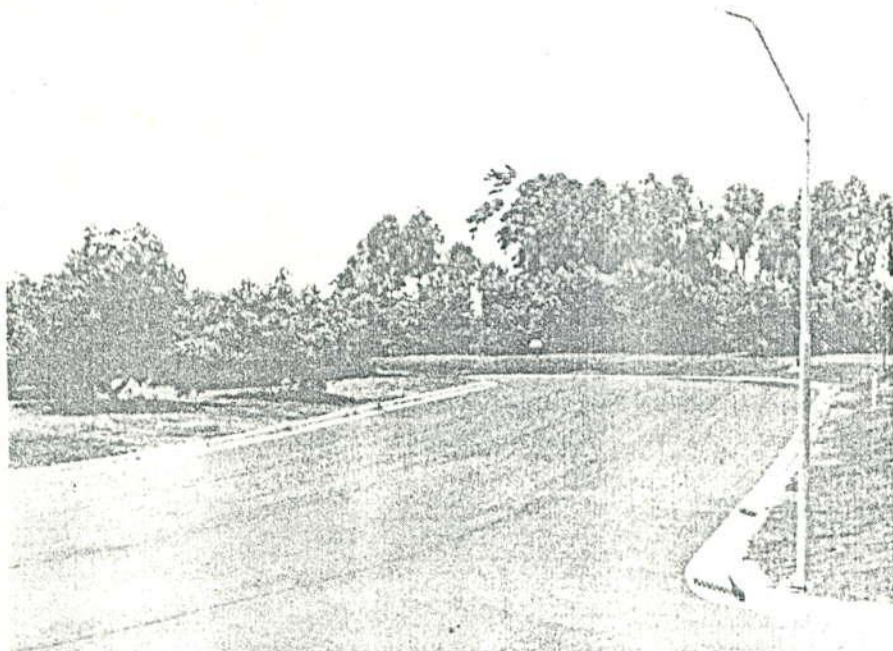
The latter study found that building in a dispersed pattern, increases (private) costs to the individual by 113% (capital) over similar development of a concentrated nature. The costs of commuting (ongoing, private) may be up to 1,660% higher, depending on the degree of dispersal, location, number of people and method of commuting. On average, the cost is 550% more than in a concentrated residential work environment.

In terms of public costs, the results show scattered housing to be 395% (capital) and 236% (ongoing) more costly to the community as a whole. The comparison shows that whilst the average costs to an individual of a dispersed development are some 85% more than a concentration, the community bears a far larger 236% cost increase.

The Illinois Department of Local Government Affairs and the Dekalb County Planning Department (1979) released a guidebook for fiscal impact analysis of rural residential developments proposed for rural areas of Dekalb County. The guidebook endeavours to project both the likely costs to government agencies incurred in servicing the proposed development and the likely public revenues to be generated by that development.

However, the services are restricted to education, roads, police, fire and ambulance. It suggests very large disparities in both expenditures and





An avocado orchard on prime horticultural land is no barrier to urban expansion. (Sharwood Chase, near Alstonville.)

revenues, particularly for education and school transport from a rural subdivision.

#### Initial Versus Long Term Costs

The initial public costs of low density rural development are not high so long as such development does not overtax existing roads, schools and groundwater supplies for septic percolation capacities (Smythe and Laidlaw, 1984). However, over time, *ad hoc* rural development may create conditions that are difficult and costly to overcome in later years because needed improvements, such as road, water, recreation and other public facilities, may be constrained by existing development or be prohibitively expensive.

The Smythe and Laidlaw (1974) study attempts a quantitative costing of four densities of rural settlement ranging from rural sprawl at 0.5 dwelling units per hectare through to urban density development at eleven dwelling units per hectare. The detailed cost analysis quantifies direct government expenditure associated with each residential development, but does not include an estimation of public or private costs associated with non-residential development or opportunity costs of the foregone alternative land uses, such as loss of income and employment from termination of agriculture. The report identifies that one of the most difficult, but potentially most important, problems is that of deferred public costs.

Some large capital costs, such as construction of roads, water and waste treatment systems, and in some cases recreational facilities, are internalised by the developer into the price of a dwelling unit.

However, subdivision roads, water

and sewerage lines become public property and eventually require public maintenance and replacement. Wells and septic systems, though privately maintained, have finite lifetimes and often require replacement by public sewage and water systems which involve huge capital costs.

The time lag threatens a serious imbalance in costs versus revenue for every year except the first when the developer makes a once only cash donation (Centre for Governmental Studies, 1979).

Where two or more dwellings are allowed per lot, the additional land tax income, if any, is unlikely to cover the additional demand for services.

The final balance sheet for the Loudoun County Study shows the shortfall between revenue received and costs incurred indicates the high level of cross subsidisation that can occur between high density urban settlement and rural settlement.

#### Implications for Planners

In Australia, rural groups will continue to exert pressure to upgrade those basic rural services and to minimise the charge to the rural consumer (Holmes, 1983). Issues in rural service provisions will loom large in public debate and policy making, because of:

- "1. strong pressure being exerted in favour of equality of servicing charges, arising partly from the shift in rural populations towards an urban orientated lifestyle and partly from the growing tendency to equate locational disadvantage with other forms of social disadvantage;

2. increasing technical capacity to upgrade some rural services to urban standards, particularly communications; and
3. escalating costs of service provision and a widening gap between expenditures on and revenues from rural services provided by income earning public utilities and between urban and rural per capital costs in non-revenue sectors, such as education."

Holmes (1983) goes on to suggest that governments will be faced with certain inescapable facts of which the three most important are:

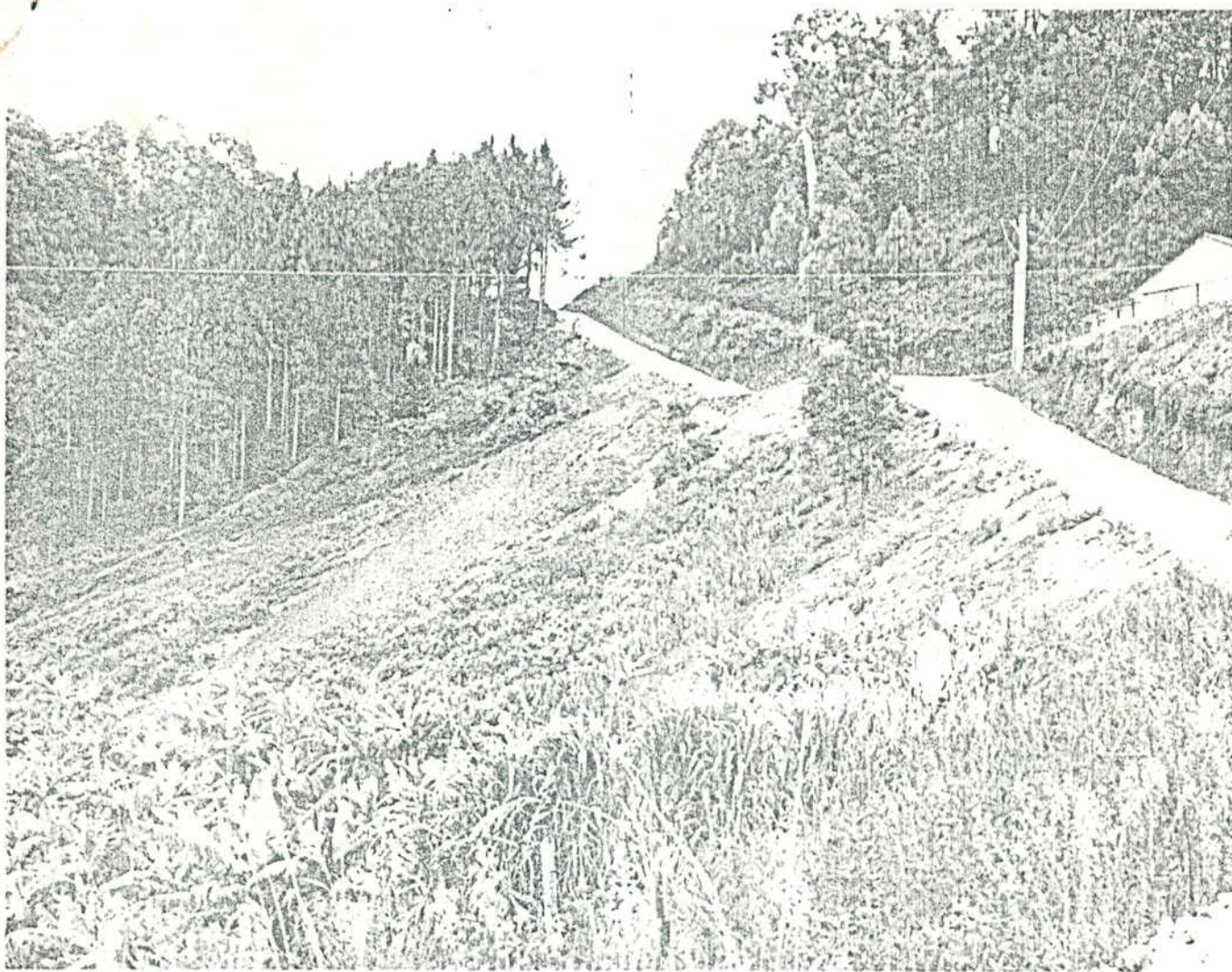
- "1. the commitment by Australian society to the view that all citizens, irrespective of their location, are entitled to have reasonable access to an array of basic services, including education, health, communications and road transport;
2. the accelerating costs in providing these services as they become increasingly complex and capital intensive or remain resistant to higher labour productivity; and
3. the political impossibility of achieving full cost recovery of rural services, given the concerted opposition of very strong pressure groups, comprising not only rural consumers, but also those groups engaged in service provision, including residents of country towns, public servants and certain powerful trade unions."

One of the most successful mechanisms used overseas for minimising servicing costs in rural areas is to enforce strict agricultural protection programs which effectively exclude other uses, including residential use, from large tracts of rural land.

This is well illustrated in Hawaii where the stated purpose of Agricultural Districts is to maintain a strong agricultural economic base, to prevent unnecessary conflicts as a result of incompatible uses, to minimise the cost of providing public improvements and services, and to manage the rate and location of physical development (City and County of Honolulu, 1984). In Europe, such programs also aim at maintaining the historical rural landscape for reasons of ecology and tourism.

Similar policies are echoed throughout North America, the United Kingdom and Europe, but in New South Wales there appears to be some uncertainty over the issue of the cost of services. For example, the Department of Environment and Planning's *Rural Land Evaluation Manual* (1981) suggests that because of lower densities of rural compared with urban residential development, that there may be no need for major road, drainage or sewerage networks.





Finding a place in the countryside.

This contrasts with the 1985 Rural Lands Policy for the North Coast Region of New South Wales (Section 117 Direction) which seeks to concentrate rural settlement where services, particularly sealed roads, power and water, can be provided most efficiently and economically.

This apparent policy conflict perhaps reflects the rapid realisation in planning circles that rural settlement will incur minimum public costs only where existing services are under-utilised. A review of overseas literature indicates that it is very difficult to recover from the developer or rural ratepayer all of the initial costs and very few of the recurring costs of settlement in rural areas.

This is particularly so where rural settlement occurs in an *ad hoc* fashion, but even with rural subdivision estates it is unlikely that the full or even most of the costs for the range of services can be recouped using s.94 of the EPA Act.

Service authorities and supply agencies are beginning to realise the impacts of rural settlement on the costs of service provision. Not enough of these agencies, however, explain their concerns to those who determine the future settlement patterns.

## References

- Barker S and Knox S (1985), *Multiple Occupancy Study*, Lismore City Council.
- Centre for Government Studies (1979). A guide book for Fiscal impact analysis of residential developments proposed for unincorporated areas of Dekalb County. Centre for Government Studies, Northern Illinois University, Dekalb, Illinois 60115, pp106-107.
- City and County of Honolulu (1984) *Agricultural Districts: Purpose and Intent*. Public Draft Land Use Ordinance, Department of Land Utilisation, July, 1984.
- Council for Environmental Quality (April, 1974), *The Costs of Sprawl. Detailed Cost Analysis*, United States Government Printing Office, Washington DC, p7.
- Department of Environment and Planning, New South Wales (1981), *Rural Land Evaluation Manual*, p36, The Department, Sydney.
- Department of Environment and Planning, New South Wales (1985), *A Rural Lands Policy for the North Coast Region*, p22, The Department, Grafton.
- Holmes J H (1983), 'Australia, The Dilemma of Sparse Population and High Expectations', Lonsdale R E and Enyedi E (ed), *Rural Public Services: Comparisons*, Westview Press, p182.
- Joseph A and Smith B (1981), 'Implications of Exurban Residential Development: A Review', *The Canadian Journal of Regional Science* 4(2), p219.
- Kiernan W and Dwyer D (1983), *Rural Services and Servicing Cost Study Stage I*. Gutteridge, Haskins and Davies for the Department of Environment and Planning, Sydney.
- McQuin P (1978), *Rural Retreating: A Review and an Australian Case Study*. University of New England, p109.
- Ryan M, Reynnders P and Heap R (1984), 'Rural Study' Discussion Paper No. 1, Issues (1983) and No. 2, Rural Strategies. Published by Lismore City Council.
- Shaw M (1976), 'Can We Afford Villages?' *Built Environment Quarterly*, June, 1986, p135-137.
- Smith R J (1985), 'Planning to Preserve Agricultural Land with Case Studies from Australia, USA, Canada and the United Kingdom', *Occasional Paper No. 15*, p53. Department of Environmental Studies and Countryside Planning.
- Smythe R B and Laidlaw C D (1984), *Residential Growth in Loudoun County — Density Related Public Costs*. Published by the American Farmland Trust, Washington DC, p106.
- Suffren, P (1977), *Housing in Rural Ireland: An Alternative Approach to Sprawl*, Planning Division, the National Institute for Physical Planning and Constructive Research, Dublin, p49-50.
- Woodward J (1986), *Multiple Occupancy Development in the Shire of Tweed — Section 119 Inquiry*. (a) p78; (b) p87.



not, how the Council can be satisfied that the operation is not going to be the disaster it is presented to be.

I am confident the Commissioners will be able to determine the exact validity of objections and, if any, find the responsible solution to come to terms with it as per Section 91.

- ✓ (p1) Matters to be listed in planning instrument for consideration

Not applicable.

- ✓ (q) The circumstances of the case

I am aware that this item cannot be used to consider aspects which are not listed above. This also applies to:

- ✓ (r) The public interest

It is not all that clear to what extent these two items (q and r) can be used to expand Section 90. Example: Whether Employee Health and Safety is an item to be considered may even require a legal opinion, as indeed there is separate legislation which intricately and comprehensively controls those aspects. It may well be that consideration can be partly caught under (b) environmental impact or (d) social effect; it may not. In other words, there is doubt, in my mind, whether conditions can be legally attached requiring compliance with other legislation and action under such legislation such as monitoring programs where the Council has no role or expertise for their policing. Example: consent authorities would approve the building's use as a hospital, but make no mention of conditions regarding the high radiation equipment therein. The x-ray machines would be controlled by the Health Department.

Another question regarding 'Public Interest' ought to be addressed. A feeling has been voiced that "the public knows what its interest is" and "if it doesn't want the plant (and it may well be that a majority has that opinion at this moment), it should not be made to have it, whatever information or motivation this conclusion has been based upon". This view is often put when an unpopular development (a jail, a sewerage treatment plant, etc.) is proposed. Indeed, people, with reference to democratic rights, appear to feel strongly about this. However, I would suggest that it is not public opinion (at a particular point in time) which item (r) asks to assess, but rather the public interest aspect (as distinct from private interest aspect) of the items in Section 90. Item (r) cannot be used to extend the stated limitations in other items of Section 90, e.g. economic impact in the locality.

- ✓ (s) Any other prescribed matter

Section 41A Regulations - access for the disabled, which would only be relevant if the plan is intended to be used as a tourist attraction or disabled staff were to be employed. I understand that tourists will be allowed to visit the site, by the bus load.

## 6. RECOMMENDATION

There is a number of issues which are of concern and have so far not been assessed or even fully understood by the Council. The Council would expect that the hearing and, subsequently the Commissioners' Report, would cover those issues. Consequently, we cannot produce a recommendation, in line with Section 91, but would assist, if required, with either calculations, making of contacts, formulation of conditions, etc., where we can.

The Council would be greatly assisted if, where the Commissioners make a recommendation, other than deferral, that the final recommendation made fits the format required by Section 91 of the Act and its detail Form 7 of the Environmental Planning and Assessment Regulation, 1980, or can be easily transformed to that format, without expert interpretation.



✓ (h) Adjoining land

See (e) above. The site is surrounded by grazing properties and some intermittent cropping a bit further away.

✓ (i) On-site traffic, parking loading

The Council's Car Parking Code would require parking for thirty (30) vehicles; seventy-eight (78) are available. The number of employees of this plan is to be less than that of the brewery, hence there will be an over supply. A loading dock for material deliveries has been provided (see plan 2.1).

✓ (j) Transport, impact on roads

Section 6.6 and Table 6.2 of the Environmental Impact Statement specify the traffic generated by the development in relation to the roads and parking. The question whether or not this is to be assessed in detail, as they replace the (greater) volumes of traffic generated by the former brewery, is to be answered.

However, the nature of the cargo of the trucks is different. A copy of the Commonwealth Code Practice for the Safe Transport of Radioactive Substances, 1982, is hereby submitted for perusal.

*no K linked*  
The brewery closed more than 12 months ago and any impacts generated by it have disappeared, so as to have established a new "current situation" on which the proposal now impacts. However, no road upgrading is anticipated to result from the development (other than perhaps a certain factor of need for more frequent maintenance) and, therefore, the matter of Section 94 contributions for road upgrading does not seem appropriate.

The City Engineer is of *the traffic is generated from* the opinion that Section 94 contributions cannot be required for main roads *(from non-urban industrial traffic generators)*.

See also under (n) Public Authorities below and the City Engineer's requirements.

I would recommend that heavy vehicles use, for northbound and eastbound traffic, the Ballina Street Bridge, rather than Fawcetts Bridge. They should use Union Street, from Casino Street southwards only (see map).

✓ (l) Utility services

Water services are adequate. Objectors have raised the issue of circumstances of severe drought. These would occur infrequently. The inference is that other water users would suffer because of the operations of the plant requiring great quantities of water. Where this would arise, the operators should be required to stop the plant for the duration of such impact. A condition to that effect should be placed on any consent of the development. The determining body on that issue should be Lismore Council, on the advice of the Rous County Council (the bulk water supply body to Lismore Council, the distributor).

I refer to the City Engineer's requirements above (Section 4 above) in relation to the sewerage treatment works.

The Council's Engineers, in consultation with the Public Works Department, have not objected to receiving the waste water in their plant and subsequently in the river, provided their standards are met. Additional information is available above under Section 4.

✓ (m) Landscaping

See Item (c) above.

(n) Representations by Public Authorities

The various submissions have been or will be made available to the



TRAFFIC COUNTS

Boggy Creek Road - 1982

(1)	Near junction with TR76	- 89	
(2)	Just beyond mill	- 53	
	cars - 43 - 82%	)	general traffic 97%
	trucks - 2 - 3%	)	trucks 3%
	bikes - 8 - 15%	)	

Thora/Darkwood Road - 1982, 1984

(1)	Near junction with TR76	- 252
(2)	just beyond mill	- 122
	cars - 89 - 73%	
	bikes - 5 - 4%	
	trucks - 16 - 13.5%	
	buses - 12 - 9.5%	

Kalang Road - 1982

(1)	Near junction with MR118	- 236
	cars - 202 - 86%	
	bikes - 12 - 5%	
	trucks - 19 - 8%	
	buses - 3 - 1%	

(Signed) R. MEDHURST.  
15/2/85.

P.S. Distribution of vehicles, etc. Manually checked in February, 1985. The results were correlated with the traffic counts and extrapolated from the 8 hour observation period, out, to represent a 24 hour daily traffic count.





WYATT & de CARVALHO PTY LTD ARCHITECTS

CENTREPOINT 9 PARK AVE COFFS HARBOUR 2450 PO BOX 1259 PH 523686

28th May, 1986.

Mr Ken Dobinson,  
Department of Main Roads,  
P.O. Box 198,  
Haymarket. 2000.

Dear Sir,

Multiple Occupancy, Vehicles & Roads.

I am a consultant working on a research project on Multiple Occupancy of Rural Lands for the Department of Housing and the Bellingen Shire Council. My area of study is specifically the Bellingen Shire and generally other areas having multiple occupancy (MO) development.

As outlined by phone to you today, I have to make recommendations on access road standards, S94 road upgrading development contributions, and rating structures relative to use of services (although rating at present is a tax on land and not people). Your article in Engineers Australia Feb.22 1985 'Do you have a weight problem?' was therefore of interest and assistance to me.

I would be grateful if you would answer some questions for me;

1. Does the 'fourth power rule' apply to gravel roads?
2. Is a motorcycle (average size) approximately equivalent to 1/90th the average car as suggested by the formula?
3. From the formula twin axles appear to be more damaging than tri-axles. Is this true and if so why?
4. The Bellingen Shire Engineering dept. has supplied me with some figures on traffic usage of three rural no through roads in the shire (as enclosed). The figures were taken over an eight hour period and extrapolated to give a 24 hour daily traffic count.

/2

JACK WYATT BArch AffRAIA      RIG de CARVALHO BSc (Arch) BArch DipEd ARAIA



-2-

I think this exaggerates the use of buses as none run after hours on these roads. Trucks do, however. Nonetheless, the total for all three roads are as follows;

trucks	37	9%
buses	15	3.6%
cars	334	81.3%
m/cycles	25	6.1%
total	411	100%

If we disregard motorcycles as their effects are negligible, and disregard buses as this is a public service and the number is suspect, then

(a) If all trucks are fully legally loaded,  
ie 1 truck = 14000 av. cars,  
then trucks are doing  $\frac{37 \times 14000}{334 \times 1} = 1550$  times as  
much damage as cars.

(b) If trucks are doing 1/10 this amount of damage  
ie 155x, then the trucks are doing

$$\frac{155 \times 100}{(155+1) \times 1} = 99.36\% \text{ of the damage done by cars and trucks.}$$

Are these calculations correct?

Do you have any traffic use tables comparable with the table above, ie on rural non-main roads?

Would you also be able to supply me with a clear copy of your article published in Engineers Australia that would be suitable for reproduction.

Any other information that you feel is relevant would also be welcome.

Thanking you in anticipation.

Yours faithfully,



Jack Wyatt.





DEPARTMENT OF MAIN ROADS, N.S.W.

309 Castlereagh Street, Sydney, N.S.W. 2000

Please address correspondence to  
The Secretary, and quote our reference

Telegram - "Mainroads" Sydney  
Telex - 21825  
Telephone - 218 6888  
P.O. Box K198,  
Haymarket, N.S.W. 2000  
DX 13 Sydney

Mr J Wyatt  
Wyatt and de Carvalho Pty Ltd  
Architects  
PO Box 1259  
COFFS HARBOUR NSW 2450

10 JUN 1966

Dear Jack

Herewith copy of my paper published in Engineers Australia  
and copy of the article by J Wilks you also requested.

Also enclosed is a comment by Dr G Donald on the other  
aspects you raised regarding relative effects of different  
vehicles and the "power rule" in regard to pavements.

I trust this meets your requirements.

Yours sincerely

A handwritten signature in dark ink, appearing to read 'K W Dobinson', written over a horizontal line.

K W Dobinson



EME 1R16

GD:JS

COMMENT FOR WYATT AND DE CARVALHO PTY LTD.

MR WYATT'S LETTER OF 28 MAY 1986.

My answers to Mr Wyatt's numbered questions are:

1. The fourth power rule probably does not apply to gravel roads, although it may for some specific damage effects. I doubt that corrugations and loose gravel effects, which perhaps predominate, would be load related and therefore relevant to the fourth power rule. I am not aware of any research in this area, and suspect that it would not be justified because of the relatively low cost maintenance procedures which apply to gravel roads.
2. For a motor cycle, the wheel load should be compared with the "standard" wheel load rather than the "standard" axle load. The attached table shows the single tyre standard load as 2.7 tonnes and therefore a motor cycle wheel load of 0.1 tonnes (say) would have a damaging power :  

$$\left(\frac{0.1}{2.7}\right)^4 = 0.000002 \text{ ESA}$$

A car wheel load of say 0.3 tonnes would have a damaging power of :  

$$\left(\frac{0.3}{2.7}\right)^4 = 0.000152 \text{ ESA}$$

The car and cycle wheels can be compared directly using the fourth power, and in this case the car is 80 times as damaging as the cycle:  

$$\left(\frac{.3}{.1}\right)^4 = 81$$

These figures are only approximate as they ignore tyre width which is a significant factor.

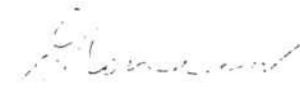
3. The examples given on the attached sheet, under the table of loads, show why the tandem is more damaging than the triaxle. This is an effect of the legal loads not correlating with the standard loads.
4. The calculations are correct. The Department does carry out classification surveys, but only on main roads.

The enclosed material may also be of interest:



/2

- \* NAASRA brochure "Roads and Vehicle Limits".
- \* Paper prepared for the Commission of Enquiry into the NSW Road Freight Industry, 1980 - "Road Cost Sharing".
- \* Script of a presentation prepared for an industry group.

  
G S Donald  
Materials Engineer





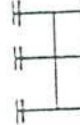
6 JUN 1986

MR DOBINSON

COMWYATT



TABLE OF LOADS (tonnes)

Configuration Axle/tyres	Legal Limit	Tolerance	Equivalent Standard	
			Axle	Per Tyre
Single Steer 	5.4	0.5	5.4	2.70
Twin Steer 	10.0	1.0	9.0	2.25
Single/Dual 	8.5	0.5	8.2	2.05
Tandem/Dual 	15.0	1.0	13.6	1.70
Triaxle/Dual 	18.0	1.0	18.5	1.54
GROSS VEHICLE	38.0	1.0		

EQUIVALENT STANDARD AXLES (ESA) EXAMPLESi) 16 tonnes on tandem

$$\left(\frac{16.0}{15.0}\right)^4 = 1.92 \text{ ESA} \quad (0.96 \text{ ESA/axle})$$

ii) 19 tonnes on triaxle

$$\left(\frac{19.0}{18.5}\right)^4 = 1.11 \text{ ESA} \quad (0.37 \text{ ESA/axle})$$

iii) 37.9 tonnes on 5 axles

$$2 \left(\frac{16.0}{15.0}\right)^4 + \left(\frac{5.9}{5.4}\right)^4 = 5.26 \text{ ESA} \quad (1.05 \text{ ESA/axle})$$

iv) 39 tonnes on 6 axles

$$\left(\frac{13.0}{13.5}\right)^4 + \left(\frac{16.0}{15.0}\right)^4 + \left(\frac{10.0}{9.0}\right)^4 = 3.33 \text{ ESA} \quad (0.56 \text{ ESA/axle})$$

## THE EFFECT OF VEHICLE OVERLOADING ON PUBLIC ROADS IN N.S.W.

*The following article is based on information from  
an address given by Mr. J.A. Wilks,  
Technical Assistant to the Department's Engineer-in-Chief.*

The main interest in damage to roads due to overloading is the enormous cost and inconvenience that the damage causes. In the 1981/82 financial year the Department of Main Roads spent \$573 million on road and bridge maintenance and construction works in New South Wales. This was the amount that the Department spent on new works and in maintaining previously constructed facilities at a reasonable level of serviceability.

It can be shown that the life of the Department's roads is being reduced significantly by damage resulting from the overloading of heavy vehicles. Later on it will be shown in some detail how much damage is caused, but at this point it is emphasised that there is a financial burden placed upon the people of this State of the order of \$32 million per year as a result of overloading. This means that every year, at today's values, damage to roads and bridges cost the community \$32 million because these assets are being brought to a state of unserviceability in terms of road user expectations. To put it another way, if overloading of heavy vehicles was eliminated many additional new facilities could be brought into service every year.

There are some obvious effects of overloading with which most people will be aware. These relate to the effect on the vehicle itself and to public safety. Everyone knows that an overloaded vehicle is at risk because its brakes may become ineffective in some situations, such as on steep descents. Some other structural components may also fail because they have been subjected to stresses in excess of those for which they were designed. These are the very obvious aspects of overloading and sometimes such overloads can directly result in catastrophe. It will now be explained how vehicle overloading affects the life of road pavements.

When a vehicle makes one pass over a road pavement, it is not possible to observe the effect on it. There is an effect nevertheless, and the passing of many vehicles has a cumulative effect. It is a knowledge of the effects of axle loads on pavements which enables a road engineer to design a road pavement. Most people do not have a knowledge of those complex relationships. The relationships come from the laws of Physics, Mathematics and Soil Chemistry governing the behaviour of road pavement materials under stress. It would be too tedious to explain in those terms how overloading affects the life of a road pavement so, to avoid going into detail, a fairly simple analogy will be used.



When anything is designed - whether it is a road pavement, an engine for a motor car, a household appliance or, for that matter, any device which is designed taking some account of economics, the concept of the Design Life of that device is a basic consideration. In other words, the device is designed to last for a certain period before it reaches an unserviceable condition.

For instance, road pavements are commonly designed for a life of 20 to 30 years - a household appliance such as a washing machine would have a design life of say 500 hours of operation. A large motor car engine, say 2,000 hours. There are of course many examples. Various devices have various design lives built into the article, depending on the expectations and requirements placed on that article.

A mythical average driver could expect to operate a new car in the usual manner for 2,000 hours before something goes wrong. Looking at this particular design life, one could expect about 100,000 km on the odometer before some major trouble develops. However, various drivers put different demands on their cars and where that demand is heavier than usual it will not last as long.

The extreme example of this is the racing car. Nowadays, an ordinary production motor car engine is often used in a racing car. Engines are modified to produce much more power than they would in their standard form - sometimes up to three times the power output is obtained for this purpose. In increasing the power by this amount, the engine is not expected to operate for anything like the life it would have had in an ordinary motor car. In fact only a few hours of operation can be expected and in many cases it lasts even less. So it can readily be seen that an increase in the stresses of operation by a comparatively small factor reduces the life of the engine by a very large factor.

It is much the same with a designed road pavement. Overloading by a comparatively small amount can reduce the pavement life by a large amount.

The design of road pavements has been the subject of extensive research throughout the world. Most of the developed countries of the world have carried out road pavement research. The most comprehensive research into pavements ever performed was done in the USA when the U.S. Highway Research Board undertook what is known as the AASHO Road Test. This work was completed in 1962 at a cost which ran into many millions of dollars. Briefly, it consisted of the testing to destruction of all types of road pavements and structures by actually running various vehicles over a test track. Among the results, much was found out about the damaging effects of vehicular loadings. Today most road authorities incorporate some findings of the AASHO Road Test into their pavement designs.

- 3 -

One of the principles established by the AASHO Road Test was that the damaging power of an axle load increases as to the fourth power of the load. This is the principle incorporated in most pavement design methods. It allows the engineer to design a "life" into a road pavement in much the same way that an engine of a motor car is designed for a certain life.

Mathematically this principle is shown thus  $D \propto L^4$ . With this principle it can be shown how the life of a pavement is reduced by overloading.

Most road authorities base their pavement designs on the number of vehicles that will pass over the road during its designed life. As different vehicles load the pavement in various ways, all types of vehicles are brought down to a common denominator. The common denominator is called the Standard Axle.

The Standard Axle is a single axle having dual wheels loaded to 8.2 tonnes. The passage of a single Standard Axle is rated as unity. Smaller and larger loads are rated as a fraction or as a multiple of the Standard Axle respectively. The rating system allows the designer to calculate the number of equivalent repetitions of the Standard Axle which will pass over the road in the designed life of the road. This rating system is directly related to the damaging power of various loads compared with the Standard Axle.

For instance, the passage of a large car with an all up mass of 2 tonnes is considered to damage a pavement only 1/2250th as much as a Standard Axle whereas an axle loaded to 10 tonnes would damage the pavement 2.2 times that of the standard load. Using this rating system, one can look at the effect of overloading and compare the damage caused by allowable loads.

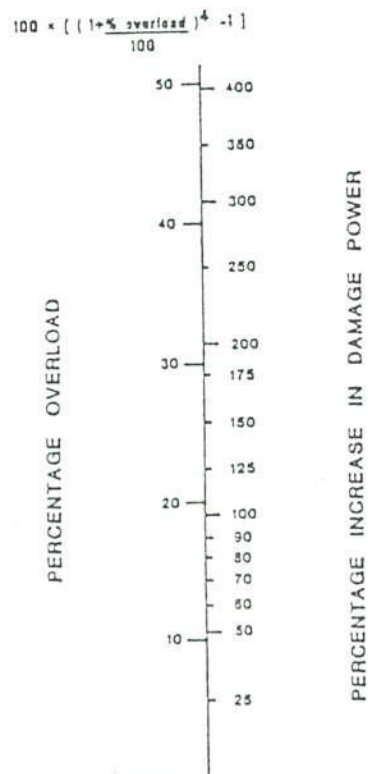
Some comparisons are as follows:-

% overload	% increase in damage
10	45
20	105
30	185
40	285

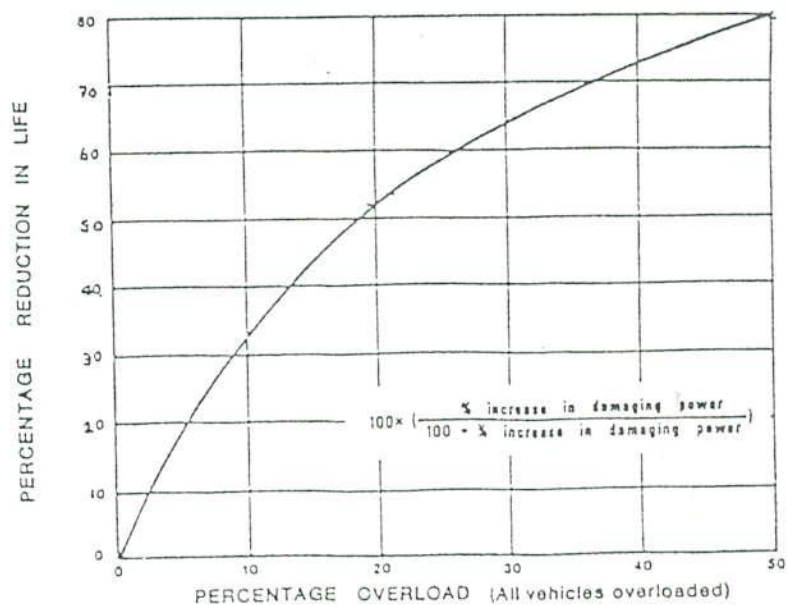
As can be seen from the figures and the graphs, the overloaded vehicle places the road pavement in a somewhat analogous position to the motor car engine that is being overstressed by the heavy demands of car racing.



# DAMAGING POWER OF OVERLOADS



# REDUCTION IN PAVEMENT LIFE DUE TO OVERLOADS



- 5 -

It should be mentioned that the deterioration of road pavements is not the only thing that worries the Department as far as overloading is concerned. Bridges receive their share of damage. It will be appreciated that it would take a monumental overload to bring down a large bridge but, just the same, bridges suffer from the effects of repeated overloading the same way as pavements do.

In the AASHO Road Test already mentioned, bridges of different types were built and subjected to repeated overloads. While there were no noticeable effects early in the testing programme, the ultimate result was the failure of the structures. The Department has records of many bridges which have been made unserviceable by the type of damage consistent with the effects of repeated overloading.

The Department's records on overloading prosecutions during 1981/82 revealed that the average overload involved was slightly less than 21%. Additionally, 10.7% of all heavy vehicles checked were found to be overloaded.

From the damage factors mentioned before, that minority of vehicle operators who overloaded caused \$32 million of damage to roads financed by the Department.

During 1981/82 truck drivers in New South Wales were fined a total of about \$1.8 million. This amounted to only about 1/18th of the damage caused. The figures quoted in this article do not take into account the very considerable expenditure by Local Government Councils on other roads not financed by the Department.

Catering for the reduction in pavement life occasioned by the practice of overloading represents a significant cost to everyone concerned. It means that the Department is involved in large maintenance expenditures which could otherwise be devoted to new construction. This, of course, is to the detriment of the road user in general but it also means that the operator who is prepared to abide by the rules is disadvantaged by those who do not. As the operator who overloads is in the minority, it means that a minority is gaining at the cost to the majority.

The general public judges the Department of Main Roads on the quality of its road surfaces. The Department is very conscious of the inadequacies of the road system and recognises its responsibilities to provide as good a service as possible. The roads, nevertheless, are very sensitive to overloading, more so because of the inadequate funds that are available.

#### Vehicle overloading:-

- \* damages road pavements,
- \* costs large sums to the Department and to the community, and
- \* reduces the level of service that the Department is able to provide.



SCRIPT OF DMR PRESENTATION TO INDUSTRY GROUP

EME 1R16 GSD:AA

ROAD DAMAGE BY TRUCKS

SLIDE 1

Road pavements are structures intended to transfer truck wheel loads to the soil foundation without the road becoming too rough too soon. The heavier the wheel loads and the weaker the foundation soil, the stiffer and stronger is the pavement required.

SLIDE 2

The pavement structure can be designed to carry a specific number of wheel loads of known magnitude. Therefore the designer tries to predict the number and sizes of trucks the road will carry in the design period.

SLIDE 3

When a pavement is new it has a smooth surface, but its condition gradually deteriorates with the passage of truck wheels until, at the end of its service life, the pavement is too rough and needs reconditioning.

- 2 -

EME 1R16

SLIDE 4

Loss in serviceability results in various ways but the basic modes of "structural failure" are just two; rutting and cracking.

SLIDE 1      AGAIN

Rutting is the common failure mode for pavements made from gravel and crushed rock (or unbound) materials, while cracking occurs in bound materials like asphalt and concrete.

Rutting develops gradually with each truck wheel making an imperceptible but finite contribution.

Cracking also is incurred by repeated loading as structural fatigue develops, just like a paper clip breaking when it is repeatedly bent back and forth.



- 3 -

EME 1R16

DEMONSTRATION with paper clip

Again for fatigue cracking as with rutting, each wheel load has an imperceptible but finite effect.

The degree of fatigue or rutting produced by a particular wheel load is directly related to the magnitude of the load. As the load increases, the damaging effect increases more and more quickly, at a disproportionate rate. The relationship between load and damage varies with the type of pavement and other factors, but on average the fourth power rule applies. That is, damage is proportional to load multiplied by itself four times.

For example, compare a one tonne axle load with a 10 tonne axle load. One to the fourth power is one, but 10 to the fourth is 10,000. So the 10 tonne load does 10,000 times the damage of the one tonne load. That is why trucks are responsible for 99.9% of load related pavement damage. Cars don't count.

SLIDE 5

In order to compare and rate the damaging power of different wheel loads and wheel groups, the unit of potential damage has been defined as that related to a standard axle. The standard axle is a single axle with dual tyres and a total load of 8.2 tonnes.

SLIDE 6

The damaging power of the standard axle is therefore one ESA (equivalent standard axle). In other words an ESA is the damage done by a standard axle. The same damaging power of one ESA occurs for a single steer axle at a load of 5.4 tonnes (total).

This is called the "equivalent standard load".

SLIDE 7

The equivalent standard loads for axle groups, that is the group loads with damaging power of one ESA, are 9.0 tonnes for a twin steer group, 13.6 tonnes for a tandem axle and 18.5 tonnes for a triaxle. These equivalent standard loads are not generally the same as the legal limits, which may be more or less, for various reasons (historical or bridge related).

The damaging power of the legal limits is found by taking the ratio of legal to equivalent standard, and then getting the fourth power of this ratio.

These figures do not include dynamic effects which depend on road roughness, vehicle speed and vehicle suspension type.



- 5 -

EME 1R16

SLIDE 8

Dynamic effects can be seen relatively in this bar chart. The bar height indicates the magnitude of the fluctuation in load above and below the static load.

SLIDE 9

Broadly speaking for the range of road roughness and truck suspension types commonly found, the dynamic fluctuations in the load double with the speed doubling from 40 to 80 kph.

The speed of loading also affects the apparent stiffness of the pavement and, therefore the damaging power of the load.

However, this talk about dynamic effects is a digression.

SLIDE 7      AGAIN

The point is; the static load is the average load, and the legal limits have finite damaging potential which can be expressed in ESAs.

- 6 -

EME 1R16

Now consider, what is the damaging potential of overloads?

SLIDE 10

Based on the fourth power rule, a 10% overload results in a 50% increase in damage, while a 50% overload results in a 400% increase in damage.

SLIDE 11

Looked at another way, if all vehicles were overloaded by 10% the pavement life would be reduced by 30%. For a 50% overload on all vehicles the pavement life would be reduced by 80%, or alternatively, the pavement would last for only one fifth of its potential life with legal loading.



W-u  
2

DENNIS BASSO

RE

Rural Resettlement Task Force,  
P.O. Box 62  
Nimbin. N.S.W. 2480

GLENBIN PTY. LIMITED

MEMORANDUM OF ADVICE

My instructing Solicitors act on behalf of Mr. Basso who is the registered proprietor of land known as Part Portion 92 in the Shire of Terania Parish of Jiggi County of Rous which land is affected by an easement or right of carriageway created by Memorandum of Transfer No. G487486. The terms of the Transfer are that Messrs. Elio Dal Cin, Romano Ottorino Dal Cin and Gioacchino Dal Cin as Transferors transferred to Romano Ottorino Dal Cin and Gioacchino Dal Cin as Transferees as tenants-in-common the residue of land after transfer to the aforesaid Elio Dal Cin of 179 acres together with full and free right as appurtenant to the land hereby transferred for the Transferees and their tenants and servants and all other persons authorized by them from time to time and at all times to pass and re-pass with or without horses and other animals, carts, wagons, carriages, tractors, engines, motor cars and other vehicles over and along the land 50 links wide shown in the Plan annexed to the Transfer of the abovementioned 179 acres AND it is hereby agreed and declared that the expense of keeping the land the subject of the right-of-way hereby granted in good and sufficient repair shall be borne by the Transferor and the Transferee in equal proportions, that is to say, one-half by the Transferor and one-half by the Transferee. The Memorandum of Transfer is dated the 7th July, 1955.

Section 88(1) of the Conveyancing Act, 1919 states as follows:-

5.33(1) Except to the extent that this Division otherwise provides, an easement expressed to be created by an instrument coming into operation after the commencement of the Conveyancing (Amendment) Act, 1930, and a restriction arising under covenant or otherwise as to the user of any land the benefit of which is intended to be annexed to other land, contained in an instrument coming into operation after such commencement, shall not be enforceable against a person interested in the land claimed to be subject to the easement or restriction, and not being a party to its creation unless the instrument clearly indicates -

- (a) the land to which the benefit of the easement or restriction is appurtenant;
- (b) the land which is subject to the burden of the easement or restriction:

Provided that it shall not be necessary to indicate the sites of easements intended to be created in respect of existing tunnels, pipes, conduits, wires, or other similar objects which are underground or which are within or beneath an existing building otherwise than by indicating on a plan of the land traversed by the easement the approximate position of such easement;

- (c) the persons (if any) having the right to release, vary or modify the easement or restriction, other than the persons having, in the absence of agreement to the contrary, the right by law to release, vary or modify the easement or restriction; and
- (d) the persons (if any) whose consent to a release, variation or modification of the easement or restriction is stipulated for.

The effect of this section is that except where there is privity of contract, an easement or restrictive covenant will not be enforceable unless the instrument creating it clearly indicates the matters set out in paragraphs (a) to (d) of sub-section (1).

The Memorandum of Transfer purports to transfer for the "Transferees and their tenants and servants and all other persons authorized by them from time to time" to pass and re-pass along the right-of-way. In my opinion, the right-of-way may not enure for the benefit of successors and assigns as there is no mention of "successors and assigns" in the instrument of transfer. Thus, if this interpretation is applicable, the right-of-way is extinguished on the death of



the Transferees, their tenants and servants and all other persons authorized by them from time to time or upon the sale by the Transferees of the dominant tenement.

Section 89(1) of the Conveyancing Act, 1919 as amended states as follows:-

"Where land is subject to an easement or to a restriction arising under covenant or otherwise as to the user thereof, the Court may from time to time, on the application of any person interested in the land, by order modify or wholly or partly extinguish the easement or restriction upon being satisfied -

- (a) that by reason of change in the user of any land having the benefit of the easement or restriction, or in the character of the neighbourhood or other circumstances of the case which the Court may deem material, the easement or restriction ought to be deemed obsolete, or that the continued existence thereof would impede the reasonable user of the land subject to the easement or restriction without securing practical benefit to the persons entitled to the easement or to the benefit of the restriction, or would, unless modified, so impede such user; or
- (b) that the persons of the age of 18 years or upwards in the full capacity for the time being or from time to time entitled to the easement or to the benefit of the restriction, whether in respect of estates in fee simple or any lesser estates or interests in the land to which the easement or the benefit of the restriction is annexed, have agreed to the easement or restriction being modified or wholly or partially extinguished, or by their acts or omissions may reasonably be considered to have abandoned the easement wholly or in part or waived the benefit of the restriction wholly or in part; or
- (c) that the proposed modification or extinguishment will not substantially injure the persons entitled to the easement, or to the benefit of the restriction.

The relevant sub-section appears to be Section 89(1)(a). There must be "other circumstances of the case which the Court may deem material" such that the easement or restriction ought to be deemed obsolete. However, if Section 88(1) is application, then the right-of-way in the Memorandum of Transfer is unenforceable

and Section 89 is not relevant.

My researches indicate that the Court takes a strict view of the interpretation of Section 89 and will dismiss an application if the factors in the Section are not satisfied: Re Chamberlain (1969) 90 W.N. (Pt.1) (N.S.W.) 585, Re Mason (1962) N.S.W.R. 762, Re Callinan (1970) 2 N.S.W.R. 127 and Re Robinson (1972) V.R. 278.

Of some concern in being able to successfully bring proceedings in the Equity Division of the Supreme Court is the decision of Vaneris v. Kemeny Waddell, J. (11 February, 1977). In this case proceedings were brought by a person entitled to the benefit of an easement under Torrens System land for an injunction to restrain interference with an easement. The easement was granted by Transfer K115252 on 10 June, 1965 by the Defendants to Rosina La Macchia. Mrs. La Macchia sold the property to Mr. and Mrs. Ardino by Transfer dated 11 October, 1966. Mrs. Ardino as the surviving joint tenant sold the property on 30 April, 1974 to the Plaintiff. Neither the Transfer from La Macchia to Ardino or that from Ardino to the Plaintiff expressly referred to the appurtenant easement.

The Memorandum of Transfer from La Macchia to Mr. and Mrs. Ardino made no reference to the right-of-way. The words of transfer were "do hereby transfer to (Mr. Ardino) ... as joint tenants all such estate and interest (that is an estate in fee simple) in all the land mentioned in the schedule following:" and then followed a reference to title without any reference to the right-of-way. It was argued that these words were incapable of transferring the benefit of the right-of-way. His Honour said that the matter was concluded by the terms of Section 51 of the Real Property Act which, so far as is relevant, provides that "upon the registration of any transfer, the estate or interest of the transferor as set forth in such instrument, with all rights, powers and privileges



thereto belonging or appertaining, shall pass to the transferee ...". His Honour continued saying that there would seem to be no reason why these words should not have had the result of vesting in Mr. and Mrs. Ardino the benefit of the right-of-way appertaining to the land. In deciding what meaning should be given to the Section, it is not to the point to have regard to the more elaborate language of Section 67(1) of the Conveyancing Act which serves a similar purpose in respect of land not under the Real Property Act and in which "ways" and "easements" are specifically mentioned.

It was also argued that the Plaintiff was not at liberty to enforce the easement because the terms in which it was granted did not comply with Section 88(1)(c) and (d) of the Conveyancing Act.

His Honour said that there is in the Memorandum of Transfer by which the right-of-way was granted to Mrs. La Macchia no statement as to whether there are or are not any persons of the description mentioned in the two paragraphs. It was said that the failure to include such a statement, that is specifying who such persons are or negating that there are any such persons, prevents the enforcement of the right-of-way. In His Honour's view there was no substance in this submission. The language of the two paragraphs of Section 88(1) makes it perfectly clear that the instrument need contain no indication as to such persons unless there are any. This submission also failed.

Because of the above decision, in the first place it will be necessary to obtain photocopies of the relevant Transfers from Messrs. Dal Cin to Glenbin Pty. Limited and to ascertain what was transferred or not transferred at the appropriate time. If there is only general wording as set out in the Vaneris v. Kemeny

decision, then in my opinion the Equity Court would follow the above decision especially now that Mr. Justice Waddell is the Chief Judge in Equity.

I am also of the opinion that the facts do not fall within Section 89(1)(a) of the Conveyancing Act as strictly interpreted.

There is always the possibility that if an application were made pursuant to Section 89(1) of the Conveyancing Act that there would be no appearance on behalf of Glenbin Pty. Limited. In this situation, the Court may grant the orders sought but as it would be incumbent upon the Plaintiffs to set forth all the facts truthfully, the Court even on an ex parte application, may decline to make the orders sought.

Probably the best course of conduct at this stage is to persuade the Lismore City Council in its appeal to have the right-of-way closed. There is probably little point in becoming involved in a possibly long hearing in the Land and Environment Court. It may be wise for representation to be made to the Court at the commencement of the case and in submissions in relation to the closure of the right-of-way over Lot 1. This would be the only benefit which could accrue to your client and from a practical point of view, the legal representatives of the Lismore City Council could protect your client's rights by insisting that the condition relating to the right-of-way be imposed by the Court.

I await hearing from you further once the relevant Transfers have been obtained.

Wentworth Chambers

27 February, 1987.



G. E. UNDERWOOD.



1

2 June, 1987.

Messrs. Somerville, Laundry, Lomax & Co.,  
Solicitors,  
DX 7716 LISMORE.

Attention: Mr. P. J. Starkey

Dear Sirs,

DENNIS BASSO RE GLENBIN PTY. LTD.

I refer to the above matter and to your letter of 1 April, 1987 enclosing Transfer. In my opinion, my advice is not altered except to the extent that it may be possible to argue that the present circumstances fall within s.189(1)(lc) of the Conveyancing Act, 1919 as amended. It could be argued that all access to the land for the purposes of access to the dwellings shall now be by means of the unnamed public road off Strangers Road north of Lot 2 D.P. 625836. That being so, there is no necessity for the right of carriageway over Lot 1. However, the problem with this argument is that the land has a natural trench or barrier running through it which would diminish the above argument.

I am not aware of any provision in the Environmental Planning and Assessment Act which enables our client to appear at the Class 1 appeal. However, I see no reason why the Respondent Council cannot act in our client's interests in persuading the Court to enforce Condition 16 of the Conditions of Development Consent.

~~Further, there does not appear to be any power in s.90 of the aforesaid Act to enable the Land and Environment Court to vary or modify the right-of-way which is being considered.~~

If I can be of further assistance, please do not hesitate to contact me.

Yours faithfully,



G. E. UNDERWOOD.

5 JUN 1987  
RECEIVED

Transfer is dated the 7th July, 1955.

Section 88(1) of the Conveyancing Act, 1919 states as follows:-

← Return

T.S.C. Submission  
to J & E Count

MULTIPLE OCCUPANCY APPLICATIONS - PALM VIEW HAMLET PTY. LTD.  
AND R.R. CHAUVIER (CRYSTAL VALE PTY. LTD.)

Tweed Shire has an area of 1304 sq.km. with road network of a State Highway of 51km. (Pacific Highway S.H. 10) from South to North, several classified Main Roads generally radiating from Murwillumbah of 140 km. and serving as chief collector roads. Other classified roads are Tourist Road 5 km. to Mt. Warning and the "Coast Road" 30 km. from Chinderah to Wooyung. Serving all rural areas is the Shire road network of 572 km. gravel and sealed pavements. The standards of the Shire Roads both sealed and gravel vary considerably according to location and use.

The Shire has a population of 46,000 generally spread through the area as shown in Figures I and II.

151. PBA

Population Trends

Details in recent planning studies reveal that the population increases within the Shire are located 75% to Urban Areas and 25% to Rural locations. It is expected that this distribution is likely to continue into the future.

The recently gazetted Tweed Local Environmental Plan 1987 reflects the ongoing demand for rural living in the Shire and makes provisions for a variety of living choice throughout the Shire. These cover rural residential development, small lot subdivisions, Multiple Occupancies, Strata Title Rural developments.

Road System

Consequently, there is expected to be an increasing demand on the rural road system. Because of this, the plan provides for a "user pays" basis for road upgrading. A road hierarchy system is used when determining the priorities for improvement programmes generally based on assessed demands, safety, optimum economical construction, a forward planned programme for ultimate link roads and equitable distribution throughout the Shire.

As will be expanded upon later, the cost of providing such a road system is well beyond the capacity of funding available by way of revenue and grants. All such funding is applied against current back logs and identified of most need for usage, safety, costs, and other related functions. Therefore, any increased demands should be paid for by the developments creating such, as far as can be reasonably determined, etc.

Current Funding Position

Relative figures for available funding sources over the past five years are shown in Figure III.

Do you have these?  
P

This balance of funding is further illustrated in Figure IV.

To bring the current Shire Road System up to an expected satisfactory standard for existing and estimated demand possible under planning opportunities, the following forecasts have been made:-

Bridges (1986 - 2000)	\$ 4,500,000
Roads (1986 - 2000)	\$32,400,000

(Survey for future grant submissions)



Therefore it can be clearly seen that ongoing approvals for allowable developments within the Local Environmental Plan, will be severely curtailed because of road standards, unless adequate contributions are made.

### Contribution Policy

In developing a policy to provide adequate access roads, Council identified a need for all developments in rural areas to contribute an equitable base figure and pay for defined improvements as well if necessary. This was considered valid and reasonable when assessing the condition on accepted planning principles:-

- a) That it is imposed for a planning purpose.
- b) That it relates to the development in question.
- c) That it is reasonable.

Relating the condition to Section 94 of the Planning and Assessment Act is required and is considered to give a consistent base for all developments.

In Urban Development, Courts have been found and Developers generally accept, that the identified population increases justify reasonable conditions that are now universal.

In considering a), b) and c) in like manner for Palm View Hamlet Pty. Ltd. and R.J. Chauvier applications, the following comments are appropriate:-

- a) "That it is imposed for a planning purpose"

Section 94(1) states:

"(1) Subject to Sub-Section (2), where a Council, being the consent authority, is satisfied that a development, the subject of a development application, will or is likely to require the provision of or increase in demand for public amenities and public services in the area, the Council may grant consent to that application subject to a condition requiring:-

- (a) the dedication of land free of costs; or
- (b) the payment of a monetary contribution, or both".

Upgrading of roads to a safe and acceptable level throughout the Shire is the aim of Council and is a major factor in the overall planning objectives.

- b) "That it relates to the Development in Question"

The Engineer's report clearly shows the need for Byrrill Creek Road and will benefit the owners of new dwellings within the subject land.

- c) " That it is reasonable:

Increasing population showing the overall costs equitably is the basis of applying the contributions. Details of the amounts are shown further in the report and in the Construction Engineer's assessment.

Therefore the condition is considered valid.

*but no byrrill!*

*Do - y  
major  
work*



next  
bit when  
2 weeks

### Area Needs

Roads in this area have received reasonable allocation of funds during recent years chiefly because of the lesser road standards rather than on a traffic count basis. Further allocations are unlikely to be made on a Shire-wide priority basis without contributions from some source outside rate revenues.

\* In the case of these two applications the contributions required would assist with some of the more important upgrading proposals. The additional traffic movements will be pronounced when considering existing conditions. Safety factors become more evident when numbers increase on narrow pavements or sub-standard alignment.

9 Tach  
up 1/1

Both these developments will concentrate use from the Byrrill Creek Road and Pumpenbil Road into Brays Creek Road to Tyalgum, seen as the immediate service centre and the social and sporting outlet. Again all such traffic will also increase use of the Tyalgum to Murwillumbah Road because of the shopping, business and further social/sporting facilities available.

The Tyalgum-Murwillumbah Road is in dire need of upgrading in many sections and reconstruction will be an ongoing need for the route.

It should be noted that these properties will attract a single rating hence for the multiple demands coming from them, there is a great imbalance of annual contribution to road funding generally. Therefore upgrading requirement plus contributions is deemed appropriate.

### Needs Generally

It should be noted that comments from various services show that the problem is not one for Tweed Shire alone.

12-11-85

- a) Roads in particular are a constant drain on the funds of both State and Local Government authorities. With a rapidly growing population, especially in rural areas, roads require upgrading to cater for increased traffic levels. The high rainfall contributes to the need for regular road maintenance". - A Rural Lands Policy for the North Coast Region of New South Wales. Department of Environment and Planning, Sydney 1985.
- b) "A very limited survey of public opinion revealed no major general issues of widespread concern. A majority of people interviewed regarded roads in general as 'good' except in the case of rural local roads, which were regarded as sub-standard. This seems to reflect the fact that a certain minimum physical standard for roads is regarded as appropriate to the day and age, and that rural local roads have not reached that standard. The lack of all-weather capability is the main concern about rural roads". - The Bureau of Transport Economics Assessment of the Australian Roads System; 1984 Summary Report, when considering road conditions in general.
- c) "Unsealed roads carrying more than 100 vehicles/day AADT may be described as providing a poor quality of traffic service". - The N.A.A.S.R.A. Roads Study, 1984. Local Roads Report, when commenting on the quality of service of rural local roads.



- d) "It is estimated that there are 23,000 bridges on local roads in Australia. In the rural areas of the eastern States and south-west Western Australia there are a great many timber bridges, most of which have low load carrying capacity and are too narrow for two-way traffic. In 1981 the number of local roads bridges having a load carrying capacity of less than half the legal loading was 40% of the total. Most of these bridges would also have been narrow" - The N.A.A.S.R.A. Roads Study, 1984. Local Roads Report, when commenting on Bridges on Local Roads.

The foregoing comments are applicable to the 350 km. of unsealed roads and 69 timber bridges in Tweed Shire.

The numerous complaints received from residents and progress associations are testimony to the public opinion of rural road conditions.

#### Level of Road Development Contribution

When reviewing the level of a Road Development Contribution in 1981, Council attempted to make a Shire-wide Assessment of upgrading costs for each road and the number of rural lots anticipated along each route. This proved to be a monumental task and may have provided such a diverse range of contribution figures that the matter was considered to be inappropriate.

Therefore selected areas, considered to be representative of most ranges within the Shire, were taken and assessed. The appropriate cost per kilometre to upgrade the roads less expected grants was divided by the expected number of lots. This yielded a fairly wide range of possible costs per lot of road standards from "A" Class Road (4m. width gravel) to "D" Class (5.6m. seal). Such range was \$1,500 to \$5,400 per lot. *how much for by lot*

A survey of costs per lot for four current differing style rural residential developments was also taken. The cost per lot showed a range of \$2,279 to \$4,540 per lot.

In 1982 and ever since Council has applied this Road Development Contribution requirement of \$2,500 for each lot in rural subdivisions and for each Multiple Occupancy residential after the first (being not chargeable). This assessment was considered to be well towards the lower side of average figures and it was seen to be equitable for all to pay such. Where a particular development was identified to create a more than average need an additional contribution for immediate upgrading would be assessed.

This has worked quite well overall in subdivisions where the R.D.C. has been consistently paid and quite a range of upgrading has been done in addition using the extra contribution.

*proof* The R.D.C. funds are recommended each year and applied to identified needs in the area of collection or as an expansion of the approved revenue works in the locality the next year. Thus the funds are regularly applied to area improvements at a short time after collection.

A comparison of Regional R.D.C. requirements for 1984-85 is as follows:-

L.G.A.	Feb. 1984	April, 1985
Ballina	\$1,620	\$1,620
Byron	2,000	2,000
Lismore	1,925	2,100
Tweed	2,500	2,500
Richmond River	2,500	2,500
Coffs Harbour	1,000	1,000
Nambucca	3,300	3,300
Average of those Council's surveyed	\$2,120	\$2,146

It should also be noted that these two developments appear to be solely as Commercial Projects being developed by the landowners to sell a product allowable by Council in a Rural Area. Therefore, they would not fall into the widely accepted approach to form a living area at economy rates for people with limited means of support. The landowners obviously recognise the proposals as appropriate use for the land to yield a return greater than any other rural land use for the particular properties. As such they should meet the development costs identified by Council as being fair and reasonable for similar projects - rural subdivisions or rural residential estates.

The Road Development Contributions have been deemed equitable by Council because the greater need for rural dwellers attaches to roads and all contributions are thus directed to road works. Section 94 contributions for bush fire control, halls, pre-schools, parks, reserves and amenities are accepted as valid contributions universally and Council has seen fit not to impose such on these developments, favouring to absorb such into general revenue expenditure and giving developments such as these the more direct benefits.

*P. Border*

P. BORDER  
SHIRE ENGINEER &  
CHIEF TOWN PLANNER

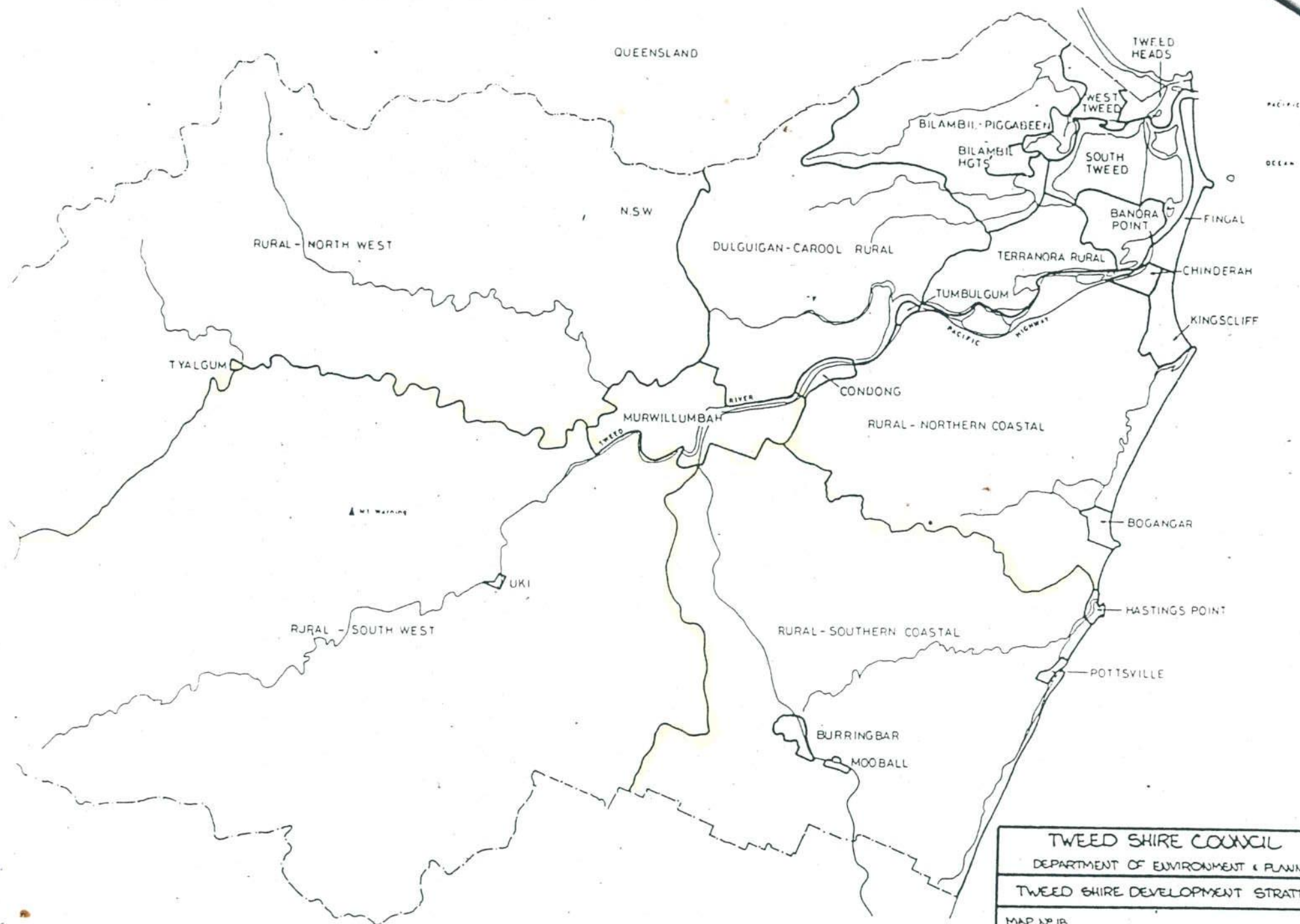
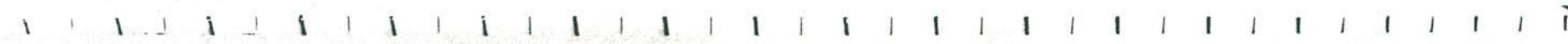


TABLE 2

## POPULATION OF TWEED SHIRE 1976-1986: BY LOCALITY

Locality	Resident Population 1976 Census	Resident Population 1981 Census	Estimated Resident Population 1986
Tweed Heads	2,965	3,946	4,664
Tweed Heads West	2,450	3,299	4,664
Tweed Heads South	2,325	3,590	4,475
Banora Point	1,365	2,350	3,433
Kingscliff	2,145	2,890	3,386
Fingal	580	855	947
Chinderah	710	850	935
Bilambil-Piggabeen	650	915	1,081
Bilambil Heights	*	370	795
Terranora Rural	395	510	770
Nth. East Sector Subtotal	12,585	19,575	25,150
Murwillumbah	7,330	7,475	8,356
Bogangar	395	765	1,194
Hastings Point	185	280	317
Pottsville	305	365	605
Tumbulgum	260	255	334
Condong	205	200	273
Tyalgum	205	220	264
Uki	185	195	226
Burringbar	210	270	458
Dulguigan-Carool	650	880	987
Rural North Coast	1,330	1,620	1,867
Rural South Coast	1,530	1,735	2,081
Rural North West	1,385	1,690	2,036
Rural South West	1,040	1,575	1,721
Total Urban	20,820	28,175	35,326
Total Rural	6,980	8,925	10,543
Total Shire	27,800	37,100	45,869

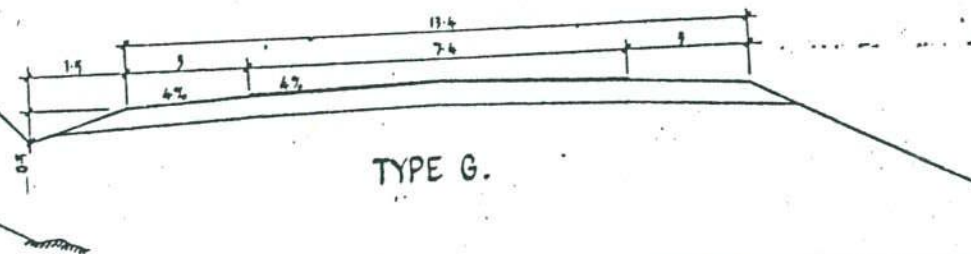
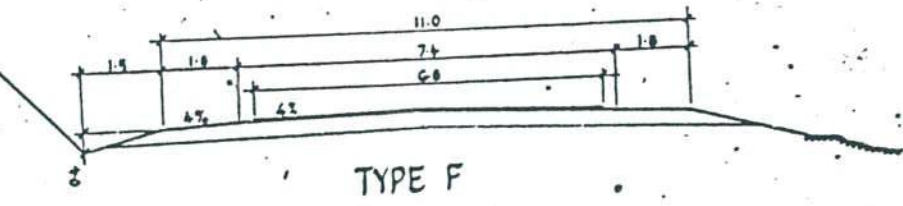
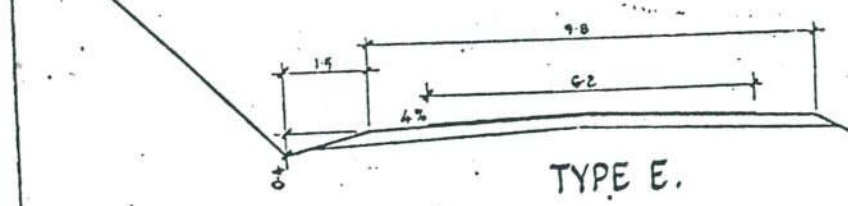
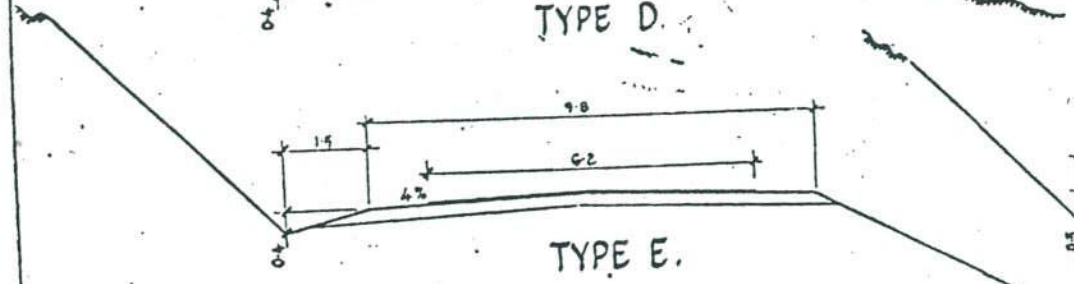
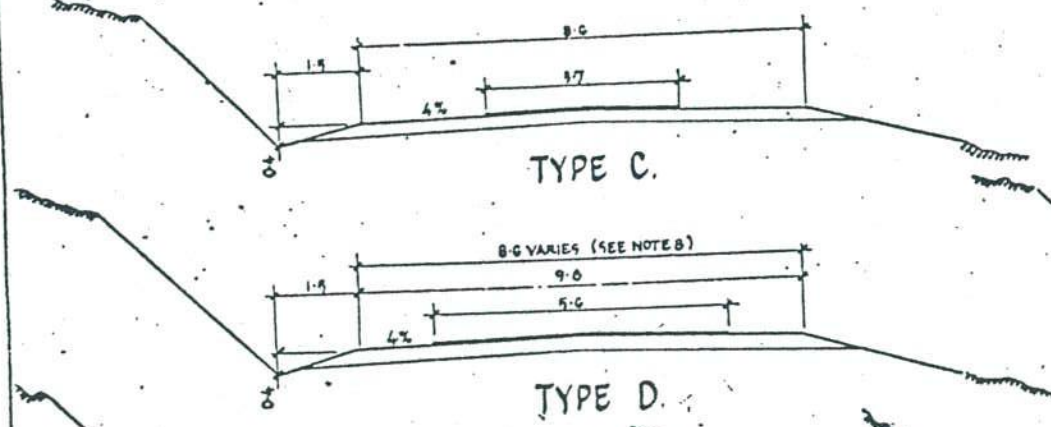
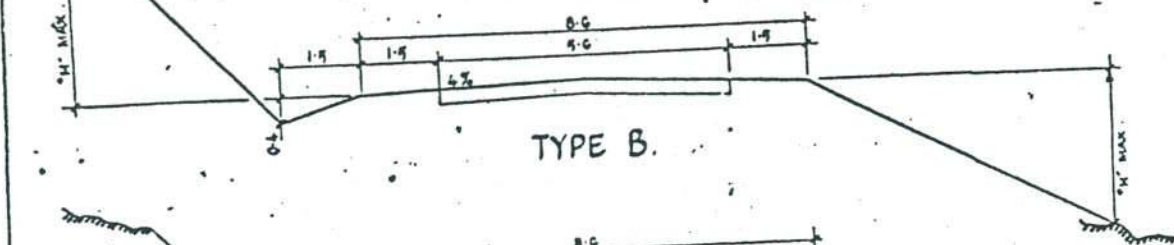
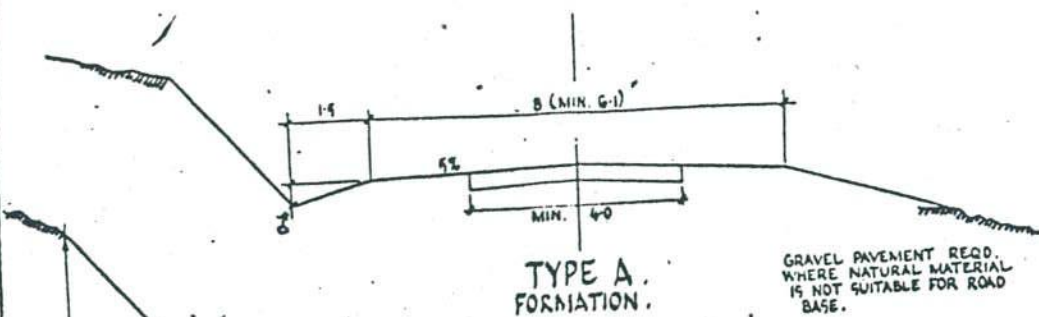
\* No Data Available.



TWEED SHIRE COUNCIL	
DEPARTMENT OF ENVIRONMENT & PLANNING	
TWEED SHIRE DEVELOPMENT STRATEGY	
MAP NO 1B	
LOCALITIES	

FIG 2





# 1) DESIGN STANDARDS

DES. SPEED	ADT	1-20	20-100	100-140	140-300	300-1100	1100-2200	2200+
60 KPH	A	A	B	C	D	E	F	G
80 KPH	-	-	B	D	E	F	G	-

- BATTER SLOPES 1: - WHERE  $H_{MAX} < 1$ , SLOPE NOT TO EXCEED 4:1.
- WIDTH BETWEEN KERBS AT STRUCTURES NOT TO BE LESS THAN DESIGNED PAVEMENT WIDTH PLUS 1.4
- DESIGN PERIOD 15 YEARS.
- DESIGN PLANS 1: -  
 I) TO SHOW FULL WIDTH PAVING FOR D.M.R. SCHEMES.  
 II) TO SHOW PAVEMENT DEPTH AND DESIGN SPEED.  
 III) TO SHOW BATTER SLOPES.  
 IV) TO SHOW EXISTING DRAINAGE & DESIGN WATERWAY CALCS WHERE POSSIBLE.

## C) D.M.R. FORM 802 ..... TABLE 2 AMENDED AS BELOW

DISTANCE FROM G.B.	RADIUS 80-110							
	0	10	20	30	40	50	60	70
CROSSFALL OUTSIDE OF CURVE	-3	-2.7	-1.6	0	2	4	6	7
CROSSFALL INSIDE OF CURVE	-3	-3	-3	-3	-3	-3	-3	-3

- WHERE LONGITUDINAL GRADES EXCEED 5% KERB AND GUTTER TO BE PROVIDED ON BOTH SIDES OF ROAD AND PAVEMENT SEALED TO FULL WIDTH. DISTANCE BETWEEN KERBS TO BE 9 METRES.
- SHOULDERS TO BE 1: -  
 1.2 METRES WHERE CUT OR FILL IS GREATER THAN 0.6 METRES.  
 1.8 METRES WHERE CUT OR FILL IS LESS THAN 0.6 METRES.
- THIS PLAN TO BE READ IN CONJUNCTION WITH PLAN NO. A1-30 AND A2-4.

1. ALL TO BE DONE BY 15/11/15  
 2. ALL TO BE DONE BY 15/11/15  
 3. ALL TO BE DONE BY 15/11/15  
 4. ALL TO BE DONE BY 15/11/15  
 5. ALL TO BE DONE BY 15/11/15

DESIGNED D.G. NEIL  
 CHECKED D.G. NEIL  
 FIELD BK. NOT APPLIC.  
 LEVEL BK. NOT APPLIC.  
 DATUM NOT APPLIC.

THESE DRAWINGS HAVE BEEN TAKEN TO THE SITE OF THE WORK AND ARE RECOMMENDED  
 DEPUTY SHIRE ENG. DATE 15/11/15  
 SHIRE ENGINEER

TWEED SHIRE COUNCIL  
 RURAL ROADWORKS  
 STANDARD CROSS-SECTIONS

15/11/15  
 SHI  
 DR  
 A





## Aldermen reject call to sack town clerk — Page 2

# COUNCIL '30 YEARS OUT OF DATE'

Report  
tells of  
major  
worries

By LINDSAY SAUNDERS

The management of the Lismore City Council has been criticised severely by two inspectors of the Department of Local Government, who described some decision-making procedures as 30 years out of date.

The detailed 12-page report found several major deficiencies in the operation of the council and described the council's financial position as 'unsatisfactory'.

The report from inspectors R Rawson and F Sut was released at Tuesday night's council meeting.

It says that the inspectors have major concerns about the management of the council.

The report says that unless these issues are resolved, the council will continue to operate on its existing day-to-day basis.

The Mayor, Ald H Fredericks, was in Sydney yesterday and was unavailable for comment.

The town clerk, Mr B Stevens, said he agreed with most of the criticism and that the council was investigating the majority

of the areas in the report's recommendations.

The report said that the problems were a reflection on the leadership within the council.

"The council's management requires an injection of initiative and professional commitment befitting a major local government area," it says.

"The council will need to develop a management plan incorporating a long-term financial plan which will adequately address its unsatisfactory financial position."

### 11 steps

The report says the council should use independent consultants to help develop such plans.

The 11 recommendations in the report are that the council:

- Introduce a corporate plan by October 10.
- Continued Page 5

Local  
boy in  
street  
tragedy  
— P3

Tertiary  
tax plan  
angers  
students  
— P5



Marcos  
mother  
dies  
— See  
Page 9

## Karen has double the work



MRS Karen Huon, of Lennox Head, knows just what it's like to be a working mother — that is, working night and day caring for her five-month-old twin daughters, Lorile, left, and Samantha.

This week is National Mothering Week 1988, and the theme of the

week is: 'Every mother is a working mother'.

For the past 10 years, the Nursing Mothers' Association of Australia has organised a special week dedicated to mothers.

The association, which is the second largest women's group in

Australia, has 10 groups on the Far North Coast.

The local groups have organised several activities to mark National Mothering Week 1988.

They include a children's colouring competition, a meeting of mothers and school talks.

## Man on Nimbin heroin charges

A Lillian Rock pensioner yesterday in the Lismore Local Court refused the offer of an early hearing date on charges of supplying heroin and cannabis leaf.

Donald Hector McKenzie, 50, was appearing before magistrate Mr C M Webster.

He was represented by the duty solicitor, Mr P O'Connor.

McKenzie was charged with supplying and with possessing a prohibited drug, heroin, at Nimbin on April 29, and with supplying heroin at Nimbin between April 20 and 29.

He also was charged with possessing a snorting set for administering heroin at Nimbin on April 29.

McKenzie was further charged with supplying and possessing cannabis leaf at Nimbin on April 29, and with having in his custody \$750 reasonably suspected of being stolen for otherwise unlawfully obtained.

Mr O'Connor made an application for bail to be reduced from \$5000 to \$3000 so that his client could fight his case with his liberty rather than from police custody.

Mr O'Connor told the court that McKenzie denied allegations relating to the heroin charges, but conceded to possessing the cannabis leaf for personal use.

Mr Webster said he was not prepared to alter the bail conditions because the accused was a self-confessed heroin addict.

When McKenzie refused an offer of an early hearing date, Mr Webster remanded him to appear in the Lismore Local Court on June 8.

### Inside

Lotto numbers.....5	Services.....13
Lottery 3265 majors.....5	Stars.....14
Lottery 3265 minors.....17	Farming.....17
Comics, crossword.....12	Galaxy Club.....18
TV.....12-13	Finance.....22
Radio.....13	Sport.....22-25, 28

### Weather

Local showers clearing, then a warm day. Moderate south-east to north-east winds.

Outlook: A few showers ahead of southerly change later Saturday or Sunday.

Yesterday's Lismore maximum, 24.9; minimum 15.6.

Forecast maximum, 25.

Coastal waters: South-east winds to 15 knots tending north-east. Seas of one metre on swell of about three metres.

● Weather map — Page 22.

### Tides

High, 10.44 am, 1.3m; 10.47 pm, 1.8m.  
Low, 4.50 am, 0.4m; 4.13 pm, 0.5m.  
Sun rise 6.33, 5.11.

FROM SHOP  
FRONTS  
TO SHOWER  
SCREEN

WE HANDLE  
IT  
WITH CARE

G. James Glass &  
Aluminium  
Commercial  
and  
Domestic  
25 HABIB DRIVE, SOUTH LISMORE  
TELEPHONE 21 2644



# Ballina resort plan for 70 units

A 70-unit low-key holiday resort has been approved for land near Shaws Bay, East Ballina.

The Ballina Shire Council last week approved the resort, to be developed by a Ballina company, Bryock Pty Ltd, on land bounded by Compton Drive, Cedar Crescent, Foster Street and McKinnon Street, without comment.

A report presented to the council by its chief town planner, Mr Rod Willis, said the land was part of the Department of Lands Shaws Bay subdivision development of 1971 and was zoned for commercial

By TONY ZANN of our Ballina Bureau

and business use.

"Numerous schemes have been proposed for the site but this is the first formal application received," Mr Willis said.

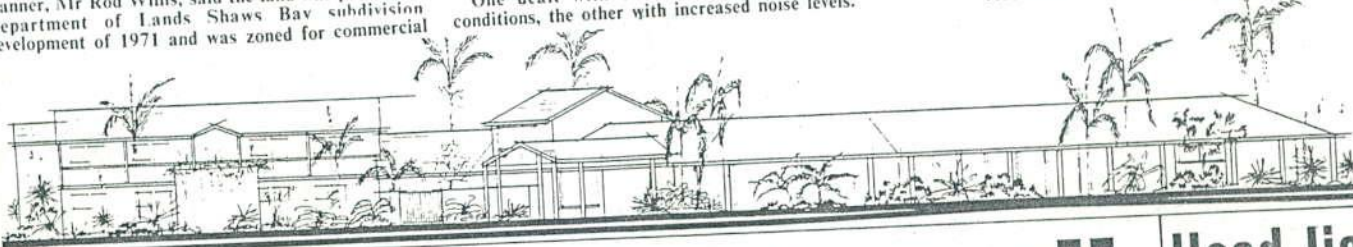
Only two objections to the development application were received by the council.

One dealt with the need for improved street conditions, the other with increased noise levels.

A plan submitted on behalf of Bryock outlined that about 70 per cent of the buildings would be two-storey and interior courtyards would contain a swimming pool, spa, tennis courts, barbecues, a gymnasium and sauna.

The monument marking the wreck of the SS Lismore would be retained on the site, facing Compton Drive.

● **BELOW:** An impression of how the low-rise resort will look from Cedar Crescent.



## Council rejects call for clerk's sacking

Calls for the dismissal of the Lismore town clerk, Mr Byron Stevens, were rejected by the Lismore City Council on Tuesday night.

Mr Stevens' removal from office had been sought by the Lismore and District United Ratepayers' Association.

In a letter to the council, the association also called for a rural rate increase this year not exceeding 6.5 percent.

The association, at a meeting in March, also carried a vote of no-confidence in aldermen who supported rural rate increases of between 16 percent and 200 percent.

The association also told the council that it would take 'all necessary steps' to stop the council proceeding with a new administrative building.

At the council meeting on Tuesday night, Ald P Consalvo said the letter from the association should be 'treated with the contempt it deserves'.

He said a motion passed at the meeting calling on ratepayers not to pay rate increases was in blatant disregard for the law.

Ald Consalvo said a call by the association to meet the Mayor and Deputy

Mayor 'on neutral ground' should be disregarded and that such a meeting should be with the council as a whole at the council chambers.

Ald J Crowther said he had attended the ratepayers' meeting and had labelled it as being 'highly emotional'.

He said speakers at the meeting had displayed a lack of real knowledge.

"This council represents the majority of ratepayers as we were returned to this position by the people of Lismore," Ald Crowther said.

"The association only represents a minority of ratepayers."

Ald Crowther said the attack on the town clerk was unwarranted.

There was no evidence to support the criticism, he said.

Ald R Hepburn said he had also attended the ratepayers' meeting.

He said the aldermen at the ratepayers' meeting had been denied the chance to speak.

"In fact, when I moved to the microphone to make an address, the chairman closed the meeting," he said.

Ald Hepburn said it was a shame that the rates clerk, Mr J Beacroft, had

not been at the meeting as he could have sued several people for slander.

He said the rates clerk and the town clerk had come under unwarranted personal attack and public ridicule.

### Personal attack

Ald Hepburn said there were better ways to address the council that through such a meeting.

Ald R Baxter said that the motion by the association to withhold rates was inciting ratepayers to commit a crime.

Ald K Gallen said the association had called for 1000 people to attend the meeting and only 350 had attended.

He said the association had been given adequate access to the council during the formulation of this year's rates.

"I do not understand what these people want," he said.

"They seem to be people gripped by the rate increases — which is understandable — who are being led by the nose."

"They do not know what they want themselves."

Ald Gallen made a three-point motion that the

council remind the association that:

● The council had the mandate from the people.

● That the administrative building was under consideration only at this stage and that no decision had been made to proceed, although all qualified advice said it should proceed.

● That the rate structures were openly debated and that the current system was arrived at by a rescission motion by the ratepayers' association representative on the council, Ald D Nunn.

The motion was carried unanimously.

Ald Crowther then moved a vote of confidence in the town clerk.

He said 'verbal garbage' had been heaped upon Mr Stevens by some people.

Ald Crowther said Mr Stevens had been the town clerk for many years and that his leadership had guided the council staff in doing their job.

He said Mr Stevens always had maintained a calm approach to the job despite the criticism.

Ald Crowther's comments were applauded by the council.

## Head lice 'are not so bad'

The problem of head lice was not as bad as many people believed and chemical shampoos should not be used in the treatment, according to a spokesman for the New South Wales Department of Health.

The director of clinical services for the North Coast, Dr O Spencer, said that most people regard the presence of head lice with more alarm than they should.

"Head lice have been around as long as man," he said.

"They do not carry or cause disease, only

● **Continued Page 5**

## Chincogan Fiesta to run for nine days

Organisers of this year's Chincogan Fiesta at Mullumbimby have decided to extend the event over nine days to add to the Byron Shire's Bicentenary celebrations. Normally, the fiesta is a one-day event.

By GARY CHIGWIDDEN of our Byron Bay Bureau

follow a 6.9-km course to the top of Mt Chincogan and return, has been increased from \$300 to \$1500.

The fiesta promotions officer, Mr Maurie Summers, said that this

two team prizes of \$500 also would be up for grabs.

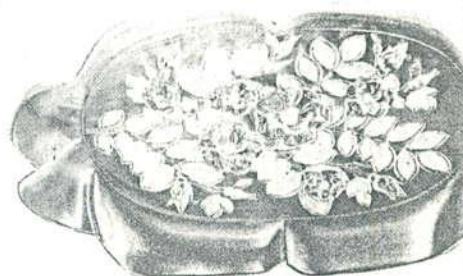
He said one of the team prizes would be for school entries and the other for open teams supporting a recognised organisation.

land, in July.

Mr Summers said that the fiesta program also would include golf, bowls and Soccer carnivals and night-time entertainment including theatre performances, dances and a bush ball.

He said there had been no decision yet on whether

Just arrived great goods for Mother's Day



German "Walther Glass" decorative serving dishes in assorted patterns and shapes and sizes from \$19.

● Platters ● Canape Trays ● Party Time ● many more conveniently displayed

"Home Beautiful" decorator vases, in sophisticated black. Were \$29.50

Now \$19.95 each





# APPLICATION

17-12-86 3.30 1311 Bortier

Bentley-Normal

8-12-86 P14

(B)

Placed

2.14

New home fitted (1)

11-12-86

8.28

1475

12-12-86

3.24

1965

15-12-86

121

2954

17-12-86

3.27

3221

22-12

4950

-1475

3475

Tuntable Falls Rd. 13-1-87

KS

(A)

15-1-87

738

17-1-87

2105

(3)

21-1-87

2845

23-1-87

3560

27-1-87 (12)

5035

738

4297

Tuntable Ck. Rd. 13-1-87

KS. LG.

(A)

15-1-87

213

213

17-1-87

602

21-1-87

826

(1)

23-1-87

1043

27-1-87 (12)

1502

approx ch. 700 m

1502  
213  
1289

St of Anderson Rd

2 AADT

3600  
384  
3216

Located - Sth. of Anderson Rd

Reading

Gungah Road

27-1-87 34

(B)

29-1-87

384 = 192 AADT

2-2-87

1361 = 226 (3)

222 AADT

5-2-87

2076 = 230

12-2-87 (14)

3600 = 225

Crofton Road.

27-1-87 34

(B)

29-1-87

325

2-2-87

1090

(1)

5-2-87

1604

12-2-87 (14)

2959

325



# P L A N N I N G   D E P A R T M E N T

## F E E S   &   C H A R G E S   -   1986

### SUBDIVISION APPLICATIONS

For each application .....\$50 plus \$15 for each lot to be created

#### Approval of Engineering Design Plans

Urban Roads .....\$1.40 per metre measured on C.L.

Rural Roads .....75c per metre measured on C.L.

Re-certification of Final Plan .....\$33.00

Extension of time limit on existing approval .....\$55.00

Standard approval has a life of two years. Where initial approval is developed in stages, fee payable at time of lodgement for each additional stage .....\$55.00

Written advice of Subdivision potential .....\$22.00

### DEVELOPMENT APPLICATIONS

#### 1) Any Development, involving the Erection of a Building or the carrying out of Work:

- a) Not exceeding \$100,000 ..... \$50 plus \$3 for each \$1,000
- b) Exceeding \$100,000 but not exceeding \$500,000 ..... \$350 plus \$1.50 for each \$1,000 above \$100,000
- c) Exceeding \$500,000 but not exceeding \$1,000,000 ..... \$950 plus \$1 for each \$1,000 above \$500,000
- d) Exceeding \$1,000,000 but not exceeding \$10,000,000 ..... \$1,450 plus 75c for each \$1,000 above \$1,000,000
- e) Exceeding \$10,000,000 but not exceeding \$93,600,000 .. \$8,200 plus 50c for each \$1,000 above \$10,000,000
- f) Exceeding \$93,600,000 ..... \$50,000

2) Dwelling Houses - Urban or Rural ..... \$75.00

3) Multiple Occupancy of Rural Lands Development Plan ..... \$50 + \$45 per living unit

4) Any other development not included above ..... \$50.00

5) Development Without Council Consent (State Environmental Planning Policy No. 4) ..... \$20.00

6) Advertising designated development - at cost ..... \$150.00 (min)

7) Advertising other than 5) where required (covers cost of Advertisement, Notice to Adjoining Owners and Notice on land) ..... \$110.00

\* In determining the fee to accompany a Development Application in respect of the erection of a building or the carrying out of work the Council shall make its determination by reference to a genuine estimate of the construction costs of that building or work, which estimate shall, except where the Council is satisfied that the estimated cost indicated in the Development Application is neither genuine nor accurate be the estimated cost shown. The cost shall include the cost of all earth works, construction of buildings, drive-ways, parking areas and landscaping and major development specific plant, calculated at current commercial rates.

### BUILDING LINE VARIATIONS Sec 308A

Urban (includes advertising) ..... \$100.00

Rural ..... \$35.00

### AMENDED APPLICATIONS (Subdivision or Development)

Within three months of initial Consent involving increased development ..... Increase in fee over original the minimum being \$10.00

Three months after initial Consent

involving major amendment ..... Full new fee

minor amendment involving issue of new notice ..... \$20.00

(10) Subsections (1), (2), (5), (6) and (9) do not apply to a sale, lease or other disposal of land in respect of which a Crown grant was issued under this section as in force before the commencement of Schedule 9 to the Crown Lands (Land Titles) Amendment Act, 1980.

*Lands measured with boundaries to lakes, roads, &c.*

235A. (1) In this section—

“Bank” means the limit of the bed of any lake or river.

“Bed” means the whole of the soil of any lake or river including that portion thereof which is alternately covered and left bare as there may be an increase or diminution in the supply of water and which is adequate to contain it as its average or mean stage without reference to extraordinary freshets in time of flood or to extreme droughts.

“Lake” includes a lagoon or other like collection of water, whether permanent or temporary, not being water contained in an artificial work.

“River” includes any stream of water whether perennial or intermittent, flowing in a natural channel, and any affluent, confluent, branch, or other stream into or from which the river flows.

(2) The boundary of any land which is granted or otherwise alienated by the Crown and which is described or alienated as bounded by or by reference to or by the margin or bank of any non-tidal lake or by metes which are expressed or shown to run to the lake or to the bank of the lake shall be deemed to be the bank of the lake at the time of the Crown survey for the purposes of the alienation.

(3) No title to the land comprising the bed of any non-tidal lake shall pass or be deemed ever to have passed by any Crown grant of land adjoining the lake by reason of the land granted being described as bounded by or by reference to or by the margin or bank of the lake or by metes expressed to run to the lake or to the margin or bank of the lake.

(4) No title to the land comprising the bed of any non-tidal lake shall pass or be deemed ever to have passed by any other alienation of land adjoining the lake by reason of the land being alienated as bounded by or



by reference to or by the margin or bank of the lake or by metes expressed or shown to run to the lake or to the margin or bank of the lake.

(5) (a) No person shall by reason of his being the owner of any land so described or alienated be entitled to any rights of access over or to the user of any part of such bed.

(b) Nothing in this section shall affect any license or authority acquired either before or after the commencement of the Crown Lands (Amendment) Act, 1931, under or pursuant to the Water Act, 1912.

(6) The doctrine of accretion shall not apply and shall be deemed never to have applied to a non-tidal lake.

(7) Nothing in this section shall operate to divest any land included in a folio of the Register created before the commencement of the Crown Lands (Amendment) Act, 1931.

(8) Where under the Crown Lands Acts the bed of any river has been reserved from sale or lease no person shall by reason of his being the owner of any land adjoining the river which has been subsequently alienated as bounded by or by reference to or by the margin or bank of the river or by metes expressed or shown to run to the river or to the margin or bank of the river be entitled to any rights of access over or to the user of any part of the bed of the river other than to such rights as are or have been acquired either before or after the commencement of the Crown Lands (Amendment) Act, 1931, under or pursuant to the Water Act, 1912.

(9) Where, either before or after the commencement of the Crown Lands (Amendment) Act, 1931, any land which has been or is granted or alienated by the Crown with a boundary adjoining or as bounded by a road which has been or is created by the Crown, no part of such road shall be deemed to have passed or to pass with the land so granted or alienated.

(10) This section shall extend to all lands comprised in any grant or other alienation whether made before or after the commencement of the Crown Lands (Amendment) Act, 1931.

(11) In this section "alienation" includes any form of tenure under the Crown Lands Acts, the Closer Settlement Acts, or any other Act relating to the alienation of lands of the Crown, and "alienated" has a corresponding meaning.

(12) Nothing in this section shall apply to Lake Victoria or to any other lake to which the River Murray Waters Act, 1915, or any agreement thereby ratified, applies.

REPORT TO GENERAL PURPOSES COMMITTEE 12/11/85.

REFERRED TO  
G.P. COMMITTEE

DEPUTY CITY ENGINEER'S REPORT TO CITY ENGINEER.

12/11/85

SUBJECT: 1986 PUBLIC WORKS ESTIMATES.

(IRG:LT: P10-1)

A number of items have been included in the draft estimates with increases over the normal inflation rate. The following reasons for these increases are now tendered.

Gravel Road Maintenance (Rural and Urban)

From now on Council will be obliged to register all gravel pits as mines and adhere to the guidelines for operation imposed by such registration, this will reflect in a higher price for gravel which in turn means higher costs for gravel road maintenance.

Council's statistics indicate the total length of gravel roads under maintenance as being 520 kilometres. Maintenance costs for the first half of next year are estimated at \$980 per kilometre, giving a total estimated cost of \$510,000. In addition, approximately 20% of these roads require a second grade each year requiring an additional \$102,000 (this amount allows for some flood and storm damage).

$\$ = \$1177/\text{km gravel}$

Bitumen Road Reseal

There is a popular misconception that once a bitumen road is constructed it will never require rebuilding and this concept is reflected in budgets by providing only for inflation without allowing for rebuilding. Also no allowance is made for growth in the road system.

Currently the total length of Council maintained bitumen roads is 275 kilometres and the Department of Main Roads recognises that pavement reconstruction should occur every twenty to twenty five years. Recognising the reduced traffic usage for Council roads and allowing a rebuilding period of twenty five years equates to rebuilding eight kilometres of road each year at an average estimate of \$50,000 per kilometre giving \$400,000 per annum.

\$1455

1000

Sealed = \$2455

Similarly, reseals should be done every ten to twelve years which equates to 25 kilometres per annum at \$11,000 per kilometre or \$275,000 per annum.

N.B. the above figures do not allow for a catchup factor and do not provide for major reconstruction of urban and rural arterials which are generally carried out using loans or commonwealth grants.

Works Engineer

This is an additional item which has been included in previous draft estimates but excluded due to budgetary constraints. Most surrounding Council's have appointed a Works Engineer even though they operate smaller works staff.

The ramifications of the Occupational, Health and Safety Act make it even more urgent that an appointment be made in 1986 as adequate supervision is considered one of the main ingredients in preventing accidents. Currently many decisions are being made based on judgement or without proper investigation and this will eventually lead to accidents and serious costly errors.



Other factors affecting the issue is the paper work and the trend by the Department of Main Roads to require more preparation for and closer supervision of works undertaken under its various programmes, the total cost of which is currently running at \$1.5 million per annum. Consideration of environmental factors is also having its impact on engineering work loads and to ignore such issues could lead to litigation and payment of compensation.

The trends as detailed above which are creating the need for the additional staff are generally created externally and are not supported by myself, however, they are real and I have no choice other than to react to them in an endeavour to avoid possible embarrassment and expense to Council.

Finally, Council is demanding improved public relations and this can only be achieved by adequate staffing levels if efficiency is to be maintained.

#### Cost Clerk

Most Councils, to my knowledge, employ an Engineer's Cost Clerk working under the direct control of the Engineer. Although some of the duties of a cost clerk are currently spread amongst administration staff with Mr. Davis from the Engineers Office handling some of the invoices and minor duties, there still remains a lot that could be done by a full time Engineers Cost Clerk. Also Mr. Davis now has the responsibilities of Property Officer which is occupying the bulk of his time.

The major deficiencies currently existing in this sphere of activity is monitoring of costs, checking quantities of materials supplied and management of sundry debtor works.



I.R. Gates,  
DEPUTY CITY ENGINEER.

6th November, 1985.

#### CITY ENGINEER'S REPORT:

I support the matters raised by the Deputy Engineer and in amplification of the information provided, submit the following additional detail -

#### GRAVEL ROADS MAINTENANCE:

The maintenance standard provided is for grading and some gravelling once per year for all roads and an additional 25% of roads to be graded twice per year. This is a very minimum standard which will not meet community requirements but is regarded as the basic minimum which is not being achieved at the present time.

The present total expenditure before additional supplementary budgets in 1985, is \$432,000 for rural gravel roads and \$32,400 for urban gravel roads giving a total budget of \$464,400. It is proposed in 1986 that this be lifted to \$612,000 as indicated in the Deputy Engineer's report.

BITUMEN ROAD RESEALS:


As indicated a minimum standard of \$675,000 is required compared with the expenditure budget for 1985 of -

Rural	\$ 232,000
Urban	--157,000--
TOTAL	\$ 389,000 -----

If anybody has any doubts about the impending road crisis, they should consider the following items:-

1. Government grants have been reduced relative to costs, particularly the construction grants available from the Department of Main Roads;
2. Political patronage of selected areas of the state has resulted in the uneven distribution of funds;
3. There has been a concentration of expenditure on national highways and a down grading of expenditure in other areas, particularly in local government funding;
4. Spending by Council in new areas of need has been demanded by the community and encouraged by the government;
5. The ability of Councils to raise funds is severely restricted by limitation of rate rises and loan funds raising.

Recommended that the matters be given serious consideration in the estimates.

  
P.W. Lancaster,  
CITY ENGINEER.

6th November, 1985.

*General Purposes Committee 12-11-85*

27. City Engineer - 1986 Public Works Estimates: (Copy attached)  
THE COMMITTEE RECOMMENDS that the City Engineer's report be received and deferred for consideration with the 1986 Estimates.

(P10-1)



REPORT TO GENERAL PURPOSES COMMITTEE 12/11/85. REFERRED TO  
DEPUTY CITY ENGINEER'S REPORT TO CITY ENGINEER. G.P. COMMITTEE  
12/11/85  
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gravel

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I.R. Gates,  
DEPUTY CITY ENGINEER.

6th November, 1985.

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23

GENERAL PURPOSES 12/11/85:

- 3 -

PUBLIC WORKS ESTIMATES.

BITUMEN ROAD RESEALS:


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P.W. Lancaster,  
CITY ENGINEER.

6th November, 1985.

*General Purposes Committee 12.11.85*

7. City Engineer - 1986 Public Works Estimates: (Copy attached)  
THE COMMITTEE RECOMMENDS that the City Engineer's report be received and deferred for consideration with the 1986 Estimates.

(P10-1)



16/01/84

Rural Resettlement Task Force,  
P.O. Box 62  
Nimbin. N.S.W. 2480

FILE NO.

DATE: 7th February, 1984 9

SJE DRYDEN -  
OM ALAN NICOL - LEGAL (DRAFTING)

The conditions upon which a council may seek to impose a condition of development consent under s.94 of the Act are as follows:-

- (a) in respect of a deemed environmental planning instrument which has not been altered since 1st September, 1980 a condition may be imposed without the instrument containing an identification clause as referred to in s.94(2)(a) of the Act.
- (b) in respect of a deemed environmental planning instrument which has been amended since 1st September, 1980 a condition may be imposed provided the instrument contains an identification clause as referred to in s.94(2)(a) of the Act.
- (c) in respect of a local environmental plan a condition may be imposed provided the instrument contains an identification clause as referred to in s.94(2)(a) of the Act.

2. In each case many difficulties present themselves to a council wishing to impose a valid condition of consent. Various tests and preconditions have been established by the Court.

3. Firstly, the council must form an opinion that the proposal "will or is likely to require the provision of or increase the demand for public amenities and public services within the area"; e.g., by virtue of population increase. The condition, also, must be fairly and reasonably related to the development.

4. Secondly, the contribution sought must be for the purpose of providing, extending or augmenting those public amenities and public services. Examples of public amenities and services to which contributions or the dedication of land have been required by the Court under s.94 include public car parking, drainage, open space, the upgrading of stormwater channels and traffic planning study and possible parking contributions consequent on the findings and adoption of that study.

5. Thirdly, the Court has held that there must be a causal nexus between the development and a decline in the amenity of the area and this decline must be substantiated e.g., the council will need to show that "the expected increase in population in the locality with the expectant resultant demand for increased facilities ... (will) necessarily result in a decline or a depreciation of the amenities in that neighbourhood". It would seem that it is imperative to establish an amenity decline.

6. Fourthly, there must be a physical nexus between the condition sought and the development proposed. In addition, the contribution must be spent in the "immediate location". In one case it was held that a contribution for open space had to be



MEMORANDUM

TO

SUE DRYDEN -

FILE No.

FROM

ALAN NICOL - LEGAL (DRAFTING)

DATE: 7th February, 1984

- 2 -

by development on it". In another case, where a parking contribution was sought the Court held that the parking sought was to be "...so situated and defined in such a fashion as to enable a decision to be reached that they are capable of being identified with the proposed development".

7. Fifthly, the contribution must be spent within a reasonable time. If not, the contribution would not be a valid levy under s.94. Long term projects would not appear to be appropriate subjects for a s.94 levy. In this connection it may be relevant to consider whether, in a slowly developing area, a trickle of s.94 contributions would be insufficient to do anything.

8. Sixthly, conditions must be reasonable. This is a complex matter of no easy solution; each case depending on the facts and circumstances relevant in the area. Certainly, a reasonable contribution cannot be an exaction or tax.

9. Seventhly, the courts will permit discounting in cases where, for example, the development may be "of an environmental planning advantage to the community".

10. In the present case, I understand concern has been expressed as to the validity of a condition of development consent requiring a contribution to upgrade an existing road. The levy amounts to \$2,500 for every third and subsequent dwelling. The condition is imposed in relation to "multiple occupancy" development introduced into Interim Development Order No. 2 - Shire of Tweed by Tweed Local Environmental Plan No. 6. The relevant clause permitting this form of development is cl.12A. The clause does not contain a "s.94 clause". This being the case, it is my view that no power exists in the council to impose a condition of development consent requiring a contribution under s.94. This is because the multiple occupancy provisions were included in the I.D.O. by a L.E.P. and thus require compliance with s.94(2)(a) before an imposition can be made.

11. The conditions imposed by the council, would, therefore, be beyond power.

12. Even assuming the plan did contain the required identification under s.94(2)(a) the council may have difficulty in substantiating the conditions applying the tests referred to, (especially the 1st, 3rd, 4th and 5th tests).

/..3

MEMORANDUM

TO SUE DRYDEN -  
FROM ALAN NICOL - LEGAL (DRAFTING)

FILE NO.

DATE: 7th February, 1984

- 3 -

13. It is difficult, and, perhaps inappropriate for this Department to comment upon the validity or otherwise of a condition of development consent imposed by a council. The appropriate forum for determination of this issue is the Land and Environment Court.

14. Nor do I think it advisable for the Department to proffer legal advice to the Council as to the bases upon which contributions may be sought. If advice given transpires to be incorrect the Minister or the Department may be placed in an embarrassing situation. The council has available to it competent legal advisers and should be encouraged to seek advice from that quarter as to its powers.



ALAN NICOL  
Legal Officer,  
Legal (Drafting) Branch

Endorsed *Donna Campbell* 7/2/84.



## SEAL EXTENSION PRIORITY RANKING

	LENGTH OF SECTION KM (1)	TOTAL COST (\$000) (2)	TRAFFIC VOLUME (3)	CONSTRUCTION COST PER KM (\$000) (4)	MAINT. SAVING PER KM (5) \$	2ND COAT SEALING COST PER KM (6) \$	PRIORITY INDEX (5a) (7)
(cost/km only supplied)							
Waiapu Stm Rd	3.0	168.6	90*	56.2	Negligible	6100	1.44
Ngikohu Rd	1.5	69.4	30*	46.3	"	6100	0.57
Mangapapa Rd	10.6	638.6	< 50	60.2	"	6100	< 0.75
Poro O-Tarao Rd	4.3	173.6	50*	40.4	"	6100	1.08
Tekima Rd	4.2	214.5	20*	51.1	"	5500	0.35
Saddle Rd	11.6	849.4	100*	73.2	"	6100	1.26
Kaitieke Rd	14.6	1184.2	20-50	81.1	"	5500	0.58
Tirohanga Rd	(cost/km only supplied)		120	39.9	605	7600	2.73
View Rd	(cost/km only supplied)		191	31.1	520	7600	5.37
Tutukau Rd	(cost/km only supplied)		98	36.8	869	7600	2.50
Cuden Rd	6.0	225.0	149	38.0	not known	5800	3.40
Camp Valley Rd	4.0	150.0	137	38.0	not known	5800	3.13
Cays Pass	0.9	33.0	41	36.7	negligible	5800	0.98
Pleasant Valley	1.6	58.0	150	36.3	"	5800	3.56
McKeown	1.0	36.0	150	36.0	"	5800	3.59
Cliffs	4.5		26*	36.0	"	5800	0.62
Boundary Rd	3.9	58.5	< 40*	15.0	"	6000	< 1.90
Lyndhurst Rd	2.4	28.8	23*	12.0	"	6000	1.28
Woods Rd	2.1	25.2	< 30*	12.0	"	6000	< 1.67
Cartarton Rd	1.0	14.0	< 30*	14.0	"	6000	< 1.50
Junction Rd	5.7	68.4	< 30*	12.0	"	6000	< 1.67
Gorge Rd	4.0	56.0	< 30*	14.0	"	6000	< 1.50

\* Estimated

(3)

I<sub>se</sub>

(4) + (6) - 6 x (5)

[(4), (5) + (6) in \$000 units] 1980/81 Costs

## ROAD SAFETY AT INTERSECTIONS

### A REPORT ON BULLETIN NO. 48

#### Introduction

This topic is of considerable interest at present, with road accidents costing about \$200 million annually and accidents at intersections typically amounting to almost 30% of all accidents. Bulletin No. 48 is a full report on one of a number of studies of accident occurrence at intersections. Some results have been published in the 1975 Roading Symposium Proceedings and Road Research Unit Newsletter No. 61.

The study reported in Bulletin No. 48 involved analysis of data on various physical and traffic characteristics from 460 urban, right angle intersections throughout New Zealand. Injury accident records for those intersections, between 1965 and 1969, were also analysed. Multiple regression techniques were used to examine the effects of all the site characteristics, on accident frequency.

#### Discussion

Generally, it was found that the effect of the variables studied is relatively small, with about 60% of the variation in accident rate being due to chance and/or variables not included in the study.

The research has confirmed that total accidents per vehicle passage tends to decrease as the level of intersection control increases. However, particular types of accidents do not always conform with this trend, and as the cost of an accident depends upon the accident type, it cannot be assumed that a reduction in the total number of accidents will always be accompanied by a reduction in the accident cost.

It should be noted that although there is a tendency for accident frequency to reduce as the level of control increases, it is by no means certain that increasing the level of control at any particular intersection will lead to a reduction in accident occurrence there.

The results contained in Bulletin No. 48 are appropriate for determining whether a particular intersection is especially hazardous compared with other similar intersections. Achieving that is no mean feat, and for that purpose Bulletin No. 48 should prove very useful to traffic engineers/planners.

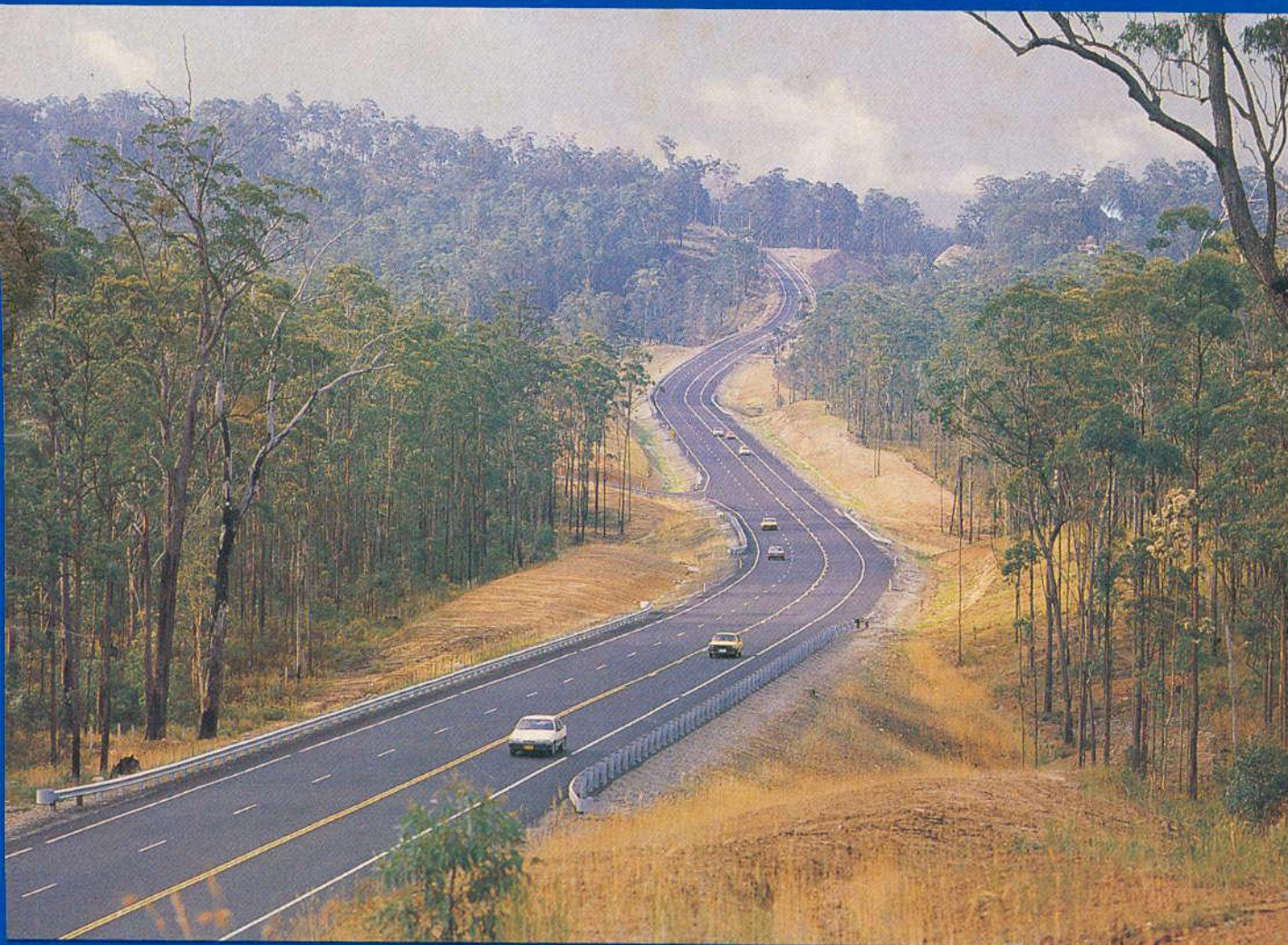
Kitto, H.J. 'Accident Rate at Urban Right-Angle Intersections' Road Research Unit Bulletin No. 48, 1980.

— prepared by A.J.N.



# ***ROADS 2000***

***North Coast Region***



**Department of Main Roads  
New South Wales**



The North Coast Region extends from Port Stephens in the south to Tweed Heads in the north, and from the coastline to the Great Dividing Range. The terrain varies from alluvial flood plains on the coast to undulating hills and mountains in the west.

Initially, the region's development depended not so much on road access as on the big rivers for transportation. This was particularly the case for the timber industry which relied on coastal shipping for transport.

These rivers, in fact, were of such a size as to inhibit through movement by road. It was not until the ferries initially installed to cross them were replaced by bridges that the Pacific Highway provided for continuous road transport along the coast.

Towns in the region tend to be located on the big rivers and, together with the Pacific Highway which links them, are prone to flooding. This causes considerable disruption to local and through traffic.

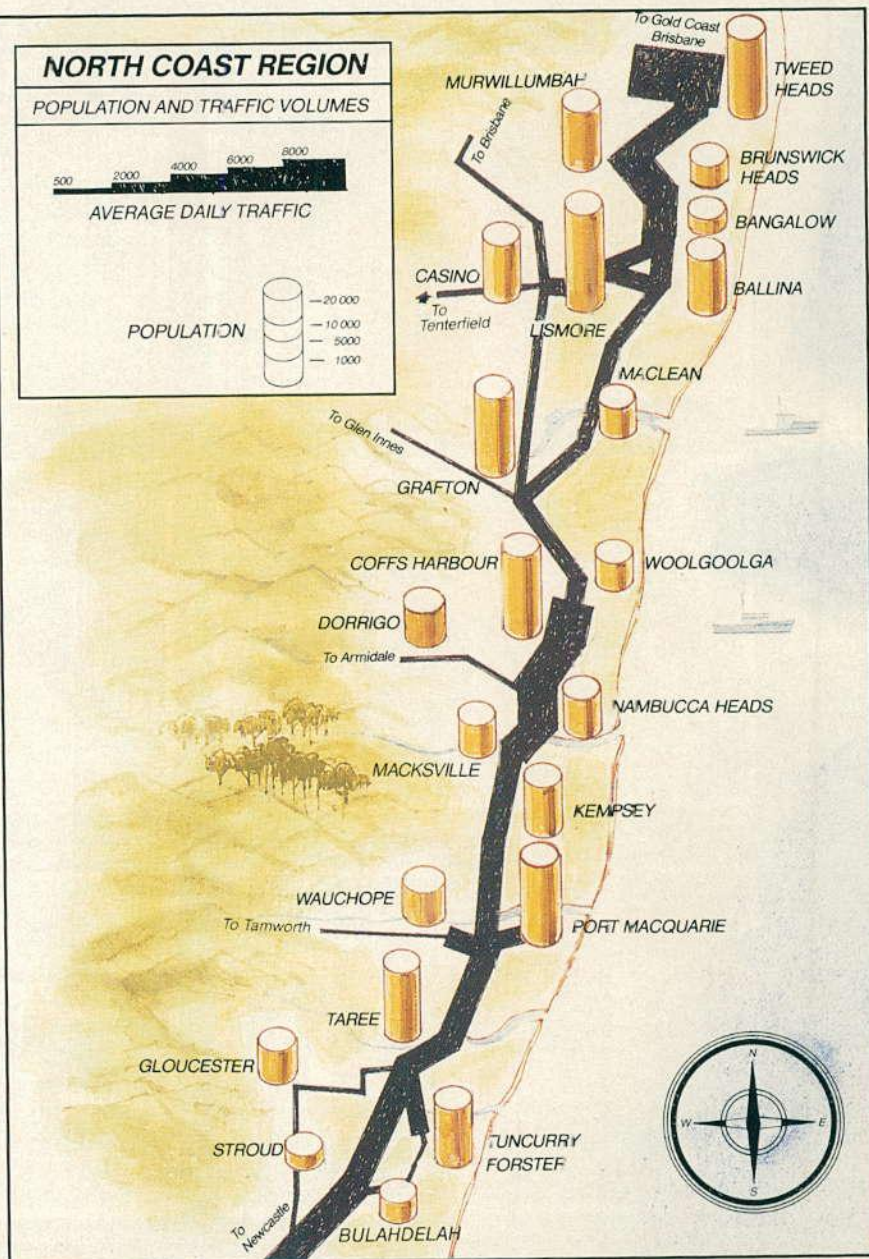
The North Coast Region is the fastest growing country region in the State, with the population expected to increase from 385,000 to 600,000 over the next 14 years.

The North Coast has many delightful recreation spots and is a prime destination for tourists and holiday-makers. This has created local jobs and stimulated the region's economy.

The Pacific Highway is vital to the development of the region, providing the primary link for business and tourism. The highway caters for both long distance travellers and heavy freight carriers who seek travel with minimum delay as well as heavy seasonal recreational traffic.

In view of the projected increase in traffic of the Pacific Highway by the year 2000 and beyond, the provision of safe and reliable travel conditions is essential, requiring a significant upgrading of the route.

Increased activity in the region and increased road traffic has not been without its problems, particularly in



towns where through traffic conflicts with local vehicles and pedestrians. It is important that the environment of towns is not diminished by the growth and development of the region. It will be necessary to promote traffic management in these towns to reduce congestion and improve safety. Town bypasses or traffic relief routes may also be desirable when there is a significant amount of through traffic.

Recreation traffic is obviously important to the region and the road network needs to provide access to major resort towns as well as alterna-

tive routes to the Pacific Highway for those who have time to explore the region's many interesting and beautiful attractions.



# Developing the Road Network

The following strategies have been formulated to address these issues and to guide the development of the road network in the North Coast Region.

## GROWTH

### 1. Support the growth of towns in the region.

- Widen the major traffic routes on the outskirts of towns to accommodate increases in traffic.
- Provide bypasses to alleviate conflict between local and through traffic.

## PACIFIC HIGHWAY

### 2. Recognise the effect that the growth in the region up to and beyond the year 2000 will have on the Pacific Highway.

- Plan for the eventual development of the Pacific Highway as a divided road for its entire length.
- Limit indiscriminate entry to the route by taking measures to control access, particularly at critical locations.

### 3. Promote the efficient transport of goods and services.

- Provide a divided road on the most heavily trafficked sections.
  - Newcastle towards Lakes Way, north of Bulahdelah.
  - Taree towards Kew.
  - Macksville to Nambucca Heads.
  - Chinderah to Tweed Heads.
- Provide a high standard two-lane road with frequent overtaking opportunities on those sections where divided roads cannot be provided by the year 2000.

Improved alignment to be provided at:

- Wootton north of Bulahdelah;
- north of Kew between Herons Creek and the Oxley Highway;

—near Warrell Creek south of Macksville;

—between Raleigh and south of Coffs Harbour;

—between Bangalow and Murwillumbah, including the Burringbar ranges.

Passing lanes to be provided at:

—five locations between Bulahdelah and Taree;

—10 locations between Kew and Macksville;

—15 locations between Nambucca Heads and Grafton;

—20 locations between Grafton and Tweed Heads.

- Provide bypasses of Taree, Macksville and Tweed Heads.

- Minimise disruption to traffic caused by floods.

### 4. Promote the development of existing routes as alternatives to sections of the Pacific Highway to help maintain local access in times of flood, while recognising that this is not possible in all cases. In

**major floods, the most practical alternative route for long-distance traffic is the New England Highway.**

## OTHER ROUTES

### 5. Support commercial and social interaction within the region by improving the high standard of sealed access on the major traffic routes. Improvements include:

#### Lakes Way

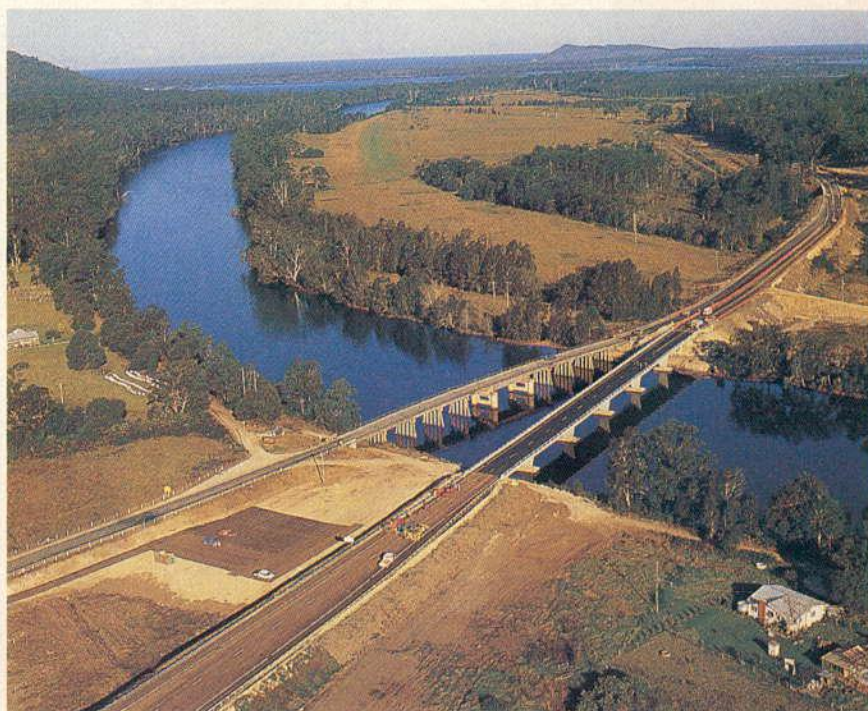
- Provide passing lanes through the ranges and between Tuncurry and Purfleet to allow overtaking of slow vehicles.
- Duplicate the bridge over the Wollamba River between Tuncurry and Forster.

#### Oxley Highway

- Provide a divided road between Port Macquarie and the Pacific Highway.

#### Summerland Way

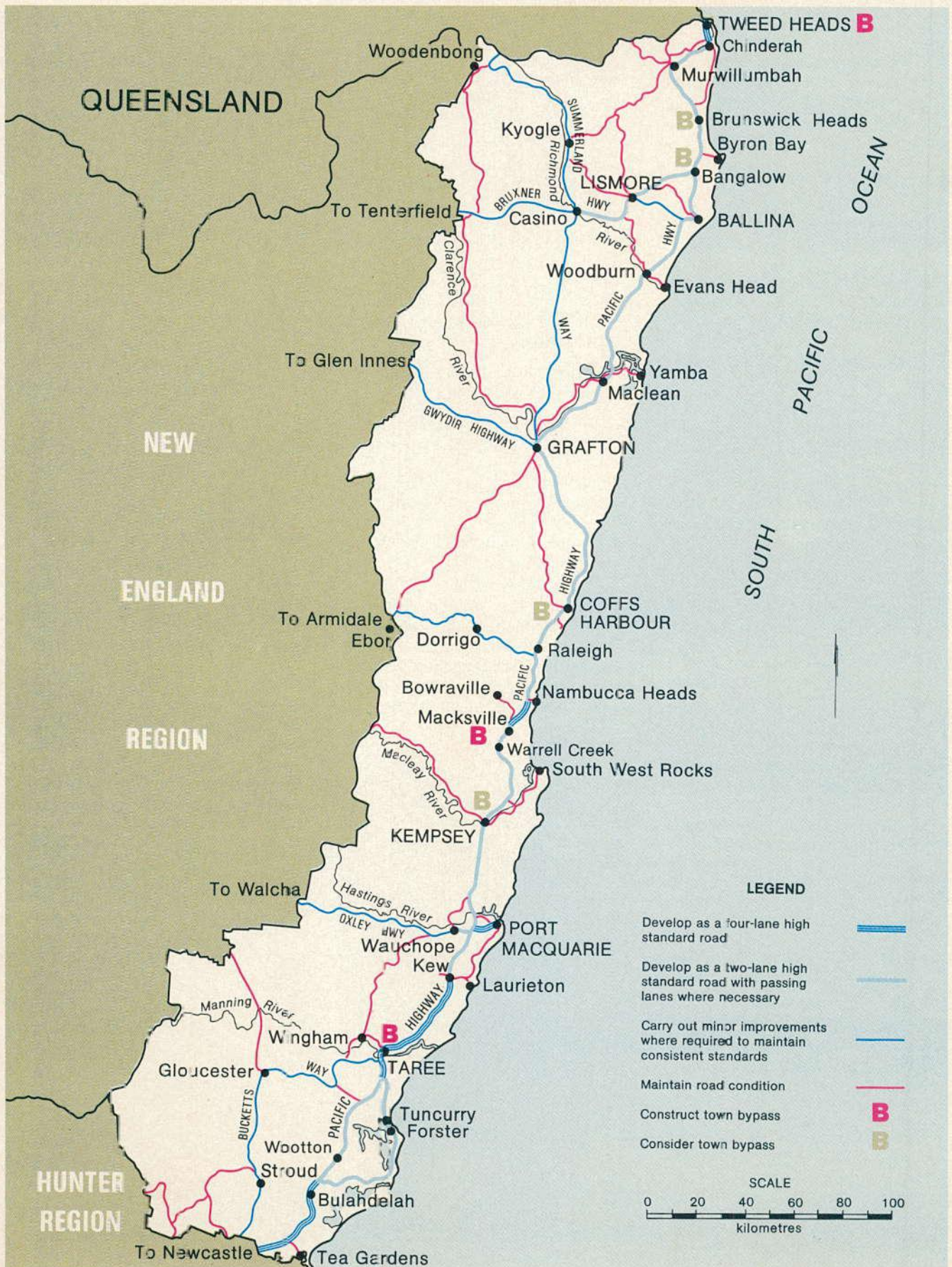
- Major strengthening between Grafton and Casino.



A new bridge to carry the Pacific Highway over the Camden Haven River at Rossglen.



# North Coast Region





- Realign at Wiangaree north of Kyogle, involving elimination of two low clearance rail underpasses, one level crossing and one narrow bridge.

- Replace two timber bridges over the Richmond River.

#### Lismore to Bangalow

- Realign selected sections including a new bridge over the railway at Binna Burra.

#### Lismore to Ballina

- Realign east of Alstonville.

### **TOURISM**

#### **6. Promote the tourist and recreation industries by maintaining and improving access to key tourist centres.**

- From the Pacific Highway to Tea Gardens.
- From the Pacific Highway, north of Bulahdelah to Forster and Tuncurry and then north to the Pacific Highway.
- From the Pacific Highway to Laurieton and then north to Lake Cathie and Port Macquarie.
- From the Pacific Highway to Port Macquarie.
- From the Pacific Highway at Kempsey to South West Rocks.
- From the Pacific Highway to Yamba.
- From the Pacific Highway to Byron Bay.

#### **7. Support the tourist and recreation industries by maintaining high standard road access from the New England Region via the Oxley Highway, Armidale Road (via Dorrigo), the Gwydir Highway and the Bruxner Highway.**

#### **8. Support the tourist and recreation industries by maintaining alternative routes to the Pacific Highway such as Bucketts Way,**

#### **Lakes Way, Lake Cathie Road, Glenreagh back road, Brunswick Heads to Chinderah coast road and Summerland Way.**

#### **9. Promote tourism by signposting tourist destinations.**

#### **10. Provide rest areas and truck parking areas on the Pacific Highway and Summerland Way to enable travellers to break their journey at a convenient location. Sites to be selected in consultation with the Forestry Commission and local community groups.**

### **SAFETY**

#### **11. Promote safety by replacing narrow bridges on the major traffic routes.**

#### Pacific Highway

- Dawson River at Cundletown.
- Lansdowne River at Coopernook.
- Bellinger River at Raleigh.
- Clarence River at Mororo.
- Tweed River at Barneys Point.



*Roads 2000 will improve access to tourist and recreation areas*

#### Other Routes

- Several creeks near Dorrigo on the Armidale Road.
- Myall Creek between Grafton and Casino on the Summerland Way.

#### **12. Apply traffic management measures to improve traffic flow and safety.**

- Improve identified 'blackspot' locations.
- Provide right turn storage bays at major rural intersections, with particular emphasis on the Pacific Highway.
- Upgrade major intersections in towns by constructing roundabouts, for example, Commerce and Victoria Streets, Taree; Prince and Pound Streets, Grafton; and the centre of Lismore.
- Support the introduction of Local Area Traffic Management Schemes.
- Provide school bus bays, with emphasis on the Pacific Highway.
- Maintain a high standard of linemarking and curve delineation and install reflective pavement markers in fog prone areas such as near Taree on the Pacific Highway.
- Maintain a high standard of signposting.

### **BYPASSES**

#### **13. Provide bypasses of towns where conflict between through and local traffic is a significant problem. These will be at:**

- Taree and Cundletown.
- Macksville.
- Tweed Heads.

Consideration will be given to bypasses of Kempsey, Bangalow, Brunswick Heads, and provision of an additional link for through traffic at Coffs Harbour.





**Department of Main Roads  
New South Wales**

*For further information contact:*

**HEAD OFFICE**

309 Castlereagh Street  
(P.O. Box 198, Haymarket)  
Sydney, N.S.W. 2000  
(02) 218 6888

**Lower North Coast Division**

1 Mort Street  
(P.O. Box 147)  
Port Macquarie, N.S.W. 2444  
(065) 83 1144, 1476, 1759

**North Eastern Division**

31 Victoria Street  
(P.O. Box 576)  
Grafton, N.S.W. 2460  
(056) 42 3093, 3733, 3302

**Hunter Valley Division**

59 Darby Street  
Newcastle, N.S.W. 2300  
(049) 27 2200

(18)

(10)

# The Council of the City of Lismore

Council Chambers,  
Molesworth Street, Lismore, N.S.W.

TELEPHONES:  
ADMINISTRATION: 21 1501  
ENGINEERING: 21 1499  
PLANNING: 21 1497, 21 1523  
HEALTH AND BUILDING: 21 1479

P.O. BOX 23A,  
LISMORE, 2480  
DX 7761



ALL COMMUNICATIONS TO  
BE ADDRESSED TO  
THE TOWN CLERK

CONTACT Mr. Norris  
FOR FURTHER ENQUIRIES

REFERENCE: MN/LP/82586/R5-13/T4-1/M1-7 & B2-1

March 18, 1987

Mr. Dave Lambert,  
Secretary,  
Rural Resettlement Task Force,  
P.O. Box 62,  
NIMBIN 2480

Dear Sir,

I refer to your letter of 30th January, 1987, concerning the estimated number of dwellings within the vicinity of the Newton Drive, Tuntable Creek Road, Tuntable Falls Road and Rose Road area.

You are advised that following a survey by Council's officers the number of dwellings was estimated at:

- (a) Rose Road - 24 Dwellings
- (b) Tuntable Creek Road - 27 Dwellings
- (c) Newton Drive - 9 Dwellings
- (d) Upper Tuntable Road - 10 Dwellings and an estimated 100 dwelling units in Co-ordination Co-operative.

Yours faithfully,

  
(J.S. Douglass)  
For the Town Clerk



14/6-3.3

-19-

# The Council of the City of Lismore

Council Chambers,  
Molesworth Street, Lismore, N.S.W.

TELEPHONES:  
ADMINISTRATION: 21 1501  
ENGINEERING: 21 1499  
PLANNING: 21 1497, 21 1523  
HEALTH AND BUILDING: 21 1479

P.O. BOX 23A,  
LISMORE, 2480  
DX 7761

ALL COMMUNICATIONS TO  
BE ADDRESSED TO  
THE TOWN CLERK

CONTACT Mr. Farlow  
FOR FURTHER ENQUIRIES

REFERENCE BF:LF:82585:R-13.....

10th February, 1987.



Mr. D. Lambert,  
Secretary,  
R.R.T.F.,  
P.O. Box 62,  
NIMBIN, N.S.W. 2480.

Dear Mr. Lambert,

I refer to your letter of 30th January, 1987, and advise that Council is undertaking traffic volume counts on most rural roads to obtain up-to date information for records, maintenance and future works purposes.

The counter you refer to was in place from the 13th January to 27th January, 1987, together with another on the Tuntable Creek Road.

The figures recorded indicate estimated A.A.D.T. volumes as follows:-

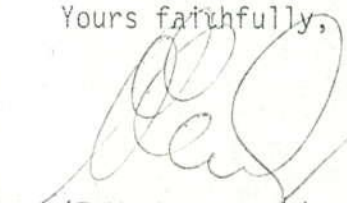
Tuntable Falls Road .....	180
Tuntable Creek Road .....	55
(At Tuntable Falls Road Intersection)	
Newton Drive .....	130

Due to the short term of the survey period, these estimates could be in error by the order of + / - 20%, but they are sufficient for Council's purposes.

The supplementary figures provided by you agree with these estimates and indicate a volume of approximately fourteen vehicles per hour, between 9.30 a.m. and 12.30 p.m.

Council thanks you for your interest and hopes this information is of assistance to you.

Yours faithfully,

  
(F.W. Lancaster)  
For The Town Clerk.

37

KYOGLE SHIRE COUNCIL

MINUTES OF THE ORDINARY MEETING OF THE COUNCIL OF THE SHIRE OF KYOGLE, HELD AT THE COUNCIL CHAMBERS, STRATHEDEN STREET, KYOGLE, ON MONDAY, FEBRUARY 4, 1985.

PRESENT: Cr. J.A. Ralston (in the chair), Crs. L. Bolzicco, A. Buchanan, G.E. Missingham, J.J. Pollard, S.L. Johnston, E.L. Collison and R.H. Standfield.

Mr. P.D. Thew, Shire Clerk, Mr. P.V. Knight, Shire Engineer, Mr. R.L. Judd, Health Surveyor and Mr. J.D. McCarthy, Deputy Shire Clerk.

APOLOGY: RESOLVED: That the apology tendered by Cr. D.W. Lovell for non attendance at the Council Meeting be approved.

RESOLVED: That the apology tendered by Cr. E.L. Collison for late attendance (3.55 p.m.) be received.

85/G52 Welcome to Mr. Ron Smythe, Divisional Engineer, Department of Main Roads, Grafton. (R.3-1/1).

The Shire President, Cr. J.A. Ralston, extended a special welcome to Mr. Ron Smythe, the new Divisional Engineer of the Department of Main Roads, at Grafton. Mr. Jack Hurley, O.B.E., President of the Summerland Way Promotional Committee was also in attendance. Mr. Smythe acknowledged that Council had specific problems in relation to the condition of Trunk Road 83, north of Wiangaree, and the substantial number of bridges requiring replacement on the road network and in particular on rural roads. Reference was made to the limited funding available to the Department and hence to Local Government Authorities, however, an undertaking was given to keep in close liason with the Council and to ensure the maximum allocation possible from funds provided. On the questions of road priorities the Divisional Engineer advised that the Department would not consider a change in road priority that necessitated the sealing of previously unsealed sections of roadway. This was due to the need to utilise scarce available funding in maintaining the existing sealed road network. Appreciation was conveyed to Mr. Smythe for his attendance, following which both he and Mr. Jack Hurley, O.B.E. left the meeting.

Cr. E.L. Collison took his seat at 3.55 p.m.

CONFIRMATION OF MINUTES

85/G53 RESOLVED: That the Minutes of the Ordinary Meeting of the Council of the Shire of Kyogle, held on Monday, January 21, 1985, which were circularised amongst the Councillors, be confirmed.

MATTERS ARISING OUT OF THE MINUTES

85/G54 The following matters arising out of the Minutes of meeting held on January 21, 1985, are detailed hereunder:-

Resolution / . .

THIS IS PAGE NUMBER ONE OF MINUTES OF THE ORDINARY MEETING OF THE COUNCIL OF THE SHIRE OF KYOGLE, HELD AT THE COUNCIL CHAMBERS, STRATHEDEN STREET, KYOGLE, ON MONDAY, FEBRUARY 4, 1985.

.....SHIRE CLERK. ....CHAIRMAN.  
CONFIRMED



Page No. 8 of Minutes of the Ordinary Meeting of the Council of the Shire of Kyogle, held at the Council Chambers, Stratheden Street, Kyogle, on Monday, April 1, 1985.

EXECUTIVE COMMITTEE REPORT

Cont'd.

85/G263 Corporate Planning - Roads and Bridges. Cont'd.

- Item D - Rural Local Roads - Aims and Objectives.  
RESOLVED: That Items D.1 to D.3 inclusive, be adopted.

- Item D.4. - Road Standards.  
RESOLVED: That Item D.4.(a) be adopted.

- Item D.4.(b) - Unsealed Rural Local Roads.  
A motion was moved by Cr. S.L. Johnston, seconded by Cr. D.W. Lovell that Item D.4.(b) be amended to provide for all sealed roads to be resealed as required and lower standard gravel roads to be brought up to a suitable standard, before proceeding with further construction works.

An amendment was moved by Cr. J.J. Pollard, seconded by Cr. G.E. Missingham, that Item D.4.(b) be amended to provide for all sealed roads to be resealed as required and lower standard roads to be brought up to a suitable standard, before proceeding with further construction works, provided however, that the construction and sealing of the Lower Bottle Creek Road be completed in the current programme.

Cr. E.L. Collison foreshadowed a further motion that Council adhere to Item D.4.(b) as printed, providing for completion of the Lower Bottle Creek Road and the continuation of the Grady's Creek Road.

During discussion of the Rural Road priorities the Shire Engineer provided the following information -

- Council has 183km of Sealed Rural Road which requires reconstruction every 30 years (Estimated 30 year life).
- Cost is \$70,000 per km for a full overlay double seal.
- Hence 6.1km is required to be done every year at a cost of \$427,000 per annum.
- Reseals at 10 and 20 year interval cost \$7,500 per km. Allowing to do 12.2km each year amounts to \$91,500 p.a.

Q 427000 pa ←  
91500 pa  
I 518500.

= 42833. / km / p.a.

Mr. Knight advised that the sealed road system could be expanded to complete the Lower Bottle Creek and Grady's Creek Roads, and this together with the stored commitment, could be met by anticipated funding. He recommended against further extending the sealed road liability beyond this point.

Following / . .

THIS IS PAGE NUMBER EIGHT OF MINUTES OF THE ORDINARY MEETING OF THE COUNCIL OF THE SHIRE OF KYOGLE, HELD AT THE COUNCIL CHAMBERS, STRATHEDEN STREET, KYOGLE, ON MONDAY, APRIL 1, 1985.

.....SHIRE CLERK.

.....CHAIRMAN.  
CONFIRMED.



No. 9 of Minutes of the Ordinary Meeting of the Council of the Shire of Kyogle, held at the Council Chambers, Stratheden Street, Kyogle, on Monday, April 1, 1985.

EXECUTIVE COMMITTEE REPORT

Cont'd.

85/G263 Corporate Planning - Roads and Bridges. Cont'd

. Item D.4.(b) -Unsealed Rural Local Roads. Cont'd.

Following a question raised by Cr. D.W. Lovell, Crs. Ralston and Pollard stated that the Lower Bottle Creek Road was an essential service during flood times, provided an alternative to M.R. 361 sections of which became flood affected and supported retention in the programme for completion of sealing.

The Shire Clerk drew attention to the comprehensive examination of Road Priorities that had been undertaken some eight (8) years ago by Council, the dissemination of information and public input into the proposals and the decisions made by Council to set priorities which were considered to be the most beneficial to the Shire as a whole. Council had been working towards the achievement of such objectives which provided direction and job satisfaction and expressed concern that a decision might now be made to delete both road priorities, one of which (the Lower Bottle Creek Road) could be completed out of the current programme.

At this stage the Shire Clerk requested the Chairman to clarify the content of the amendment which was then read out prior to voting taking place.

The amendment was put to the meeting and was carried. The amendment became the motion and was carried with Crs. R.H. Standfield and E.L. Collison recording their vote against.

RESOLVED: That Item D.4.(b) be amended to provide for all sealed roads to be resealed as required, and lower standard roads to be brought up to a suitable standard, before proceeding with further construction works, provided however, that the construction of the Lower Bottle Creek Road be completed in the current programme. (Crs. R.H. Standfield and E.L. Collison recorded their vote against the motion).

. Item D.5. Priorities.

(a) Bridges.

RESOLVED: That Item D.5.(a) Bridges be adopted.

. D.5. (b) Roads.

RESOLVED: That Item D.5.(b) be adopted subject to the deletion of the Grady's Creek Road from the priority in Item (vi) and subject to amendment of the last sentence to read "once this priority is completed no further sealing of unsealed roads will be carried out".

Corporate / . .

THIS IS PAGE NUMBER NINE OF MINUTES OF THE ORDINARY MEETING OF THE COUNCIL OF THE SHIRE OF KYOGLE, HELD AT THE COUNCIL CHAMBERS, STRATHEDEN STREET, KYOGLE, ON MONDAY, APRIL 1, 1985.

.....SHIRE CLERK.

.....CHAIRMAN.

CONFIRMED.



7. Roads 2000 (R.3-1/1):

The Roads 2000 pamphlet for the North Coast region has been widely circulated. Similar publications have been circulated in the other regions of New South Wales.

It is the first time that I can recall, that the N.S.W. Department of Main Roads has told those outside of the Department and Government of its long term plans for the N.S.W. Classified Road System. It is a most welcome change from their normal planning of only twelve months ahead.

The unfortunate aspect of the publication is that it reveals that the Department and Government have utterly failed to comprehend and take appropriate action to arrest the rapidly accelerating decay that is taking place in the N.S.W. Road System.

7. Roads 2000

The Roads 2000 highlights works required on the State's highly visible roads (such as the Pacific Highway) and the works proposed will maintain such roads in sound condition for the majority of their length and result in significant improvements in many sections.

What Roads 2000 fails to do is recognise the problems in the less visible roads. Roads such as the Summerland Way were constructed up to 30 - 40 years ago and are now well past being completely worn out in many sections. Instead of the Department recognising that all sealed road have a limited life (certainly not more than 30 years) and allowing for systematic replacement of an adequate length each year, we are given a piecemeal list of works which is not near sufficient to replace roads which wear out.

The position for unsealed main roads is as we have come to expect. Except with a few exceptions (Monaro Highway, South of Bombala: Narrabri, Walgett, Bourke Strategic East-West Route; sealing access to Ivanhoe, Tullamore, Collarenebri and Coolah-Mullaley and a few other minor jobs) gravel main roads and highways are to remain gravel to the Year 2000.

In our local Shire area the following points are noted in Roads 2000.

41  
THIS IS PAGE NUMBER FIVE OF THE SHIRE ENGINEER'S REPORT NO. 10/87,  
SUBMITTED TO THE ORDINARY MEETING OF THE COUNCIL OF THE SHIRE OF KYOGLE,  
HELD ON MONDAY, MAY 4, 1987.

..... SHIRE CLERK. .... CHAIRMAN.



#### Summerland Way

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The position for all other main roads in Kyogle Shire is listed as "maintain road condition". This would appear to mean:

#### 7. Roads 2000

##### Sealed Section of Main Road 141, Main Road 361, Main Road 622 and Main Road 544

Little work can be expected. No allowance is made for replacement of ageing sections of road as they progressively wear out.

##### Unsealed Section of Main Road 141 and Main Road 150

These gravel surface main roads will remain unsealed.

I don't suppose Roads 2000 gives Council any worse news than its expected. It does reveal, however, that the State Government and successive Federal Government's have, with the community's support, made a conscious decision to upgrade sections of our economy such as health, welfare and education, and to pay for expansion in these areas road expenditure has been downgraded and the road system (apart from highly visible roads) has been permitted to fall into disrepair.

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HELD ON MONDAY, MAY 4, 1987.

..... SHIRE CLERK. .... CHAIRMAN.



KYOGLE SHIRE COUNCIL

MINUTES OF THE ORDINARY MEETING OF THE COUNCIL OF THE SHIRE OF KYOGLE, HELD AT THE COUNCIL CHAMBERS, STRATHEDEN STREET, KYOGLE, ON MONDAY, FEBRUARY 4, 1985.

PRESENT: Cr. J.A. Ralston (in the chair), Crs. L. Bolzicco, A. Buchanan, G.E. Missingham, J.J. Pollard, S.L. Johnston, E.L. Collison and R.H. Standfield.

Mr. P.D. Thew, Shire Clerk, Mr. P.V. Knight, Shire Engineer, Mr. R.L. Judd, Health Surveyor and Mr. J.D. McCarthy, Deputy Shire Clerk.

APOLOGY: RESOLVED: That the apology tendered by Cr. D.W. Lovell for non attendance at the Council Meeting be approved.

RESOLVED: That the apology tendered by Cr. E.L. Collison for late attendance (3.55 p.m.) be received.

85/G52 Welcome to Mr. Ron Smythe, Divisional Engineer, Department of Main Roads, Grafton. (R.3-1/1).

The Shire President, Cr. J.A. Ralston, extended a special welcome to Mr. Ron Smythe, the new Divisional Engineer of the Department of Main Roads, at Grafton. Mr. Jack Hurley, O.B.E., President of the Summerland Way Promotional Committee was also in attendance. Mr. Smythe acknowledged that Council had specific problems in relation to the condition of Trunk Road 83, north of Wiangaree, and the substantial number of bridges requiring replacement on the road network and in particular on rural roads. Reference was made to the limited funding available to the Department and hence to Local Government Authorities, however, an undertaking was given to keep in close liason with the Council and to ensure the maximum allocation possible from funds provided. On the questions of road priorities the Divisional Engineer advised that the Department would not consider a change in road priority that necessitated the sealing of previously unsealed sections of roadway. This was due to the need to utilise scarce available funding in maintaining the existing sealed road network. Appreciation was conveyed to Mr. Smythe for his attendance, following which both he and Mr. Jack Hurley, O.B.E. left the meeting.

Cr. E.L. Collison took his seat at 3.55 p.m.

CONFIRMATION OF MINUTES

85/G53 RESOLVED: That the Minutes of the Ordinary Meeting of the Council of the Shire of Kyogle, held on Monday, January 21, 1985, which were circularised amongst the Councillors, be confirmed.

MATTERS ARISING OUT OF THE MINUTES

85/G54 The following matters arising out of the Minutes of meeting held on January 21, 1985, are detailed hereunder:-

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.....SHIRE CLERK. ....CHAIRMAN.

CONFIRMED



Page No. 8 of Minutes of the Ordinary Meeting of the Council of the Shire of Kyogle, held at the Council Chambers, Stratheden Street, Kyogle, on Monday, April 1, 1985.

EXECUTIVE COMMITTEE REPORT Cont'd.

85/G263 Corporate Planning - Roads and Bridges. Cont'd.

Item D - Rural Local Roads - Aims and Objectives.  
RESOLVED: That Items D.1 to D.3 inclusive, be adopted.

Item D.4. - Road Standards.  
RESOLVED: That Item D.4.(a) be adopted.

Item D.4.(b) - Unsealed Rural Local Roads.  
A motion was moved by Cr. S.L. Johnston, seconded by Cr. D.W. Lovell that Item D.4.(b) be amended to provide for all sealed roads to be resealed as required and lower standard gravel roads to be brought up to a suitable standard, before proceeding with further construction works.

An amendment was moved by Cr. J.J. Pollard, seconded by Cr. G.E. Missingham, that Item D.4.(b) be amended to provide for all sealed roads to be resealed as required and lower standard roads to be brought up to a suitable standard, before proceeding with further construction works, provided however, that the construction and sealing of the Lower Bottle Creek Road be completed in the current programme.

Cr. E.L. Collison foreshadowed a further motion that Council adhere to Item D.4.(b) as printed, providing for completion of the Lower Bottle Creek Road and the continuation of the Grady's Creek Road.

During discussion of the Rural Road priorities the Shire Engineer provided the following information -

- Council has 183km of Sealed Rural Road which requires reconstruction every 30 years (Estimated 30 year life).
- Cost is \$70,000 per km for a full overlay double seal.
- Hence 6.1km is required to be done every year at a cost of \$427,000 per annum.
- Reseals at 10 and 20 year interval cost \$7,500 per km. Allowing to do 12.2km each year amounts to \$91,500 p.a.

427000 p.a.  
91500 p.a.  
518500.  
= 2833. / km / p.a.

Mr. Knight advised that the sealed road system could be expanded to complete the Lower Bottle Creek and Grady's Creek Roads, and this together with the stored commitment, could be met by anticipated funding. He recommended against further extending the sealed road liability beyond this point.

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EXECUTIVE COMMITTEE REPORT

Cont'd.

85/G263 Corporate Planning - Roads and Bridges. Cont'd

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The Shire Clerk drew attention to the comprehensive examination of Road Priorities that had been undertaken some eight (8) years ago by Council, the dissemination of information and public input into the proposals and the decisions made by Council to set priorities which were considered to be the most beneficial to the Shire as a whole. Council had been working towards the achievement of such objectives which provided direction and job satisfaction and expressed concern that a decision might now be made to delete both road priorities, one of which (the Lower Bottle Creek Road) could be completed out of the current programme.

At this stage the Shire Clerk requested the Chairman to clarify the content of the amendment which was then read out prior to voting taking place.

The amendment was put to the meeting and was carried. The amendment became the motion and was carried with Crs. R.H. Standfield and E.L. Collison recording their vote against.

RESOLVED: That Item D.4.(b) be amended to provide for all sealed roads to be resealed as required, and lower standard roads to be brought up to a suitable standard, before proceeding with further construction works, provided however, that the construction of the Lower Bottle Creek Road be completed in the current programme. (Crs. R.H. Standfield and E.L. Collison recorded their vote against the motion).

. Item D.5. Priorities.

(a) Bridges.

RESOLVED: That Item D.5.(a) Bridges be adopted.

. D.5. (b) Roads.

RESOLVED: That Item D.5.(b) be adopted subject to the deletion of the Grady's Creek Road from the priority in Item (vi) and subject to amendment of the last sentence to read "once this priority is completed no further sealing of unsealed roads will be carried out".

Corporate / . .

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7. Roads 2000 (R.3-1/1):

The Roads 2000 pamphlet for the North Coast region has been widely circulated. Similar publications have been circulated in the other regions of New South Wales.

It is the first time that I can recall, that the N.S.W. Department of Main Roads has told those outside of the Department and Government of its long term plans for the N.S.W. Classified Road System. It is a most welcome change from their normal planning of only twelve months ahead.

The unfortunate aspect of the publication is that it reveals that the Department and Government have utterly failed to comprehend and take appropriate action to arrest the rapidly accelerating decay that is taking place in the N.S.W. Road System.

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The Roads 2000 highlights works required on the State's highly visible roads (such as the Pacific Highway) and the works proposed will maintain such roads in sound condition for the majority of their length and result in significant improvements in many sections.

What Roads 2000 fails to do is recognise the problems in the less visible roads. Roads such as the Summerland Way were constructed up to 30 - 40 years ago and are now well past being completely worn out in many sections. Instead of the Department recognising that all sealed road have a limited life (certainly not more than 30 years) and allowing for systematic replacement of an adequate length each year, we are given a piecemeal list of works which is not near sufficient to replace roads which wear out.

The position for unsealed main roads is as we have come to expect. Except with a few exceptions (Monaro Highway, South of Bombala: Narrabri, Walgett, Bourke Strategic East-West Route; sealing access to Ivanhoe, Tullamore, Collarenabri and Coolah-Mullaley and a few other minor jobs) gravel main roads and highways are to remain gravel to the Year 2000.

In our local Shire area the following points are noted in Roads 2000.

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= 42833.33 p.a.



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EXECUTIVE COMMITTEE REPORT

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..... CHAIRMAN.



The scene was witnessed by a Lismore fisherman and his son who saw the shark heading towards Michael.

"The fisherman said that it was a bronze whaler, about three metres long," Michael said.

"He said that I shouldn't be here now, not after that attack. I guess I was just lucky."

Michael Guy with his badly damaged surfboard.

# Rehabilitation 'too costly' Kyogle returns roads to gravel

Two sections of the Kyogle-Murwillumbah road close to Kyogle were torn up and returned to gravel on Friday in accordance with a Kyogle Shire Council decision that it could no longer afford to rehabilitate the badly damaged bitumen surfaces.

This week a 1.45-km section of the Summerland Way just north of Kyogle is also due to be returned to gravel.

The three sections were nominated at the council's meeting at Bonalbo last week from a list of 11 sections of badly damaged bitumen surfaces — eight on Main Road 83 (Summerland Way) and three on Trunk Road 141 (Kyogle to Murwillumbah).

The council concluded that it could no longer af-

ford to rehabilitate the damaged and, according to Shire Engineer Mr Patrick Knight, dangerous bitumen sections, and that to simply patch them would be 'a waste of money'.

There is every chance more sections of both roads will be returned to gravel unless there is some

assistance forthcoming for the Kyogle Shire's road maintenance program.

All councillors expressed grave concern about the need to rip up the roads, and there was considerable debate as to what sections of Main Road 83, Trunk Road 83 and Trunk Road 361 (Kyogle-Woodenbong)

should be returned to gravel, but there was general agreement that the council had no alternative.

Deputy Shire President Cr Tony Lazaredes said that while it was regrettable that roads had to be returned to gravel, the necessity for it would emphasise the council's dire need for assistance.

## American gets 4½ years' jail for laundering \$1m

A United States national yesterday was sentenced in the Lismore District Court to four-and-a-half years' jail for laundering almost \$1 million.

Alan Rogers Grover, 38, a horticulturist, pleaded guilty to 10 counts of using money in Australia which was the proceeds of crime committed in the United States.

Grover, who had been residing at Broken Head when he committed the offences, appeared yesterday in custody before Judge J Ford, QC.

The Crown prosecutor, Mrs S Martyn, said that the charges related to the possession of property, vehicles and money (totalling \$996,000).

Mrs Martyn made a successful application to have Grover forfeit two vehicles to the Crown under the Commonwealth Proceeds of Crime Act, 1987.

The prosecution is the first in Australia to be made under the Act.

Grover's solicitor, Mr A Dozer, said there was no evidence of his client having been involved in criminal activity in Australia, other than the charges in question, since first coming here in 1980.

He said Grover, a father of two, had been industrious by buying, improving and selling properties.

He said he was anxious to return to the United States to 'clear the slate' in relation to a charge of possessing more than 1000 kilograms of Indian hemp with intent to distribute it.

Judge Ford sentenced Grover to a total of four-and-a-half years' jail with a three-year minimum period of detention.

The sentence will be dated from December 19, when Grover was taken into custody.

It is expected that Grover will be extradited to the United States to face the drug-related charges when he is released from jail.

### FUNERALS

CLARK, F  
EGGINS, R C  
FLANAGAN, C M  
HUMPHREYS, L M  
JAMES, A A

### DEATHS

BROWN, M A

● Details — Page 27

2. THE NORTHERN STAR, TUESDAY, AUGUST 15, 1989

stands earlier in the series

28. THE NORTHERN STAR, TUESDAY, AUGUST 15, 1989



Jack's  
back  
ready  
you w  
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Phone

LEAS

Cars, T  
Equipm  
Busines



● GLOBAL FIN  
● SHAREBROK  
with offices all  
● FINANCIAL P  
providing inde



INTERIM  
GUIDE  
TO THE  
GEOMETRIC DESIGN  
OF  
RURAL ROADS

Sydney  
NATIONAL ASSOCIATION OF  
AUSTRALIAN STATE ROAD AUTHORITIES  
1980



A width from 1.5 m to 2.0 m ensures that capacity of the adjacent lane is unaffected by obstructions outside the shoulder. These widths allow a vehicle to stop, or a maintenance vehicle to operate, with only partial obstruction of the traffic lanes. Provided volumes are not high or sight distances are sufficiently long, this will not present an undue hazard to traffic.

A width of 2.5 m is needed to allow a passenger vehicle to stop clear of the traffic lanes.

A width of 3.0 m allows a passenger vehicle to stop clear of the traffic lanes and provides an additional clearance to passing traffic. It also allows a commercial vehicle to stop clear of the traffic lanes.

The cost of maintaining road shoulders does not rise in proportion to their width. However, the cost of the initial construction involves additional earthwork costs. In reconstruction of older pavements, the provision of wider shoulders may increase the costs by two to four times. Therefore, an economic balance must be achieved in shoulder width, and in the case of upgrading work this element can be very significant.

The aim should be to obtain shoulders of 1.5 m to 2.0 m wherever possible, and up to 2.5 to 3 m on higher volume roads. Because most vehicles standing on road shoulders exercise some choice as to the stopping place, it is desirable to take every opportunity to provide areas at intervals where vehicles can stop completely clear of the traffic lanes, e.g. on low fills where flattening the slopes automatically provides this, or at the transition from cut to fill where minor additional earthworks can make the provision at low cost. These areas are important on roads with 1.0 m to 1.5 m shoulders and are useful even with 2.0 m shoulders and above.

### 3.3 SINGLE LANE CARRIAGEWAYS

On many roads in Australia, traffic is less than 150 vehicles per day. Some of these are arterial roads passing through sparsely settled flat country where the terrain leads to a high speed environment.

Where traffic volumes are less than 150 vehicles per day and particularly where terrain is open, single lane carriageways may be used. In such cases, it is desirable that the road shoulders are constructed from a material suitable for carrying vehicles in both dry and wet weather. The traffic lane width adopted on such roads should be at least 3.5 m. A width of less than 3.5 m can result in excessive shoulder wear. A width greater than 4.5 m but less than 6.0 m may lead to two vehicles trying to pass with each remaining on the lane. The width of 3.5 m ensures that one or both vehicles must have the outer wheels on the shoulders while passing.

On single lane sealed roads, total carriageway width should desirably be not less than 8 m to 8.5 m to allow adequate width for passing.

### 3.4 CARRIAGEWAY WIDTH — UNSEALED ROADS

On very low volume roads, a narrow carriageway (5 m to 6 m) can be adequate. However, where volumes are likely to rise, a width of 8.0 m to 8.5 m will allow at least a 3.5 m traffic lane with 1.5 m shoulders, or two 3 m traffic lanes with at least 1 m shoulders to be constructed later. Where the growth of traffic is not high, the 5 m to 6 m carriageway can be widened if necessary when the time for provision of a sealed road is reached.

### 3.5 MINIMUM WIDTH OF CARRIAGEWAY — SEALED ROADS

Minimum widths for sealed traffic lanes on undivided roads are given in Table 3.1.

Minimum widths of shoulders on undivided roads with sealed traffic lanes are given in Table 3.2.

In situations where the carriageway width is restricted, as is the case in mountainous or hilly terrain, the absolute minimum standards consistent with safety and economy have to be adopted. In these extreme cases, it may be necessary to seal the entire available width for traffic purposes and tolerate lateral clearances as low as 0.5 m.

Greater widths generally increase driver comfort and make the driver's task less demanding especially over long trip lengths. Thus, they increase the quality of service of the road.

### 3.6 SEALED SHOULDERS

The widths given in Table 3.1 do not include any sealing of shoulders. Shoulders may be wholly or partially sealed. Sealing of shoulders is frequently done to reduce maintenance costs and to improve moisture conditions under pavements, especially under the outer wheel path. However, from the geometric design point of view, the shoulder is regarded as being usable by traffic. Full sealing ensures this, but even partial sealing by inhibiting the broken edges or 'drop offs' that occur adjacent to the traffic lanes, results in the whole shoulder width remaining usable to traffic. The practice of sealing up to 1.0 m width is becoming common with Australian State Road Authorities. A width as low as 0.3 m has been found adequate on lower volume roads to reduce edge wear, but 0.5 m is often used. In wetter areas where moisture control is required, at least 0.5 m and 1.0 m is preferable. In the case of full or



partial sealing of shoulders, longitudinal edge lines are necessary. In the case of narrow partial sealing, usage of the additional seal as part of the traffic lanes merely transfers the problem to the new edge.

**Table 3.1**

**Minimum Widths of Sealed Traffic Lanes for Undivided Roads**

Design Traffic Volumes (AADT) Vehicles/day	1-150	150-500	500-1000	Over 1000
Minimum Lane Width m	One Lane 3.5	2 Lanes 3.0	2 Lanes 3.0 - 3.5	2 Lanes 3.5

- Design traffic volume is that expected to be using the road at the end of the design period. This should be taken as a period in the range of 10 to 20 years. Where the construction of a road may lead to considerable commercial development, this must be taken into account in predicting traffic volumes.
- Where design speeds are over 80 km/h (mountainous country), 100 km/h (hilly country) or 110 km/h (undulating country), or where the heavy vehicle content is high, the adoption of a minimum traffic lane width should be avoided (refer to para 3.1.2).
- Refer to para 3.5 for the adoption of standards in restricted areas.
- For low volume roads with single lane carriageways, refer to para 3.3.

**Table 3.2**

**Width of Shoulders on Undivided Sealed Roads**

Design Traffic Volume AADT Vehicles/day (a)	Minimum Width m
Single lane roads (a)	1.5 - 2.5
Two lane roads (b)	
1 - 500	1.0(b) - 1.5
500 - 1000	1.0(b) - 2.0
Over 1000	1.0(b) - 3.0(c)

(a) See Footnote to Table 3.1.

(b) Where 1.0 m shoulders are used, provision should be made for vehicles to stop clear of the traffic lanes wherever possible on low fills and at transitions from cut to fill. This is more important for volumes above 500 vehicles/day.

(c) Shoulders up to 3.0 m allow commercial vehicles to stop clear of the traffic lanes. Where the route carries a high absolute volume of commercial vehicles, is a major trucking route, and the incidence of trucks stopping is high, 3.0 m shoulders should be considered.

### 3.7 WIDTHS OF BRIDGES

A guide to the width of traffic lanes on bridges and the clearance between the outer edge of traffic lanes and structures such as retaining walls, bridge handrails, guard fencing, and subways are set out in the NAASRA publication 'BRIDGE DESIGN SPECIFICATION'.<sup>1</sup>

<sup>1</sup> See NAASRA (1976c, 1978b)





ational television soon, and it's all because they turned a beef  
e of trees. Read all about them on Page 5

July last year at her home  
at Tregear, in Sydney's  
western suburbs.

Rodney Thomas Clarke,  
22, had pleaded not guilty  
to three charges of sexual-  
ly assaulting the girl as  
well as the murder charge.

A Central Criminal  
Court jury found Clarke,  
who lived in the same  
street as Debbie, guilty on  
all four counts.

Mr Justice Cole re-  
manded Clarke in custody  
until Thursday for sen-  
tence.

The Crown prosecutor,  
Mr Mark Tedeschi, had  
alleged that Debbie was  
suffocated when Clarke  
pushed her face into a pil-  
low during a 'horrendous'  
sexual attack.

Clarke had used 'incred-  
ible violence' against the  
girl, Mr Tedeschi said.

● Five face charges —  
Page 7.

— Page 5

13 Sep 88

Health  
boost  
for  
region

— Page 3

in Style..... 17  
Sport..... 19-22, 24

## Weather

Mild overnight with a  
little rain clearing. Cool  
southerly winds, fresh and  
gusty at times, developing  
tomorrow with a few  
coastal showers to follow.

Outlook: South-east  
winds, showers tomorrow  
until Friday.

Yesterday's Lismore  
maximum, 22; minimum  
17.3.

Forecast maximum, 21.

● Weather map..... 15

## Tides

At Ballina Bar:

High, 9.30 am, 1.5m; 10.32  
pm, 1.5m.

Low, 3.14 am, 0.3m; 3.29  
pm, 0.4m.

Sun rise 5.58, sets 5.45.

## kept graft

sioner, Herbert alleged.

Licensing Branch officers yes-  
samed on Herbert's payroll were:  
Parker (\$331,100); Allen Bul-  
274,000); Harry Burgess  
00); Trevor Ross (\$178,000);  
wyer (\$80,900); Noel Kelly  
); Neville Ross (\$53,000); two  
l 'mates' of Burgess (\$28,000  
Bill Boulton (\$20,000); Allan  
\$14,000), Joe Moscwa (\$7100);  
officer Charlie Yorke (\$5000)  
Glancy (\$3000).

er evidence yesterday, Herbert  
inquiry he attempted to contact  
nce using his daughter, Anne  
and Sir Terence's wife, Lady  
s intermediaries.

rt said he destroyed Sir Ter-  
ent home telephone number be-  
ing Australia in June 1987 and  
n desperate to contact Sir Ter-

rt said he sent instructions and  
letter from London through his  
all his daughter to write to Lady  
nd say 'that if Terry or Hazel  
o drop in for a cup of tea (to  
erbert's home) they would be  
lcome'.

rt told the inquiry that Lady  
plied to Anne Herbert's letter  
d the Lewis home address and  
ephone number in the top right  
rner of the first page of the  
letter.

ter was yesterday tendered and  
aid: "Dear Anne, Thank you for  
y letter of support. We have  
een thru (sic) troubled times  
ily and mine, and, the enormity  
hs and media reports have been  
etting... I find it very hard to  
nd how people can tell such  
ever we will keep battling on."

# BACK TO GRAVEL?

## Lismore to look at roads

The Lismore City Coun-  
cil tonight may take the  
first step in some hard de-  
cisions on its roads.

The council's general  
purposes committee will  
consider a report by its  
city engineer, Mr W  
Moorhouse, that unless  
extra funding is found,  
the council may have to  
consider returning some  
of its bitumen roads to  
gravel.

Mr Moorhouse said  
that bitumen roads  
needed regular mainte-  
nance as well as a new  
coat of bitumen every  
eight to 10 years.

The council this year  
budgeted \$547,000 for  
bitumen reseals.

Mr Moorhouse said in

his report that despite  
regular maintenance,  
roads had a life of 30  
years, and many had  
reached the end of their  
economic life.

### Earlier calls

The report follows calls  
by other councils, par-  
ticularly the Kyogle Shire  
Council, for the State  
Government to provide  
more money for road  
maintenance and rebuild-  
ing.

The Kyogle shire engi-  
neer, Mr Pat Knight, last  
year said that no new bit-  
umen roads would be built  
in that shire, and some  
bitumen roads would be  
allowed to run down to a  
point where the bitumen  
would be ripped up.

The Local Government  
and Shires Association  
added its weight to the  
argument and during the  
election campaign last  
March, lobbied for extra  
road funding.

The new Coalition Gov-  
ernment campaigned with  
a policy of reallocating  
petrol tax revenue collect-  
ed in New South Wales to  
the road building and  
maintenance budget.

The Lismore council  
now has to decide what it  
wants to do with its roads.

Mr Moorhouse said  
that Federal and State  
Government funds were  
allocated to roads where  
the bitumen had failed.

But the funds fell short  
of the required amount



MR MOORHOUSE

and eventually, the coun-  
cil would have to consider  
returning some of them to  
gravel, unless an addition-  
al funding source was  
found.

● Editorial — Page 4

Sewing

Breakthrough

MENGERS  
Sewing Machines



# At the end of the road

THERE was a time in Australia when bitumen roads were a sign of civilisation and advancement. In far-flung districts, the obvious signs of 20th Century development were the arrival of sealed roads, the telephone, and community electricity.

Two of those essentials for modern living — telephones and electricity — are here to stay.

One of them is not.

The modern benefit of macadamised sealed roads is under serious threat.

Perhaps the problem with bitumen roads is that governments cannot gain any cash return from them as they do with telephones and electricity.

As it stands, authorities often promise to use petrol taxes to fully fund road repairs, but this rarely happens.

The money, we are told, has run out.

Of course, roads won't wait for miracles. They

need a new coating of bitumen every eight to 10 years, and their total life is limited to about 30 years.

Such figures come from the Lismore city engineer's report to the council's general purposes committee.

The report, to be released today, pulls no punches about the future.

It faces facts — unpalatable facts.

It says that certain roads that are past resealing and are not likely to be reconstructed due to funding shortages should revert to gravel.

The argument is simple: If councils don't have the money, people can't have sealed roads.

Now it will be up to the Lismore City Council to make the hard decisions about which roads revert to gravel and which are good enough to be repaired.

Whatever the council decides, it will be unpopular. It is in a no-win situation unless Federal grants improve or additional sources of funding are found.

This, then, is the bottom line in the glorious reconstruction of Australia.

Gravel roads!

We are going backwards. We are being asked to drive good machinery on 19th Century roads, because the Federal Treasurer thinks it's time we copped a bit more austerity.

Federal politicians' wages are rising, the size of government has not shrunk, there are plenty of fat fees to be made in Canberra, the surplus has blown out because of record taxation ... and we can look forward to gravel!

Indeed, we live in a time of strange priorities.

PO BOX 423 LISMORE

## Letters to the Editor

PSEUDONYMS are not acceptable on Letters to the Editor. Correct name, address and telephone number must be included. Full addresses are required, although street names and telephone numbers will not be published. Letters should be no longer than 300 words. Preference will be given to shorter letters.

## Homeopathic mystery, but it works

THE recent report in the prestigious 'Nature' magazine about a mysterious antibody response has given support to the validity of homeopathy.

In a number of separate experiments around the world, researchers found that a particular antibody response continued to happen at dilutions far beyond the point where any original molecules were left. However, this occurred if the solutions were strongly shaken, called 'succussing' at each stage of dilution.

These experiments support the claims of homeopaths because they follow the way in which homeopathic remedies are made — by dilution and succussion at each stage.

Homeopaths have long used remedies diluted in this way, far beyond the point at which no molecules of the original substance remains and found that they still work.

In fact, they have been found to become more effective at higher dilutions.

Homeopaths thus call it potentisation rather than dilution.

No scientific explanation has yet been able to explain it.

Homeopaths don't even understand how it works, but bypass the problem by working only with a remedy's observable effects on people, which has undergone much experimentation and recording.

It is the now extensive lists of these effects on people or 'provings' which guides homeopaths to choose the correct remedy for different people.

The thing which supports this approach is the fact that a substance will consistently produce similar effects on a group of people and these effects are similar to symptoms that the remedy can cure.

For example, the poisonous berry called belladonna if eaten has caused violent congestive headaches, flushed face and dilated eyes.

Now, if someone presents with symptoms like that, then a minute, homeopathic dose of belladonna will quickly cure them.

When you visit a homeopath for the first time you may be surprised to find that they will spend 1-1½ hours in the consultation and ask all manner of apparently unrelated questions, but this is how they get to know your symptoms and choose a remedy for you.

Classical homeopaths treat people as a whole and don't separate mental, emotional or physical levels.

The advantages of this kind of treatment is that it

noise pollution is the amplifier.

Amplified sound, both vocal and instrumental, is allowed at a volume that can only be described as deafening, and in spite of medical opinion, that it is harmful to the hearing, no attempts have been made to limit it.

Houses on a flat around the source will muffle it but sound carries up hills.

Instrumental sound from a building of the NRCAE interrupts sleep as far as Invercauld Road.

It is to be hoped that when accommodation for 200 students is available at the foot of Cynthia Wilson Drive that restrictions will be placed on noise that may emanate from the area at student functions or parties.

C WYNDHAM,

necessarily be weakened.

Not many people know that the first nurses' strike in Australia was by Filipino nurses at Townsville hospital in 1974 against working in the radiation unit. The nurses were of child-bearing age.

Asians will cause education levels to rise as they are industrious and consider education essential.

Already Asians have topped the NSW HSC.

University graduates are the biggest export of the Philippines.

Allegiance to parliamentary traditions would remain as many Asians have run away from tyranny and appreciate democracy. Ask any Vietnamese, Cambodian or mainland

## Tell 'em, Anudhi

PLEASE allow me to enter the Byron Primary School debate with an encouraging cheer for Councillor Anudhi Wentworth.

You tell 'em Anudhi, tell those self-interested football players and cricketers they can go and play their battle games somewhere out of town.

If they insist on playing aggressive dominance games, with all the anti-social side effects that go with it, let them do it out in the swamp somewhere.

A lot of people have come to the realisation that aggressive contact games like football are physically and socially

Rac

1

3.

2

3

Gr  
pro

A Lismore action terday was aimed at s ping up the Federal G ernment's plan to red the production and use chlorofluorocarbo (CFCs), particularly in frigerators and air-con ditioners.

The Rainforest Infor mation Centre claimed about 50 people took par in a campaign outside a

Steam

Premier





DEPARTMENT OF MAIN ROADS, N.S.W.  
NORTH EASTERN DIVISION  
31 Victoria Street, Grafton.

Please address communications to:

The Divisional Engineer,  
P.O. Box 576,  
Grafton. N.S.W. 2460.

D.X. 7610

and quote our reference  
49/M.1005 B RCK:YE

Telephone — 42 0111  
Facsimile — 42 0160  
Telex — 66978

The Secretary  
Rural Resettlement Task Force  
P O Box 62  
NIMBIN NSW 2480

Mr Kook  
(066) 42 0155

TRAFFIC VOLUMES.  
-----

Dear Sir

I refer to your letter dated 7 August 1986.

Attached are extracts from the 1982 Traffic Volume and Supplementary Data Book showing the latest available AADT traffic volumes in the area of your interest.

Regarding Items 2, 3, 4, 5 and 6 this information is not available to this Department however the relevant Shire Council may be able to assist you with these matters.

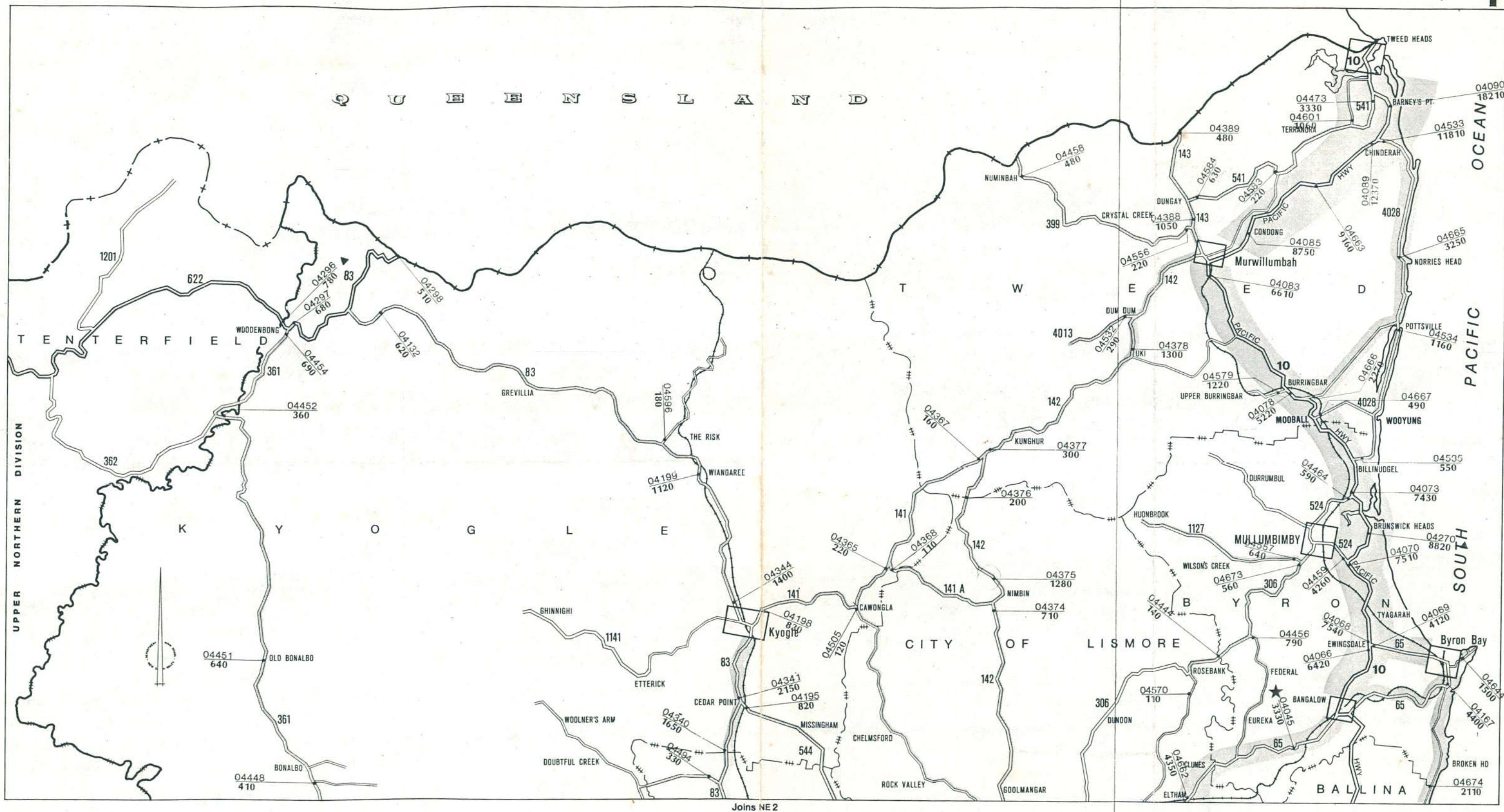
A copy of your letter and this reply has been forwarded to the Lismore City Council and Kyogle Shire Council.

Yours sincerely

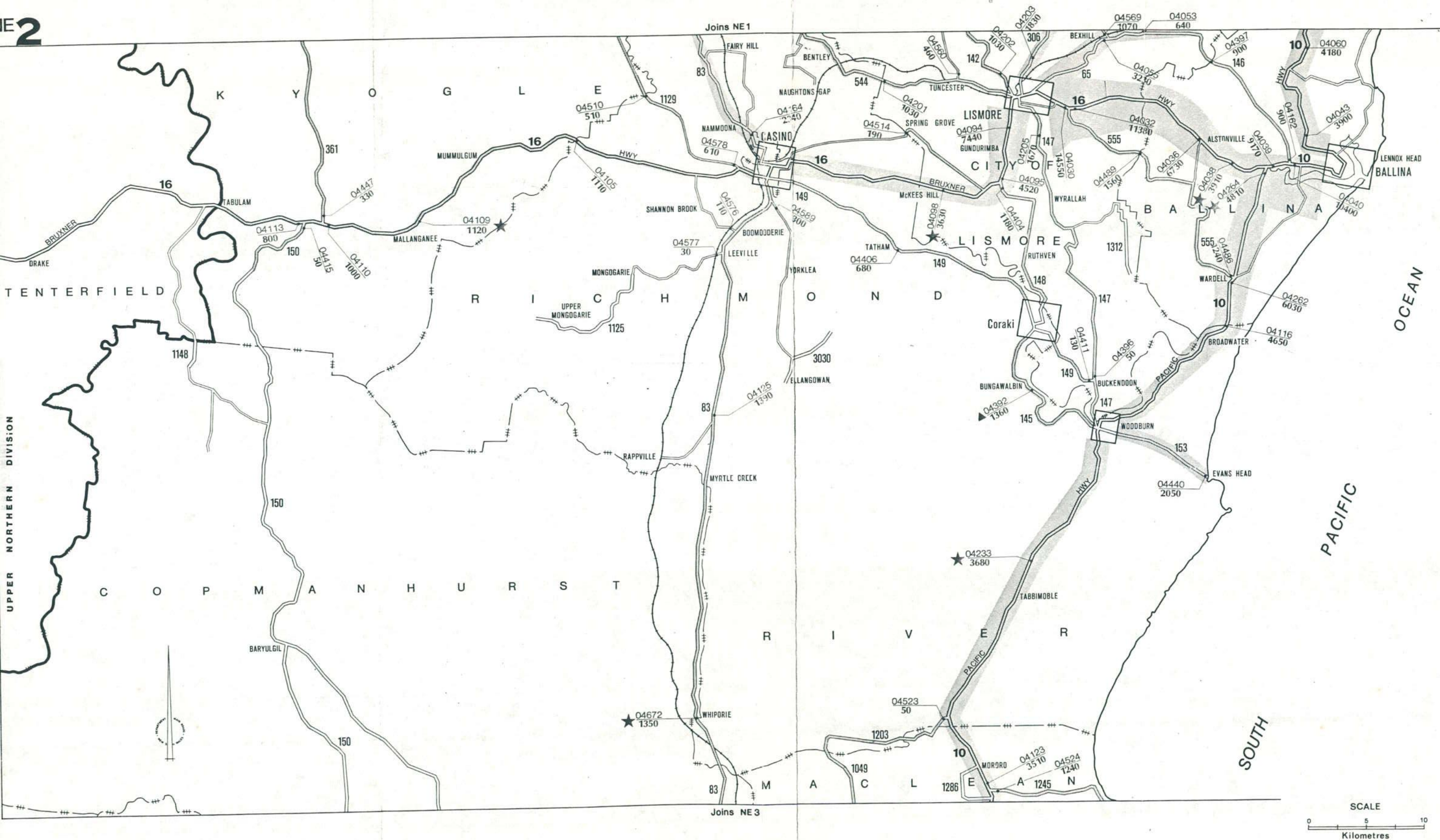
Encl.

*A. Burgess*  
A Burgess  
A/g Divisional Engineer











# CAN YOU AFFORD TO SEAL THAT ROAD?

— Brian Cox, Roading Division, MWD

Simple economic evaluations can be used to establish priority for extension of seal projects on rural roads.

Road Research Newsletter No. 64 contained a description of a simple cost-benefit evaluation technique that has proven useful in establishing priority between competing roading projects. With the inclusion of multiplication factors for unsealed roads, the 'castles' economic evaluation technique can also be used for extension of seal projects. (The recommended multiplication factors are described elsewhere in this newsletter).

An example evaluation using this technique is described below:

## Example:

### Existing Metal Road

Maintenance Cost = \$950/km p.a.  
 Vehicle Cost  
     ADDT = 300 v.p.d.  
     Speed = 50 k.p.h.  
     Gradient = 4%  
     Vehicle Cost = 22 cents/km on sealed road,  
 multiply by 1.3 to obtain cost  
 on unsealed road = 28.6 cents/km  
 (see figure 1)  
 Annual vehicle cost per km =  $\frac{28.6 \text{ cents} \times 300 \text{ veh} \times 365 \text{ day}}{\text{veh km} \quad \text{day} \quad \text{year}}$   
 = \$31,317/km p.a.

### Sealed Road

Maintenance Cost = \$780/km p.a.  
 Assume same vehicle speed  
 ∴ vehicle cost =  $\frac{22 \text{ cents} \times 300 \text{ veh} \times 365 \text{ day}}{\text{veh km} \quad \text{day} \quad \text{year}}$   
 = \$24,090/km p.a.

Capital cost to seal road = \$28,200/km  
 Reseal in 15 years = \$7600/km

Benefit	Present Value of User Benefits
Cost	Present Value of (Capital Cost — Do minimum Cost)
	$\frac{(31,317 - 24,090) \times 6.25}{((28,200 + 7600 \times 0.12) + (780 \times 6.25)) - (950 \times 6.25)}$
	= $\frac{25,169}{48,049}$
	= 1.61

An economic evaluation of this type requires a knowledge of the annual average daily traffic count, the cost of maintenance for sealed and unsealed roads respectively, and the vehicle travel speed on each of these. The example above assumes for convenience that there is no change in speed when this section is

sealed. This however, will probably not be the case, and should be confirmed by local measurements.

The sensitivity of the results to maintenance and sealing costs, and traffic volumes, is such that even within a local authority, some roads will be economic to seal, while others should remain unsealed.

It should be remembered that this economic evaluation involves only road user costs and benefits, and that from each seal extension project there will be other intangible benefits and costs which should be considered alongside those gained by the road user.

## Extension-Of-Seal Indicator

An extension-of-seal indicator based on this type of economic evaluation technique is being used by Roading Division of Ministry of Works and Development. This indicator assumes that each vehicle gains a speed, convenience and comfort benefit that is uniform for all locations and for all vehicles. Because the "user benefits" and the intangible or social benefits are regarded as common to all seal extension works, they can be ignored for the purpose of priority ranking.

Seal Extension Indicator 1 =

$$\frac{\text{Assessed Potential Daily Traffic Volume}^*}{(\text{Cost to Seal/km}^{**}) - 6 \times (\text{Annual Mtce saving/km}^{***})}$$

\* An assessment of the present traffic volume plus any additional traffic likely to be attracted if the route is sealed.

\*\* The present day cost/km to seal the road including the cost of a second coat seal in \$1000 units.

\*\*\* The value/km of any net saving in maintenance costs resulting from elimination of the unsealed pavement in \$1000 units. If there is no saving in annual maintenance costs due to sealing or the annual maintenance cost is likely to increase, this should be shown as zero or negative savings, i.e., maintenance costs are additional to the cost to seal.

The multiplier 6 is included in the formula to obtain the present value of the change in annual maintenance over fifteen years, the assessed life of the pavement surfacing.

## Using The Indicator

This indicator is proving to be a useful guide in assessing the relative merits of completing rural extension-of-seal works. However, it must be remembered that it is only a guide for the ranking of similar works, and that other factors will temper any ranking produced. When the extension-of-seal works involve differing costs and benefits, a fuller economic evaluation should be carried out along the lines of the earlier example.

The table (shown here) of a sample of currently proposed extension of seal works, shows the priority ranking obtained by the use of this indicator.



# GRIM WARNING ON ROADS

The bitumen would be 'ploughed off' major North Coast roads unless more funds were made available for roadworks, the North Coast group of the Local Government Engineers' Association said this week.

The group, comprising engineers from all North Coast councils, has warned that unless funds for road improvement works are made available soon, the bitumen surfaces will have to be removed.

The secretary of the association, Copmanhurst Shire engineer Mr David Andrews, said that the State Government was not giving enough money to maintain roads, many built after World War II, let alone improve them.

The association has joined the NRMA and the Northern Rivers Regional Organisation of Councils to make road funding a major election issue during the State election next month.

The New South Wales rural roads system consists of about 14,000 kilometres of sealed roads and 9000 kilometres of gravel.

Most of these roads were sealed after World War II, Mr Andrews said.

Road building activity peaked in the 1960s, levelled off during the 1970s and had ground to a halt in the 1980s, he said.

"Unfortunately, sealed roads do not last forever and are usually designed for a 20-year life span," he said.

"If you are lucky, you may get 30 years or more out of a road.

"After that, the sealed roads need to be replaced or rehabilitated by being ripped up, overlaid with more road base and resealed.

"We now have reached a stage when a major proportion of the rural sealed main road network requires replacement.

"To just maintain the system, between 3 percent and 5 percent of the system needs to be replaced each year.

"The New South Wales Government is providing funds to replace 1 percent of the roads each year.

"At this rate it is only a matter of time before the

## GRIM WARNING ON ROADS

● From Page 1

majority of the sealed road system reverts back to gravel."

The association said that the North Coast had a particularly bad road problem because of the wet climate, unstable soil, poor quality natural gravels and chronic under-funding.

The association said that the Nimbin to Lismore, Kyogle to Woodenbong and the Casino to Evans Head roads were mostly worn out.

They said that politicians from all parties had ignored the problem and favoured massive funding increases in other areas.

"Only recently, the Premier, Mr Unsworth, announced that expenditure on health, education and law and order had increased from 49 percent to 55 percent of the New South Wales budget," Mr Andrews said.

"Naturally the effect on road funding has been a disaster."

SATURDAY, FEBRUARY 13, 1988.

THE NORTHERN STAR.



CITY OF LISMORE

MAIN ROAD NO 141A

GLEN BIN PTY LTD DEVELOPMENT

MULTIPLE OCCUPANCY

STANGERS ROAD, STONY CHUTE

TRAFFIC ANALYSIS

OF

INTERSECTION

AND

ASSOCIATED

COMMENTS



CITY OF LISMORE -- MAIN ROAD NO 141A. GLEN BIN PTY LTD  
DEVELOPMENT. MULTIPLE OCCUPANCY - STANGERS ROAD, STONY CHUTE.

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#### EXISTING TRAFFIC VOLUMES

In order to ascertain the existing traffic volumes that will pass Stangers Road the Department's Traffic Volumes have been adopted. Refer to Attachment A.

Extrapolating for 1982 the Annual Average Daily Traffic (A A D T) at Station 04369 is 250 this is a 50% increase on 170 which is consistent with traffic growth at nearby stations. As traffic volumes have remained static in the period 1982-1986 a 1988 A A D T of 250 is reasonable.

Interpolation of a A A D T at the intersection site on Main Road No 141A between Stations 04368 and 04369, 100 and 250 respectively would be 180. - 80 / 160

#### DESIGN HOUR

For the selection of the Design Hour, Section 2.6 of N A A S R A "Guide to Traffic Engineering" refers.

In rural areas 15% of the A A D T approximates the Design Hour. Therefore Design Hour is 28.

#### TRAFFIC GENERATED FROM DEVELOPMENT

The "Policy Guidelines and Procedures for Traffic Generating Developments" published by the Traffic Authority of N S W have been adopted as the methodology for establishing the traffic to be generated from the Development. Copy of relevant part attached, Attachment 'B'.  $\approx 4.5 \text{ AADT}$

The Peak Hour Vehicle Trips (P H V T) 0.67 per dwelling. This will generate 7.37 (P H V T) from the eleven dwelling units. Because of the nature of the Development, this volume could be reduced by up to half, however this must be offset by increasing the figure by 50% to provide for future growth.

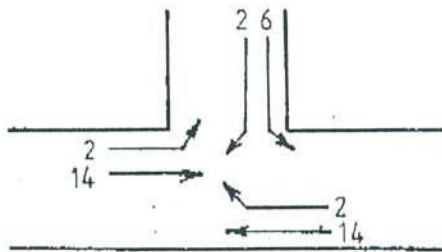
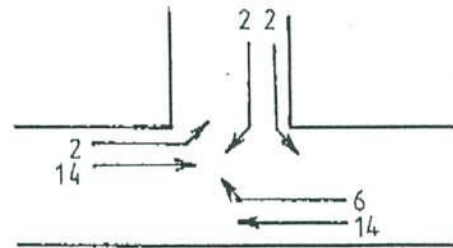
Refer to "Note" in Attachment 'B'.

The 7.37 P H V T to be generated from the Development combined with the assumed existing traffic using Stangers Road, say 4.63 gives a total peak hour volume of 12.  $\approx 80 \text{ AADT}$



WARRANT

From the above calculations the figures below have been produced to show the flows for the morning and afternoon peak hour.

AM PEAK HOURPM PEAK HOUR

The design treatment has then been determined from Attachment 'C'.

The location of the point with co-ordinates from Total Approach Volume and Volume Turning out of Stream is in Zone A. This requires an Example 1 intersection. See Attachment 'D'. Also reference "Interim Guide for the Design of Intersection at Grade".

INTERSECTION DESIGN - COUNCIL

The design as proposed by Council is a reduce 60 k p h standard Example 1. The intersection is located on the back of a R60 curve (60 k p h travel speed) which is commensurate with adjoining sections. Copy of Council's Plan attached. Attachment 'E'.

The rationale of the Example 1 intersection is to widening the shoulders to 3 m at the intersection to provide for emergency passing for through vehicles.



CONSULTING ENGINEERS INTERSECTION DESIGN

Reference Facsimile transmission of the 19 February 1988 from Solicitor's, McIntosh, Barr and Gordon, enclosing Consulting Engineer's layout for the intersection. Attachment 'F', The design would seem to be an over-design of the junction with a separate right turn bay.

This proposal would also require shoulder widening beyond the seal width which appears to have been omitted. On this basis it would be expected that the roadwork costs would be more than that proposed by Council. It is noted that the estimate provided allows for only \$50/hour for all plant associated with the provision of the widening. This rate would seem a major under estimation, but the basis of the estimate is not given.

GENERAL COMMENTS:

Traffic analysis of the Main Road No 141A and Stangers Road intersection supports Council's requirement for a N A A S R A Example Type 1 intersection widening.

The proposal from the Consulting Engineer is not adequately dimensioned to comment on in detail. However, widening for a full width lane and shoulders is not warranted. Taper length of widening is also inadequate and the proposal seems to result in a tighter radius curvature of the main road especially for southbound vehicles.

Given that some upgrading is required, the Consultant's estimate is considered too low and would really be of similar cost to Council.

I, Mark David Eastwood, inspected the subject intersection on 22 February 1988 with Lismore City Council's Deputy Engineer. I am currently employed by Department of Main Roads at Divisional Office Grafton and my duties include administration and engineering supervision of Council matters related to the road network for a number of North Coast Councils including Lismore City. I am also Chairman of the Regional Advisory Committee and Developments for the Traffic Authority of New



- 4 -

My experience includes 13 years road construction and maintenance activities at various locations in New South Wales for Department of Main Roads with the last four (4) years located at Grafton.



M D Eastwood  
Engineer, Class 3  
Department of Main Roads  
Grafton Divisional Office

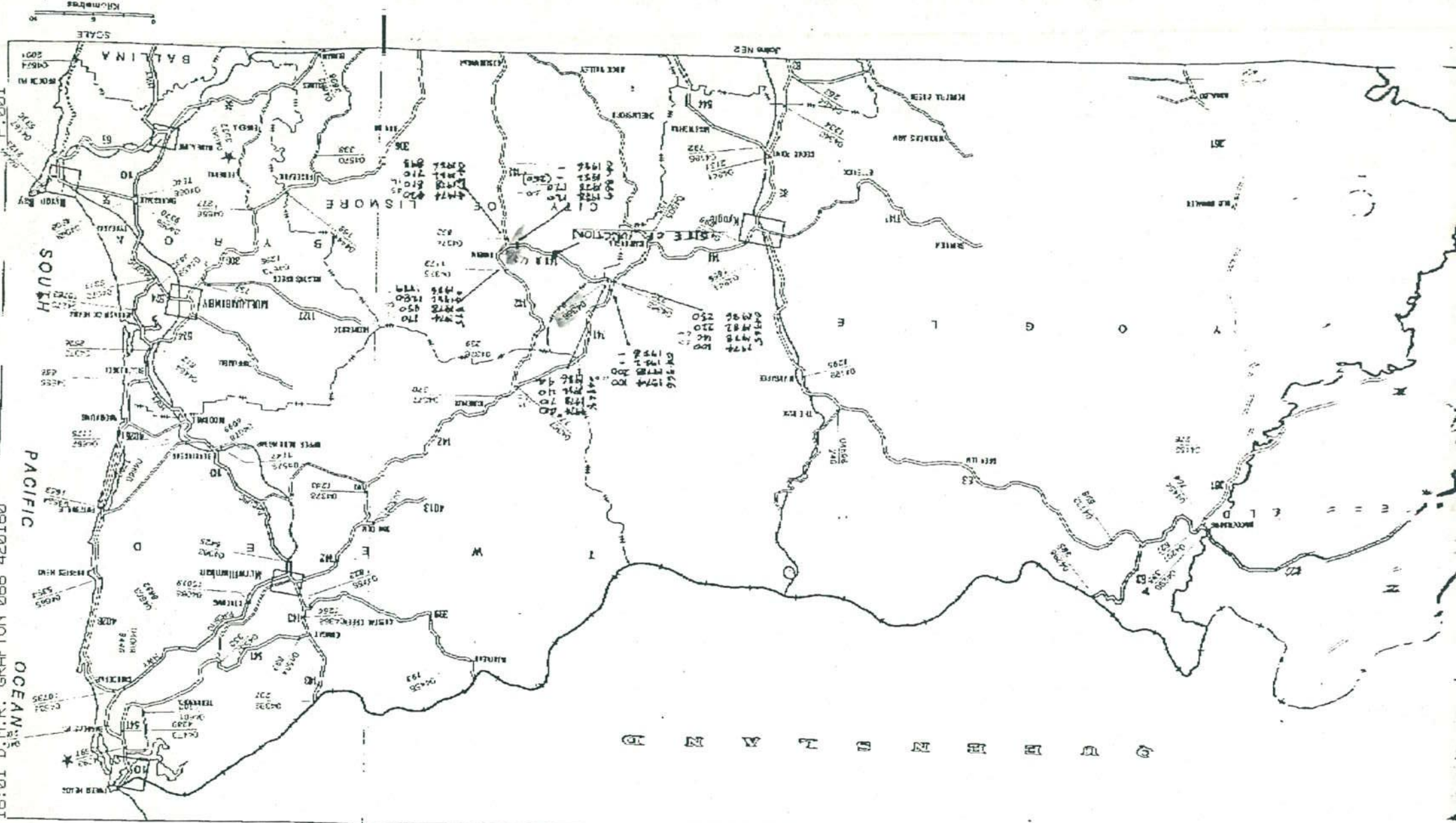
23 FEB 1988



16:01 D.M.R. GRAFTON 066 420160  
OCEANVIEW  
FIC

PACIFIC

18





## 4.1 INTRODUCTION TO TRAFFIC GENERATION

In many situations the assessment of the traffic generation of developments can be undertaken by referral to the Authority's series of 'Land Use Traffic Generation-Data and Analysis' Reports, 1 to 16. In other situations surveys of similar existing developments could be undertaken and comparisons drawn. Each of these techniques is valid. It is beyond the scope of this Section to explain these techniques in detail. However, as a guide, a summary of basic traffic generation information for various land uses is presented. The information provides a 'rule-of-thumb' approach, intended to assist people without traffic engineering training. By simplifying the generation rates, site-by-site variations to the average are not taken into account. However, they do allow comparisons to be drawn between the traffic generation potential of various land use types, which permits a coarse assessment of the traffic generation implications of land use zoning to be made. In any event, departures from the generation rates for individual development proposals may occur in practice, in which case such a departure should be justified with relevant supporting facts.

In the following pages, each land use is briefly discussed and some of the factors contributing to variation to traffic generation are listed. Table 4.2 in Section 4.10 summarises the generation rates. Generation rates for daily (24 hour) and evening peak hour periods are given where possible. Land use definitions are as given in Part A, Section 3.

Sections 4.11: Trip Distribution, and 4.12 - Traffic Impact Assessment, outline the final stages of the study, after the trip generation has been estimated.

## 4.2 RESIDENTIAL

### 4.2.1 Dwelling Houses

#### (a) Metropolitan Areas with good public transport facilities

Daily vehicle trips = 5 per dwelling.  
Evening peak hour vehicle trips = 0.5 per dwelling.

#### (b) Subdivisions in rural areas or areas with limited or no public transport facilities

Daily vehicle trips = 6.7 per dwelling.  
Peak hour vehicle trips = 0.67 per dwelling.

NOTE: Above figures apply to determining impacts on existing street network. However, for design purposes (i.e. road reservations) it is suggested that the above figures be increased by 50% to provide for future growth.

#### Factors:

The above rates for the metropolitan areas viz item (a) are based on the results of the 1981 Sydney Travel Survey, which examined residential trips only. Non-resident trips (service and delivery trips) assumed to be one third of resident trips and have been added on accordingly. Vehicle trips in rural areas, viz item (b) above, have been further increased by one-third.

### 4.2.2 Medium Density/Residential Flat Buildings

#### (a) Metropolitan area

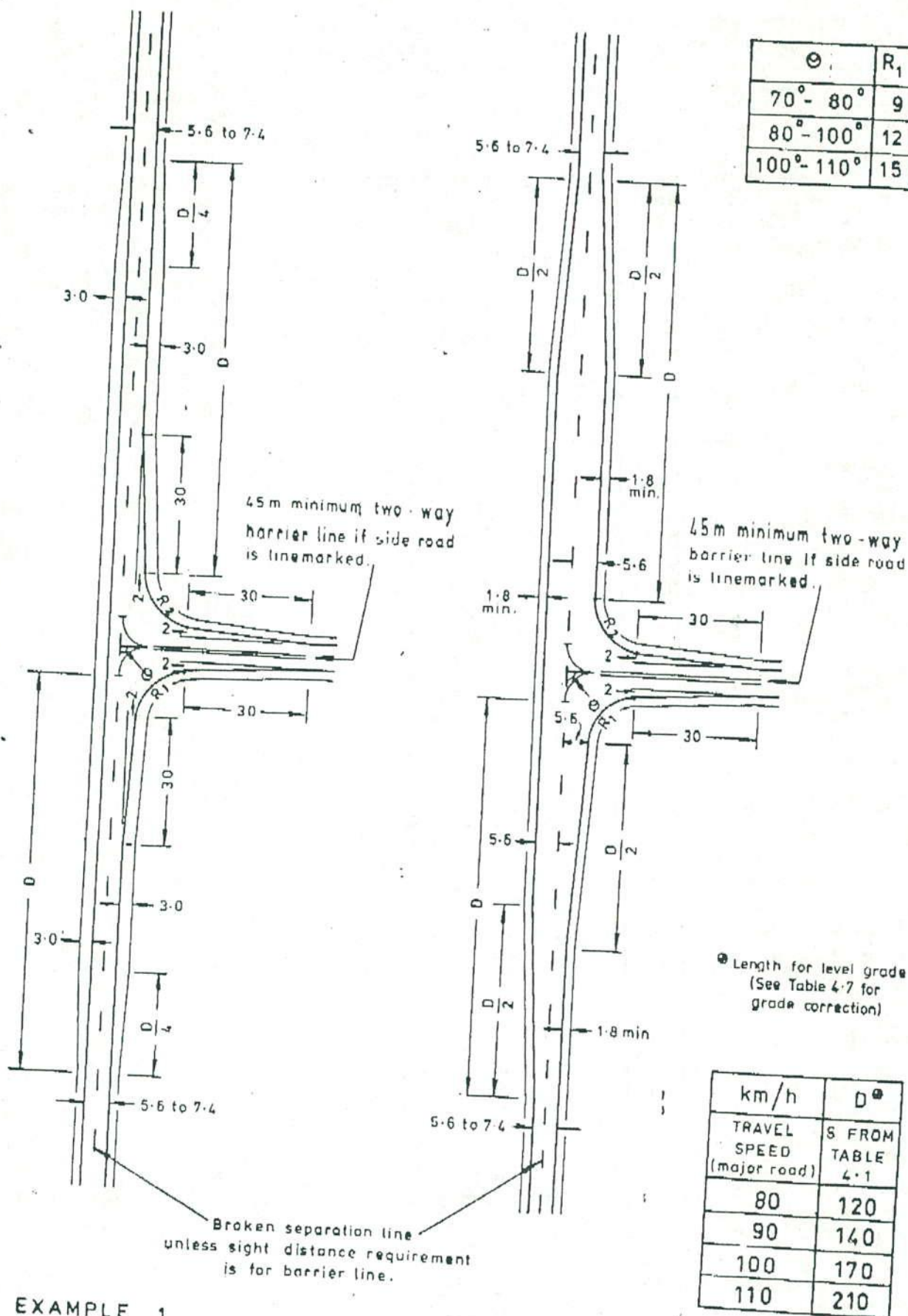
Daily vehicle trips = 3 per dwelling.  
Evening peak hour vehicle trips = 0.3 per dwelling.

#### (b) Other areas where public transport facilities are limited or non-existent

Daily trips = 4 per dwelling.  
Peak hour trips = 0.4 per dwelling.

#### Factors:





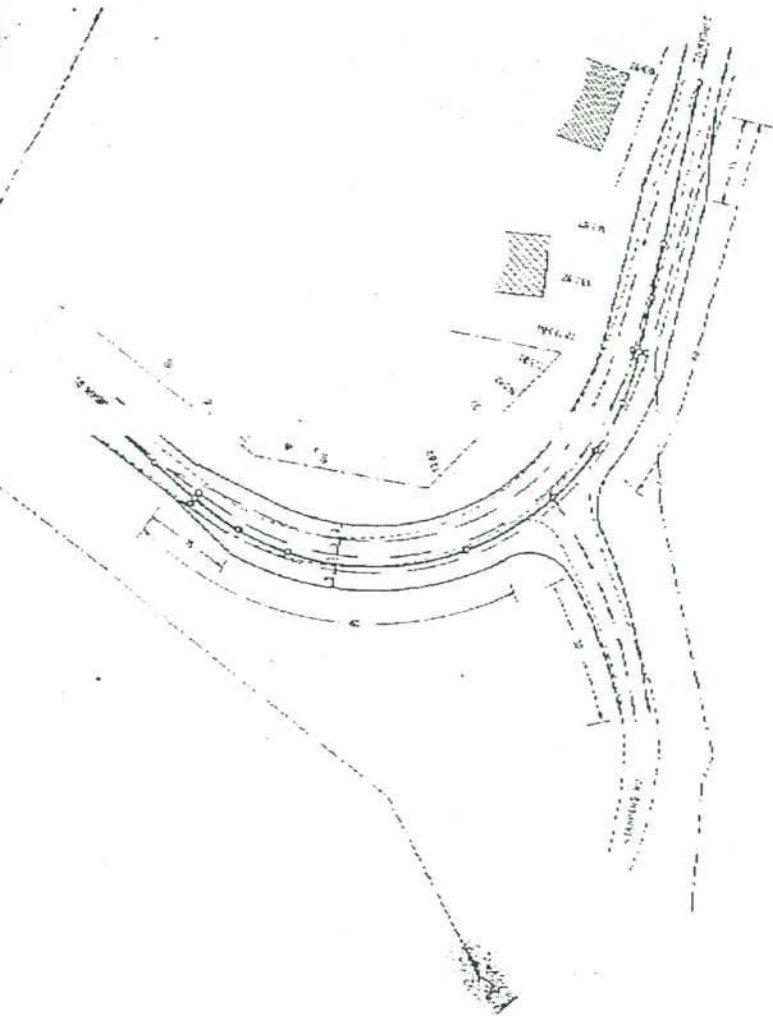
EXAMPLE 1

EXAMPLE 2

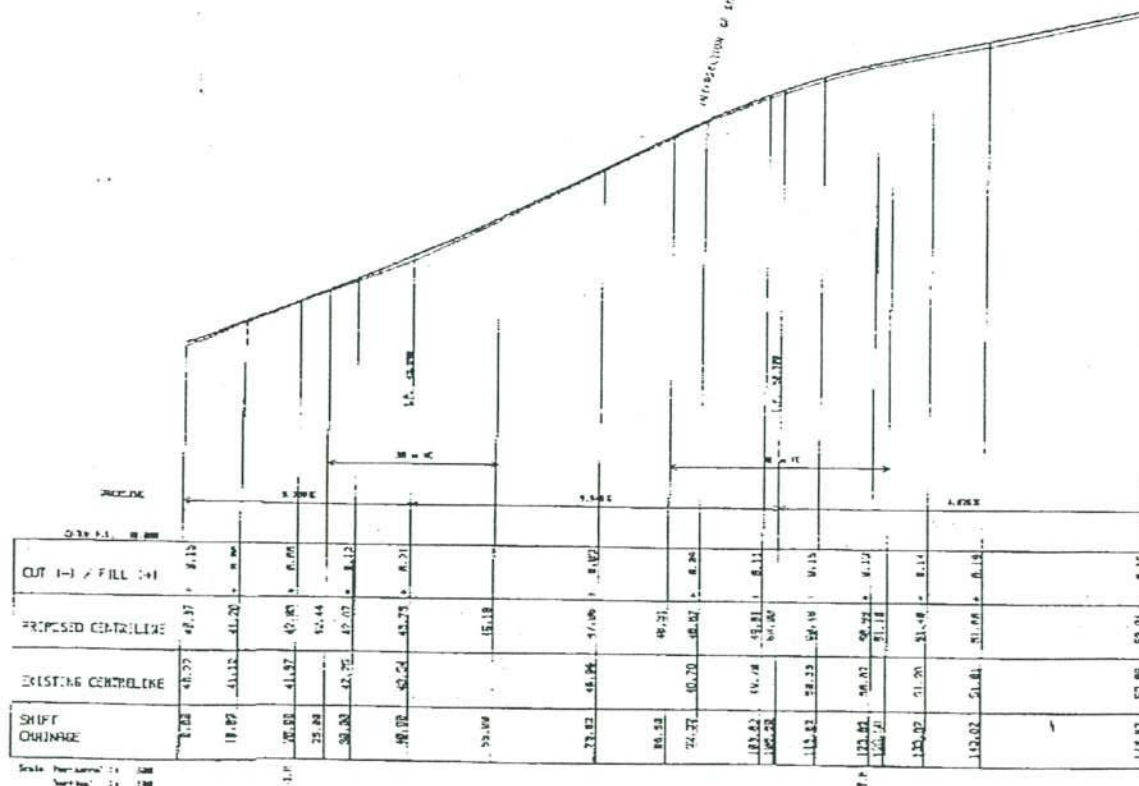
Design Treatments of Right or Left-Turn Lanes at 3-Way Rural Intersections

FIGURE 4.20(a)





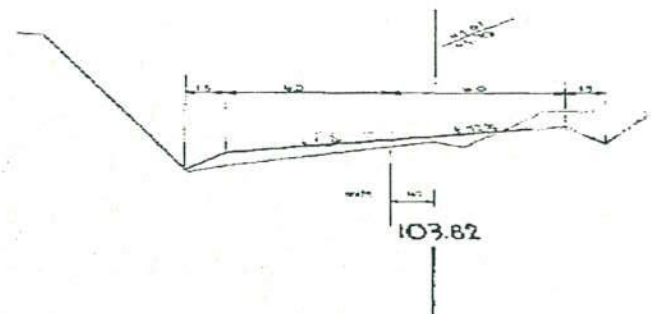
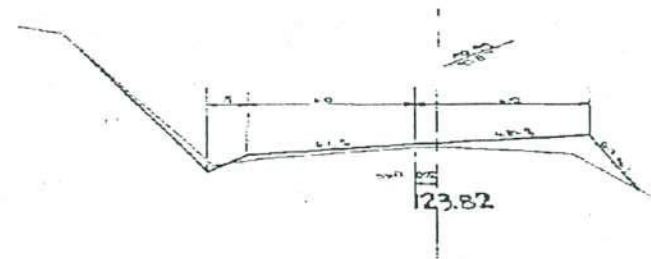
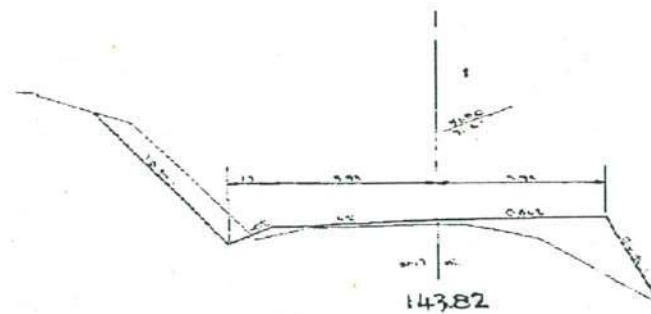
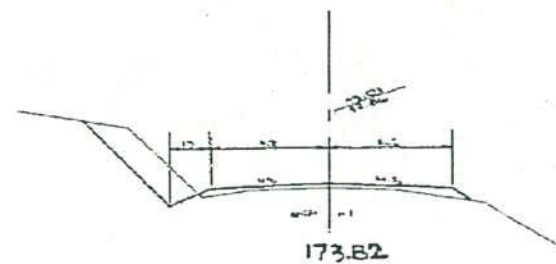
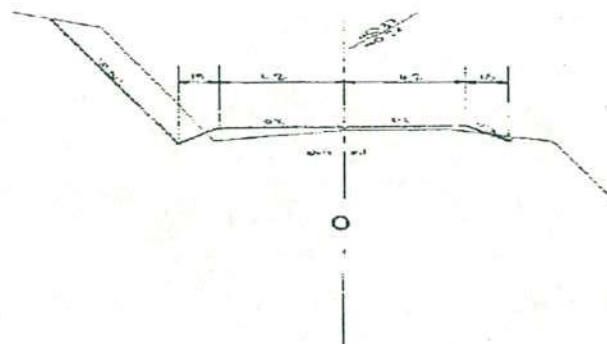
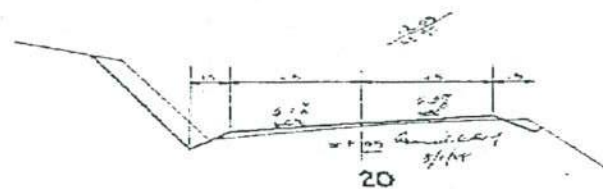
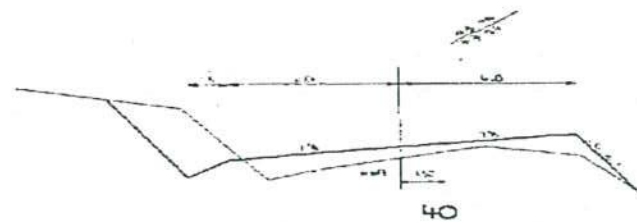
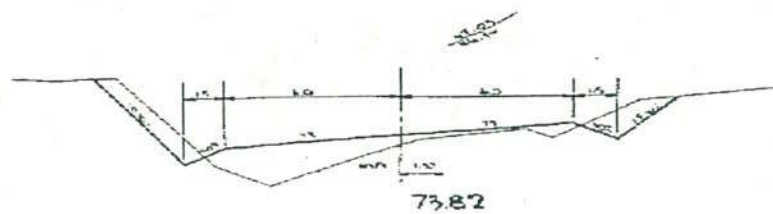
PLAN VIEW



LONGITUDINAL SECTION

DATE: _____ DRAWN BY: _____ CHECKED BY: _____ APPROVED BY: _____ DATE: 28-8-97		PROJECT NO.: _____ SHEET NO.: 1 OF 2 SHEETS	
L. SMORE CITY COUNCIL PROPOSED INTERSECTION OF M.R. 141A & STANGE'S ROAD		PLAN NO. 50R694	







REQUIRE FENCING IN KYOGLE SHIRE.  
HOWEVER AN APPLICATION FOR  
DEVELOPMENT WOULD DEPEND ON  
THE CIRCUMSTANCES AND WOULD BE  
LOOKED AT BY COUNCIL IN THE  
WHOLE SCHEME OF THINGS.

MAINTENANCE WOULD BE THE  
RESPONSIBILITY OF KYOGLE SHIRE.  
MAIN INTERNAL ROAD 3.5 M. WIDE  
TRAFFICABLE FOR A NORMAL CAR

**SANTA  
GERTRUDIS**

The  
Classified  
Breed

Green White - can force us to put up fences & pay full costs  
as contract stands. Janette checking with  
Sydney legal Arol thru Howard.

2) There is ~~an~~ Australian standard on fencing we will  
have to comply with.

3) He said something like \$2 something per metre.  
Can hire equipment from council. Refer other sheet.

### Rates

Green White - paid more (back rates) last year re: \$1,102  
Check with lawyer - Does he owe more?  
That is why he is selling land. This is what he said but  
we can't quote him. ~~I will check~~

4) Rural rating will be changed - don't know how it  
will be rated (re: North PO Dec. MO) ie individual house sites or  
specifics - as one block. They don't know how rating  
is going to go.

MO - won't be taking any notice of other shires.  
Depends on the rate payers in Kyogle shire.  
Kyogle Council is pretty flexible.

### Multiple Occupancy

The land must be on one deed for MO application.  
2 deeds must be consolidated.

Take 2 copies of the 2 deeds to the Registrar General's  
office in Sydney.

Can be done by a surveyor - Don't get the land  
resurveyed - don't need it.

40 days to tell us if our application is acceptable.  
after we've lodged app.

Can do everything ourselves. Has to comply. Has to be well  
done. Out of the 4 applications already submitted  
he reckons one will go straight through. Can't mention  
names.



There is no environmental plan for this shire.

He said Kyogle needs more people in the shire.  
A lot of dairy farmers left the area. Large drop in population.

### Roads

Roads — 6 inch top gravel <sup>min req.</sup>  
20 inch on public roads is usual  
not so concerned with internal roads.  
12% <sup>maximum</sup> grading 1-IN-8 - minimum requirement

Subdivision at front — <sup>they are</sup> liable for \$1,500 each house  
road levy — Does not apply to us.

But we will be asked for some levy to improve &  
maintain White's road. Also this road will need  
fencing to protect the cattle. That is statutory.  
This won't be necessary until we apply for M.O.

Re: dust complaint.

Bill Stanfield's notice will be held in abeyance  
until receipt of M.O. application.

Access will have to be put in for Bush fire patrol,  
also. Paul intends to organise.

Can't design straight off contour map.  
Need to do it with a theodolite & dumpy on the land.

He said council is lenient. Almost stressed it.



(5) He said the council will love us for it and he stressed the importance of keeping in the good book. Also it is to our advantage.

For sanity reasons and I reckon for comfort. This is important.

(6) He said the water requirements will be alot higher than we'd expect. They work ~~out~~ it out making provision for flush toilets.

(7) <sup>we can</sup> say we will be living there for about 12 mths before building - to check out the weather conditions

(8) Say the waste disposal will be at the discretion of the Health Inspector.

(9) Permaculture consultant - can do Env. Impact Plan for about \$300. ~~but~~ <sup>or</sup> we can do it ourselves.

(10) Will plant forest (bamboo is good for this) where this is erosion. Put reforestation plan in on no application.

(11) Survey map - from council.

Community building if less than \$3,000 worth will not require council approval. ~~It is~~ <sup>if it is</sup> classed as an X class building - ie not intended to be habitable. don't have to mark this on plan + don't tell them about <sup>school</sup>

Could mention that tourists will probably be using the roads. shouldn't have to seal roads - Sect 94 -



Can negotiate with council regard costs of service.

Can offer our labour on projects that are concerned with our land also ~~for~~ council projects re. community services in return for <sup>service</sup> work done on our land. Also can offer in return for work on our land a block of our land. That would probably have to be subdivided. The council would want to own it. Unless a lease is acceptable to them. \* page 5

---

There are no subsidies available for <sup>the likes</sup> collectives or. As for first owner grant - would have to prove <sup>1</sup> that you own the land - ~~at~~ <sup>we</sup> present set up the company does <sup>2</sup> It is your first house. Would have to see a bank about this. Perhaps we could reconsider leasing. \*

---

LAND TAX It's very high.

It depends on how the land is owned as do weather we ~~are~~ have to pay it or not. <sup>it depends on the ~~original~~ value of land as to the amt of land tax paid.</sup> Some types of companies <sup>some types of</sup> co-ops are exempt.

We'd have to check with our lawyer to see if we can possibly set up a co. / co-op that is exempt.

The Stamp duty is very high if we change from one form to another. To avoid this we can resolve our company at a general meeting & reconstitute ourselves as a co-op/co. if <sup>by doing so we are</sup> we can avoid land tax <sup>by doing this</sup>. Refers to C.C.H. guide - he forgets what this stands for but says lawyer should have a <sup>copy</sup>

---

(For the banking system we need only declare ourselves as a partnership.)

---



Noel Piggott - came out to give quote.  
on roads. (He has been in the area ~~all his life~~ <sup>74-75</sup> '83.)

We walked over the land. Don, Paul, Janelle, Noel?

Can see no problems with main access road to camp,  
as long as adequate drainage is provided.

Said 8 inch loose - 6 inch compact - gravel which  
should be available on property.

Will involve about 7 culverts.

6 inch 12 inch 24 inch pipes or other arrangements.

Initial quote, off the top of his head was \$5,000.

For the lot. Using our own gravel. Rough estimate.  
Form quote will be ready Friday. Anyone can  
pick it up from his house in James St. cor of  
Pratt St. Brick house on <sup>right</sup> ~~left~~ Geneva.  
066 321 156 8pm ~~to~~ he will be home.

Road to left ridge.

Recommended we start opposite Sharons  
camp ~~at~~ site. But would have to walk  
right to the top.

He said they drilled for oil at Omar (near here) +  
found some. But capped it.



*(not yet sent for Certification)*

KYOGLE SHIRE DRAFT LOCAL ENVIRONMENTAL PLAN NO.3

(Discussion Paper Only)      Draft 11.am. 24-2-89

PART 1  
PRELIMINARY

**Citation**

1. This plan may be cited as KYOGLE SHIRE LOCAL ENVIRONMENTAL PLAN NO.3.

**Aims, Objectives, etc.**

2.(1) The general aims of this plan are:

- (a) to implement at a local level the aims of the Environmental Planning and Assessment Act, 1979, as set out in Section 5 of that Act.
- (b) to update and replace all existing and deemed Local Environmental Plans which apply to the Shire of Kyogle.
- (c) to provide an overall framework for development control within Kyogle Shire, to be complemented by development control plans where more detailed planning is required.

**Land to which plan applies.**

3. This plan applies to the whole of land within the Shire of Kyogle.

**Relationship to other Environmental Planning Instruments**

4. This plan repeals:
- Interim Development Order No.1 -Shire of Kyogle
  - Interim Development Order No.1 -Shire of Terania, as it applies to land within the shire of Kyogle.
  - Kyogle Local Environmental Plan No.1
  - Kyogle Local Environmental Plan No.2

**Interpretation**

5. In this plan;  
"appointed day" means the day on which this plan takes effect;

"caravan park" means land used as a site for moveable dwellings, including tents and caravans or other vehicles used for temporary or permanent accommodation;



"conservation area" means the area of land shown bounded by heavy broken black edging and marked "conservation area" on the map or listed in Schedule 2.

"council" means the council of the shire of Kyogle.

"demolition" in relation to a building or work means the damaging, defacing, destruction, pulling down or removal of that building or work, in whole or in part.

"home improvement area" means the area of land, not exceeding 5000 square metres, around a dwelling in a multiple occupancy.

"intensive animal establishment" means a building or place in which or upon which cattle, pigs, poultry or other livestock are held for the purpose of nurturing by a feeding method other than natural grazing and includes -

- (a) feedlots;
- (b) piggeries;
- (c) poultry farms; and
- (d) fish farming (including crustaceans and oysters),

but does not include a building or place used for the keeping of livestock or poultry where -

- (e) it is intended solely for personal consumption or enjoyment by the occupier of the land; or
- (f) the amount of imported feed consumed does not exceed three tonnes per month.

"item of the environmental heritage" means a building, work, relic or place of historic, scientific, cultural, social, architectural, archaeological, natural or aesthetic significance to the shire of Kyogle-

- (a) situated on land shown edged in heavy black on the map and marked "Heritage Conservation" ;
- (b) described in schedule 1 ; or
- (c) identified as an item of environmental heritage in a development control plan.

"multiple occupancy" means a type of rural development where a group of people live as a community, build and live in a number of dwellings on unsubdivided rural land.

"parcel" in relation to land means the aggregation of adjoining or adjacent lots in common ownership.

"Prime agricultural land" means rural land identified by the Department of agriculture as Classes 1, 2, or 3



as set out in the "Rural land evaluation manual".

"relic" means any deposit, object or material evidence relating to the settlement (including aboriginal habitation) prior to 1 January 1900, of the area of Kyogle Shire.

"temporary roadside stall" means a roadside stall which can be dismantled and removed.

#### Adoption of Model Provisions

6. The following Clauses only of The Environmental Planning and Assessment Model Provisions, 1980, are adopted for the purposes of this plan -  
Clauses 1, 2, 3, 4, 8, 12, 14, 24, 30 and 31.

#### Consent Authority

7. The Council shall be the authority for the purpose of this plan.

### PART II GENERAL DEVELOPMENT PROVISIONS

#### Zones Indicated on the map

8. For the purpose of this plan, land to which this plan applies shall be in a zone specified hereunder if the land is shown on the map in the manner specified hereunder in relation to that zone.

Zone No	Manner Specified	Description
No 1(a)	light brown	general rural
No 1(c)	light brown with heavy black edging and lettered "1(c)"	rural residential
No 2(v)	black edged and lettered "V"	Village or Town
No 5(f)	black edged and lettered "F"	Special uses floodway

#### Zone Objectives and development control table

9.(1) The objectives of each zone are as shown on the table to this clause.

(2) Except as otherwise provided in this plan, on any land within a zone specified, the development controls as set out in the table to this clause apply.



TABLE

## Zone 1(a) General Rural

- 
1. Objectives: To enable traditional rural uses to be carried out and to promote other uses which are economically productive and compatible with the rural environment.  
 -----  
 To protect prime agricultural land, except where it can be used for a purpose which is more productive to the community.  
 To protect or preserve soil stability, water resources and environmentally sensitive vegetation  
 To protect natural resources by controlling development which could be incompatible with it's future exploitation.
- 
2. Without Consent: Agriculture ( except intensive animal establishments, dairys, cattle loading ramps and truck loading facilities ), forestry.
- 
3. Only With Consent: Any purpose other than a purpose included in Item 2. or 4.
- 
4. Prohibited: Motor showrooms, residential flat buildings
- 

## Zone 1(c) Rural Residential

- 
1. Objectives: To provide small rural allotments to meet the demand for residential housing in designated, and well serviced areas.
- 
2. Without Consent: Single dwelling house, agriculture, (except intensive animal establishments, dairys, cattle loading ramps and truck loading facilities ).
- 
3. Only With Consent: Any purpose other than a purpose included in Item 2. or 4.
- 
4. Prohibited: Boarding house; bulk store; bus station; car repair station; commercial premises; hotel; industry; motor showroom; professional consulting room; public building; residential flat building; shop or any retail establishment except general store; junk yards.
-



### Zone 2(v) Village or Town

- 
1. Objectives: |To enable urban type development to take place in designated areas.  
 |To promote land uses which are economically productive and compatible with the village or town environment.  
 |To provide for the full range of public, private, and community facilities.  
 |To set aside by means of development control plans, designated areas for specific uses and to separate incompatible uses.
- 
2. Without Consent: |Nil
- 
3. Only With Consent: |Any purpose other than a purpose included in Item 4.
- 
4. Prohibited: |Intensive animal establishments, mines, offensive or hazardous industries, junk yards within 90 metres of a main road.
- 

### Zone 5(f) Special Uses Floodway

- 
1. Objectives: |To limit and reduce development on floodways  
 |To avoid loss of life and injury to persons and property.  
 |To avoid expenditure of public funds on restoration of public and private property and structural flood protection works.
- 
2. Without Consent: |Nil
- 
3. Only With Consent: |Any purpose other than a purpose included in item 2. and 4.
- 
4. Prohibited: |Dwellings (other than minor additions), residential buildings.
- 

### Minor variation of zone boundaries

- 10.(1) This clause applies to land which is within 20 metres of a boundary between any two zones.  
 (2) Development may, with the consent of the council, be carried out on land to which this clause applies for any purpose for which development may be carried out in the adjoining zone.



### PART III SPECIAL CONDITIONS

#### Subdivisions generally

11. A person shall not subdivide land to which this plan applies except with the consent of council.

#### Rural development

12. Council shall not consent to an application to carry out development (other than agriculture or forestry) on general rural 1(a) land until it has considered-
  - (a) the likely impact of the proposed development on the use of adjoining or nearby land,
  - (b) whether or not the development will cause loss of prime agricultural land, commercial forests, or mineral resources and,
  - (c) whether the development will conflict with traditional rural pursuits and practices.
  - (d) the affect of the development on water quality.

#### Rural subdivisions

13. (1) Subject to this clause a parcel shall not be subdivided in Zone 1(a) unless-
  - (a) Lots of area less than 100 hectares are only created in accordance with subclause (b);
  - (b) A lot of less than 100 hectares may only be created when such subdivision also creates a lot of more than 100 hectares. One lot of less than 100 hectares may be created for each 100 hectares left in the subdivision in lots of minimum size 100 hectares.
  - (c) Sub clause (b) does not apply to the subdivision of lots which have allready been used to create lots in accordance with subclause (b).
  - (d) The minimum size allotment is 1 hectare.
  - (e) Any allotment of less than 100 hectares is within 1.6 kilometres of an existing school or school bus route and has access to the nearest population centre by a 2 lane all weather road.

- (2) Subject to this clause land may be subdivided in Zone 1(a) creating an allotment of area less than 100 hectares provided;
  - (a) Council is satisfied that such allotment is intended to be used for a permissible use other than agriculture, forestry or dwelling and;
  - (b) Council is satisfied that the proposed use of the allotment is for a purpose that will be equal to or more productive to the community than agriculture.
  - (c) Such subdivision is not located on prime agricultural land unless it can be demonstrated that other suitable land is not available.



(3) Land in zone 1(a) may be subdivided, with the consent of council and the concurrence of the Director-General of Agriculture, to create an allotment of not less than 10 hectares in area where that allotment will be used for horticultural purposes.

(4) In deciding whether to grant concurrence pursuant to (3) above, the Director-General shall take the following matters into consideration in relation to each allotment:

- (a) the area and quality of the land and its potential productivity;
- (b) the likely effects, (both economic and otherwise) that the proposed subdivision will have on agricultural industries in the area and the resources employed by or in connection with those industries;
- (c) the likely effects, both economic and otherwise, that the proposed subdivision will have on the use and development of other land and resources in the area;
- (d) whether there are any reasonable alternatives to the proposed subdivision in the circumstances;
- (e) the effect of the existence of, or potential to erect, a dwelling;
- (f) the cumulative effect of similar proposals if concurrence is granted under this clause; and
- (g) the likelihood of the allotment remaining available for efficient agricultural use.

#### Rural dwellings

14.(1) Subject to this clause a dwelling house shall not be erected on a vacant parcel within zone 1(a) unless

- (a) it has an area of 40 hectares or more; or
- (b) it is an allotment created in accordance with clause 12(1) or 12(3); or
- (c) it is an allotment created in accordance with a consent granted before the appointed day, being an allotment on which a dwelling could have been erected immediately before the appointed day
- (d) in the opinion of council the erection of the dwelling will not adversely affect the use of the land for commercial farming purposes.

(2) A second dwelling house may only be erected on a parcel in zone 1(a) if council is satisfied that the nature of the agricultural activity being carried out, at the time, is such that it requires an employee who will permanently reside in that additional dwelling.

(3) A dwelling in zone 1(a) may be altered or added to



so as to create 2 attached dwellings.

- (4) where a dwelling is permitted in zone 1(a) it may be erected as 2 attached dwellings.
- (5) A dwelling shall not be erected in zone 1(a) less than 200 metres from an intensive animal establishment; forest; extractive industry, mine or potential site of such development.

#### **Rural Dwellings (Multiple Occupancy)**

14A.(1) This clause applies to the land within zone 1(a) listed in schedule 3.

- (2) Notwithstanding clause 14, development for the purpose of 2 or more dwellings, known as multiple occupancy, may, on land to which this clause applies, be carried out with the consent of council where:-

- (a) the land upon which the development is to be carried out -
  - (i) has an area of not less than 10 hectares and
  - (ii) is unsubdivided under the Local Government Act, 1919, the Conveyancing Act, 1919, and the Strata Titles Act, 1973, so as to comprise a single parcel and
  - (iii) there is no arrangement to separate legal rights to parts of the land through other means such as agreements, dealings, company shares, trusts or time sharing arrangements.
  - (iv) subclause (iii) above does not apply to a "home improvement area" around a dwelling.
  - (v) has direct access to a council maintained public road.
- (b) the land on which any dwelling, community building or community facility is situated is not on prime crop or pasture land.
- (c) development is not carried out for the purpose of a motel, hotel, caravan park or any other type of holiday tourist or weekend residential accommodation.
- (d) the number of dwellings does not exceed one for each 2.5 hectares of land and the total number of persons to be housed in such dwellings does not exceed the permissible number of houses multiplied by 4.
- (e) proposed dwellings or community buildings must be located on sites which are free of environmental hazards such as bushfire, flooding and landslips.



- (f) the proposed multiple occupancy is to planned to achieve at least partial economic self sufficiency.
- (3) An application to carry out multiple occupancy must be accompanied by :-
  - (a) A site plan locating all building sites. These sites must be consecutively numbered on the plan and such sites must be pegged on site with site numbers clearly labled.
  - (b) Maps, plans and reports showing:-
    - (i) existing environment and man made improvements.
    - (ii) environmental hazards.
    - (iii) prime agricultural land.
    - (iv) all proposed development including house sites, access, water supply, waste disposal systems, community facilities, areas for agriculture, forestry and other economic development.
  - (c) A bushfire management plan prepared by a person experianced and competent in this area. Such plan to include fire management measures that must be in place prior to any occupation or building on the land as well as ongoing measures necessary to maintain the land free of bushfire risk.
- 15. A person shall not erect a building or structure on land within Zone 1(a) closer than 18 metres from the boundary of any road reserve unless council is satisfied:
  - (a) the levels or other physical conditions of the site make it necessary or expedient to do so; and
  - (b) in the case of a dwelling that the future amenity of occupants will not be detrimentally affected by dust or noise, and
  - (c) the erection of the building will not contribute to ribbon development along that road, and
  - (d) the building is unlikely to be on land that may be required for future road widening.

#### **Rural residential development**

##### **Rural residential subdivision**

- 16. Subject to this clause land shall not be subdivided in zone 1(c) unless -
  - (a) there is electricity supply and town water supply, or arrangements have been made for the provision of those supplies, to each allotment ;
  - (b) all roads in the subdivision and the road connecting to the nearest commercial centre are



- sealed;
- (c) in the opinion of council, satisfactory provision is made for drainage and the disposal of effluent from each allotment;
- (d) provision is made for retention of natural water courses on the land;
- (e) for allotments connected to the sewerage system each allotment has an area of not less than 2000 square metres
- (f) for allotments not connected to the sewerage system each allotment has an area of not less than 4000 square metres.

#### **Rural residential dwellings**

##### **17.(1) In this clause -**

"external surfaces" in relation to a building includes the external walls and cladding, external door and window frames, columns, roofs, fences and any other surface visible from the exterior of the building;

"prescribed materials" in relation to a building, means materials of low reflective quality that, in the opinion of council, blend in with the landscape of the allotment on which the building is or is proposed to be, erected and its surroundings.

##### **(2) a building shall not be erected on zone 1(c) unless -**

- (a) the building will not be subject to flooding;
- (b) The external surfaces of the building consist of prescribed materials.

#### **Development along main roads**

##### **18.(1) Council shall not consent to an application to carry out development on land which has frontage to a main road, unless-**

- (a) access to that land is provided by a road other than the main road, wherever practicable; and
- (b) in the opinion of the council, the safety and efficiency of the main road will not be adversely affected by-
  - (i) the design of the access to the proposed development;
  - (ii) the emission of smoke or dust from the proposed development; and
  - (iii) the nature, volume or frequency of vehicles using the main road to gain access to the proposed development.

##### **(2) A building in zone 1(a) or 1(c) intended for use for the purposes set out in column I of the table to this clause shall not be erected closer to an main road reserve than the distances specified in column II.**



Column I	Column II
Abattoirs, bulk stores, bus depots, car repair stations, extractive industries, hospitals, institutions, offensive or hazardous industries, junk yards, liquid fuel depots, motor showrooms, places of public worship, sawmills, shops (except general stores), timber yards, transport terminals, commercial premises.	100 metres
Hotel, motel, caravan park, industry (except above),	50 metres
Refreshment rooms, service stations, general stores.	18 metres
Temporary roadside stalls	5 metres
Any other purpose	18 metres

(3) a person shall not erect or use a building for the purposes of a hotel, motel, caravan park, refreshment room, service station, general store or roadside stall within zone 1(a) or 1(c), which has direct access to an main road and is less than 2 kilometres measured along the main road from any such development.

(4) For the purpose of subclause (3) direct access shall mean direct access to an main road or to a road connecting an main road, and the access to that road is within 90 metres (measured along the road alignment of the connecting road) of the alignment of the main road.

(5) An allotment created by subdivision in zone 1(a) with frontage to an main road shall have a frontage of not less than 200 metres to that main road.

#### Roads

19. A road, driveway or means of access to any dedicated road shall not be formed or altered without the consent of council.

#### Land subject to bushfire hazards

20. The council shall not grant consent to the subdivision of land or to the erection of a building on land which is subject to bushfire hazards by reason



of the vegetation on the land or on any adjacent land unless, in the opinion of the council-

- (a) adequate provision is made for access for fire fighting vehicles;
- (b) adequate safeguards are adopted in the form of fire breaks, reserves and fire radiation zones; and
- (c) adequate water supplies are available for fire fighting purposes.

#### **Forest plantations, fire hazard to adjacent property**

- 21. A forest plantation shall not be established within 200 metres of an existing dwelling.

#### **flood liable land**

- 22.(1) A person shall not erect a building for any purposes or carry out a work on flood liable land except with the consent of council.
- (2) An application for development on flood prone land must demonstrate-
  - (a) The development will not increase the flood hazard or flood damage to other properties, or adversely affect them in any way during times of flood ;
  - (b) Proposed buildings are to be constructed using floodproof materials and construction methods
  - (c) Permanent, fail safe, maintenance free measures are incorporated in the development to ensure the timely, orderly and safe evacuation of people from that area, should a flood occur. In addition, it must be demonstrated that the displacement of these people during times of flood will not significantly add to the overall cost and community disruption caused by the flood;
  - (d) Proposed buildings can withstand the forces of flooding.
  - (e) The floor levels of all habital rooms of a proposed dwelling will be not less than 0.5 metres above the flood standard adopted by council.

#### **Ancillary development**

- 23. An application for development which is a permissible use under this plan may be given consent even though it includes ancillary uses which, if conducted separately, would fall within the prohibited uses of the particular zone, provided:-

In the opinion of council, the prime purpose for which the allotment is put may not be fully realized without the presence of such ancillary use.

#### **Items of environmental heritage**

- 24(1) A person shall not, in respect of a building, work, or place that is an item of the environmental heritage -



- (a) demolish, renovate or extend that building or work;
- (b) damage or despoil that relic or place or any part of that relic or place;
- (c) excavate any land for the purpose of exposing or removing that relic; or
- (d) erect a building on the land on which that building, work or relic is situated or the land which comprises that place.
- (e) subdivide the land on which that building, work or relic is situated or the land which comprises that place,

except with the consent of council.

- (2) The council shall not grant consent to a development application made in pursuance of subclause (1) unless it has made an assessment of-
  - (a) the significance of the item as an item of the environmental heritage of the shire of Kyogle;
  - (b) the extent to which the carrying out of development in accordance with the consent would affect the historic, scientific, cultural, social, archaeological, natural, or aesthetic significance of the item and its site;
  - (c) whether the setting of the item, and in particular, whether any stylistic, horticultural or archaeological features of the setting should be retained; and
  - (d) whether the item constitutes a danger to the users or occupiers of that item or to the public.

25. The council shall not grant consent to a development application to carry out a development in the vicinity of an item of the environmental heritage unless it has made an assessment of the effect which the carrying out of that development will have on the historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance of the item of environmental heritage and its setting

#### **Conservation area**

- 26.(1) A person shall not, in respect of a conservation area:
  - (a) demolish, extend or change the outside of a building or work within that area, including changes to the outside of a building or work that involve the repair or the painting, plastering or other decoration of the outside of the building or work;
  - (b) damage or despoil a relic or part of a relic within that area;
  - (c) excavate any land for the purpose of exposing or

- removing a relic within that area;
- (d) erect a building within that area; or
- (e) subdivide land within that area,

except with the consent of council.

- (2) The council shall not grant consent to a development application made in pursuance of subclause (1) unless it has made an assessment of:
  - (a) the extent to which the carrying out of the development in accordance with the consent would affect the historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance of the conservation area; and
  - (b) whether the refusal to grant consent would constitute a danger to the users or occupiers of that land or the public.

- (3) The council shall not grant consent to an application made in pursuance of subclause (1), being an application to erect a new building or to alter the exterior of an existing building, unless the council has made an assessment of:
  - (a) the pitch and form of the roof;
  - (b) the style, size, proportion and position of the openings for windows and doors; and
  - (c) whether the colour, texture, style, size and type of finish of the materials to be used on the exterior of the building are compatible with the materials used in the existing conservation area.

27. Where a person makes a development application to demolish a building or work that is an item of the environmental heritage the council shall not grant consent to that application until 28 days after the council has notified the secretary of the Heritage Council of its intention to do so.

28. Nothing in this plan prevents the council from granting consent to-
- (a) the use for any purpose of a building within a conservation area or of the land on which that building is erected; or
  - (b) the use for any purpose of a building that is an item of the environmental heritage or of the land on which that building is erected,

where in the opinion of council -

- (c) the use would have little or no adverse effect on the amenity of the area; and
- (d) conservation of the building depends on the Council granting consent in pursuance of this subclause.



### Advertising

- 29.(1) A person shall not use an advertising structure on residential land within a village zone for the purpose of displaying any advertisement, other than an advertisement -
- (a) which relates to that land or premises situated on that land or adjacent land; and
  - (b) which specifies one or more of the particulars:
    - (i) the purpose for which the land or premises is or are used
    - (ii) the identification of a person residing or carrying on an occupation or business on the land or premises .
    - (iii) a description of an occupation or business referred in subparagraph (ii);
    - (iv) particulars of the goods or services dealt with or provided on the land or premises.
- (2) A person shall not use an advertising structure on land within a rural zone for the purpose of displaying any advertisement, other than -
- (a) an advertisement of a kind permitted by subclause (1) ; or
  - (b) a notice directing the travelling public to tourist facilities or activities or to places of scientific, historical or scenic interest.
- (3) Notwithstanding any other provision of this plan, development may be carried out on any land, without the consent of council for -
- (a) any shop window display;
  - (b) any advertisement which is not visible from a road, river, railway or park.
  - (c) a commercial sign, being an advertisement, whether illuminated or not which -
    - (i) has an outline that would fit in a rectangle 1.2 metres in length and 0.6 metres in height and
    - (ii) in respect of any land or premises to which it is affixed contains only -(i) The matters referred to in subclause (1)(b).
  - (d) a temporary advertisement, being one which is displayed on land or premises for a period not exceeding two months.

### Applications that must be advertised

30. The provisions of sections 84, 85, 86, 87(1), and 90 of the act apply to and in respect of the following development categories in the same way as those provisions apply to and in respect of designated development -
- (a) The demolition of a building or work that is an item of the environmental heritage, or is within a conservation area, not being a partial demolition, which in the opinion of council, is of a minor nature

and does not adversely affect the significance of the building or work as part of the environmental heritage of the shire or Kyogle.

- (b) Boarding houses; hotels/ motels; caravan parks, residential buildings.
- (c) Multiple occupancy.
- (d) Industries other than rural industries.
- (e) Intensive animal establishments; junk yards; liquid fuel depots; saw mills; stock and sale yards.

#### **Community use of school facilities**

31.(1) This clause applies to land used or zoned for the purposes of a school, college or other educational establishment.

- (2) The land and buildings and/or facilities associated with the land referred to in subclause (1) may be used, by any person for,
  - (a) community purposes;
  - (b) commercial operations.

#### **Extractive industry or mining**

- 32.(1) In respect of any extractive industry or mine, council shall include, as a condition of any consent, provision for the restoration of the area.
- (2) An extractive industry or mine shall not be established within 200 metres of an existing dwelling.

#### **Temporary use of land**

- 33. Notwithstanding any other provision of this plan, council may at its absolute discretion grant consent for any purpose for a maximum period of 28 days, whether consecutive or non consecutive, in any one year.

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## SCHEDULE I

Item	Location
Dyraaba Station and outbuildings	Portion 1, Parish of Dyraaba.
Wyangarie homestead	Lot 2 DP 701764
Sawmill, Grevillia	Lot 3 DP 553068
State Bank, Kyogle	Pt lot 61, DP.4113
National Bank, Kyogle	Pt lot 60, 61. DP.4113
Westpac Bank, Kyogle	Cnr lot 2. DP 508115
Credit Union, Kyogle	Cnr lot A, Resub, Cnr lot Pt 55, DP. 4113
Doctors surgery, Kyogle	Cnr lot Pt 1, DP.4113
Post Office, Kyogle	Pt lot 22, DP.4113
Masonic hall, Kyogle	Cnr lot Pt 19, DP.4113

## SCHEDULE 2

Kyogle urban conservation area. (Area with many houses in north coast timber venacular style the setting is largely free of intrusive development. Enhanced by street trees, well planted gardens and set against a backdrop of hills and bush, this area has a distinctive character which should be preserved.)	Kyogle. Geneva St from Crockford lane to Hill St Alcorn St to Village zone boundary, along boundary to rear of properties east side Short St and south side Rous St, lane east of Rous St, Earl St to Rous St, rear of properties east of Summerland Way as far as lot 7, then returning along Summerland Way to north boundary Public school, then west boundary public school to Wiangaree St, then Crockford lane to start.
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Exclusions:- Existing dwellings constructed after 1945.

SCHEDULE 3  
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No.	Description	Area (ha)
-----	-----	-----
1.	Lot4 D.P.773068 Ph Jiggi	143.6
2.	Lot 23 D.P.718052 Ph Hanging Rock	123.2
3.	Lot 3 D.P.631546 Ph Jiggi	40.
4.	Lot 11 D.P.702 527 Hanging Rock	42.41
5.	Lot 2 D.P.584564 Ph Jiggi	86.22
6.	Lot 1 D.P.592896 Ph Hanging Rock	67.95
7.	Lot 4 D.P. 633473 Ph Jiggi	42.48
8.	Lot 2 D.P. 582747 Ph Hanging Rock	57.77
9.	Lot 4 D.P.574699 Ph Hanging Rock	46.59
10.	Por 113 Ph Hanging Rock	41.88
11.	Lot 2 D.P. 608207 Ph Hanging Rock	100
12.	Por 61 Ph Hanging Rock	72.42
13.	Lot 1 D.P. 574699 Ph Hanging Rock	20
14.	Lot 1 D.P. 627364 Ph Ettrick	391.5
15.	Lot 5 D.P. 631016 Ph Hanging Rock	9.605
16.	Lot 2 D.P. 707831 Ph Boorabee	18.94
17.	Lot 82 D.P. 731493 Ph Hanging Rock	43.78
18.	Lot 1 D.P. 567272 Ph Hanging Rock	23.12
19.	Lot 2 D.P. 263312 Ph Boorabee	18.34
20.	Lot 11 D.P. 263401 Ph Sherwood	47.7
21.	Por 23 Ph Sherwood	207.7



ALL COMMUNICATIONS TO BE ADDRESSED  
TO THE SHIRE CLERK  
P.O. Box No. 11  
KYOGLÉ, 2474.

PDT:DB.



ADMINISTRATIVE OFFICE:  
STRATHEDEN STREET  
KYOGLÉ, N.S.W. 2474.  
TELEPHONE: KYOGLÉ 32 1611 (4 LINES)

CONTACT Mr. Thew  
FOR FURTHER ENQUIRIES

IN YOUR REPLY  
PLEASE QUOTE:

T.3-7.

December 7, 1983.

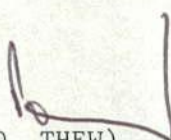
Mr. Dave Lambert,  
Secretary,  
Rural Resettlement Task Force,  
P.O. Box 26,  
NIMBIN. 2480.

Local Environmental Plan No. 1.

Dear Sir,

Enclosed herewith is a copy of the relevant sections of Council minutes of the meeting held November 16, 1983, with respect of Local Environmental Plan No. 1 (Multiple Occupancy and Section 94 Contributions).

Yours faithfully,

  
(P.D. THEW),  
SHIRE CLERK.





MINUTES OF THE SPECIAL MEETING OF THE COUNCIL OF THE SHIRE OF KYOGLE  
HELD ON WEDNESDAY, NOVEMBER 16, 1983, COMMENCING AT 4.00 P.M.

PRESENT: Cr. J.A. Ralston (in the chair), Councillors A.L. Bolzicco, A. Buchanan, D.W. Lovell, G.E. Missingham, J.J. Pollard, S.L. Johnston, E.L. Collison and R.H. Standfield.

Mr. P.D. Thew, Shire Clerk; Mr. P.V. Knight, Shire Engineer and Planning Officer; Mr. R.L. Judd, Health Surveyor and Mr. J.D. McCarthy, Deputy Shire Clerk.

There were 49 persons in the public gallery during the meeting.

SPECIAL BUSINESS

83/G701 Submissions on Local Environmental Plan No. 1. (Multiple Occupancy and Section 94 Contributions). (T.3-7).

In his opening remarks the Shire President, Cr. J.A. Ralston, referred to the need to consider the submissions submitted on Local Environmental Plan No. 1 and the need for public meetings throughout the Shire to enable persons to consider the issues relating to Multiple Occupancy Development.

Submissions.

The submissions received had been photocopied and forwarded to each Councillor for consideration. The meeting was further advised that two submissions had by error been omitted from the summary in the Planning Officer's report to the meeting held November 7, 1983, and these were now tabled and read out.

- . From the Upper Richmond Ratepayers and Citizens' Association - drawing attention to the many problems associated with the Multiple Occupancy proposal and requesting that much more time be given to dealing with this matter before any firm decision is made.
- . From Richard and Judith Standfield of Toonumbar, requesting that the period for receipt of submissions on the Multiple Occupancy L.E.P. be extended to the end of November 1983.

Late Submissions.

Following a questions raised by Cr. R.H. Standfield the following late submissions were tabled and read out:-

- . Ten letters signed by Michelle Smith of Eden Creek, via Kyogle. The Shire Clerk explained that these were all stock letters which had already been covered in the Planning Officer's Report and the matters raised had therefore been summarised.
- . Department / . .

THIS IS PAGE NUMBER ONE OF MINUTES OF THE SPECIAL MEETING OF THE COUNCIL OF THE SHIRE OF KYOGLE, HELD AT THE COUNCIL CHAMBERS, STRATHEDEN STREET, KYOGLE, ON WEDNESDAY, NOVEMBER 16, 1983.

.....SHIRE CLERK.

.....CHAIRMAN.

CONFIRMED.



Minutes of the Special Meeting of the Council of the Shire of Kyogle  
held on Wednesday, November 16, 1983.

83/G701 Submissions on Local Environmental Plan No. 1. (Multiple Occupancy  
and Section 94 contributions. Cont'd

Late Submissions. Cont'd.

- . Department of Agriculture, North Coast Region. Requesting Council to most carefully consider the likely implications of Multiple Occupancy development on the economy of the Shire. "Whilst this Department does not oppose the concept the Multiple Occupancy, we do caution Council about implementation of the Code on the Shire's prime agricultural lands. We are sure that Council appreciate the value of agriculture to the Shire and would be wise to avoid any action which might jeopardise its primary industries".
- . Northern Co-operative Meat Company Limited, Casino. "The Board wishes to bring to your Council's attention the serious consequences of continued incidences of multiple occupancy and the detrimental effect these will have on the primary production industry. If land, which is currently being used for growing livestock, is allowed to be used for multiple occupancy rather than for the purpose it has been used in the past the potential numbers of livestock available for slaughter will continue to decrease".
- . Carolyn Polson, Lismore. Indicating wholehearted support for Multiple Occupancy Development throughout Kyogle Shire. "I am sure that it can only improve input into the community, thus expanding industry and involvement within the community".

RESOLVED: That the submissions as tabled be received.

During further discussion of the submissions received, the meeting was advised that submissions were not restricted to persons living within the Shire and that any person had the right to make a submission on the matter in accordance with the public advertisement.

Consideration of Local Environmental Plan No. 1.

The Meeting was advised/<sup>that</sup> Irrespective of the decision on the Multiple Occupancy section of the Local Environmental Plan, it was most necessary that Council proceed with the Section 94 contributions so that these could be imposed in respect of future developments.

A motion was moved by Cr. G.E. Missingham, seconded by Cr. S.L. Johnston that consideration of the submissions received on Local Environmental Plan No. 1 be now determined by amending the Local Environmental Plan to delete all reference to Multiple Occupancy and hence thereby retaining reference to Section 94 contributions.

An / . .

THIS IS PAGE NUMBER TWO OF MINUTES OF THE SPECIAL MEETING OF THE COUNCIL OF THE SHIRE OF KYOGLE, HELD AT THE COUNCIL CHAMBERS, STRATHEDEN STREET, KYOGLE, ON WEDNESDAY, NOVEMBER 16, 1983.

.....SHIRE CLERK. ....CHAIRMAN.

CONFIRMED.



83/G701 Submissions on Local Environmental Plan No. 1. (Multiple Occupancy and Section 94 Contributions. Cont'd.

Consideration of Local Environmental Plan No. 1. Cont'd.

An amendment was moved by Cr. R.H. Standfield, Seconded by Cr. A. Buchanan that the submissions on Local Environmental Plan No. 1 be now determined by amending the Local Environmental Plan whereby application of the Multiple Occupancy provisions be applied only to that part of the Parishes of Hanging Rock, Jiggi and Warrazambil, being that part of the former Terania Shire Council area which was added to the Kyogle Shire by amalgamation, as constituted on and from January 1, 1977.

The amendment was put to the meeting and was carried. The amendment became the motion and was carried.

RESOLVED: That the submissions on Local Environmental Plan No. 1 be now determined by amending the Local Environment Plan whereby application of the Multiple Occupancy provisions be applied only to that part of the Parishes of Hanging Rock, Jiggi and Warrazambil, being that part of the former Terania Shire Council area which was added to the Kyogle Shire by amalgamation, as constituted on and from January 1, 1977.

RESOLVED: Further that in accordance with Section 68 (4) of the Environmental Planning and Assessment Act, 1979, the following be submitted to the Secretary of the Department of Environment and Planning.

- . Details of the submissions received in respect of Local Environmental Plan No. 1.
- . Copies of the draft Local Environmental Plan No. 1 as altered stating the reasons for the alteration.
- . A statement as required by Section 68(4)(d).
- . A request that Local Environmental Plan No. 1 (as amended) be now made.

Convening of Public Meetings.

RESOLVED: That Council convene public meetings in the main centres throughout the Shire to further discuss and explain Multiple Occupancy development (Moved by Cr. L. Bolzicco, seconded by Cr. E. Collison).

Submissions made public.

RESOLVED: That submissions received in relation to Local Environmental Plan No. 1 be made available for public inspection (Moved by Cr. R.H. Standfield, seconded by Cr. A. Buchanan).

The Special Business of Council was concluded at 5 p.m., following which the deferred agenda items from the meeting held November 7, 1983, were dealt with.

THIS IS PAGE NUMBER THREE OF MINUTES OF THE SPECIAL MEETING OF THE COUNCIL OF THE SHIRE OF KYOGLE, HELD AT THE COUNCIL CHAMBERS, STRATHEDEN STREET, KYOGLE, ON WEDNESDAY, NOVEMBER 16, 1983.

.....SHIRE CLERK. ....CHAIRMAN.  
CONFIRMED.



# Shire seeks delay to hamlet hearing

The Kyogle Shire Council has applied to the Land and Environment Court for a three-month adjournment of an appeal lodged with the court by the Black Horse Creek multiple occupancy against council-imposed development consent conditions.

The appeal is scheduled to be heard in the Mullumbimby courthouse on May 30.

With a flood damage crisis facing the council, the shire engineer, Mr Patrick Knight, who also serves as the town planner, has not had the time to gather evidence and prepare a case for the council's defence.

The council believes the 'extreme importance' of the case to the shire and possible repercussions from an adverse finding demand that it be properly prepared and presented.

As a result the council, as well as applying for an adjournment, also has enlisted the help of Cr David Lovell to prepare and present the case.

Cr Lovell, who has a legal background, has compared the Black Horse Creek appeal with that of the Glenbin/Lismore City Council case.

Black Horse Creek is appealing against four development conditions: Road levy contributions; the improvement of an intersection with a sealed road and a gravel road leading to the proposed development; the sealing of 100 metres of the gravel road; and a right-to-farm condition.

## Similar case

"The part of the case which relates to road levy contributions is very similar to that of the Glenbin case," Cr Lovell told a recent council meeting.

"The Lismore City Council had

an unbelievably poor court presentation, and as a result the road levy was reduced to something like one-tenth of what was being asked.

"I don't want this council to repeat those mistakes.

"We (the council) have to work together to present an expert case.

"This is a very important matter for the council that has to be fought all the way."

Cr Lovell will not be paid by the council for his services, but he will be reimbursed for out-of-pocket expenses and allowances to which he is entitled as a councillor.



KYOGLE SHIRE COUNCIL  
TRAFFIC COMMITTEE MEETING

A G E N D A

Meeting of the Traffic Committee will be held at 11.30 a.m. on May 25, 1989, at the Council Chambers.

1. Confirmation of Minutes of Meeting held on March 6, 1989.
2. Item 3 from above Meeting. The bus proprietors request reconsideration.
3. Item 4 from above Meeting.  
The Ministry of Transport, Liaison Officer, is agreeable to reducing taxi stand back to two car spaces. He has indicated policing of existing stand is a problem and will be more critical if only two spaces are available.

Recommend: The Committee concur with proposal to reduce taxi stand from three to two car spaces and that space relinquished revert back to normal  $\frac{1}{2}$  hour parking 8.30 a.m. to 6.00 p.m. Mon-Fri, 8.30 a.m. to 12.30 p.m. Sat.

4. Development Application No. 88/80 - Black Horse Creek Pty Ltd - Multiple Occupancy

This application was conditionally approved on October 14, 1988. Condition No. 5.1 is as follows:

"5.1 The intersection of Whites Road and Afterlee Road to be improved so that there is a clear 130m sight distance available along Afterlee Road either side of Whites Road."

The location of this intersection is shown on Figure 1.

Mr Trevor Darville (Consulting Engineer) for the applicant has submitted an alternate proposal for Condition 5.1 by using a convex mirror. Mr Darville's letter and N.S.W. Traffic Authority Draft Guidelines are attached. Clause 6.1 of the Guidelines requires each proposal to use a convex safety mirror to be considered by Council's Traffic Committee.

The Committee is requested to consider two questions:

1. Does the Committee support the use of a convex safety mirror in this location.
2. Does the Committee consider that the use of a convex safety mirror in this location would constitute reasonable compliance with the safety requirements of Development Consent Condition No. 5.1.

(P.V. KNIGHT),  
SHIRE ENGINEER.



Trevor Darvill  
Consulting Civil Engineer  
Crofton Road  
Nimbin NSW 2480 891468

18th April 1989

The Secretary  
Blackhorse Creek Community  
Whites Road  
Kyogle NSW 2474

Dear Sir/Madam,

re: Council Conditions of Approval

As requested, I have examined the access provisions of the Council conditions, inspected the site and investigated possible alternative solutions.

The intersection of Whites Road and Afterlee Road was apparently relocated and re-aligned at the time of construction of the adjacent high level concrete bridge over Eden Creek. Unfortunately, east-bound traffic, travelling at slow speed after entering from Whites Road, is at risk from vehicles travelling at higher speed around the bend some 50 metres west of the intersection.

To reduce this risk, it is necessary to increase the sight distance which could be achieved by either

- (1) a major realignment of Afterlee Road, or
- (2) the installation of a suitable mirror to the SW of the intersection.

Convex Safety Mirrors have been used in a variety of situations throughout the State by various councils and the DMR where entering traffic needs to see the traffic picture from somewhere other than where the driver is. The solution is acceptable to the Road Traffic Authority of NSW where traffic volumes and speeds are low as an alternative to major road works.

Attached for reference are:

- (1) letter of 13-6-86 from the Road Traffic Authority of NSW;
- (2) Local Government Circular 88/5A of 26-7-88 from the Road Traffic Authority of NSW;
- (3) draft copy of a DMR paper, "Guidelines for the Installation of Convex Safety Mirrors";
- (4) brochures and price list from R.E. Mandl & Co. Pty. Ltd., Australian distributors of SAFE-T-VIEW convex mirrors.

A mirror suitable for location on or near the Telecom pole SW of the intersection (exact location to be shown on site) would be an 800mm diameter polished stainless steel with visor.



The installation of a convex safety mirror would be only one of a number of devices to improve traffic safety. Other requirements are:

- (1) a sign warning eastbound traffic in Afterlee Road of the possible entry of traffic from left, possibly combined with an advisory speed sign;
- (2) the guide sign indicating the distorted image as per guideline G9-253.

It is important that all the drivers who regularly use the intersection be aware of the mirror and make a habit of actually stopping and observing any approaching traffic. It is not intended that Afterlee Road traffic other than the school bus would gain any benefit from the mirror.

Bitumen sealing of any of Whites Road would encourage traffic to enter the intersection at speed rather than stop as required and is therefore not recommended.

I have discussed the possibilities by telephone with Mr. P. Knight, of Kyogle Shire, and would like to arrange a joint discussion or meeting possibly on site in the very near future.

Yours sincerely,

A handwritten signature in dark ink, appearing to read 'T. Darvill', with a stylized, cursive flourish at the end.

Trevor Darvill



# Traffic Authority of New South Wales

56-58 Rothschild Ave.,  
Rosebery.  
Box 110, P.O. Rosebery,  
N.S.W. 2018

Our reference: F491

Your reference:

Telephone: 663 8252  
Mr. S.H. Soelistio

13 JUN 1986

Dear Sir,

## Convex Safety Mirrors

Convex Safety Mirrors are increasingly being used at locations where the sight distances afforded to the motorists are poor. In January, 1985, the Authority conducted a survey of all Councils in New South Wales with a view to obtain first hand knowledge on the use of convex safety mirrors and possibly to develop policies and guidelines.

Whilst the survey revealed a number of properties that apply to convex mirrors, the Authority is not in a position at this stage to prepare guidelines on the use of the convex mirrors. However, the following may assist Councils in the determination of the use of convex mirrors.

### Properties of Convex Mirrors

The convex shape of the mirror results in a distorted image. The image appears to be smaller, further away and travelling at a slower speed. These distortions can result in drivers misinterpreting the images. These misinterpretations can be potentially dangerous especially in the case of a high speed vehicle.

Dark blue, black and other dark colours are difficult to detect in the early morning or late afternoon as these colours appear to be absorbed by the road surface.

Convex safety mirrors are not without their problems but under the right circumstances can offer one means of increasing the visibility. The cost of convex safety mirrors is relatively cheap when compared with other traffic aids and under the appropriate conditions can be quite effective in increasing the safety.

### Legal Issues

With respect to the legal liability, the Authority's legal advice indicates that the liability of any person in an accident situation depends on all the relevant circumstances; i.e. speed, contributing negligence, weather conditions etc. However, if the installing authority is aware of some potential danger, arising from the reliance on the Convex Safety Mirrors, in a particular location, and failure to provide an adequate warning of the deficiency would provide grounds for negligence claim against the installing authority, by a person who is injured whilst relying on the Convex Safety Mirror. Accordingly, Councils are advised that all necessary precautions should be taken when installing the mirrors.

### Installation Procedures



2.

management or minor works options should be investigated. As a guide, Convex safety mirrors may be effective when average vehicle speeds are less than 50 km/h and the traffic flows on such roads are less than 300 vehicles/hour in any one direction. Therefore if traffic volumes are high then other traffic management measures should be investigated.

Having established that a convex safety mirror would be the appropriate solution to the problem of poor visibility, the size, convexity and location of the mirror need to be considered. The mirror should be installed at a location that provides the best view of the location concerned. It is possible to use two mirrors where one mirror does not give a complete view of the area.

The mirror must be mounted securely to a pole, wall or other point to deter theft as well as to resist tampering that could result in the misalignment of the mirror. A sign with the word "CAUTION" and an arrow pointing towards the mirror should also be installed on the pole below the mirror (See Figure 1).

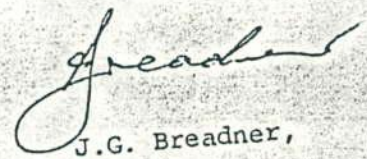
The mirror can be fitted with a visor fitted on top of the mirror which will help to prevent the accumulation of dust on the mirror. The fitting of an orange colour protective outer band will assist in improving conspicuity of the mirror which could be of assistance to drivers who are not regular visitors to the area.

When considering the use of a Convex Safety Mirror it is suggested that Council refers the proposal to its local Traffic Committee for advice.

To assist the Traffic Authority in the formulation of more comprehensive guidelines on this device it would be appreciated if Council would provide feed-back on its experience in the use of and problems associated with Convex Safety Mirrors.

In the meantime, I trust the above information is of assistance and any enquiries can be directed to Mr. Stephen Soelistio on telephone number 663 8252.

Yours faithfully,

  
J.G. Breadner,  
Secretary.





# Traffic Authority of New South Wales

LOCAL GOVERNMENT CIRCULAR 88/5A

56-58 Rothschild Ave.,  
Rosebery.  
Box 110, P.O. Rosebery,  
N.S.W. 2018. AUSTRALIA.

Telephone: (02)663-8222  
Facs: (02) 662-4118

Our Reference: F.491  
Mr. S. Soelistio  
Your Reference:

## Convex Safety Mirrors

26 JUL 1988

In response to the increasing use of convex safety mirrors on public roads at locations where sight distances afforded to motorists are poor, the Authority, in 1985, conducted a survey of all councils in New South Wales aimed at developing policies for their use.

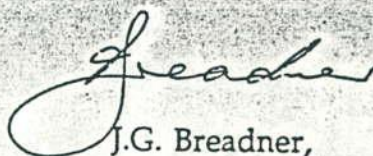
Based on the results of this survey, the Authority's Principal Technical Committee resolved that a letter be issued to all councils on the judicious use of convex safety mirrors.

On 13th June, 1986, the Authority issued a circular to all councils on the use of convex safety mirrors (see Attachment 1). In that letter, the Authority again sought council's co-operation to provide feed back on its experience in the use of and problems associated with convex safety mirrors.

The Department of Main Roads has subsequently carried out a survey of the Department's Divisional Engineers on the use of convex safety mirrors. As a result, the Department has provided draft guidelines for the installation of convex safety mirrors on public roads based upon the Authority's circular letter and the comments from Divisional Engineers (See Attachment 2).

A research article on the use of convex safety mirrors at intersections is also attached for your information (see Attachment 3).

In view of the above, it would be appreciated if you would provide the Authority with any comments on the attached draft guidelines within four weeks of receipt of this circular. For further enquiries on this matter, please contact Mr. Stephen Soelistio on 663-8299.

  
J.G. Breadner,  
Secretary.



# GUIDELINES FOR THE INSTALLATION OF CONVEX SAFETY MIRRORS

## 1. PURPOSE

The purpose of these guidelines is to provide guidance regarding the installation of convex safety mirrors as a traffic safety device on public streets.

## 2. BACKGROUND

Although convex safety mirrors have been used as a traffic safety device for some years, little research has been carried out regarding their appropriate use and safety benefits.

A survey was conducted by the Traffic Authority in January 1985 among all Councils in New South Wales with a view to obtain first hand knowledge on the use of convex safety mirrors. Subsequently, a circular letter dated 13 June 1986 was sent to all Councils.

The information contained in these guidelines is based upon the above circular letter and comments from Divisional Engineers of the Department of Main Roads.

In July, 1988 the Authority wrote to all Councils seeking comments on the draft guidelines. Councils' comments were considered and the guidelines have been revised accordingly.

## 3. PROPERTIES OF CONVEX MIRRORS

The convex shape of the mirror results in a distorted image. The image appears to be smaller, further away and travelling at a slower speed. These distortions can result in drivers misinterpreting the images. These misinterpretations can be potentially dangerous especially in the case of a high speed vehicle. It takes some time for drivers to understand how to interpret the information offered.

Dark blue, black and other dark colours are difficult to detect in the early morning or late afternoon as these colours appear to be absorbed by the road surface.

Vandalism and the maintenance of the correct alignment of the mirror may cause problems for the installing authority and drivers. It is recommended that highly polished stainless steel convex mirrors should be used as far as practicable.

## 4. LIMITATIONS ON USE

Convex safety mirrors should not be used where alternative measures, such as improvement to sight distance, are available. They should not be used in isolation but in association with appropriate warning signs as indicated in Clauses 6.5 and 6.6.



## 5. LEGAL ISSUES

With respect to the legal liability, the liability of any person in an accident situation depends on all the relevant circumstances; ie. speed, contribution negligence, weather conditions etc. However, if the installing authority is aware of some potential danger, arising from the reliance on the Convex Safety Mirrors, in a particular location, and failure to provide an adequate warning of the deficiency would provide grounds for negligence claim against the installing authority, by a person who is injured whilst relying on the Convex Safety Mirror. Accordingly, councils are advised that all necessary precautions should be taken when installing the mirrors.

## 6. INSTALLATION

### 6.1 Authority

Convex safety mirrors fall within the definition of a "traffic control facility" as defined in Section 4(1) of the Traffic Authority Act, 1976. However, to ensure safe installation and community acceptance, each convex safety mirror proposal should be considered by Council's Traffic Committee using these guidelines.

Erection of convex safety mirrors on roads classified under State Roads Act are subject to the Department of Main Roads' approval. The installation of convex safety mirrors should be undertaken by the authority responsible for the care and control of the particular road.

### 6.2 Warrants

Convex safety mirrors are not for general use. They may only be installed as a safety device if there is a severe problem of poor visibility and there are no other options including traffic management or site improvement. The following conditions should generally apply:-

- (i) the 85th percentile speed on the road, or in the case of junctions on the major road, is 50km/h or less;
- (ii) the traffic volume on the road, being travelled by the user of the mirror, is less than 300 vehicles/hour.

### 6.3 Typical Uses

Convex safety mirrors may be installed at the following locations where the lateral visibility is poor:-

- (i) obscured T-junctions;
- (ii) concealed driveways;
- (iii) acute bends of narrow road, such as hairpin bends in mountain passes;



- (iv) confined parking areas;
- (v) askew railway level crossings.

If there is a conflict between vehicles and pedestrians, separate mirrors may be provided.

#### 6.4 Mounting Details

The mirror must be mounted securely to a pole, wall or other high point to deter vandalism.

The mirror should be fitted with a visor on top of the mirror to prevent the accumulation of dust on the mirror. The fitting of an orange colour protective outer band will assist in improving conspicuity of the mirror which could be of assistance to drivers who are not regular visitors to the area.

A 800mm diameter convex mirror which shows an  $160^{\circ}$  field is easy to install without accurate position measurements. However, field trials may be necessary to determine the preferred range of curvature and size.

The mirror should be installed at a location that provides the best view of the location concerned. It is possible to use two mirrors when one mirror does not give a complete view of the area. Consideration should also be given to the possible problems resulting from the headlight glare at night and the effect of glare from the sun through its full day's path.

#### 6.5 Position Sign

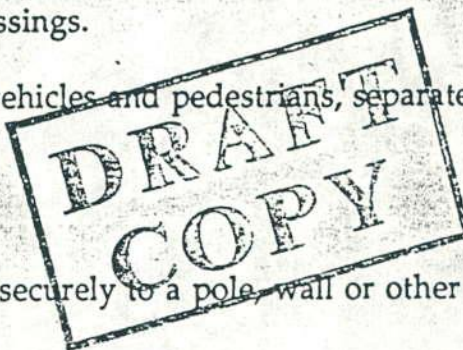
Because of the deficiencies as indicated in Section 3, a warning sign with the wording "DISTORTED IMAGE" (G9-253) should be installed below the mirror.

It should also be installed together with regulatory signposting such as "STOP" or "GIVE WAY" at junctions or safe advisory speed sign at bends.

#### 6.6 Advance Warning Sign

An advance warning sign may not be required for a safety convex mirror installed at a junction serving a minor road as vehicles have either to stop or slow down to give way before proceeding.

However, at other locations such as bends in the mountain passes, vehicles usually move at a higher speed. An advance warning sign consisting of an appropriate road warning sign such as hairpin bend (W1-7) and a supplementary plate "CONVEX SAFETY MIRROR" sign (W8-214) should be installed on the approach to the mirror.





DRAFT  
COPY

## 7. FUNDING

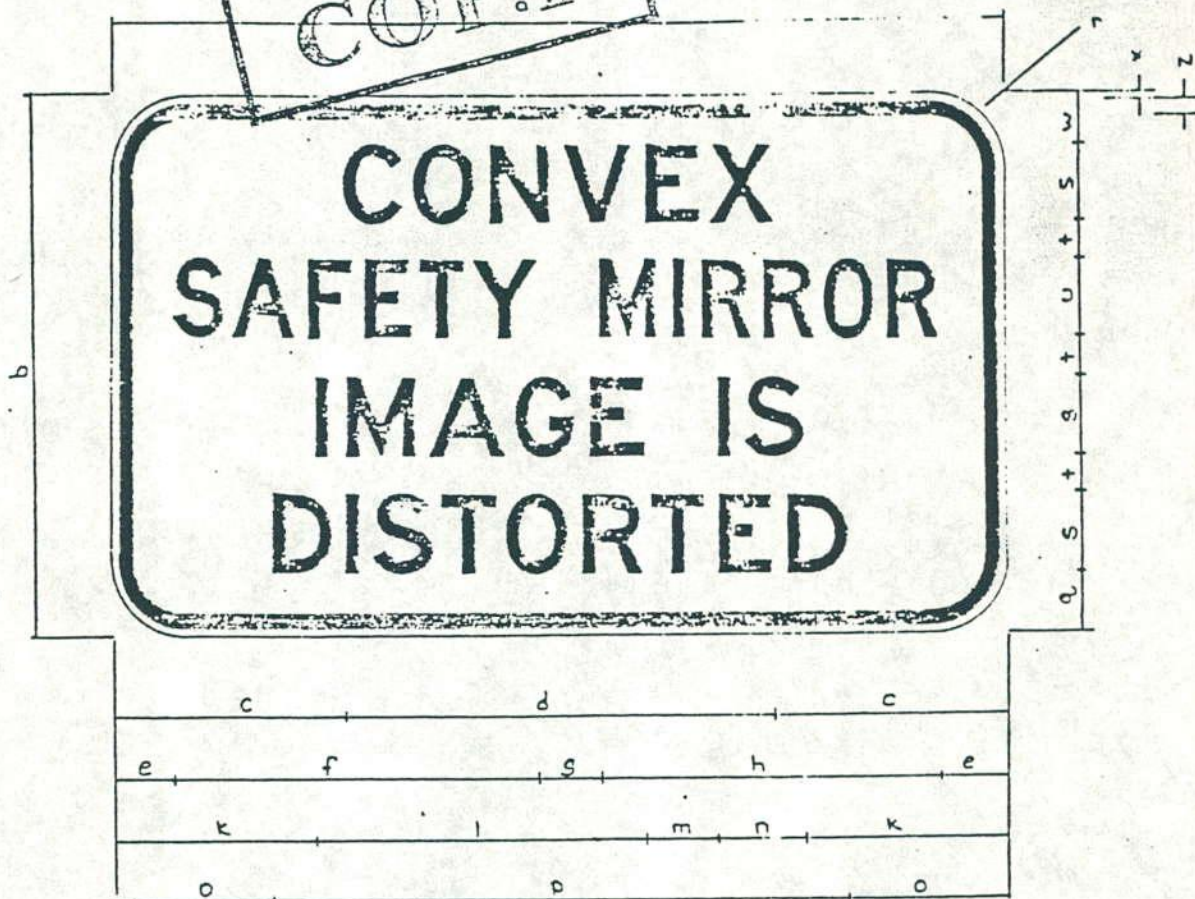
Convex safety mirrors are not regarded as primary traffic control devices. Under the circumstances, the supply and installation of convex safety mirrors is not funded from the Traffic Facilities Programme. The authority undertaking the installation and maintenance of a convex safety mirror is responsible for the funding of the device.

In the case that its provision is for a private access, the proprietor should be responsible for the cost of installation and maintenance.

## 8. ACTION

Convex safety mirrors should only be provided on public streets as detailed in these guidelines.



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COPY

	a	b	c	d	e	f	g	h	k	l	m	n	o	p	q	r	s
G 9-253	600	350	155	289	43	243	42	230	136	221	50	55	107	386	36	50	50EN

t	u	w	x	z
25	50DN	37	4	8

Black legend on Class 2 white reflectorised ground



GUIDE SIGN

G 9-253



DRAFT  
COPY

	a	b	c	d	e	f	g	h	k	m	n	r	x	y
WB-214A	600	550	57	486	58	484	70	460	75	100 DN	50	40	8	16
WB-214B	750	690	71	605	72	606	88	574	95	125 DN	62	50	10	20

Black legend on class 1 yellow reflectorized ground



WARNING SIGN

WB-214



9. Stormwater Drainage:	
Per capita unit cost .....	\$4.44
10. Town Planning Control:	
Per capita unit cost .....	\$7.13
11. Library Services:	
Per capita unit cost .....	\$10.32
12. Recreational Services:	
Per capita unit cost .....	\$26.88
13. Art and Cultural Amenities:	
Per capita unit cost .....	\$4.72
14. Maintenance of Sealed Urban Roads:	
(a) Cost per length (km) of sealed roads in the urban/built-up areas for which the council is responsible .....	\$2343.76
(b) Sealed urban length (km) per properties .....	0.0124
15. Maintenance of Sealed Rural Roads:	
(a) Cost per length (km) of sealed roads in the rural/non-built-up areas for which the council is responsible .....	\$834.56
(b) Sealed rural length (km) per properties .....	0.0529
16. Maintenance of Unsealed Urban Roads:	
(a) Cost per length (km) of unsealed roads in the urban/built-up areas for which the council is responsible .....	\$1012.07
(b) Unsealed urban length (km) per properties .....	0.0015
17. Maintenance of Unsealed Rural Roads:	
(a) Cost per length (km) of unsealed roads in the rural/non-built-up areas for which the council is responsible .....	\$367.86
(b) Unsealed rural length (km) per properties .....	0.1638
18. Maintenance of Bridges and Culverts:	
(a) Cost per length (metre) of bridges and culverts for which the council is responsible .....	\$8.92
(b) Bridge and culvert length (metre) per road length (km) for which the council is responsible .....	3.3250
19. Car Parking:	
Per capita unit cost .....	\$1.14
20. Street Lighting:	
Cost per length (km) of roads in the urban/built-up areas for which the council is responsible .....	\$904.07
21. Noxious Plants and Pests Control:	

TABLE 1  
ESTIMATED RESIDENT POPULATION AND DENSITY OF LG

Council	Estimated as at 30/6/80	Population as at 30/6/85	Average Annual Rate of Change %
Albury (C)	36,700	39,800	1.69
Armidale (C)	19,350	19,750	0.41
Ashfield (M)	42,900	41,250	(-)0.77
Auburn (M)	47,600	46,800	(-)0.34
Ballina (S)	17,950	23,700	6.41
Balranald (S)	2,950	2,950	—
Bankstown (C)	158,200	153,000	(-)0.66
Barraba (S)	3,150	2,550	(-)3.81
Bathurst (C)	22,600	25,700	2.74
Baulkham Hills (S)	93,750	102,500	1.87
Bega Valley (S)	19,450	22,450	3.08
Bellingen (S)	8,700	10,250	3.56
Berrigan (S)	7,600	7,800	0.53
Bingara (S)	2,300	2,250	(-)0.43
Blacktown (C)	183,050	195,500	1.36
Bland (S)	8,150	8,000	(-)0.37
Blayney (S)	6,350	6,150	(-)0.63
Blue Mountains (C)	54,950	64,000	3.29
Bogan (S)	3,750	3,800	0.27
Bombala (S)	3,350	3,250	(-)0.60
Boorowa (S)	2,850	2,700	(-)1.05
Botany (M)	36,550	35,000	(-)0.85
Bourke (S)	4,500	4,250	(-)1.11
Brewarrina (S)	2,650	2,450	(-)1.51
Broken Hill (C)	27,850	26,950	(-)0.65
Burwood (M)	29,350	28,850	(-)0.34
Byron (S)	13,650	19,100	7.99
Cabonne (S)	12,050	11,500	(-)0.91
Camden (M)	17,000	19,500	2.94
Campbelltown (C)	87,300	118,500	7.15
Canterbury (M)	132,350	127,700	(-)0.70
Carrathool (S)	3,500	3,500	—
Casino (M)	10,350	10,600	0.48
Central Darling (S)	3,150	3,200	0.32
Cessnock (C)	39,450	42,700	1.65
Cobar (S)	4,950	5,900	3.84
Coffs Harbour (S)	30,850	43,000	7.88



*Business*  
19.6.90 - 4 -

8. Education Officer (Copy attached)

**RESOLVED** that the report be received and -

- 1) That the Personnel Services Officer continue to monitor the situation and should Council's financial position improve after 30th September, 1990 then a further report be submitted.
- 2) If the financial position prevents the employment of an Education Officer in 1990, then provision be made in the draft 1991 Estimates. (S/S9-2)

9. Financial Warrant No. 90/5 (Copy attached) and Form 2 (Tabled)

**RESOLVED** that the report be received and

- 1) The action in prepaying accounts totalling \$8,679,387.32 be endorsed.
- 2) Accounts totalling \$392,494.61 be passed for payment.
- 3) Form 2 be received and noted. (S/A2-6)

EXECUTIVE MANAGER-ENGINEERING SERVICES:

10. Policy 04.04.01 - Garbage Service (Copy attached)

**RESOLVED** that the report be received and Council amend Policy 04.04.01 to read -

- 1) Where garbage cannot be placed at the kerbside by the householder due to illness/incapacity, it shall be collected from the rear of the house upon approval of a request in writing and shall be reviewed annually.
- 2) Excess garbage will not be collected unless placed in a proper Council garbage bag, or more than one garbage service is paid for. (S/A4-4, S/G1-1)

11. Multiple Occupancy - Policy Guidelines on Road Conditions - Review of Policy 03.01.16 (Copy attached)

**RESOLVED** that the report be received and

- 1) Policy Guidelines Nos. 1 and 4 remain the same.
- 2) Policy Guideline No. 2 be amended to read:-  
"A Section 94 Contribution, calculated for the total development, payable before the issue of the first building permit within the development, be imposed as a condition of Development Consent and be related to the provision of all relevant Council services including the access road and other access roads in the vicinity, open space, sporting and cultural facilities, bushfire equipment, garbage disposal areas, etc... which can be established as being nexus to the site. This contribution may apply to stage development and will be calculated as a portion of the total contribution on a merit basis. This stage contribution shall be payable prior to the release of the first building permit of that stage and each stage shall consist of a minimum of six dwellings."
- 3) Policy Guideline No. 3 be amended to read:-  
"Where a Multiple Occupancy development is to be undertaken in stages each stage shall consist of a minimum of six dwelling houses and the Section 94 contributions required for each dwelling of that stage be paid prior to the issue of the first building permit for that stage." (S/A4-4, S/P2)

12. Attendance at Conferences - Saleyards Administration (Copy attached)

**RESOLVED** that the report be received and a new Policy 07.03.03 be adopted, reading:-

"Two members of the Saleyards Advisory Panel be authorised to attend Annual Conferences and other Saleyards related meetings or venues as deemed necessary and such attendance be at Council's expense."

(S/A4-4, P/6220-201)



# Property Catalogue

## THE GUMS



### Quality Built Townhouses

Their excellent location & maintenance free finish make these homes a secure investment. Priced from \$92,500 all units have 3 br & lock-up garages, walk to transport, shops & very handy to the university. Ring Iain Wilson for further details.

### Land

- Goonellabah 719.9m2—\$39,950. Home site already levelled, plans available.
- Goonellabah 927.4m2—\$39,950. Fantastic views. High side of the road.
- Sneak Preview.** Soon to be released small acreage blocks overlooking Ballina. Ring now to register interest.

### Development Opportunities Townhouse Site

Subdividable land very close to University. Potential also for townhouse development. 2.5 ha (5 acres) Possibly 50 townhouses (STCA)

### Casino Subdivision

Capture the 1st home buyers market 40 acres subdividable to 130 lots (STCA). Excellent location & much in demand.

### East Lismore

28.94 ha (72 acres) plus 3 br home, zoned residential 2(b). The last large parcel in East Lismore. For details including site report contact Iain Wilson.

### Investments

Lismore CBD—strata commercial units returning 11.5% currently leased. Priced between \$110,000 & \$300,000

Contact Iain Wilson 221077 a/h 281883

110 Woodlark St, Lismore  
**Phone (066) 22 1077**  
Fax (066) 22 1370

**CAPMINSTER**

PROPERTY SERVICES



## AGENDA

Items for Agenda should be sent to PO Box 37, Lismore, or faxed to 22 1791, or delivered to the Echo at 165 Molesworth Street, by 10am on Tuesdays.

### Corndale village awards

A pre-Christmas get-together will be held at the Repentance Creek Hall on Saturday November 30 at 8pm. This light-hearted evening will include the inaugural Village Journal community awards, to acknowledge the deserving, entertaining and newsworthy people in the local area.

Live music and funny stories will be woven around each award. There will be a one-man play and other entertainments, as well as children's awards. All welcome. Cakes, tea and coffee will be available: BYO drinks. Entry \$5, under 12 free. Phone Alex Eunson 849 213 or Lydia, on 882 034.

### Historical meeting

The Richmond River Historical Society will hold its Christmas Meeting on Sunday December 1, at 2pm in its new premises on the upper floor of the old Council Chambers. New members and visitors most welcome.

### Organic open day

The Organic Herb growers of Australia invite all interested gardeners to their Open Day on Sunday December 1 at Andrew Tsikaleas' property near Eltham, from 9am to 12 noon. Andrew's herb farm is on the road from Eltham to Alstonville. Go just out of the village towards Alstonville, past Boat Harbour Road on the right, and take the dirt track on the left under the railway which leads to the property. For further details, call 29 1006 or 29 1057.

### World AIDS day

Having held several events in the district leading up to World AIDS Day, the local branch of the AIDS Council will celebrate the day itself, Sunday December 1, on a humorous note, letting loose the sexily-dressed Condom Boys and Girls who will assail visitors to the Lismore and Byron markets, offering condoms and AIDS information.

### Arts garden party

The newly-formed Nimbin Arts Council will be launched at a Garden Party on Saturday November 30 at 2.30pm at the Nimbin Rocks Gallery, just outside Nimbin on the Lismore road. Light entertainment and refreshments will be on offer. Contact Elizabeth on 891 347.

### Public access TV

LINK-TV, the local community television station for the north country, is holding its pre-broadcast public meeting on Monday December 2 at the LINK office, below the Conservatorium Music Centre in the TAFE building, corner of Keen and Magellan Streets. All welcome to attend; organisers say come along and help your TV station to succeed. Details from Marion Conrow or LINK volunteers on 22 0144.

### Nursing Informatics

North Coast Nursing Informatics, a recently formed interest group for nurses to support and learn from each other in the educational, clinical and administration use of computers, will meet at the Workers Club on Saturday November 30 from 9.30am till 3pm.

Richard Olley, a nurse who set up nursing information systems at a new hospital in Newcastle, will be the guest speaker. Computers are becoming an important part of nurses' work, allowing more time for patient care.

All nurses, working or not, with an interest in nursing and computers, are welcome to attend. Cost is \$15 plus lunch. Phone 28 1573 for further information.

### Neighborhood Watch

Lismore Police will hold a Neighborhood Watch meeting at the South Lismore RSL Club Hall on Tuesday December 3 at 7.30pm. A crime report will be given and all are welcome to attend. Call Cliff Barrett, at the Police Station on 21 9699, for more information.

### Christmas mums

The Lismore group of Nursing Mothers will have a Christmas gathering at 10am on Tuesday December 3 at Suellen's house; phone 63 4188. All mothers, expectant mothers, babes and children are welcome. Enquiries to Debbie on 28 2217.

## The Exciting New IBM PS/1 Family Computer is here!



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This includes packs for the beginner, for the professional, and a special pack for the children.

## Country Link Computers

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Authorized Dealer

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## Rural figures 'worst ever'

By reducing production costs for farmers, the coalition's proposed tax reform package will assist in restoring farm viability, according to the Shadow Minister for Primary Industries, Bruce Lloyd.



In a week when rural figures showed that farmers could expect to make an average \$30,000 loss this year, Mr Lloyd made a two-day visit to the north country, holding talks with representatives of several rural industries, including macadamia producers, banana growers, foresters, and the Norco Dairy Co-operative.

Part of his agenda was to spread the word about the Goods and Services Tax (GST) and other tax reforms proposed by the Liberal and National parties. He acknowledged that the combined effects of the drought and the recession had

left rural people in a sorry state.

'Figures just released on rural industries are the worst ever,' said Mr Lloyd, pictured above. 'Incomes are being assessed in "minus" figures.

'Our package will help - but the earliest it could be introduced would be October 1, 1994 - first we have to get into government.

'In the shorter term, we are pressing for better recognition of the welfare gap that farming and other groups suffer, with grants instead of loans for household support. We are very strong on assisting families, and would increase family allowances and dependent spouse rebates'.

## Greening Australia grants

Among several north country community tree planting and revegetation projects to share in recent funding allocation from Greening Australia were Trinity College in Lismore, and the Nimbin/Goolmangar Landcare group.

More than a quarter of a million dollars was allocated to local Councils, Landcare groups and schools throughout the State by the NSW management committee of Greening Australia.

The Trinity project, aimed at riverbank stabilisation, and improving genetic diversity and wildlife habitat, is being carried out by students at the school.

Local Greening Australia spokesman, Marcus Jackson said the students were doing some propagation themselves, and buying trees from local nurseries to plant out the riverbank adjacent to their sports field.

The Nimbin/Goolmangar group have already received funding for nurseries in which members have grown seedlings for farms, in an attempt to combat land degradation and erosion. The recently announced extra funding will go towards nursery equipment and materials to help the group grow more trees for the project.

## Oakes Oval success

Following the resounding success of this week's India - NSW match, Lismore seems certain to stage more first class cricket in the future. Though the crowd for the first day was slightly disappointing, the other two days were well attended.

Indian team manager Mr Rambir Singh said that Oakes Oval was the best ground that his team had played on during their tour of Australia.

'This is the best type of venue for these games. Our players have been well received and well treated by the people of Lismore.'

Alan Davidson, president of the NSW Cricket Association,

agreed. 'We have a policy of taking these games to the country and the success of the Lismore match ensures that this policy will continue.'

Mr Davidson praised the local administrators and ground staff. 'We have had great support from local cricket officials and from Mayor Harold Fredericks and Oakes Oval is a fantastic cricket ground, a real credit to the curator.'

The state of the ground drew unanimous approval and the wicket stood up well to the three days of cricket. NSW Captain Geoff Lawson and his star fast bowler Mike Whitney also added their praise.

## LINK gears up

A 'ten-day Christmas present of television programs' is to be offered by the first local community television station, LINK TV, in December.

The first on-air broadcast day will be Monday December 16, and transmissions will continue for 24 hours a day, until midnight on Christmas Day.

Fund-raisers, and a person to co-ordinate their efforts, are needed, but LINK TV's latest news release avows it will go to air next month regardless of the state of its coffers.

## Rough roads ahead

In view of the severe shortage of funds, the 273 kilometres of sealed roads with a traffic count of less than 350 vehicles a day will only receive minimal maintenance. In addition, the grading program for gravel roads will have to be reduced, Mr Besh said.

Town Clerk Paul Muldoon pointed out that it is possible for a motorist to sue the Council for damages caused by a poorly-maintained road.

Council received the reports but no vote was taken at this week's meeting.

## Greens at the gates

The Iron Gates littoral rainforest, wetlands, aboriginal camp sites, a major koala habitat and the Evans Head estuarine fish spawning grounds are about to be developed into a new town, three times the size of Evans Head, the Lismore Greens said this week.

In a series of legal moves, TREES (The Richmond-Evans Environment Society) and the Greens claim to be 'just staving them off' as developers carry out work which the Greens say is outside the law.

The Greens' legal action concerns a separate development, adjacent to the proposed subdivision, which involves the excavation of the Evans River foreshore for fill.

'This development has led to bulldozing into the river bed at low tide, and the filling of Wetland 146 for road works to truck the fill to the proposed subdivision,' a Greens spokesman said this week.

'We urge people to visit Iron Gates, Evans Head and the Bundjalung National Park for themselves, before it is too late, as its fate is in all our hands'.

*- Tells the stories of almost 100 of Australia's most prominent beef producing properties.*

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## UNE-NR popular

More than 5000 first preferences have been counted for the 1680 places available at the UNE-NR next year. There are more than 16,000 total preferences for next year. That includes 760 first preferences for 100 places in Bachelor of Business (Tourism), and 362 for 70 places in Bachelor of Human Movement Sciences. Many other courses, including teaching, communication and arts have received at least three times their quota in first preferences.

## Dairy planners

A north coast dairy industry liaison committee has just been born, with the intention of combining all concerned in the one body for swift problem solving.

The Regional Director of Agriculture, Richard Stevens, said this was a great way for government and industry workers to work together cooperatively and that the committee would focus strongly on planning.

## Crime rate down?

Lismore house break-ins fell by almost 11 percent in the year ending June 30 1990, according to annual crime figures released this week by the NSW Police Department. Lismore based MLC Dr Brian Pezzutti praised the efforts of Lismore police in their success against burglars. The figures showed a 25 per cent increase in drug arrests. Police Association president Tony Day did not see cause for optimism in the figures; he says that police are drastically understaffed.

# NEWS BRIEFS

## Child services funding

An extra \$1.9 million has been allocated to children's services so that pre-school vacation care, occasional care and mobile services won't need to close. The Member for Lismore Bill Rixon said he had advised NSW Community Services Minister John Hannaford that some services wouldn't be able to stay within funding allocations. The Department budget required subsidies stay at last year's rates. Extra money will be handed out early next year, and funding arrangements may later be changed.

## Me No Fry

A message from the NSW Health Department: the region's skin cancer rate is one of the highest in Australia. The department will re-launch its Me No Fry campaign on November 30. Wear a hat, T-shirt and blockout. Predictions say ALL Australians approaching adulthood will grow a skin cancer some time in their lives!

## School reunion

Lismore Public School will celebrate 50 years of education by gathering together 6500 of its former students. They are scattered around the world but jubilee committee spokesman Brian Rogers said Lismore Public had never been a school where people gave up easily. Anyone who can help with getting the list of names and addresses together should contact the school.

## Rough roads ahead

In a report presented to the Special Meeting of Lismore City Council on Tuesday night, the City Engineer Bill Morehouse informed Council that all roads in our area now 'belong' to Council.

For the past 20 years, it had been accepted that classified roads such as the Bruxner Highway and the Bangalow Road were the State Government's responsibility.

Mr Morehouse reported that at a meeting on November 14 the Roads and Traffic Authority made it clear that it is not able to continue full funding of those roads, and has no commitment to do so. Consequently Council will need to find the \$1.4 million shortfall from its own sources.

Furthermore, unless the Minister for Local Government allows a special rate increase, Council will have to abandon an increasing percentage of its own local roads, particularly rural ones, Mr Morehouse said.

In an accompanying report, Works Engineer Eugene Besh detailed the costs per annum of maintaining bitumen roads. Patching costs \$1600 a kilometre, and resealing, \$1500 a kilometre, he said.

For Lismore's 407 kilometres of sealed roads, this would require expenditure of \$1.26 million a year, which is \$164,000 a year more than available funds. However, a further \$2.1 million a year is required for reconstruction based on a life cycle of 25 years for sealed roads.

continued on page 3



Lismore delegates to the AIDEX event in Canberra board the bus that will take them to the nation's capital: among the passengers on the bus will be The Echo's intrepid photographer, Jacklyn Wagner (pictured, right, above). At the time of her departure we were not quite sure whether she was going to be filing pictures from the exhibition site or from a Canberra prison cell. Photo: Joshua Martin.

## THIS WEEK'S SPECIAL QUEEN CHICAGO WATERBED

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## Between the lines

Out-of-season football reporter Graham Askey looks askew at last week's Council meeting.

Play was delayed while the goal posts, which had been knocked sideways the previous week, were re-positioned (LDSA committee membership).

From the kick-off, Sweettalk gathered, and immediately found TAFE way out of position (siting of new college at Wollongbar). Unluckily he was ruled to be in front of the kicker.

Undeterred, he was into the gap created whilst Overton was being attended to for a suspected broken contract, but was shut out by a couple of late developers (Simeoni land).

Carphone then displayed her rapid adaption to First Grade with a couple of crowd-pleasers. First, when Ms Newmarket seemed to be in open space, she cleverly pushed over the policy lines (DA for a weekend market). Then she smartly ankle-tapped a pair of streakers who were invading the pitch (DA for an adult bookshop). Calls were made for an LEPTronic screening device to exclude similar interlopers, but the ground manager suggested at least they could be closeted in the machinery shed.

Overlooked in the hulla-balloo was a tough judge's report: Free-speech had been trampled in back play.

A decision not to hike admission prices for the outer (no farmland rate rise) will please those patrons, but stalling of plans to extend paved footpaths all around the ground will not (upkeep of sealed roads). It seems the parent body has been stingy with grants this year.

The surprise plan to give 12 lucky ticket-holders the chance to be in-goal umpires (policy juries) has intrigued many fans. Not so some of the players, who feel that too many officials might cramp their game.

Overall, an improved performance. No tries were scored, but the team combined well in defence.





## Rail plans

All reports that the rail link between Casino and Murwillumbah could close have been swiftly scotched at their point of origin.

Northern Rivers Regional Organisation of Councils (NOROC) secretary Chris Clare told *The Echo* that this had only ever been a 'lateral suggestion' — one of many.

by Matthew Eaton

'Having been instrumental in ensuring (rail) lines are maintained, NOROC is not about to agree to that proposal,' Mr Clare said.

NOROC has spent the past 18 months working in conjunction with various arms of NSW and Queensland Government transport departments, with the Commonwealth Bureau of Transport and Economy and the transport industry to develop a future regional strategy.

A report will be finished by mid-December. It will provide governments with several options, leaving no excuse for poor planning, Mr Clare said.

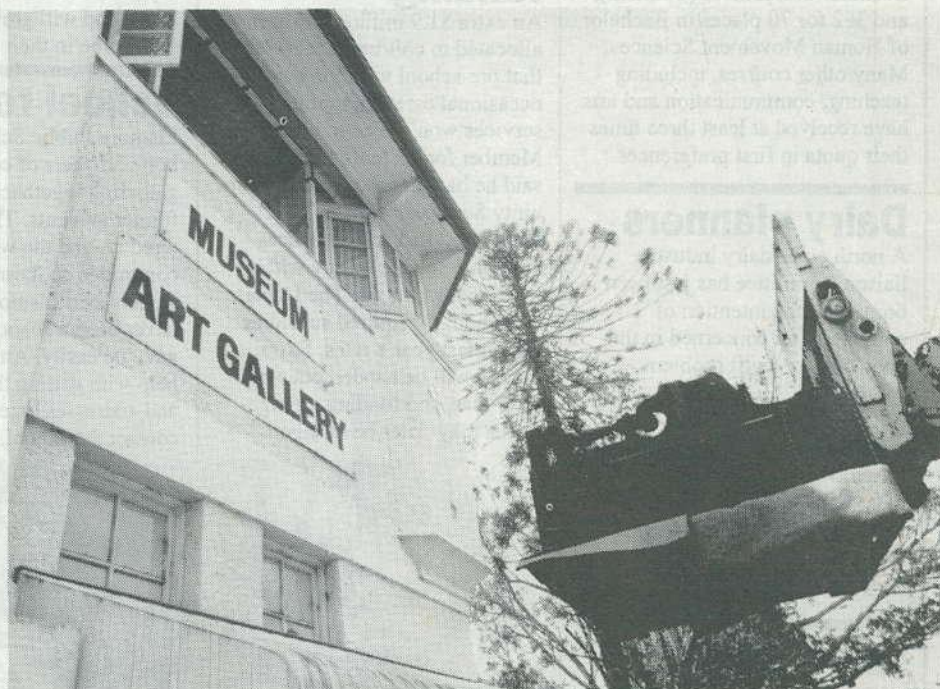
Options discussed include proposals to extend rail links from Murwillumbah to Robina on the Gold Coast and all forms of road and air transport (the Richmond region needs a major airport, said Mr Clare).

The report will be handed to NSW Transport Minister Bruce Baird soon after it is completed, and publicly released next year.

'The really positive aspect here has been that for the first time, not only have we been able to pull together all of a wide range of arguments for planning, but we who live and work in this area have been able to have and firm and effective input.'

Mr Clare urged all arms of government to 'be responsible' in planning, to avoid costly blunders like the closing of the Gold Coast-Brisbane rail link decades ago. The Queensland Government has been forced to examine rebuilding the line, at massive cost.

• *Cityrail will be working on the lines between Wyong and Gosford from December 27 to January 2. This is the quietest time for that section (part of Sydney's commuter train network). Country passengers will be delayed because a bus service will be running from Maitland to Sydney over that period - the train lines will be closed. That's expected to add 30-60 minutes to the journey.*



The Richmond River Historical Society will open the doors of its permanent Museum home, after a 40-year wait, on Monday December 2. Heavy equipment was used to remove the last of the Society's treasures, from their old home to the Lismore Municipal Building on Saturday. In Jacklyn Wagner's photograph, above, one of the museum's unique collection of musical instruments is on its way to the elegant cedar-lined former Council meeting room. This room will be dedicated to changing displays and special concerts. Longtime Society member Warren Whitney said this week he was impressed by the acoustics of the room, and is planning a musical evening with local musicians and some of the historic instruments.

The Historical Society is totally supported by volunteer effort. Anyone offering financial or active help is welcome. The Museum will be open 10am-4pm, Monday to Friday; phone 21 9993.

## Telecom jobs may go

Up to 20 Telecom workers in the Lismore-Grafton region could lose their jobs under massive cost-cutting plans.

Public Sector Union acting State secretary Vicki Telfer revealed that 'immense pressure' had been placed on many members around NSW not to support industrial action which had come about as a result of the proposed cutbacks.

About 200 jobs have the axe looming over them in country NSW.

PSU members in the Richmond region have been acting in part to support the action.

Ms Telfer said she had been informed that senior Telecom staff in some regions were carrying out 'the most extraordinary amount of harassment of our members on the job',

telling them they would lose their jobs if they supported the PSU.

She said Telecom had refused to negotiate but that the industrial action had forced them to become more flexible.

'If they acknowledge the issues are negotiable we will meet with members and recommend lifting the industrial action.'

'This is only the first round. Telecom wants to shed another couple of thousand jobs in country NSW. The Maitland office is closing and many more offices could be closing.'

'If Telecom can demonstrate to us staff are not needed we would say that position could be cut as long as the staffer was redeployed. But these are not surplus positions — it's just cost cutting.'

— Matthew Eaton

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