

SEEKING NEW TECHNIQUES TO FUND
REGIONAL TRAFFIC IMPROVEMENTS IN METROPOLITAN AREAS

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ABSTRACT: As Australian planning authorities are faced with larger and larger development applications, the problems of traffic impact assessment and accommodation are intensified. With the methodologies we currently have, ad hoc decisions are made with little reference to traffic assessments which are considered unreliable and subject to easy solutions. The large, multi-purpose developments now proposed, emphasise the need to assess the magnitude of change and to seek recovery of costs for required traffic improvements.

Regional traffic improvements are particularly at issue because, while the State is traditionally responsible for their funding, local councils are increasingly being asked to approve developments with regional implications. This paper looks at a variety of funding options that were considered during preparation of a traffic improvement programme for Chatswood, New South Wales. The particular representations made on the massive Chatswood Connection proposal are reviewed, as an attempt to seek developer co-operation to fund regional traffic facilities.

The paper reviews funding options from overseas in light of the institutional structure of New South Wales. It concludes that growth centres should prepare five-year traffic management and improvement programmes that are geared to floorspace thresholds, so sudden accelerations in the development rate will be matched by the rate of road improvements. As well, all developers should contribute towards the programme, not just those that cause saturation of the present system. We should continue to develop more sophisticated traffic impact assessment methods which can be used to make a strategic response to major developments, including the ability to re-allocate state funds if regional priorities change.

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INTRODUCTION

The Traffic Authority of New South Wales is charged with the responsibility for reviewing, devising, and formulating plans for traffic arrangements on public streets in the State. One part of this responsibility is embodied in the State Environmental Planning Policy on Traffic Generating Developments, which has the Authority review and make representations on all development applications identified as being traffic generating. This advice is then tendered to the consent authority deciding the application.

The planning legislation directs decision makers to consider "the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect of that traffic on the movement of traffic on that road system". While this is the context within which the Authority and its delegates give advice, there are several problems.

At the moment, the main problems associated with development control are how to assess the impacts or costs of development, and, if a project is going to be approved, how to offset those costs. Some specific issues before transport planners are:

- Much of the new floorspace proposed is contained within a few major developments, as Australia joins the world trend to massive, multi-use proposals. However, there is very little guidance from elsewhere in the world about how to measure the traffic generation and parking requirements of these mixed, high intensity land uses.
- Even with the advent of vast projects such as Darling Harbour, World Square, and the Chatswood Connection, the smaller, "conventional" redevelopments still occur. The penalties of not recognising and seeking compensation for the traffic generation impacts of these developments while the road systems had sufficient capacity are just now being experienced. Either the full cost of alleviating a congested traffic system is falling to the "last" developer entering an area of growth, or it is funded by tax collections, or it remains unresolved while the traffic problems continue to grow.
- While the local councils are usually the consent authorities, the development proposals by their size and propensity to locate on major roads, frequently raise sub-regional traffic issues not traditionally dealt with by councils. Very little support currently exists for councils to help them measure and seek remedies to regional traffic problems, and
- Once traffic improvement measures are identified, they are still in need of funds to implement them. Local sources are usually too limited for large scale, regional traffic proposals. In the

short term, state and federal sources are too inflexible to respond to proposals within the statutory approval period. New funding techniques must be devised, and if necessary enabled by legislation. Then they can be tried and evaluated.

MEGA-DEVELOPMENTS - THE FUTURE TREND?

We have not yet coined a good identification phrase for these developments; but most of the planning community would recognise large amounts of floorspace, several land uses, staged development, and attachment to major transport facilities such as freeway interchanges, suburban railway stations, and airports, as being characteristics of "mega-developments".

Sydney is seeing the first examples of these enormous, multi-purpose developments in the City and the suburbs. Within a single development application, consent authorities are asked to approve the equivalent of a town centre. Such developments have significant multiplier effects in the community. Potential economic benefits include investment and employment growth, as well as providing an opportunity for comprehensive planning. Yet their scale is such that an inadequate assessment of the servicing and impact costs can damage a regional economy. It is essential to measure, and plan to accommodate, the traffic impacts of these developments. This usually requires funding in excess of levels that consent authorities can seek as conditions of consent. Often funding on the necessary scale is only feasible by the State.

Some recent examples of these mega-developments in the Sydney area are shown in the following table.

Development	Proposed Floorspace in sq. metres	Proposed On-site Car Parking
Darling Harbour (Approximate and subject to constant revision)	4-500,000	8,000
World Square (Brickfield Hill)	245,000	2,000/2,500
Chatswood Connection	163,000	2,100

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The first example is a joint government/private sector project, but the latter two are solely private developments. Even though they are staged, the impacts of such massive developments come in great jolts to the existing transport network. There is no incremental growth to allow tinkering or as-necessary adjustments. Further, failure to get the capacities right in advance of the grand opening can lead to gridlock of the regional transport network.

It is instructive to examine the factors that appear to be behind this trend to bigger, complex developments. These include:

- the high price of land leading to a development industry predisposed towards intensification of use to recoup investment;
- governments rationalising their land holdings, which promotes redevelopment or air rights development over major sites such as railway stations, freeways, bus depots, and waterside properties.
- developers gain by getting into a market before their competitors. Large development applications, particularly if phased to reduce risks, allow them to access the market more quickly once demand is there, and essentially to freeze out competition because of the commitment to the balance of the development.

Mega-development applications are not abating, and this type of development may well gain momentum once the economic success of the pioneering developments is established.

TRAFFIC IMPACT ASSESSMENT - PRESENT PROCEDURES

The ability to make traffic impact assessments is crucial for any funding technique that is based on evaluations of a project's in the design phase. Without it, allocation of funding responsibilities to the developer cannot be done equitably, nor probably to the satisfaction of the Court in the event of an appeal.

The New South Wales regional road network is generally composed of roads classified in the State Road Act. These include main and secondary roads. Main roads are the funding responsibility of the Department of Main Roads, while funding for secondary roads is usually shared between the Department of Main Roads and the Local Government Authority. Over the years, however, the funding and scheduling of regional roadworks have been subject to many pressures that have resulted in some compromises which confused such funding distinctions.

What is clear, however, is that:

- local councils acting as consent authorities are expected to take into account a proposal's traffic impact on regional, as well as local, roads;

local councils, as a condition of consent can seek s.94 contributions for regional roadworks, although the same tests of "appropriateness" apply as for other s.94 contributions; and

while many councils would like to accelerate the schedules of regional road improvements when they approve a major proposal, they seldom consider contributions for arterial roads as such roads "are not our responsibility".

In New South Wales, State Environmental Planning Policy 11, requires consent authorities to forward development applications to the Traffic Authority for advice. Three levels of committees have been formed, viz: Council Advisory Committees, Regional Advisory Committees, and the State Advisory Committee; which have delegated authority to make representations to the consent authority on traffic matters for which the Traffic Authority has responsibility. These include traffic efficiency and safety, parking provision and internal design requirements. The advice given by the advisory committees is usually reactive, based upon the Traffic Authority's publication entitled Policies, Guidelines and Procedures for Traffic Generating Developments. The traffic assessment itself is left to the individual developer and/or consultant, with the Authority's Guidelines, together with any codes or plans of council, to direct the assessment.

The research that went into the Guidelines was limited by budget and data comparability, and its direct usefulness is in the assessment of standard developments on freestanding sites. The Guidelines contain limited information for assessing redevelopments, mixed use developments, or for projecting impacts. The last is due to the fact that the Guidelines comprise a summary of empirical data obtained at a narrow point in time, with little behavioural support.

The assessment of traffic impact is hence mainly an act of faith in New South Wales, with little supporting planning orthodoxy. Certainly no guideline, simulation model, or behavioural technique has demonstrated the capacity to deliver the strategic assessments necessary to form an integral part of traffic facility planning. However, the Authority is about to undertake a study to develop the best assessment methodology possible for Central Sydney. There will undoubtedly be some application for this methodology throughout the hierarchy of centres in the State.

FUNDING REGIONAL ROADWORKS

In recent months, New South Wales has seen the release of the Department of Main Road's Roads 2000 regional programmes. The Minister announced their release with the explanation that all the projects listed for each region were financially and technically feasible. While the Department of Main Roads might not accomplish everything in the concept plan, it was stated that no additional works (i.e. outside the programme) were under consideration before the year 2000.

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The message for councils, where development and redevelopment are occurring which may push requirements beyond what has been published, is thus to seek funding sources for regional traffic improvements from other than the state and federal governments.

For many years, councils have already done this by direct negotiation with the developer. The most common example is a right-of-way acquisition for new road construction. This is of direct value to the developer. It forms part of the development site, there is little argument about its validity. Depending on the statutes or practices in the municipality, the negotiated concessions by developers are either conditions of consent or "offers" from the developer that are accepted by Council as part of the development proposal. However, the usefulness of these concessions is limited if they are collected on an ad hoc basis. If Council has no transport plan to work towards, then these improvements may even be made redundant in the longer term.

Land acquisition can be crucial to the schedule of regional roadworks. The availability of land to carry out works is a primary inducement to undertake them. Where there is only partial acquisition, or where the State is heavily committed to a future programme that does not include the work in question, Council is not in the position of arranging for arterial roadworks to be done in tandem with development. Right-of-way is not sufficient to carry out works. Also forward budgeting, which has many planning advantages, does reduce the State's flexibility in responding to new development.

Councils will thus need to have a local plan for regional roadworks; one that relates floorspace to trip generation to road requirements. A land acquisition programme should be developed and adopted to facilitate implementation of the plan. Councils will need to be familiar with a range of negotiation practices, so that they are prepared with techniques that are compatible with the council's style and ability, as well as being appropriate to the development in question. Councils are usually the best placed to address local residents' needs. While these form only part of the regional considerations, if the regional road system is not functioning, local residents will suffer along with through traffic as congestion reduces average speeds and local roads are filled with cars looking for ways to avoid congestion. State authorities concerned with strategic planning, road construction, and traffic management must be prepared to support councils in their negotiations and to assist in the preparation of systematic programmes for them to follow when negotiating on conditions of consent.

OVERSEAS EXPERIENCE

Australia is not alone in facing the problems outlined above. The market forces encouraging mega-developments and making governments cautious about escalating transport costs are present in all developed nations. What is unique here, however, is the institutional framework within which local solutions must be found.

Under the description "Site Impact Evaluation Techniques" (Orski, 1985) a variety of methods are being tried to assess the impacts of large developments as a first step. Once this can be done, improved methods of funding the programmes can be developed. So far, initiatives taken in North America can be classified into three areas:

1. Co-operative Financing.

The developers and future users of new developments are asked to share in the costs of providing necessary traffic measures. This would include private provision, such as the Harbourlink monorail, and private, toll-cost recovery programmes such as the Harbour Tunnel. These are feasible within the present planning process, but are innovative and dependent on developer initiative.

Also in this category are development fees. Section 94 of the EPA Act offers a mechanism for collecting funds for projects where a direct "nexus" exists between the development and the specific traffic improvements. While partial contributions, fees for area wide improvements, and on-going maintenance expenditure can all be feasibly sought within s.94, extensive documentation and plan adoption would be necessary before s.94 can be innovatively invoked. Other legislative procedures should be investigated as well.

2. Negotiated Approvals That Contain Increased Private Funding.

Using development control "carrots" such as floorspace bonuses and parking concessions, or "sticks" such as staged approvals and sequential planning procedures, consent authorities can negotiate ad hoc agreements with developers to provide funding for traffic improvements or to actually build traffic facilities. While some regional guidance is helpful, (i.e. overall transport system plans keyed to development thresholds) flexibility is essential to reach an optimal, individual decision. The State and local governments need to co-ordinate their roles. To date, Councils have been in a strong position to negotiate for the necessary traffic improvements because of local knowledge, also because poor traffic management detracts from a project's marketability. Lately, however, major development applications have been too complex for councils to address all the traffic improvements necessary, and have required resolution of conflicts based upon State development policies. A greater role for the State Department of Environment and Planning is thus likely to flow from improved State traffic advice on regional road impacts.

3. Developer Assistance in Traffic Mitigation.

In highly constrained centres such as the CBD, North Sydney, Chatswood and Bondi Junction, the roads are "mature" and cannot readily have their capacities increased. In these circumstances,

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traffic mitigation techniques can be used to reduce the attraction of vehicle trips, allowing the roads to be used more efficiently. These include car pooling, transit incentives, paid parking and flexitime amongst others. The scale of development in recent multi-purpose proposals makes such programmes more effective and, therefore, attractive. Overall costs can be reduced and the impacts are on-going. This is an area where State guidelines and direct assistance could be most useful. However, the structure of the development industry in Sydney, where firms "package" developments but seldom are involved beyond the construction phase, is an obstacle.

These initiatives are not panaceas. Developers may well refuse to co-operate because they cannot see the direct benefits, or because the consent authority has not prepared a sufficiently thorough case for identifying and accommodating the traffic impacts. A menu encompassing all the above initiatives is likely to maximise available funding and best foster co-operation among governmental authorities.

CHATSWOOD CASE STUDY

Chatswood is the predominant retail centre of Sydney's North Shore, and it is gaining a greater role as an office centre as development opportunities are reduced in North Sydney. This growth and development has been encouraged by the State Government in its policy and statutory statement, Sydney Regional Environmental Plan No. 5 - Chatswood Town Centre and the present draft Centre's Policy. As part of the PEP planning process the Traffic Authority prepared a three volume transport study. It contained several proposals for funding in its recommended traffic plan. Neither the recommended funding strategy nor the traffic plan were incorporated into the regional planning instrument due to a lack of agreement in the Steering Committee. Yet the problems addressed in the 1981 transport study still exist, viz:

- The intensity of development endorsed in the Regional Plan has, and will, require increased public expenditure on road, traffic and pedestrian improvements.
- Section 94 (EPA Act) enables local government to collect levies on new development to maintain existing traffic conditions, but contributions towards solving existing problems (ie. applied retrospectively) may be subject to legal challenge.
- At present, the funding for much needed regional road improvements to accommodate the growth of the centre has not been allocated within the Department of Main Road's (DMR) programme for the next five years.

Chatswood currently contains 144,100 sq.m. of commercial/office

floorspace. It has committed to (with some small proposals not yet approved) an additional 320,000 sq.m. of office floorspace. It has 166,500 sq.m. of retail floorspace, and will soon have an additional 36,900 sq.m. In total retail and office floorspace, Chatswood will thus soon have 667,500 sq.m. of employment and revenue generating floorspace. Yet this is occurring in a town centre where even the 1981 traffic requirements are still to be met. Consultants estimate that this growth will generate a 75% increase in vehicular traffic exiting across the C.B.D. cordon in the evening peak, and a 28% increase crossing the cordon of arterial roads around the centre.

Ultimately, a five year plan of traffic improvements will be formulated, together with a work programme and budget. It is hoped that an on-going funding formula for offsetting the costs of these traffic impacts will be adopted. Some options are examined below.

Option 1: Minimal Government Intervention

As previously stated, Chatswood Town Centre is subject to the Provisions of REP 5. Due to the absence of a traffic plan in support of the policy, however, regional requirements were not addressed. As currently specified in REP 5, Clause 23 entitles the consent authority to seek payment toward provision or improvement of amenities or services as listed on Schedule 4 of the Plan. Traffic matters on Schedule 4 include:

- . construction and improvement of roads;
- . provision of parking facilities; and
- . traffic management facilities.

The assessment is made by the consent authority on the traffic aspects of an application in order to derive appropriate conditions of consent. This is usually based on the "increased demand" attributable to the development. The proponent of development is able to appeal against the condition of consent.

The absence of an overall traffic management plan which would co-ordinate rational decisions on these matters, means that a traffic study is required for each sizable proposal paid for by the proponent. Further, it can be contested by a second traffic study advocating the proposal commissioned by the proponent. This raises development costs, can lead to arbitrary decisions and may do nothing to alleviate overall traffic management problems.

There is also no evidence to support the proposition that allowing congestion to mount will force parking and congestion to "seek its natural level". Rather, evidence in Chatswood has indicated that congestion and limited parking supply just spread parking and traffic problems over a wider area, often into residential streets. Furthermore, under present guidelines, the availability of off-street parking facilities in most Chatswood residential areas means they cannot

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qualify for residential parking schemes.

In the context of the failure of existing funding arrangements to adequately provide for the needs of Chatswood, the "do nothing" option does not truly exist for the State in this case.

To date the deterioration in traffic conditions around Chatswood has been offset by gradual shifts to public transport, charging for parking, and a reduction in residential amenity; but once recently approved developments are operating, a rapid deterioration is expected. The traffic implications of doing nothing or delaying State response to this increased regional traffic demand, work against the other State goals of traffic efficiency on classified roads, achievement of the Centre's Policy, and the promotion of urban consolidation and public transport.

Option 2: Change in State Funding Priorities

As well as an absence of a local traffic management plan, the regional roadworks program is largely undefined. The main roads and intersections often cannot cope with existing peak hour traffic in a satisfactory manner. Projects such as widening the Pacific Highway to 6 through-lanes are scheduled for 1995-2000, while the traffic forecasts that were used as design standards on these improvements are already frequently exceeded.

Failure of the regional roadworks to perform their main function of moving traffic efficiently usually implies the failure of local roads. Due to traffic pressure, local roads may not achieve their main objective of maintaining residential amenity.

The State now has the option of reassessing its allocation of funds given the faster than predicted rate of growth for Chatswood since 1981. Otherwise, in addition to inefficient congestion costs over the regional system, the State will face the prospect of expending funds on individual intersection treatments only to replace them with system improvements 2-5 years later. It would certainly assist the orderly planning process of Chatswood if the State could commit to a 5 year program of works with sufficient funds and resources to construct within that period.

The Council or whoever is the consent authority, is under no compulsion to accept advice on the regional traffic requirements of a development. There is a void in the planning framework that allows the real regional priorities for traffic to be changed by Council action, such as the approval of the Chatswood Connection, without a commensurate approval for adjustment in the State priorities of funding in that vicinity. There is a significant level of State investment in Chatswood. It should not be allowed to lose efficiency under congestion, when relatively minor adjustments may keep the traffic system operating satisfactorily. Yet there is no balancing regional power to the Council's power of development consent to implement, that is fund and build, a strategic regional traffic

programme in response to private development initiatives. Now it is only possible to take negative action at the highest levels to prevent or limit such developments, and this may well be acting against the broader interests of the State.

A co-ordinating body at the State level with the powers to impose regional traffic plans, fund them, and adjust them in response to private initiatives in a joint venture format, may be one solution. It is certainly preferable to postponing the regional traffic cost of development until a system breakdown occurs.

Option 3: Strengthened S.94 Procedures

As s.94 contribution procedures are in place and familiar to Council for assessment and collection, there is some scope that an improved and directed collection procedure could produce quick results on traffic management funding with low implementation costs. With the amendments to the EPA Act that took effect in 1986, s.94 contributions are now controlled in the following ways:

- . Councils need not specify what facilities can be assessed for contributions in the LEP's;
- . Council must be able link the development with an increased demand for a facility before applying a contribution;
- . Any contribution must be reasonable;
- . Councils may now recover costs for facilities provided in advance of the new development occurring;
- . Councils may demand contributions in cash or land, but may accept "provision of a material public benefit" instead;
- . Contributions must be used within a reasonable time, usually interpreted by the Court as 5 years; and
- . The Minister may issue binding directions on S.94 to control development costs. This has not happened yet, but is foreshadowed in respect to residential land subdivision.

The result of these amendments may have a benefit in regard to traffic and parking contributions in Chatswood because Council may be prepared to fund and speed up the provision of facilities knowing that future developments can be assessed for contributions. However, this is unlikely to pertain to regional traffic improvements.

To the disadvantage of Councils, their opinion on what increased demand for community facilities is attributable to a particular development is no longer justification for a contribution. Councils must be able to defend their assessments. The proponent can contest the demand projected and more conditions of approval may be appealed.

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The amount of money raised through s.94 is limited by what the market will bear and the rate of development. The main disadvantage of this approach is that it can still do little to alleviate the poor level of service now experienced in the traffic system of Chatswood. Even with retrospective contributions, the burden of proof is now on Council to establish that the particular development contribution is justified by increased demand. It will potentially be more difficult to seek contributions, however small, for regional traffic improvements. In fact, there is the possibility that increased reliance on s.94 contributions will exacerbate the traffic problems as any Council may be predisposed to favour large scale developments to reclaim public expenditure as quickly as possible.

Option 4: New Funding Mechanisms

While the short term can only be addressed within the existing legislation, the on-going difficulty of resolving the problems in Chatswood, and other State growth centres, indicates the necessity of seeking alternative funding strategies. The participants in any alternative will remain the property owners/developers, the Council, and State agencies.

Overseas, there are schemes that attempt to recoup the windfall profits to landowners in the vicinity of major transport improvements such as railway stations and freeway intersections. Obviously, Sydney has its own examples of such profits to landowners. Those in Bondi Junction and Edgecliff received direct benefit from the opening of the railway, while property owners near interchanges of the F4 in Western Sydney had a sudden boost in accessibility. However, they have mainly applied to very large scale changes to transport infrastructure, not gains from improved system management.

In relation to some possible courses of funding arrangements for regional town centres, such as Chatswood, a paper from the United States (Orski, 1985), reviewed a series of co-operative behaviour structures and legislatively imposed negotiations between developers/land owners and local Councils. In the review, he found a high level of commitment to joint development of transport facilities from private developers of large commercial centres where inadequate local roads or no public transport existed. However, it would be difficult to initiate such public oriented expenditure from the private sector in Chatswood where the public sector is deeply involved as a service provider and funder of traffic improvements. Yet there were some other approaches that could be explored:

1. Assessment of a levy on property owners within a "benefit zone" that is based on traffic generation rather than property values.

This would require an extension of the Authority's guidelines which presently use landuse and floorspace to evaluate the level of traffic generation forecast. The drawback is solely on the basis of administration. No one currently records traffic generation in a systematic way and no level of government collects levies on this basis.

2. Nomination of a fixed percentage of gross annual revenue from large scale developments to be collected for a discretionary traffic management fund.

New developments are now assessed at the DA stage for such funds, but often it is after the cumulative effect of several years, once the development is in place, that the real needs of a local traffic management plan are evident. Through on-going funding the continued improvement of traffic control is supported, while a link to gross revenue means the assessment of a development's share of contributions is related to its success. Many developers fight DA contributions on the basis that they adversely affect the economics of a project's completion. If the project meets its financial obligations for traffic and parking after it is already built and occupied, the developer should be more predisposed to its adoption. This would never be an areawide funding mechanism, but would only be applied to new development in excess of a certain floorspace. This would not be a way of redressing present problems either, but solely a source for a future management fund.

3. Increasing scope of negotiations allowable within s.94 contributions.

At present, the s.94 contribution is under review by the Minister for Planning and Environment in an effort to keep land cost at a minimum for housing. If any future directives were to limit the power of local councils to initiate creative negotiated solutions to particular local problems, then a great deal is lost to redeveloping local government areas. This is especially the case as the Orski paper cites research that such negotiated contributions do not necessarily result in higher costs to homeowners and tenants, but are more likely to be capitalised into the price of land and borne by landowners.

Negotiations between the private and public sector could apply to all the above examples, and some possible bases of negotiation tried elsewhere include:

- * including a provision for penalty payments if traffic generation exceeds an agreed forecast. The penalties would be earmarked for improved traffic management.
- * allowing developers to work off contributions through traffic mitigation measures such as ride-sharing, flexitime, assistance to public transport users, and organisation of peak hour bus services. Dealing with developers on these matters would only be worthwhile if the developer were also to be the long term manager of the project and able to make a satisfactory commitment that such projects would be followed through, which is not presently characteristic of the Sydney development industry.

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- * Organising joint Council/Developer Traffic Improvement Boards to lobby for local traffic objectives with state funding authorities. This would create a wider base of support for the objectives of the local traffic management plan, and add private expertise to that of Council's to achieve funding targets.

None of these options is mutually exclusive and in areas such as Chatswood the local and state consent authorities need to consider a menu of alternatives that address the existing problems, work towards satisfying future needs and allow some scope for the major proposals that have not been anticipated. Yet even in tandem, these options can not generate enough funds to solve the regional traffic problems of Chatswood. Only a major commitment of State funds can do that.

Chatswood Connection Example

While the adoption of a town centre traffic management plan and funding programme is still in the future, the Council in the interim had to decide on the development application for the Chatswood Connection, the largest single development ever proposed outside of an Australian Capital City.

The Council had to do this without a traffic or parking plan, and on an area that was not zoned in the Regional Plan (Special uses, Air Rights over State Rail land). It also had to decide in the context of having little experience negotiating large developments in Chatswood. This was because the Department of Environment and Planning had reserved the right of consent on all development over 20,000 sq.m. following enactment of the Regional Plan in 1981. This power was delegated to Willoughby Council in mid-1986 after assessment of the Chatswood Connection as well underway.

The Chatswood Connection proposal contains 163,050 sq.m. of floorspace with the following breakdown.

<u>Use</u>	<u>Floorspace in sq.m.</u>
3 office towers	127,560
International Hotel	18,350
Ice Skating Rink	3,170
Cinema Complex	5,420
Retail (mainly food)	3,900

The developer proposed underground carparking for 2,800 vehicles, 1,500 for tenant parking and 1,300 in a public parking station. A daily visitor/worker population of 10,000 was forecast.

The developer had extensive traffic data collected and made virtually unprecedented concessions on responsibility for traffic improvements. However, whether these measures were adequate had not been established particularly in regard to the Pacific Highway, a main road that is Sydney's regional link to the north.

On just the basis of the adequacy of the surrounding road system to function under the impact of this development, the Authority's recommendation would have been to refuse consent. Taking into account State Government development policies which were encouraging intensive development in Chatswood, especially on state-owned land near a railway station however, a more flexible recommendation was made.

The essential road improvements that had to be made to accommodate the traffic generated by the proposal were firstly identified. The total cost amounted to \$7.3 million. As the 1981 study was thought to have assessed the capacity of the roads to accommodate target levels of developments, a proportion was devised which reflected the share of parking attributable to the floorspace contribution of the Chatswood Connection. The resultant number was 1700 car parking spaces. In order to move from that base to the desired total of 2,800, the developer would thus have to contribute more per space. The contribution was based upon the "highly desirable" roadworks and their cost. A calculation was then proposed to the Council, where if the developer wished to provide all 2,800 car parking spaces, he would have to provide all "highly desirable" roadworks at an additional cost of \$6.4 million. It was the Authority's wish that a commitment to fund precede the development consent, however, the source of funds need not be solely the developer. Council could decide to fund some improvements, as could the State Rail Authority as site owner and potential beneficiary.

The Authority's advice in this case was binding on any consent given by Council because a parking station was involved. The Developer protested vehemently that the contributions were ridiculously high, unprecedented, and economically unviable. With Council's permission, the development application was amended to provide all 2,800 parking spaces as tenant parking. Council then approved the development application against the advice of the Authority.

As a condition of consent, the Council received roadwork contributions worth \$5.7 million from the developer. A sizeable proportion of these funds were for projects intrinsic to the construction of the development. The main shortfall is "essential" funds were for much-needed improvements to the Pacific Highway.

At that stage the Authority began negotiations with the Council and the Developer to try to reduce the parking given that the funding could not be increased. As a result, the parking conditions finally provided for 2,100 spaces on-site and for a developer contribution to Council for 300 spaces off-site. At a contribution rate of \$8,500 per space, this would not pay for 300 spaces. Thus, given that the public transport modal split could not be substantially improved, traffic

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congestion could be expected to spread over a wider area. With this probability, the Traffic Authority undertook to advocate an acceleration of the Department of Main Roads's programme for improvements to the Pacific Highway.

While this was not an entirely satisfactory conclusion, it was an important initial step, especially in the absence of a traffic and parking plan for the Chatswood Town Centre. Certain significant lessons were apparent from this exercise:

- * While the traffic impacts are secondary to the development goals in an application consent, the negative traffic impacts should be evaluated and covered, as far as possible, before any consent is issued.
- * If a council feels that the parking allowed is inadequate for a proposal, then perhaps they should consider a reduction in floorspace.
- * The evaluation procedure is fairer and more comprehensive if it is done within the context of a land use/traffic study.

Summary of Options

The first step in resolving funding problems is adoption of a Chatswood Town Centre traffic management plan. Once the works and costings are defined, the Council can begin assessing all new developments on this basis.

The priorities and associated 5 year roadworks programme of the plan can allow the Council to commence works subject to later s.94 contributions. The responsibility and timing of the States funding role will also be defined as the authorities concerned adopt the plan. Also sites should be identified where suitable developer in-kind contributions can be accommodated in accordance with the traffic principles of the plan.

Perhaps the most serious issue that is unresolved in Chatswood is who is responsible for assessing the regional traffic implications of major commercial developments and ensuring that unsatisfactory impacts are resolved before development can proceed. The recent experience with the Chatswood Connection is illustrative of the problem. It is a massive development which contains many potential economic benefits for the State and region. The development also has the potential for generating an unacceptable level of traffic congestion. Congestion that will effect Chatswood workers, residents, shoppers, and visitors, but also any passing user of regional transport facilities such as the Pacific Highway.

A co-ordinating body at the State level with the powers to impose regional traffic plans, fund them, and adjust them in response to private initiatives in a joint venture format, may be one solution. It is certainly preferable to ignoring the regional traffic cost of

development until a system reaches an unacceptable level of congestion.

CONCLUSIONS

The current procedures for traffic impact assessment for mega-developments have proved to be unsatisfactory, although a variety of initiatives are being taken to improve the situation.

The next step, however, of relating those impacts to a cost sharing formula, is even further from resolution. Given all this uncertainty, it would appear that some promising options to pursue in New South Wales would be to:

- Develop traffic management and improvement programmes for growth centres. These will be five-year programmes that are tied into a five-year land use development plan. Random shocks that accelerate the rate of development and hence employment and traffic growth, will immediately accelerate the traffic improvement programme.
- Seek developer contributions on the basis of the contribution made by the individual development to projected growth. Contributions would thus be obtained from all new development, and not just the ones that finally cause the system to extend beyond a nominated congestion ceiling. All major improvements to the traffic system could be provided in advance of need, with funds recouped progressively.
- Once programmes have been adopted, give the consent authority as much legal flexibility as possible in negotiating private sector contributions to that programme.
- Continue research on traffic impact assessment methodology to assist regional authorities to make informed decisions on the regional traffic requirements of major developments, and
- Once the methodology is in place, have a body constituted, similar in membership to the Regional Advisory Committee, that can make a strategic response to a development application. That response would be based upon planning guidance from a five-year improvement programme, and an acknowledged ability to measure the traffic impacts of developments. The power to allocate some State funding in relation to State priorities and to stop developments proceeding that have not adequately accommodated their impacts, would ensure the integrity of the planning process.

REGIONAL TRAFFIC IMPROVEMENTS

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