

CITY OF AUCKLAND

Planning in the Central Area

An Assessment

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## CITY OF AUCKLAND

### PLANNING IN THE CENTRAL AREA - AN ASSESSMENT

#### INTRODUCTION

1. We have taken as our starting point the invitation in a letter dated 7 April 1966 from the Mayor "to advise upon the re-arrangement of the inner city streets system consequent upon the motorways". But we have also borne in mind the Mayor's subsequent wish, as expressed personally to us, that we should feel ourselves free to comment on any aspects of the planning of the City which appear to us to be relevant to the first invitation. In the event our assignment has resolved itself into a commentary on the future planning of the central area of the City.

2. In the paragraphs that follow there is factual material which will doubtless be familiar to anyone acquainted with the position of planning in Auckland. We have included it as evidence of the need we have felt to become acquainted with the situation, and because it may be helpful as a summary.

## THE PRESENT POSITION

### The Region

3. The area which can be regarded as looking to Auckland as its "centre city" appears to extend from Rodney County in the north to Franklin County in the south, a distance of some 90 miles. Within this area of about 2,000 square miles, there are four county authorities, and twenty-eight urban or borough authorities. The total population of this area at 1965 was estimated to be about 584,000, including Auckland City with 149,400.

### District Schemes

4. Each local authority within this area is under obligation to prepare a district planning scheme for its own area. These schemes, which are due for review at five yearly intervals, appear to consist essentially of zoning plans indicating, when read in conjunction with supporting written material, the precise use or uses to which any parcel of land may be put. They also contain written matter relating to the bulk, height, building line etc. of buildings. To a large extent these plans appear to reflect the existing use pattern, but they also contain "proposals" in the form of zonings for undeveloped land and for the purpose of securing sites for new roads, schools, etc.

## Auckland Regional Authority

5. In addition to the district planning schemes prepared and operated by the district councils, there are planning functions exercised by the Auckland Regional Authority. This is a statutory body, constituted in 1963, which has the responsibility for preparing a regional plan for the whole area previously described. We understand that the formal regional plan has not yet been finalised. The Authority, however, virtually took over the work of the Auckland Regional Planning Authority (which ceased to exist in 1965) and this included an outline development plan for the metropolitan area and many proposals which have, in various ways, influenced the zoning proposals included in the district planning schemes. We understand, however, that the Regional Authority acts in an advisory capacity to most of the local authorities outside the City of Auckland in the preparation of their district schemes.

6. We note that under S.3 of The Town and Country Planning Act 1953 a regional planning scheme shall be designed as a guide to councils engaged in the preparation of district planning schemes, and that under S.4 every local authority is obliged (subject to certain rights of appeal) to adhere to the provisions of any operative regional plan affecting its district.

7. We note also that the purposes of regional planning schemes, as defined in S.3 of the Act, relate to the classification of lands to secure their conservation and economic development, and also the co-ordination of such public improvements, utilities, services and

amenities as are not limited by the boundaries of the district of any one local authority, and do not relate exclusively to the development of any one such district.

#### City of Auckland District Scheme

8. The District Planning Scheme for the City of Auckland became operative on 12 June 1961. It consists of the Scheme Statement, Code of Ordinances, detailed Land Use Zoning Maps, and maps showing Development Works. These last maps show reservations for civic and cultural purposes, schools, hospitals, open spaces, etc. (i.e. in general, works to be undertaken by statutory authorities). They also indicate the existing main traffic routing system, the proposed urban main street system, proposed motorways, etc.

9. The District Scheme contains provisions for the control of building bulk by prescribing a maximum height of 110 feet, and a requirement that no building shall penetrate a plane at an angle of  $65^{\circ}$  from the centre of the street. The Council may dispense with these requirements under Ordinance 13, and in practice no limit is now set to height provided a plot ratio of 10:1 is not exceeded and the building is within the  $65^{\circ}$  plane. To encourage tower block construction, however, the Council grant "premiums" in the form of additional floor space in return for set-backs at ground level.

10. As it concerns the central area of the City, the Auckland District Scheme indicates certain motorway proposals, but we understand

that these (which derived from the Master Transportation Plan of 1955) are now out of date. That is to say, they have not been replaced in the scheme by any later proposals.

#### The 1955 Master Transportation Plan

11. In 1955 a Master Transportation Plan for Metropolitan Auckland was produced by the Technical Advisory Committee of the Auckland Regional Planning Authority. This plan included proposals for a system of urban motorways for the metropolitan area, including an inner ring around the central business area of Auckland City, together with proposals for additional bus terminals, long and short-period parking facilities. The plan also suggested that the possibilities be investigated of extending a line from the present main passenger railway station westwards to a new station in Victoria Street East in order to provide a passenger station closer to the centre of the City.

12. The plan suggested that the then provision of 4,400 parking spaces in the central area should be increased to 10,000 - 12,000 by 1960, of which half should be for long-period and half for short-period use. Beyond suggesting that long-period facilities should be adjacent to or immediately inside the ring road, and that short-period spaces should be as near as possible to shopping and business premises, the plan made no precise suggestions for location and distribution of parking space.



13. As mentioned in paragraph 10, certain of the proposals for urban motorways were incorporated in the District Planning Scheme for Auckland City which became operative in 1961. It would appear that the motorways which have so far been built or which are under construction at the present time are (broadly speaking) based on these proposals.

#### The De Leuw Cather Study

14. In May 1963 Messrs De Leuw Cather were appointed by the Auckland Regional Authority "to conduct a comprehensive study of highway transportation in the Auckland Metropolitan Region". They prepared two reports: the first, published in July 1965, contained proposals for a co-ordinated Bus and Rail Rapid Transit System; and the second, produced in October 1965, completed the work with proposals for a metropolitan highway network and the provision of an additional 7,000 parking spaces by 1986. The consultants were firm in their recommendation that the highway network and the rapid transit system were complementary, and that an all-highway system (based, as we understand the matter, on unrestrained use of private cars) would be uneconomical as it would involve very heavy financial burdens in the acquisition of rights-of-way and the construction of additional motorways and parking structures.

15. The comprehensive transportation plan, prepared by Messrs De Leuw Cather, appears to have been based on land use, population and employment projections to the year 1986 for the entire region.

16. In November 1965, Messrs De Leuw Cather submitted a supplementary report dealing with priorities. This also contained a map of the central business district with recommendations for certain major street improvements and one-way streets, together with an indication that increases in traffic capacity would be required "in numerous other streets". The major street improvements included a quadrant distributor road round the southern side of the Civic Square, and an extension of Kitchener Street to Quay Street (i.e. parallel to Queen Street on the eastern side). The one-way streets included Nelson Street and Hobson Street as a pair and Victoria Street and Wellesley Street as another pair. The map was not specific as to the location of parking facilities.

17. Responsibility for the detailed design, construction and land acquisition of the motorways throughout the region including the City of Auckland lies with the Ministry of Works. The full cost is met by the National Roads Board. The Ministry, however, have not as yet accepted responsibility for executing the full programme in its later stages.

#### Action Subsequent to Submission of De Leuw Cather's Reports

18. The Auckland Regional Authority (who commissioned the De Leuw Cather Report), meeting on 5 April 1966, approved in principle the proposals of the De Leuw Cather Reports (with the exception of those relating to water transportation) and decided to proceed with negotiations with all interested parties in relation to procedure, feasibility studies, costs, etc.

19. The Auckland City Council, meeting on 6 April 1966, considered a report by the Mayor on the De Leuw Cather proposals. The Council resolved to approve the system of motorways outlined in the De Leuw Cather Reports, but were not satisfied that the proposals for the co-ordinated bus and railway system would achieve commensurate benefits to justify the costs incurred. The Council also, in response to doubts expressed by the City Engineer regarding the proposals for street improvements and circulation within the central business district, resolved to ask us (Colin Buchanan and Partners) for further advice in determining "the best possible street connections to the inner city motorways".

## ASSESSMENT OF THE PRESENT POSITION

### Nature of Assignment

20. It is quite clear therefore that our assignment relates essentially to the central area of the City and to the linking of the central streets to the motorway system. We have taken as our starting point the street proposals shown on the plan accompanying De Leuw Cather's letter of November 12, 1965, (i.e. the Programme for Motorway Priorities). These proposals raise various problems to which the City Engineer has drawn attention and which were touched on briefly in the Mayor's report to the City Council on 6 April 1966. In more detail there were seven main points which concerned the City Engineer as follows:

- i. The routing of traffic in Victoria and Wellesley Streets, and the motorway connections on the east side of the central business district.
- ii. The one-way routing of traffic in Nelson and Hobson Streets.
- iii. The provision of main travel routes from the Harbour Bridge to the City and crossing the Union Street motorway into Freeman's Bay and connecting to the Newton Ridge.
- iv. The connection of Hopetoun Street to Pitt Street and Vincent Street and the quadrant street around the Civic Centre.
- v. The connection of Dominion Road to Upper Queen Street.
- vi. Connections to the motorways to the street system around the central business district.
- vii. Action to be taken where streets are severed by the motorway.

#### Traffic in the Central Streets

21. In our view, whilst we agree broadly with the City Engineer's concern with these matters, we think there is an additional cause for concern of over-riding importance. This relates to the proposed retention of most of the central business and shopping streets of the City as traffic distributors. In our opinion, to come quickly to the point, this is a completely unacceptable design concept for the future of the City. We have closely observed the present conditions in the main

streets, especially in Queen Street on a Friday afternoon and evening, and we regard them as unpleasant almost to the point of being uncivilised. The heavy traffic, the noise, the continuous random cross-movement of pedestrians through the traffic, and the damming up of pedestrians at the four corners of the main intersections in anticipation of the so-called "Barnes Dance" crossing seem to us a far cry from the kind of conditions that should be in anticipation for an important city.

22. We realise that this is an expression of personal opinion in relation to Auckland, but we rely on the evidence which is now accumulating from all over the world of the value of shopping streets and areas which are substantially free from the danger and nuisances of traffic. This evidence cannot be overlooked. We realise too that many people in Auckland are reputed to like the "Barnes Dance". This may be so, but we think the reason is that these people are merely grateful that the conditions are somewhat safer than they were before the "Barnes Dance" was instituted. It is at least possible to cross the road. But it does not mean that these people have really looked at the matter objectively and asked themselves whether, in a city that is in process of being rebuilt, they could not have something vastly better. Most of them have probably never thought about the matter at all, but simply accept what is provided for them.

23. We think this is really the nub of the matter. The City centre is in process of being rebuilt, Queen Street in particular is being redeveloped from end to end, and we suggest with great respect that it is for the City Council to ask themselves whether they have set their sights high enough as regards the standards of environment that should be sought. It is not

only a question of traffic in shopping streets of course, it is the intrinsic convenience, pleasantness, variety and architectural character that are involved.

#### Increase of Traffic in the Central Streets

24. Present plans, far from easing the position in the central streets, would make them worse. This is quite clear from page 37 of the De Leuw Cather Report where it is mentioned that the traffic assignments to the streets relate only to the main zone-to-zone flows and do not take account of "induced traffic, traffic which occurs entirely within zones, and diverted traffic". We think the assignments are even more doubtful than this because they were made without knowledge of the precise locations of major parking facilities and because they do not take account of recently suggested changes in the street pattern. The Planning Section of the City Engineer's Department have attempted a revised assignment to take account of recent amendments, but this work again suffers from the disadvantage that it relates only to zone-to-zone movements and assumes that sufficient parking space will exist in all destination zones. Even so, this latest assignment suggests that there will be a 50% increase of traffic in Symonds Street through the University and nearly 100% increase in Queen Street from Victoria Street southwards.

25. In our opinion, these increases in the traffic volumes in the central streets are quite unacceptable. They are, in a sense, the more unacceptable because they arise in spite of massive expenditure for the solution of traffic problems. The central area, for example, is

planned to be ringed round by a motorway of formidable dimensions . We do not question the need for it, but there is no doubt that to insert a motorway on this scale into standing development is an expensive and painful operation. One would expect the benefits from this expenditure of public funds to be very substantial indeed and to include at the least a high degree of withdrawal of traffic from the central streets and the University area. Instead, as already mentioned, there is to be an increase of traffic in the shopping streets, and the University, instead of being endowed with a precinctual character, remains divided into four by traffic routes .

### Grafton Gully

26. We have had certain doubts about the proposed motorway along Grafton Gully. It is a matter of imagining what the City could have been like without the untidy tongue of commercial development which runs up the Gully along Stanley Street and which separates the Domain from the escarpment on which Albert Park, Government House and the University stand. A magnificent unity of public open spaces could have been created. It seems unavoidable that the western side of the central area should be largely "utility" (i.e. commercial and industrial uses) stretching away to the Harbour Bridge, but the eastern side offered contrasting possibilities of the greatest interest. As it is the Gully is in process of being filled in, and will contain the massive motorway which will be 40 - 50 feet in the air at the southern end. With its embankments the motorway will sever the central area

of the City from the Domain, and will constitute an uncomfortable neighbour for the University from the point of view of outlook and noise.

27. It appears that at one stage in their work Messrs De Leuw Cather produced an interim report which showed the main motorway links somewhat further removed from the central area. We do not know what factors led to the abandonment of this scheme or what difficulties it may have caused further away from the City, but it might possibly have given more "elbow room" for the deployment of secondary distributors round the central area, and it might have been possible to have had a more modest road along Grafton Gully. However we appreciate the many difficulties which finally led to the choice of the Grafton Gully route and we would not wish to suggest that the question be re-opened. But we do say that the whole section of the road as it runs through the Gully deserves the highest possible standards of design and landscaping, lying as it does in such an important part of the City.

#### Access to the Central Area

28. Another drawback of the closeness of the motorway "box" round the central area (and the difficulty is enhanced by the sharp curvatures of the motorways resulting from the difficult topography) is that it is impossible to contrive more than a limited number of points of access and egress. This means that a considerable number of other existing main roads are permitted to feed straight into the



central streets without connection with the motorway. Moreover, the geometrical difficulties of the motorway are such that a linkage cannot economically be provided from the eastern suburbs to the Harbour Bridge - these cross-movements are planned to take place via Wellesley Street and Victoria Street which involves perpetuating busy traffic intersections in the very heart of the main shopping street.

#### Intensive Development in the Centre

29. There are certain other related matters regarding the central area about which we feel some concern. It seems to us, for example, that large new buildings of considerable height are being erected at the play of the property market but with very little regard to the overall appearance of the City or to the problems of traffic and concentration of people to which they give rise. Plot ratios of 1:1.0 are being permitted (even more than this if some concession is offered on ground area coverage), and if this policy is continued for the whole redevelopment of the central area there is bound to be a considerable increase of central area activity and employment.

#### The Civic Centre and the Harbour Board Land

30. Again, there are only two areas in the centre for which comprehensive designs have been prepared (the Civic Centre and the Harbour Board land) but both seem to be in jeopardy at the present time by reason of traffic requirements. The Civic Centre scheme,

which we understand was the work of a consultative committee of city architects, is obviously in difficulties and will need major alteration - the layout as proposed produces quite unworkable traffic conditions on the Quadrant Road, especially at the intersection of Cork Street and the extension of Albert Street. Again, important aspects of Professor Kennedy's sensitive design for the redevelopment of the Harbour Board's waterfront land appear to have been whittled away in the project which has been the subject of the successful tender for the first stage of redevelopment. No special provision now seems to be contemplated for the heavy pedestrian flows from the ferries to the lower part of the City. On the present plans, Quay Street and Customs Street will be heavily trafficked routes which "island" and even sever the Harbour Board land. A major departmental store and other shops are now proposed which will have conventional direct pedestrian access from Quay Street and Customs Street - in other words these busy traffic routes will also become important shopping streets in precisely the manner which we think should be avoided.

#### Overloading of the Central Streets

31. In general terms it seems to us that the motorways as planned and the other roads feeding into the centre could eventually bring in more traffic than the central streets can accommodate, even if no regard is paid to environmental questions. If regard is paid to the environment then there will be serious overloading. It is not difficult to see how this situation has arisen - it could have been

avoided if the motorway system had been planned as part of a combined operation with the planning of the central area, so that the capacity of the motorways (and the other approach roads to the central area) to discharge traffic was kept in balance with the capacity of the central area itself to receive and circulate traffic with due regard to environmental conditions.

32. We would like to emphasise that we do not offer these remarks as a criticism of the Comprehensive Transportation Study which was competently executed by Messrs De Leuw Cather within the terms of reference. What we are suggesting is that recent experience has shown the absolute necessity for linking transportation studies very much more closely to urban redevelopment studies, especially where important centres are concerned, and to ensure that full regard is paid to environmental standards which are ever in danger of being eroded by traffic.

### Need for a Comprehensive Study of the Central Area

33. We are afraid that this is a difficult message, but we are in no doubt that we are right to deliver it. The central point is that if the question of traffic in the main streets is to be taken seriously then there is no avoiding a complex design study to see how the traffic can be dealt with. This involves the whole of the central circulation problem, the amount of traffic that is acceptable in the streets has to be decided, the location of car parks must be considered, questions of servicing buildings must be investigated, bus routes must be considered, the form and design of buildings and the amount of traffic they will "generate" must be studied, and so on. It is in fact a comprehensive civic design study that is required to reveal the possibilities for future development. One could perhaps describe it graphically by saying that the kind of exercise which has been performed for the Harbour Board land needs to be repeated for the central area of the City - not to indicate in absolute detail the whole future redevelopment, but to delineate principles, to disclose the possibilities and alternatives, though probably to be quite firm about the standards to be sought, and the main patterns of circulation and car parking. There would be nothing unusual about such a study, most cities are now finding it necessary to undertake such work.

34. We think we should emphasise that in no sense has any such study yet been made for the central area, least of all does the present District Scheme constitute one. Indeed, we would say that, if anything, the District Scheme hinders the situation by tending to perpetuate the status quo in relation to the street system and the building sub-divisions at the very moment when substantial changes are likely to be needed.

35. Once again, we would not wish these remarks to be interpreted as in any way critical of present personnel or procedures. The District Scheme has been carefully prepared within the statute. Much of the effort of the planning staff is necessarily deployed in daily administration and control of development; and there has obviously been a desperate shortage of staff for the more creative work. Even now, on the organisational chart, there is only one trained planner allocated to the central area and he has not yet arrived in the country. But perhaps the important point is that new ideas are now flooding through planning, ideas which take a more comprehensive view of the nature of planning, which demand closer inter-professional understandings than ever before, and which in particular require the complete integration of traffic planning, land use planning and building design. The important thing for Auckland is to see that these ideas are infused into the central area planning before all the opportunities are lost by reason of major redevelopments taking place which cannot be altered for a couple of generations.

36. It would, of course, be quite inappropriate for us to attempt to undertake the study we have spoken of. But in the rest of this report we outline the approach which we consider should be adopted, dealing first with the principles and then with the various steps of the analysis.

## PRINCIPLES

### Accessibility and Environment

37. There should first be a clear understanding of the two-fold nature of the urban traffic problem. On the one hand there is the general frustration of the door-to-door accessibility which the motor vehicle can provide and which is its supreme asset as a method of transport; and on the other hand there is the general destruction of the environment which motor traffic tends to cause by danger, anxiety, noise, fumes, vibration and visual intrusion. It is difficult at the present time to define standards in respect of either of these aspects, but it can be said that there is a degree of exclusiveness between the two, that is to say if reasonable environmental conditions are desired then some possibly close control or discipline of traffic is needed, both as to the volumes and directions of vehicular movement.

### Networks and Environmental Areas

38. There is only one principle whereby these problems of accessibility and environment can be sorted out. This is gradually to create units or areas where considerations of environment take precedence over the movement and parking of vehicles. These may be termed "environmental areas". The essential corollary is to create a highway network onto which longer movements of vehicles from locality to

locality are concentrated, leaving the environmental areas to deal only with their own traffic. The principle may be crudely likened to the corridor-and-rooms system of a large building.

### The Two Studies

39. Application of this principle postulates a two-fold exercise. First, a study of the whole urban area, its present and future activities, and the disposition of population and employment in order to reveal what the main future demands for movement are likely to be. From this, on the assumption that a great deal of future movement is bound to be discharged by the motor vehicle, the main lines of the highway network can be worked out. Secondly, a study of the whole urban area is needed to reveal the potential environmental areas - the areas which, prima facie, show some cohesiveness and from which extraneous traffic should be drained away onto the network. At a certain stage in the exercise the tentative network and the environmental areas need to be brought together in a process of adjustment and adaptation to each other.

40. An important quantitative relationship emerges from this concept. It is that the capacity of the network to discharge traffic must be in balance with the capacity of the environmental areas to generate or attract traffic. This is particularly important in connection with the central area of a city - the capacity of the network (especially at the approaches to the centre) must be in line with the ability of the centre to circulate traffic and to accommodate all the parked vehicles.

### Capacity Limits for Traffic

41. When the principle of networks and environmental areas is applied to existing urban areas in practice it is usually found that environmental areas have strictly limited "capacities for traffic" according to the manner in which they are laid out. In other words if the anti-environmental effects of motor traffic are to be avoided, or at least kept under control, then the amount of traffic must be limited. But if an urban area can be reconstructed in a more advantageous form, then more traffic can be accommodated. Reconstruction costs money however, so broadly it may be said that if certain environmental standards are desired then the amount of traffic an urban area can decently accommodate depends on what the community is prepared to invest in the necessary physical alterations.

42. However, in densely developed urban areas, there usually appear to be strict limits (dictated not so much by cost as by physical considerations) to the amount of traffic than can be accommodated. These limits are likely, in many instances, to be well below the future demands for the use of motor vehicles as numbers increase. Therefore, in such areas, future demands will have to be cut down to size. Broadly speaking, the cut is bound to fall not on the use of motor vehicles for essential commercial and industrial purposes but on the use of cars for optional purposes, especially for the journey to work for which other means of transport exists or can be contrived. Herein lies an important range of implications for public transport.



## Importance of Comprehensive Redevelopment

43. Since the motor vehicle is in reality demanding new urban forms - a theoretical exercise on the drawing board, where a deliberate effort is made to design an urban area for motor traffic, produces a result quite unlike towns as we know them traditionally - it follows that much of the success in providing for the motor vehicle in any particular urban area will depend on the possibilities of securing comprehensive redevelopment of sizeable areas. Many cities are now embarking on extensive renewals of their inner areas, presenting great opportunities for dealing with traffic. But these opportunities can all too easily be frittered away by the piecemeal redevelopment of existing buildings on their existing sites. This obviously calls for new co-operations amongst owners themselves, and between owners and public authorities.

## Conclusion

44. The above appear to us to be the essential principles which should be applied. They are none of them particularly palatable conclusions and they certainly do not show that there are any easy cheap solutions to the problems to be had for the asking. But we think they do provide a firm basis for procedure. In the following section, we describe in more detail how they might be applied to the Auckland situation.

## APPLICATION OF THE PRINCIPLES

### Need for Environmental Studies

45. Preferably, as we have mentioned before, the network study, the general environmental study, and the central area study should be carried out as complementary exercises in a mutual process of adjustment and counter-adjustment. In the present situation for Auckland, it could be said that the network study has in effect been carried out in the form of the De Leuw Cather Report, which has produced a primary highway network for the region. As proposed, this network will be made up of the skeletal system of new motorways, together with a supplementary system of expressways and main arterials formed largely out of existing streets. We doubt whether it could be said that a regional environmental study has been made - there appear to us to be a host of problems (related especially to shopping areas straggling along main routes) which need attention and which may require some adjustment of the continuity of certain of the main arterials in conjunction with the creation of a complementary system of secondary linkages in each district served by the primary network.

46. In many of the shopping centres the conflict between traffic and environment strikes us as very unpleasant indeed. Seriously adverse environmental conditions also seem likely to arise on some of the existing roads which, under present plans, are destined to act as main feeders (other than the motorways) to the central area.

Crummer Street, for example, which is a purely residential road where many children play and which is intersected by frequent cross streets, is to be a direct feed into the centre via Hopetoun Street and Vincent Street. The point we wish to make is that a comprehensive environmental study for the region would throw new light on the network pattern and might well affect the choice of existing roads giving entry to the central area.

#### The Central Area Study

47. The central area study has not, in our view, and as mentioned previously, been carried out in its entirety. The first step would be to determine broadly the future functions of the central area in relation to its position as the regional centre. The most important matters for consideration are the future shopping functions, future office functions, future commercial functions, and the cultural and educational and recreational activities. We think, in the circumstances of Auckland, that it is almost inevitable that there will be a growth of suburban shopping centres for certain kinds of goods. We do not think this need be disastrous for the main centre of Auckland - the suburban centres will, to a considerable extent, be coupled with the increase of suburban populations, and there are advantages in having some of the pressure drained off, or at any rate not allowed to build up on the main centre which presents considerable traffic problems already. Some work on the future size and functions of the central area must, we think, have been done to enable Messrs De Leuw Cather to proceed with their study, but the details are not available

in the De Leuw Cather Report which is very much a summary document. But we cannot trace that the work has been carried to the point which we regard as essential, namely the estimation of the future floor areas that will be required in the various categories of land use, and the employed population in each case. We regard this information as most important for the estimation of future movement demands in relation to the central area.

#### Date for Future Planning

48. An important point which arises here concerns the future date to which plans should be cast. We think, in the first place, that the date must not be nearer than the time when "saturation" of motor vehicle ownership is reached. In Britain this is likely to be at the turn of the century, but in New Zealand it is likely to be sooner than this, perhaps about 1986. This is twenty years ahead, and as it happens is the date to which the projections in the De Leuw Cather Report are made. The importance of the saturation date is that it marks the point when, if the population were to remain stable, there would be no further drastic increase in the number of vehicles. The maximum possible loads could, as it were, be assessed. But if the population continues to increase, then obviously the number of vehicles will continue to increase. We are inclined to think, since the population of Auckland is not likely to stabilise itself in 1986, but to continue to grow, that an effort should be made to look ahead at least to the end of the century which is a mere thirty-four years ahead.

49. In relation to the central area of the City this longer period for planning ahead would be mainly of importance for assessing the loads and pressures which would impinge on the area as a result of growth taking place mainly in the region. But it would, of course, raise a series of interesting questions regarding the location of the growing population and employment in the region, especially from the point of view of devising growth patterns which avoid the intense difficulties associated with sheer peripheral spread.

50. This last matter, however, is outside the scope of this report. The point we wish to emphasise is that if further growth after 1986 is likely, then account should be taken of it in considering the functions of and quantities of accommodation within the central area of the City.

#### Expansion of the Central Area

51. We should imagine that it would be the City Council's desire to retain the central area as a "strong" major centre for the whole region, especially as regards offices, specialist shopping, service trades, culture and recreation. In this event, and the desire seems very reasonable to us, it is virtually certain that a considerable expansion of accommodation space will be required. We have already suggested that accommodation needs should be more closely estimated, but the next step would be to study the central area in detail to see where, in the physical sense, expansion might take place. A preliminary idea would be formed at this stage of alternative

forms for the centre. It is quite likely that half a dozen different methods of disposing the additional space might present themselves.

52. The next step would be to integrate these gradually developing ideas for the central area with the possibilities for the distributory network of highways. The environmental standards appropriate to the various parts of the centre would be decided upon, the pedestrian circulation system gradually worked out; the servicing and access arrangements to buildings considered; the location, quantity and kind of parking spaces considered in some detail, and special attention would be given to the linkages between the internal street system and the primary network. Once again this might well still be in terms of a number of alternative possibilities.

### Environmental Standards

53. This is the point at which the question of environmental standards would be of great importance. If we ourselves were undertaking a study of the centre of Auckland we would most certainly start from the working assumption that Queen Street and other important shopping streets should be for pedestrian use only, with all motor traffic cleared out. It does not follow that this environmental standard could be maintained, it might prove necessary to relax the standard somewhat, perhaps for example by admitting buses, but we would certainly start the study with the highest possible standard and only relax it for the best of reasons.

54. Likewise we would start with the assumption that the University area should not be intersected by any streets open for general through-traffic, not even Symonds Street. The decision to retain and expand the University on the present site has been taken. The University is of crucial importance to Auckland and indeed to New Zealand. It is no bad thing to have a university in close physical proximity to a busy lively city centre. In all the circumstances it seems to us that every possible effort should be made to establish not a university "precinct" but a university environmental area effectively insulated from extraneous traffic. We are by no means convinced that the last has been said with regard to traffic in the various roads that run across the University area at present, especially if regard is paid to two propositions: first that there may well be a limit to the amount of traffic that the centre of Auckland can or should accommodate, and secondly that it is accepted that motor traffic can and should be despatched on longer and more circuitous routes if by this means important environmental advantages can be secured. We find it difficult to think of any motorised movements which could really take precedence over the environment of a university.

#### Network for "Maximum Motorisation"

55. In exactly the same way that we would start the exercise with the highest possible standards of environment in view, so we would also seek in the first instance to devise a highway system catering for the maximum possible use of motor vehicles, especially of private cars

for the journey to work. We feel quite certain that this exercise would produce a highway network of such enormous dimensions and complexity as to be quite unassimilable into the structure of the City, especially towards the centre. This would be the value of the exercise - it would (on the assumption that at some stage the study is made public) demonstrate to councillors and public alike the impossibility of catering for a future condition of "maximum motorisation". It also provides a very firm point from which to commence a process of simplification - that is to say the gradual "paring down" of the network to proportions which are reasonably assimilable with the structure of the City and which involves in the process a reduction of the traffic loads which have to be catered for.

#### Reduction of Full Potential Traffic Loads

56. This last point - the reduction of the traffic loads - is extremely important. We have not the slightest doubt that a study on the lines we have indicated would show that if environmental standards appropriate to a civilised city are to be sought in the centre of Auckland then there is a fairly strict limit to the amount of traffic that can be accommodated. Even if environmental standards were jettisoned completely there would still be a limit. We suggest that this fact has got to be faced, and that it is futile to proceed in the blind faith that every possible movement can be provided for by motor vehicle.



57. If the full potential loads cannot be accommodated, then a cut back has to be accepted. As suggested earlier we think this would be bound to fall in the first instance on the use of private cars for the journey to work in the centre since this constitutes the least essential sector of the total load. This means, of course, that during the development of the study a clear differentiation needs to be established between the various sectors, that is to say the commercial, business and industrial traffic, and the use of cars for shopping, for recreation, and for journey to work, etc., all need to be assessed separately.

58. There would, however, be other methods of reducing the loads which would need to be explored. Some amelioration might be achieved for example by staggering working hours though we think this would be only marginal. The chief possibility would be the dispersal of certain functions from the central area. As suggested already, we think the growth of suburban shopping centres is inevitable and need not be disadvantageous to the centre of the City. But it might also be possible to decentralise certain office functions to suburban sites; or to reduce the considerable concentration of industry round the centre which seems, to judge by the zoning provisions of the District Scheme, as though it is likely to grow considerably. This is bound to aggravate the traffic problems.

59. We ourselves would feel doubtful of the wisdom of embarking on any major policy of decentralisation of offices. There still appear to be great advantages in office concentrations for efficiency of business and face-to-face contacts, and it would be an onerous step

to take to begin to change the system. Even so some concerns which are not dependent on daily contacts might find it possible to move out, and we certainly think that the central concentrations of industry might be looked at again. Any question of planned decentralisation seem, however, to be seriously complicated by the fragmented nature of the local government system and the effects which shifts of employment would have on the rate structures of the local authorities. We have the impression that it would not be within the ability of even the Regional Authority to circumvent these difficulties, and that their solution will really have to await the unification in some form or other of the local government system for the metropolitan area. We are sure there are many interesting historical reasons behind the existence of the numerous small boroughs in the area, but from the point of view of the planning and administration of a rapidly growing urban region, we suspect they are a positive hindrance.

#### The City and the Regional Authority

60. We could perhaps at this stage mention the question of the relationships between the City Council and the Regional Authority. The simple point we wish to make is that the central area of the City serves the whole region. The kind and quantity of the activities in the central area are, to a large extent, dependent upon the functions which the centre performs for the region. Of necessity, therefore, the planning of the central area must be to some extent a combined operation between the City Council and the Regional Authority. It appears to us that there is every readiness to co-operate between the

two authorities at staff levels, but we are less sure about the position at the political level. If complete readiness to co-operate had existed, we do not think the present position would have arisen in which the motorway network has been driven forward to the point of construction whilst the planning of the central area is still in an embryo stage. We hope we will not be regarded as impertinent if we stress the need for these two bodies to work together. The Regional Authority's functions are of crucial importance at the present stage of the region's growth, and it is indeed one of the most interesting and advanced administrative concepts we have come across.

### Parking Policy

61. We would expect the primary and secondary distribution systems to be closely related to the parking policy. Some long period parking structures might be fed directly off the primary network, but for the most part we would expect them to gain access from the secondary distributors. The short period parking places, mainly of benefit to shoppers and visitors, would be located much closer in to the buildings. There is little benefit in providing space for shoppers beyond an acceptable walking distance from the main shops and as far as the general prosperity of the centre is concerned it would be most unwise to pre-empt acceptable shopping parking locations by allowing them to be used by commuters. We find it difficult to discern any clear parking policy at the present time. The De Leuw Cather Report did not draw any clear quantitative distinction between long period and short period parking. The City Engineer informs us that, at the moment,

it is not the Council's policy to provide for long period all-day parking. The latter, we think, is perhaps an unrealistic concept to pursue in the future, especially when regard is paid to the very considerable capacity of the motorways to bring traffic to the outskirts of the central area. We think some long period parking must be provided, but its magnitude and location will have to be considered with great care. For example, we would not generally regard it the responsibility of developers of a new office block or department store to provide all the space required for commuters' cars within the building. This responsibility would be confined to the provision of "operational" parking space\* and any other space required for the parking of vehicles essential to the functioning of the business, including possibly space for visitors' cars. The most convenient kind of parking for visitors and therefore the most sought after is the kerbside space. For many reasons, this kind of facility will be strictly limited in the Central Business District and the greater proportion of the parking provision made will have to be off-street, particularly the provision for long period parkers.

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\* Operational parking space is the space required for cars and other vehicles regularly and necessarily involved in the operation of the business of particular buildings. It includes space for commercial vehicles supplying goods to, or delivering them from premises; space for loading and unloading and for picking up and setting down passengers. It does not include space for vehicles to be stored or serviced, except when this is necessary as part of the business being carried on in the building.

62. To ensure that there is a minimum of filtration through the Central Business District of the heavy loads generated by commuter car parking, the siting of these facilities will have to be in close proximity to the main routes of entry and exit between the Central Business District and the primary highway system.

63. The number of spaces provided in any one site will have to be related to the spare capacity of the immediate access routes and in addition, the total provision made in any one zone will be governed by the overall capacity of the approach routes to that zone, and so on. A quantitative analysis of the kind required would involve a detailed study of parking turnover rates and rates of entry and egress associated with the respective accumulation of vehicles in each zone. When this kind of detailed study is carried out in association with the general planning study of the central area, it is quite possible that the availability of suitable sites may necessitate amendments to the distributory road system. This is another example of the need for very close co-ordination of the various aspects of the problem. We have noted, however, that there is very little room to manoeuvre in this respect because of the many "fixed factors" involved. One of the consequences of this is that as far as sites for commuter parking are concerned, it will be most unlikely that a policy of "making the best use of sites as and when they become available" will result in an efficient and well balanced system in the long run. Plans will have to be made and a positive policy adopted to ensure that a progressive build-up of parking accommodation in appropriate places is realised in practice.

64. To summarise with regard to parking, we would expect the central area to be fairly specific with regard to the amount and location of parking for the various purposes and also as regards the access to the parking spaces. Careful study of the latter is extremely important if it is desired to prevent wholesale penetration of traffic through all the streets. As regards parking policy generally we would expect the Council to seek to retain very close control over the amount of parking that is provided, where it is provided, for what purpose it is provided, and the charges that are levied for its use.

#### The Pedestrian-Vehicle Conflict

65. We have mentioned already the importance of resolving the pedestrian-vehicle conflict. This might almost be taken as the starting point for the central area plan. In principle the conflict may be resolved either by separating pedestrians and vehicles horizontally, i.e. in the same plane, or vertically, i.e. with pedestrians circulating above or below the traffic. One cannot be dogmatic about which of these methods is best. In any sizeable city centre the solution could well lie in a combination of methods. In the particular case of Queen Street, however, lying as it does in a valley, there does appear to be an obvious possibility of raising the pedestrian circulation over the traffic. We would hope to see this idea explored fully in the central area study; it should not be discarded at first sight as fantastic or completely unworkable. In fact it may well be not only a reasonably cheap method of securing the desired separation but the only method that is now available for Queen Street.

### Opportunities for Comprehensive Redevelopment

66. A very important part of the central area study would be to ascertain the areas which, by reason of age or obsolescence of property, present opportunities for comprehensive redevelopment. Professor Kennedy's study for the Harbour Board property showed the benefits that can be secured when it is possible to deal with sizeable areas as part of one comprehensive design. We realise all the difficulties that exist under present legislation for securing comprehensive redevelopment, but we cannot emphasise too strongly that all the opportunities presented by obsolescence are likely to be lost unless by some manner or means the ownership of individual sites can be unified either by direct purchase by the Council, or by property owners getting together and pooling and resharing their interests. We think, in relation to this last point, that property owners really do have weighty obligations to the community to co-operate with each other for their own and the public benefit. If they could only be persuaded to work together they could go a long way to make up for the lack of effective planning powers.

### Three Dimensional Form

67. Finally, as an important part of the study, we would expect to see the "three dimensional" aspects examined, that is to say the general massing, grouping and bulk of buildings and the relationship to open spaces. The purpose of this would not be so much to bind developers to rigid building envelopes, as to reveal the possibilities for the City. Unless there is a demonstration of what might be made of the centre, then design and control policies will lack purpose.

## Summary

68. To summarise, the impression we are endeavouring to convey is of a quantitative and qualitative study of the central area which is developed on the basis of a number of alternatives from which in all probability one will eventually emerge as the "best" or "preferred" design. Whether or not such a design would be capable of being implemented within present legal and financial systems seems to us to be largely irrelevant. It is the long term future of the City that is at stake and there surely can and must be some anticipation of both a strengthening of powers in the future and of a more favourable financial climate. With regard to the latter, however, the position somewhat puzzles us. We have not attempted to study the matter in detail but we do observe a considerable building programme in course of execution in the central area, and we also observe a massive urban motorway system in course of execution. This last is something which most cities in Britain are finding it very difficult to initiate for financial reasons. To this extent Auckland seems a good deal better off than many cities we know. But in a sense this increases the dangers. If the buildings in the centre are to be renewed and if the encircling motorway is to be driven ahead, both without benefit of or relationship to a central area plan, then there are very serious risks that the centre of the City will degenerate into confusion as regards traffic circulation and architectural form.

## Preparing the Plan

69. It will be asked how such a plan could be prepared. We can appreciate that there are staffing difficulties at present - there is only



one member of the City Engineer's staff allocated to central area work at present and he was not yet in port. We think this points inevitably to the need to seek consultant advice. We have not been able to explore the position in depth, but our belief is that it would be possible to assemble an adequate team from the talent already available in New Zealand. Our impression indeed is that the exercise would be a very considerable encouragement to the morale of the professions associated with this work.

70. The emphasis would need to be on a team. We think the normal town planning, architectural and engineering skills would be needed, but it is essential that there should also be continuous access to sound urban-economics advice. Team working on these urban problems demands, of course, a new kind of inter-professional co-operation. Possibly the most important aspect of this is that traffic engineers with their supremely important contribution, should be in full partnership with the other professions.

#### Time Required

71. As to the time that the study would take, we consider that a balanced team of 8 - 10 staff under vigorous leadership would cover the ground in a year to eighteen months.

#### Decisions in the Near Future

72. We appreciate that there are various matters on which decisions

are required at an early date and which may not be able to await the preparation of the central area plan. To pinpoint these matters we asked the City Engineer to define them so that we could comment. The various points and our views on each are set out in the following paragraphs:

- i. The Nelson Street-Hobson Street One-Way Pair: We think this concept is acceptable in principle, but if these roads are to act as genuine district distributors carrying considerable traffic loads it will be necessary to take seriously the question of controlling the land uses and points of access along the roads. We agree with the suggestion that one-way operation should be extended as far north as Victoria Street (or even Wyndham Street). But we would also suggest that the Council should be prepared to adopt a period of experimentation in a matter of this kind, as it is almost impossible to forecast precisely what will happen when the motorway connections are opened to traffic.
  
- ii. One-Way Traffic in Hobson Street: We agree with the City Engineer's suggestion that one-way working should extend at this stage from Victoria Street to the connection of the motorway at the junction with Pitt Street. But once again we think this should be regarded as experimental.

- iii. The Intersection of Wellington Street with the Motorway Ramps to Nelson Street and Hobson Street: We concur with the view that Wellington Street should be cut off in the long term. We are not so sure that the suggested alternative route (involving the construction of a new link between Halsey Street and Howe Street in a north-south direction) is justified as it would funnel additional traffic through the Freeman's Bay reclamation area. One of the difficulties created by the current proposals for the links from the motorway system to the surface streets outside the Central Business District is that there is no convenient intermediate entry and exit point from either the north-western motorway or the Dominion Road motorway to the Newton-Arch Hill areas for traffic proceeding to or from the Harbour Bridge. Outside the Central Business District one of the most important functions of the new motorway system is to divert traffic proceeding from one district to another away from any intermediate locality. The existing routes in any such locality will then have to function only as distributors of the locality's own traffic, thereby minimising the deterioration of the environment as traffic volumes rise. In view of this, we would suggest that the proposed link between Halsey Street and Howe Street deserves further consideration. On the other hand, the Franklin Street-Cook Street connecting link over the motorway, in an east-west direction, would appear to be justified.

- iv. Quadrant Street (as proposed): This street should play an important role in diverting (from Queen Street) the traffic entering the Central Business District from the south. We agree with the suggestion that the junction between Vincent Street and Cook Street (as shown on the earlier plans) needs drastic modification. We also agree with the City Engineer that the route should be protected, but we think the precise details and location should be considered as part of the central area plan.
- v. The Wellesley Street-Victoria Street One-Way Pair: We suspect, much as we regret the perpetuation of the traffic flows across Queen Street which this proposition involves, that it will have to be brought into operation as soon as the motorway links are open (in conjunction with a linked signal system), at least as far west as the north-south one-way pair (Nelson Street and Hobson Street). But we think once again that this should be regarded as experimental and should be carefully reconsidered in the preparation of the central area plan.
- vi. Kitchener Street Extension: We agree that the extension of Kitchener Street northwards would be fraught with difficulties and would be destructive of a part of the City centre which has much character. If, however, this area came up for redevelopment then the situation would change and a means of incorporating the road with new development could be found.

vii. Buses in Queen Street: The routing of bus services would be a very important part of the study we have described - meanwhile we ourselves would hesitate to permit a greater number of buses in Queen Street unless some corresponding reduction of other traffic could be achieved at the same time. There is quite enough traffic in the street as it is. Moreover, it is undesirable to make frequent changes in bus routings - changes are always liable to result in losses of custom. In other words, we agree with the City Engineer that the best policy would be to wait for the results of the central area study before changing any routes.

We would, however, go so far as to suggest that one of the associated objectives of this study should be that of devising ways and means of ensuring that the majority of buses destined for the Central Business District were able to penetrate and distribute passengers into the heart of the main commercial and shopping area. This would be one way of maintaining an element of attractiveness for the public transport vis-a-vis the use of private transport. As we have stated before, the ideal situation as far as the general conditions for shopping in Queen Street are concerned would be one in which all traffic is excluded, at least during shopping hours. This would mean that all bus services would have to be routed along the nearest adjacent streets. But in Auckland, the rather unique combination of inter-related circumstances - the topography, the present form of the development (and its future potential) and the

open spaces, together with the discontinuity of the streets on the east side - all point towards the desirability of maintaining services in Queen Street. This is not to say that an attempt must be made to route all services up and down the whole length of the street. We can, for instance, see distinct possibilities in the idea of arranging a number of looped routes in combination with the one-way working of Wellesley Street and Victoria Street, with some routes entering on these streets and others entering via other streets to the north and south and then continuing along only part of the street before turning off again.

Another idea which we put forward (merely as a possibility which could be considered while more positive plans for the centre are being made) is that of designating part of Queen Street for buses only, say that section between Wellesley Street and Victoria Street. This section could, in effect, become a minor bus station, through which it is obvious that normal traffic would not be permitted (with the possible exception of vehicles required for the essential servicing of frontage premises). Undoubtedly, there would be many problems of design and management associated with such a project, but this again is one of the many reasons why a comprehensive study of the development possibilities of the centre is required.

### The University

73. The question of traffic in the University was not raised specifically by the City Engineer. But we were invited to meet the Vice-Chancellor who expressed his anxieties about the situation, and so we have given the point some consideration. While appraising the whole question of the relationship between the University area and the central highway network, we have considered particularly the question of the future function of Alfred Street and Grafton Road. Because of our concern, we have been prompted to indicate at some length a possible way in which the problem might be resolved.

74. The University area has the lowest rate of traffic generation of all zones in the Central Business District. By 1986 the amount of traffic generated (according to the De Leuw Cather Study) will be three times the present amount, compared with a general 60% increase for the Central Business District as a whole. Nevertheless, the University will remain an area of comparatively low traffic generation with, for instance, only a quarter of the amount of traffic destined for it during a working day as the central core of shopping and commerce around Queen Street. The current plans allow for direct access to the University area from the Southern, North-Western and Dominion Road motorways via special slip-roads linking directly with Grafton Road at a point some 150 yards east of Symonds Street. Access from the South-Eastern motorway is achieved via Quay Street and Anzac Avenue or via the Wellesley Street link to the motorway, with Waterloo Quadrant acting as the return link. But at the same time,

this link to Grafton Road will provide the most direct route for traffic proceeding to the east side of the central core of the Central Business District from the North-Western and Dominion Road motorways. This traffic is, of course, extraneous traffic as far as the University is concerned.

75. The most recent plans incorporate Alfred Street as a one-way route from Symonds Street to Princes Street. At first sight, this would appear to be a reasonable compromise, in that when Wellesley Street and Waterloo Quadrant are established as a complementary pair of one-way routes, the main bulk of the extraneous traffic will be confined to the early morning peak period. This period is substantially over before the normal starting times at the University and so the worst conflict would be avoided. Nevertheless, the cross route will be open to traffic at all times and there will remain a fairly constant flow of shopping traffic and business and commercial traffic. As the Central Business District grows in importance, this element will grow in magnitude and is, in fact, likely to grow at a rather faster rate than the peak hour flows.

76. We would suggest therefore that a better approach would be to think in terms of not having a direct link to Grafton Road from the motorway and of deleting Alfred Street as a public highway altogether. We are aware that this would create rather more circuitous routes for traffic actually destined for the University from the motorway, but as we have indicated before the environmental benefits derived would far outweigh the slight reduction in accessibility. In addition,



this proposal would not be effective unless a direct slip-road connection is arranged between the North-Western motorway and Wellesley Street via the Gully route (i.e. a link between the separated northbound carriageways at the southern end of the Gully). This is undoubtedly difficult to contrive because of the topography, but is not impossible. Some additional capital expenditure may be involved, but once again we consider that this would undoubtedly be outweighed by the benefits derived.

77. We repeat our anxieties about the proposed retention of Symonds Street as a traffic distributor passing through the heart of the University. No way of resolving the problem has immediately occurred to us, but as mentioned previously we would expect this matter to be reviewed during the preparation of the central area plan.

#### The Proposed Mass Transit System

78. It was recommended by Messrs De Leuw Cather that existing railway lines extending to the eastern suburbs be upgraded and extended for a short distance in tunnel into the central business area. Prima facie this is an attractive proposition. But we share the doubts of the City Engineer whether, in the circumstances of Auckland with its very low residential densities, this could possibly be a viable economic concept. Yet, on the other hand, the result of the central area study which we have recommended would undoubtedly be to reveal a limit to the amount of traffic that the centre could accommodate, and from this it would follow that there was a residual commuter load

which would have to be carried by some form of public transport. Precisely what form or combination of forms of public transport would be most appropriate seems to us still to require more consideration. The De Leuw Cather Report dismissed somewhat summarily the possibilities of bus services of various kinds (feeder and express services) operating on the improved highway network. Our experience suggests that it will not be possible to make either bus or rail services pay in the conventional sense; but we think improved bus services might be both more flexible, cheaper in capital outlay, and generally less of a liability than a rail service. But, as mentioned, we regard the matter as requiring a great deal of further study.

## CONCLUSION

79. Our main submission is that a central area study should be undertaken to reveal the possibilities for the future development of the area and to ensure that traffic needs and environmental standards are suitably reconciled. We have indicated the principles which we consider should be applied in the planning of the centre, and we have discussed some of the results that might follow. We have suggested that a special effort should be made to muster a team to undertake the study, and we have said that we think the resources of skill could be found within New Zealand for what is probably the most important planning task in the country.

80. It only remains to emphasise the urgency of the position. Plans for improving the accessibility for motor traffic to the central area have been driven ahead, but the complementary planning task to reorganise the centre to deal with the traffic has lagged seriously behind. The urgency arises from the fact that the centre of the City is actually in process of being redeveloped, and if major improvements for the public good are to be achieved, it is essential to take advantage of this process of redevelopment. Opportunities lost now may never be recovered.