LINCOLN COLLEGE
NEW ZEALAND

Study No. 5

Landscape Architecture Section
Horticulture Department

LINCOLN COLLEGE · CAMPUS DEVELOPMENT
A PROPOSED LANDSCAPE MASTER PLAN
FOR
LINCOLN COLLEGE CAMPUS DEVELOPMENT

Prepared by
A. E. Jackman, B. Hort. Sc., Dip. L.A.
Landscape Consulting Service,
Department of Horticulture,
Lincoln College,
University of Canterbury
THE BRIEF

In view of a rapidly expanding building programme at Lincoln College, University of Canterbury, it is now the time to consider a reorganisation of the Campus.

In order to achieve a pattern for roading, parking, services and building sites an overriding concern for the preservation and development of the existing environment must be shown in proposals to reorganise the Campus structure.

The Landscape Master Plan, as prepared under the authority of the Lincoln College Council, shall cover a period of development of up to a stage of maximum site use.
Physical campus plans must be both general and specific; they must be concerned with immediate requirements as well as long range considerations; they must cover the campus and environs as well as the specific building sites; and they must implement today's educational goals while at the same time encourage if they can, but not hinder, new objectives.

"Plans - as an instrument by which the campus administration can make good decisions - should reflect the institutions' point of view of land-use development, incorporate the widest range of opinion as to how the institution should grow, but restrict such opinions to reasonable alternatives. Plans should aid the architect in successfully completing his commission; give design form to the entire campus; and serve as a symbol for friends to support emotionally and financially. Plans must be practical and plans must be imaginative."

The elements of good planning are fairly well known: a body of information sufficient for the undertaking and as broad a participation as possible in the process of planning.

(a) The Body of Information
   - comprises all serviceable data from which the future can be constructed.

(b) The Effort
   - necessary to finding and supporting a consensus of what the future should be.

Within this framework there are divergent approaches to campus planning but there is general agreement that planning can bridge the gap between the past and what is to come, and thereby translate enterprise into reality.

The role of the landscape architect in campus planning is one in which his concern provides visual unity and order, provides for expansion and at the same time he accepts and utilizes the quality and character of the site, and provides for a physical structure based upon the educational ideals of the institution under study.

It is the understanding of the attributes of a site, its limitations and the potentials which will determine the efficiency of function and the ultimate success of a plan. This understanding is basic to any site selection decision.

Secondly the location and placements of buildings on the land singularly or in groups requires even more intimate knowledge of the site to produce a successful scheme and here again, the landscape architect can make a significant contribution. The landscape architect is concerned with other aspects of campus planning and design also. Land use relationships, circulation and parking, educational programming, housing, services and maintenance, recreation, grading and drainage, planting and pavings, are but some of these concerns.

In essence the preparation of a master plan for the Lincoln College Campus required the collection of a large body of information. Much of this information was gathered in conversation, and is now documented herein; much of the information is developed from previous plans and schematic suggestions collected over a long period of development - much of which unfortunately developed on a haphazard, localised planning format.

This study outlines a suggested planning approach.

SECTION A: The Regional Position and provision of a regional concept of land use development with consideration of what has gone before. This "total" planning approach can be likened to viewing an unbroken "jigsaw puzzle" - the completed picture of many component parts - however the parts are the present and a forward look into the future possibilities of land use is also required.

Schematically this approach could be shown like so:

(a) Regional Whole
(b) Regional Parts
(c) Regional Whole (plus Future)

Stage 1
Stage 2
Stage 3
(The Surveys)
(The Surveys)
(The Concepts)
SECTION B: A system of separate but specific case studies of the central campus area from which a "total plan" was developed. This approach is much as one would develop the "whole picture" of a "jigsaw puzzle" without knowledge of the eventual picture one is attempting to produce with the individual parts.

Schematically this could be interpreted like so:

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| Central Campus Parts | Central Campus Whole |
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Stage 1
(The Case Studies)
Stage 2
(The Central Master Plan)

As is unfortunately, but frequently the case, most planning at Lincoln College has been developed on this type of basis. Seldom however has planning linkage been achieved between Stages 1 and 2.

SECTION C: Consequently becomes a synthesis of the ideas and resolves of categories (a) plus (b); and is presented as the final Master Plan.

Schematically this could be shown like so:

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| Regional Whole | Regional Parts | Regional Whole (plus Future) |
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Stage 1
Stage 2
Stage 3

SECTION B:

The benefits of a systematic approach such as that presented here, are that in resolving the many complexities and component parts of planning on such a scale, one can more simply categorise individual issues into the "total" framework of an "overall plan"; such issues are frequently "small" in actual dimension but initially can overwhelm the thought processes in planning.

The "dual line" method of approaching the planning of a Master Plan for Lincoln, has in fact served to check and hopefully overcome mistakes of priority in each of the two systems used. The resulting Master Plan is therefore a considered answer to development at Lincoln College. Recommendations put in the following sections of this report are placed in the section to which they apply because they are considered to have bearing at that place in the framework on the outcome of the Master Plan. That is, if change from the Master Plan is contemplated in a specific area on campus - and this, in the process of time and change of influence, is most likely - then planning consideration must be given not only to the immediate surrounds of the area so affected, but also to the eventual effect on the Master Plan as a whole.

The following plans and recommendations are presented graphically as a simple visual register of the accompanying dissertation; this complimentary procedure is designed so that misinterpretation of the resolve behind the recommendation is minimal.
THE REGIONAL WHOLE: THE SURVEYS

SECTION A1 - STAGE 1

LAND USE SURVEY

Lincoln College lies 14 miles to the south of Christchurch city and 1 mile to the west of Lincoln Township.

The College originates from 1878, with the building of a School of Agriculture, comprised of 402 acres and educational facilities; the provision of a school being the concept of Canterbury settlers who wanted to make an educational provision for posterity. 3

Proximity to rail linkages was pre- eminent in the choice of the Lincoln site. Today Lincoln is no longer dependent on these rail connections, although the Southbridge Rail Reserve lies immediately to the south of the existing campus and is in fact incorporated into College use.

From small beginnings the Campus has grown to its current state of development; the accompanying plate titled Land Use Survey, demonstrates the relationship of Lincoln College to Lincoln township; the existing and proposed zones of building and external roadway and rail patterns servicing the area are also shown.

Factors of land use which reflect on the future regional land use pattern can be analysed by the following:

(a) A tendency to ribbon development along the Ellesmere Junction Road which runs east/west from the township of Lincoln past the College itself. This ribbon development is further emphasised by staff housing developments on the north edge of the College Sports Grounds. The Wool Research Organisation, Department of Agriculture, and D.S.I.R., Crop Research complexes are the other recent building elements which accentuate the ribbon trend. That ribbon development along roads, is not the most satisfactory means of land use - both functionally and visually - is well expounded in much planning literature. 4

(b) The major concentration of building at Lincoln College is "pocketed" in the North East corner of the major road crossing - that is, Ellesmere Junction Road/Springs Road. That concentrated use of building sites has occurred in the north-east corner can be attributed to making the maximum use of 50 acres of rate-free land originally ceded to the College. No firm delineation of the specific 50 acres of rate-free land has ever been made.

If this road junction is to work as a functional crossroad in the future an even dispersion of entry and exit traffic to and from the College must be afforded at the corner in the proposed Master Plan. That a simple ring system of roadway in the best traffic measure of obtaining the desired effect is unquestioned; 5 however in relation to the way the campus has developed on a simple grid pattern, the development of a strictly formed ring system is difficult. That traffic of Christchurch origin or destination using this crossroad far outweighs the east-west through flow is undeniable. This Christchurch-Springs Road flow is likely to continue to increase, despite a proposed southern connector feed route planned for the regional Southern Motorway which will run by way of Collins and Ellesmere Roads, 6 to the south and east of the plan shown.

(c) Visual results of arable and pastoral land-use on a basically flat site are obvious and will not be itemised. However, as a result, the College has, up to this period, formed a separate planning entity from that of Lincoln Township, with adequate open space provision to preserve this visual separation. That the College buildings should continue to be a separate entity from Lincoln township in the future, is open to debate. Consideration of social and economic reasons for and against the eventual amalgamation of the two would require detailed study. However, in the context of this particular study where visual aspects of land use are all important, it is strongly recommended that open space in the form of pastoral land use be preserved in strength between the Wool Research Organisation and the Department of Agriculture, Animal Health Laboratory. This area is currently categorised as Town Supply paddocks 1, 8 and 9 (T.S. 1, 8 and 9) on the Land Use Survey. Although part of this land is currently under negotiation for sale, the area would in effect create a "green belt" or separation between building agglomeration likely on areas beyond College control.

(d) The influence of external road in determining the shape of buildable campus land is particularly well marked. If one continues to regard Springs Road as an eastern perimeter of central development, and Ellesmere Junction Road as a similar curb to spread in a northern direction, then the constrictive influences of a south eastern "progression" of Weedons Road (currently a paper road) 7 to the west, and the Southbridge Rail Reserve as a southern limit of future campus development, become evident. In effect, the land area so delineated forms a trapezium; a difficult land shape to accommodate a full campus development plan without some overlap of facilities across delineating roads. This overlap of influence has already occurred across Springs Road (fortunately of minor external consequence) in the form of maintenance housing in the area called The Crescent.

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The major constraining influence on land-use by external roading has been lively debated in the past and is likely to remain an issue. "Thinking" generally favours development towards the north because of a "desire" to capitalize on the previously-mentioned 50 acres of rate-free land, and this trend was initiated and continued respectively by the building of Hudson Hall, George Forbes Memorial Library and more latterly the Hilgendorf wing. This process of development has in fact "hemmed" central campus development into a north-east corner - and it is quite logical, but a mistake, to assume that future development should occur across the Ellesmere Junction Road to the north. Since this road is in effect a major external servicing connector to and from Christchurch and likely to increase in usage, the building of half a campus to the north to complement that which has gone before, would in effect create a campus fractured by external influences. Such an interplay of usage across what could become a major highway would be a drastic planning mistake. If development is ever contemplated to the north, on the area termed Mixed Cropping on the Land Use Survey, it should be in effect a separate entity from Lincoln College as it presently exists, and that same development should be able to "exist by itself". Such a proposition would avoid both circulation and administration problems associated with any future University development across Ellesmere Junction Road.

Considerations for a realignment of Ellesmere Junction Road so that a northern spread of Campus could be accommodated have been made, but these bear little weight in view of the Southern Motorway connector proposal previously mentioned. That is, most Christchurch traffic would use the proposed system, yet a direct Springston to Lincoln traffic route would still be required.

Car parking for the existing campus could however be placed to the north to overcome stresses on the central campus site; such parking stresses are already becoming a reality. Car parking could be satisfactorily arranged so that separate but single entry and exit points occur off and on to Ellesmere Junction Road at points not likely to interfere with southward bound campus traffic. Pedestrian contact from such a parking area would have to be similarly contrived so that a minimal number of crossings occur at areas of lowest vehicular use. Subways have been suggested as a measure to alleviate pedestrian conflict, however for the weight of pedestrian traffic likely going to and from a north sited car park, these would not be required.

SOIL SURVEY

The accompanying plate emphasizes the variability of soil-types across most of the land locally under College ownership.

The plate is not segregated beyond the soil series level because soil factors associated with the area are well documented in other literature. If one adopts this pattern of a west to east progression across the soil series present, one can say that along with the fall of the land the soils become progressively more water retentive. Because mineral status of all these four related soil series is similar in that they have the same derivation, it can be stated that it is the water retentive factor that most influences visual elements in the landscape. Such aspects as tree growth are of greatest concern here.

In analysis and observation this water retention factor is reflected in:

(a) the better growth of deciduous tree genera such as oak (*Quercus* spp.), *Prunus* spp., and ash (*Fraxinus* spp.) on the Temuka soil series.

(b) the better growth of *Eucalyptus viminalis* on the drier Wakanui, Templeton and Paparua series.

(c) the factor of easier winter sports ground maintenance on the drier Wakanui soil series (as yet only a comparison with the Temuka series can be afforded).

(d) the factor of persistent winter dampness in the area termed the Crescent, and from here on referred to the area of Maintenance Staff Housing. This winter wetness factor can be attributed to the persistence of a high winter water table which would forbid excessive building development on
LINCOLN COLLEGE
- CAMPUS DEVELOPMENT

LEGEND

SOIL SURVEY

LANDSCAPE CONSULTING SERVICE
DEPARTMENT OF HORTiculture
LINCOLN COLLEGE DATE: 11-70

SCALE

10 5 0 10 20 30 CHAINS
the eastern side of Springs Road. Future building should be restricted therefore to an area running roughly parallel to Springs Road because this area corresponds to the Temuka silt loam and Temuka silt loam on clay loam soil types shown by the dotted lines on plan; two soil types which have already been extensively built upon. Soil types of the Temuka series further to the east would be subject to drainage outfall problems if built upon; ground water being persistent throughout the year at minimal depth.
STAGE 2: REGIONAL PARTS SURVEYS

In the process of survey of existent circulation patterns operating within the College no major vehicular origin and destination survey was undertaken because:

(a) The survey was carried out in the summer period of minimal campus use,
(b) No simple or economical method of recording the origin and destination within and without the Campus was available,
(c) Because the study in this case was prepared on the site there already existed a conversancy with the inherent problems of the Campus.

A system of survey and analysis was therefore originated whereby the vehicular circulation was considered as a separate, but related, part of the Lincoln College Campus as a whole. That is, rather than divorce the circulation patterns from other factors such as the influence of existing building sites, an overlay system of graphic representation is provided. This system affords both the opportunity to study the said "separate parts" and also make one aware of other influences upon it. The complementary pair of plates accompanying this dissertation are therefore Circulation Survey 1 and Building Survey 1. Each has influence on the other, yet for a clarity of understanding they can be viewed separately.

CIRCULATION SURVEY 1: VEHICULAR USAGE

The accompanying overlay demonstrates the current Campus roading and car parking pattern with the external roading framework.

In analysis the following points become obvious:

(a) The basic roading layout was originally, and for a flat site, predictably, a modified orthogonal or grid layout.10 The road referred to as the "back drive" forms a primary connector between Springs Road and the metalled continuation of Weedons Road (sometimes referred to on plan as "Farm Road"). The only direct connector from the "back drive" to Ellesmere Junction Road is the roadway termed Calder's or Langer's Drive. Within the north-east square or quadrant so formed, the roading is purely a reflection of the stresses of time; as development of "the north-east quadrant" proceeded existing link tracks have been developed and sealed. An example of farm service tracks developed into a major link road is that which runs from the west of Ivey, past the back of the Refectory and so connects both to Langer's Drive and the said "back drive". This road system originates from the siting of stables; a factor of importance long past.

(b) The "loop-system" around the present Library site is apparently the only roadway developed with a pre-formed idea of modern functional needs; it stems from about 1955 with the reformation of the main entranceway to Ivey Hall.12
(c) All other road formations and the hierarchy thereof can be related to the preceding framework; these will not be itemised, but suffice to say that in the last 3 years a need to accommodate more building sites and car parks to the south of the "north east" quadrant has resulted in a disorganised, illegible roading and parking pattern.

Future circulation considerations must therefore attempt to overcome this disorganisation of a roading hierarchy - and the following recommendations are now put:

1. Although not strictly a viable planning measure in this time and age, it must be accepted that a development off the original grid framework is the only means of overcoming the existing pattern, particularly is this so if one takes concern for the existing buildings on Campus (see underlay Building Age).

2. In view of the previously mentioned importance of the Ellesmere Junction Road and Springs Road crossing, and the visibility of this cross-road in the future a "modified ring" circulation pattern is the best internal measure to adopt if possible.

3. All cross-roads currently developed or developing within Campus should be removed if in the future, hazardous overworked crossings are to be avoided. The simple planning fact is that a four-way cross-road has 16 danger points compared with the 3 danger points of a two- or 3-way road junction. A "T" junction also has the advantage of allowing smooth engineering or grading - a constructional and traffic flow advantage.

4. A "switch" of axis in roading development to relieve the importance of the overworked "north-east quadrant" as a major entry point from Ellesmere Road. The "back drive" should become more important than it currently is; a complementary westerly directed road off Springs Road and south of the present Agricultural Engineering complex would further this "switch" in emphasis of development. This system would serve both to relieve north-east congestion of site, and also open up a logical framework to westerly development within the area bounded by major external roads. Further, this pattern would avoid any requirement to cross Ellesmere Junction Road - this problem has been previously outlined.
BUILDING SURVEY 1: BUILDING AGE

Considering the accompanying underlay sheet detailing the decade in which specific sites were built upon, the following factors of analysis are apparent:

(a) If one "forgets" all knowledge of the character and use of the buildings shown, the uninitiated would in fact assume that the central site, (and therefore the presumed site of most importance), is that rectangular framework of buildings in approximately the geographic centre of the plan shown. In actual fact, the identity of this area is the Farm Yard. In the past, it was proper for a central site to be used for such purpose but in the context of educational stresses today it is debatable that this should continue to be so.

(b) It is again obvious that over the last 20 years, use of the north-east quadrant has approached maximisation of available building sites; suggestions that this north-eastern area should continue to develop as the major zone of Campus use, as it currently is, are in effect short-sighted because one should not neglect that recent development has proceeded apace in the south west corner of the agglomeration. To forget about what has occurred in the south west is in effect not bothering "to tidy up the backdoor step", a somewhat traditional College approach to this south western "visual disaster" area.

That planning thought and concern for the visual has concentrated in the north-east is in itself a reflection of the dilemma created by the desire to make maximum use of rate-free land. Fortunately this aspect of rate-free land usage has had visual and site use benefits in that building structures have been forced to go upwards.

Recommendations pertaining to the preceding analyses are:

5. A firm policy to displace the need for a central farm yard within the internal campus area. Possibilities should include the resiting of such facilities to one or more areas outside the area most likely to be affected by Campus spread within a 30-year period. This would exclude all sites within the area shown on plan and tends to suggest that as far as each farm unit is concerned a greater degree of self-reliance in relation to implement storage etc. should be catered for on each farm type.

6. That the term "Campus" as applied frequently to the said north-east quadrant be broadened to include the whole area bounded by the Weedons Road extension, Ellesmere Junction, and Springs Roads (as well as The Crescent). The term "Central Campus" should apply solely to an area containing most current building which falls within a circle of a \(\frac{1}{2}\) mile diameter from Ivey Hall as an approximate centre point. This approach will not only help persons following this report but will assist persons in translating a limited connotation of the word "campus" to include all major areas of building of administrative, residential and teaching use. This approach will, it is hoped, ensure that a more positive concern be shown to areas previously relegated to minor campus consequence.

7. A phased and large scale reorganisation of site usage must be entertained in the area surrounding and including the Farm Yard. This is an important future use area and reorganisation of the site must be contemplated if anything of visual worth is to be impressed on the scene.
Throughout the last decade several alternative suggestions have been made regarding a change in the roading pattern in the north-east quadrant of the Central Campus. To concentrate one's attention to an improved circulation in this area is a negative planning approach; what may appear functional on a small area does not necessarily infer that it relates to areas beyond.

The two alternatives shown are but two suggestions taken from past plans and are based on this "limited planning approach". The two alternatives can be analysed like so:

(a) Neither measures up to recommendations to remove cross-roads, both existing and potential.

(b) Neither alternative proposes an answer to the developing car parking problems.

(c) Neither offers a freely read - or legible - roading pattern. That is, to the uninitiated driver it is a process of "meandering his way".

Both alternatives have however, a singular advantage:

(d) A developing awareness for the need to separate as much as possible pedestrian and vehicular traffic. By general observation at the College, and today's general planning trends there is a need for separation of vehicular and pedestrian traffic. Again however, the plans fall short of requirements; the ideas proposed for pedestrian separation are but a core from which to develop further.
LINCOLN COLLEGE CAMPUS DEVELOPMENT

ALTERNATIVE (a)

1 & 2 DENOTE EXISTING ROAD CLOSURES

PEDESTRIAN USAGE

ALTERNATIVE (b)

1 DENOTES EXISTING ROAD CLOSURES

PEDESTRIAN USAGE

VENCLULAR USAGE

CIRCULATION SURVEYS 2 & 3
A further suggestion for a circulation system is shown here. The plate however, in a modified approach from the original because what was proposed and what development has subsequently occurred is in fact very different. Benefits of this particular proposal are:

(a) It offers a more total consideration of the complexities of a full campus plan.

(b) Car parking has been given a more full consideration than the 2 previous alternatives but suffers mainly from a lack of a logical policy of placement: car parks are related solely to available space after building sites have been pre-determined. Parks, although servicing the immediate building's needs do not offer a solution to the overall increased number of cars likely to occur on campus. That large car park pools have already been impressed on the original concept is consequently not surprising.

(c) No firm solution for a roading hierarchy is evident with the road closure suggested. Cross- roading exists within campus; in fact the existing count of 2 is in effect increased to 3.

(d) Pedestrian separation is a strong point of this proposal - however the linkage between the pedestrian elements proposed is ineffectual; disregard for the Agricultural Engineering complex is perhaps the most obvious lack of connection. Also the alignment of the pedestrian elements does not correlate with observed or likely movement patterns.

A further deficiency apparent in all 3 of the preceding alternatives in the entry and exit way into the main southern car park immediately one turns of Springs Road onto the "back drive". If previous recommendations of a change in axis of development are followed "the back drive" will become more important - and similarly the more important a hazard. This access should be removed as short a time as possible; several alternatives are available - and the one considered best is an amalgam of the said alternatives. It is now put as the following considered recommendation:

8. That following the closure of the entry and exit to the southern car park via the present access "off the back drive" - the following 2 entry and exit points be opened up to allow for future expansion of major car facilities.

(i) Access A - should occur at a point midway along Springs Road between the "existing back drive" and the "existing dairy lane".

(ii) Access B - should occur between the existing Short Course building and the assemblage of prefabs adjoining the Tussock Grasslands and Mountain Lands Institute Building.

Such a recommendation caters not only for the future expansion of parking likely in the area but also for ease of access from that car park both within and without the campus as a whole, that is, it is easier to get to "where one wants to go" without back-tracking.

Two "sympathetic" recommendations follow:

9. That the Campus area is now large enough to support a fixed naming system for roads. This, if effected, would give much-needed identification and legible "direction" within Campus.

10. In view of the suggested future importance of "the back drive" a minimum encroachment, or "building line", for all future sites along it should be established now.
Again a complementary system of analysis and survey is shown. In an attempt to determine the current use to which a particular building is put 8 classes of building use are shown. By assembling a survey such as this, one can determine in turn the zones of any particular use, across the Campus. 

Revelations from this particular pair of plates include:

(a) No firm zonation of any particular building usage; in fact the lack of zonation and fractured, somewhat loosely organic nature of planning, is of particular note. For example -

(i) Student residential areas number 4 and are spread throughout the Central Campus area.

(ii) In spite of a general feeling often expressed that Central Campus life is concentrated on the Hilgendorf Wing, (and likely to be increased in view of further building in the area), two other major elements of Instruction and Research currently exist on Central Campus. These centres are Agricultural Engineering, and the multidisciplines gathered around the Soils Laboratory.

(b) Two existing areas come within the Service category of zonation. In view of prospective change of the boiler house site and current plans for service lines to concentrate on The Farm Service Zone it is difficult to see reason for any change in the policy to continue development of this area into the one major service complex. That the Farm Yard area is a strategic central site on Central Campus has been stressed; in view of the need to have a central boiler site for ease of dispensing steam heat the functionality of the proposition is not questioned. However the visual consequence of any such proposal requires detailed survey and is the subject of a specific case study presented later.

In respect to the disorganisation obvious in the zoning pattern, as shown by the Building Analysis, the following recommendation is made:

11. In view of the partial adoption of a proposed lineal pattern of zoning across the Central Campus that stems from plans prepared by the College Architects in 1968 and 1969, that this pattern be continued and developed further. The lineal pattern of planning has benefits in that a conscious pattern of land use zoning can be impressed on a site. A logical and readable framework develops; it is frequently visually predictable but a proven method of viable land use. Generally it is developed along arterial roads and frequently if uncontrolled develops into ribbon development; however the application of a lineal framework would not have this connotation on the Central Campus. Rather a logical approach to planning would help overcome the current amorphous land use pattern.

Expanded regionally the lineal concept would help to preserve -

(i) Lincoln College as a separate planning entity;

(ii) Preserve the "rurality" that is Lincoln; provided adequate open space is maintained. This open space must be legible and uncluttered by building sites and other visual obstructions such as hedges and high fences.

SERVICING SURVEY:

In the preparation of this particular survey no specific plate is shown because of the difficulty in tracing the separate lines of such elements as sewer, underground power & steam heat. Most information is fractured into many parts, covering many individual drawings and at this stage a fully developed plan is as yet, not available. However, an awareness of existing obvious servicing lines across the Campus is assured in any recommendations that pertain to drastic change in Campus layout.

Aspects such as emergency entry for fire engines, cleaning and rubbish collection, have been considered and the following recommendation is put in view of suggestions already put:

12. Whilst emphasizing the need to separate pedestrian and vehicular traffic it is recommended that any solely pedestrian way so formed must be wide enough and of sufficient constructional strength to carry service and emergency vehicles. At the same time pedestrian ways should serve the function of obscuring that visual untidiness so often associated with steam heating lines.
VEGETATION SURVEY:

In view of the fact that most plant species occurring on campus are either well-documented on plan, or are well-known, the following plate is all that is presented: the difficulty is in transposing all this information to a plan of the scale shown.

The plan surveys major tree species existing on Campus and acts as an inventory of those species that can not or should not be removed or relocated. The approach to survey is by necessity, compounded from studies of each individual tree on the following 5 values:

(i) botanical significance
(ii) historical significance
(iii) horticultural significance
(iv) visual worth
(v) non-transplantable or difficulty of shift due to present placement

Consideration should be immediately given to the following tree:

13. Removal of the dying Sequoiadendron giganteum (red wood) at the Principal's gateway; planting of this species in the future would be best confined to the Wakanui soil series - constant "wet feet" being suggested as the major reason for the slow death of this particular tree.

Major trees are the only plants mentioned in this survey; consideration however to the value and function of:

(i) existing hedge lines
(ii) established shrubs and shrub borders, has been given in plans presented later in this report.

Further recommendations pertaining to plantings, both proposed and existing on Campus area:

14. In analysis of the accompanying plate it is obvious that few plantings occur in the southern sector of the Central Campus. In view of this, it is recommended that a measure to overcome the visual untidiness of this area, a considered tree planting schedule be brought into operation immediately.

15. In respect to the previous recommendation the two following points are made:

(i) Since a requirement for expensive "grown-on" - or large - tree specimens is more than just a possibility consideration should be made for providing a "grown-on" ground on College land.
STAGE 3: THE REGIONAL WHOLE - THE CONCEPTS

CIRCULATION AND BUILDING CONCEPTS

Again a complementary pair of plates is provided so that the individual systems can be viewed both separately, and as a whole.

CIRCULATION CONCEPT:

The concept briefly is a synthesis and extension of previous recommendations pertaining to vehicular and pedestrian traffic. It should not be regarded as a complete resolution of circulation problems but rather as a general format of road lines, pedestrian precincts, and potential car parking zones.

Major items not previously specified in the report are numbered on plan. These are:

(1) If a continuation of staff residential development along Ellesmere Junction Road were to be considered in future, it would be a mistake not to plan this on modern concepts of a neighbourhood unit. The schematic road pattern shown does in fact do this, that is, rather than continue a ribbon pattern westwards a pattern of internal road layout that lends itself to "piece by piece" development is shown. This allows for any future continuation of housing development from any given point; yet that which has gone before can still exist visually as a planned entity. Other advantages of the concept shown are:

(i) Privacy yet community; which is based on curvilinear road alignment and a cul-de-sac pattern.
(ii) Freedom from external traffic influence - yet a positive linkage to the overall grid roading layout.
(iii) Adequate neighbourhood definition by dint of existing trees to the west; more planting in the area is required however.
(iv) A continuation of the proposed lineal land use pattern.
(v) Adequate internal open space provision by the cul-de-sac pattern shown; it is felt that since Lincoln College is blessed with adequate buildable space in this area an example of environmental neighbourhood planning should be the major aim.

(2) A continuation of the lineal concept of land use would incorporate the area shown into a prospective zone of residential development. Whereas it would be a planning mistake to cross a major external road like Ellesmere Junction, no such external play of influence would occur if a continuation of Weedons Road was crossed. This step would however, be in the very long term, but still requires consideration. However this step has advantage in that the angle at which Weedons Road crosses the country, is diametrically opposed to a lineal progression of land-use based on the line of Springs Road.

The roading pattern has advantage in that:

(i) It overcomes by curvilinear alignment traffic problems associated with a continuation of Weedons Road and a proposed southern axial road along the back of the Agricultural Engineering Complex,
(ii) Avoids cross-roading at all points,
(iii) Relates to an overall modified grid layout,
(iv) Offers accessible servicing of the area, which,
(v) Could in the future be best used for Student Housing in the form of flats.

(3) In line with recommendations pertaining to open space and sports grounds this area should always be relatively free of building sites. If a zonal pattern of planning based on a lineal concept is to be adhered to and the overall open space is to register visually as such, for reasons previously set down, then:

(i) The current site of the nursery and glasshouse complex encroaches on the broad lineal open space zoning. Consideration must be made to relocate the buildings to a site outside the Campus area. Past hedging serves little functional purpose where grown now, and in fact acts as a visual barrier to open space understanding. Also, hedging in the area acts as a limitation to viable sports ground layout.
(ii) In view of potential recreation buildings on the area of the main sports ground open space so lost must be regained if a legible land use pattern is to be formulated.

28.
(iii) Similarly open space likely to be lost in the development of areas west of the Colombo and Lowrie Halls must also be regained.

(iv) Other existing buildings on the site include the piggery, Cowlishaw's house, and several staff houses. All 3 categories, although they infringe on the linear concept, could well be retained; in particular the piggery and the horticulture potting shed could well become sports pavilions.

(4) If development of a separate entity should ever occur on the area north of Ellesmere Junction Road access points to and from it should occur at positions where minimum vehicular interference is caused. Two examples are shown and have the benefit of avoiding cross-roads.

(5) In respect to the overall modified grid layout of roadways proposed the area behind the refectory still requires servicing access; a cul-de-sac off Langer's Road is proposed.

(6) The major alteration to existing Central Campus roadway pattern is that as soon as the current Soils Laboratory site becomes available, provision should be made to continue the Hudson Hall driveway through to the "back drive" at this point. This proposition is in fact the key factor in many of the subsequent recommendations made and has strength of argument because:

(i) It overcomes the need for the existing cross-road in the area of the Farm Office,

(ii) Makes a viable connector road between the northeast quadrant and the southern sector of Central Campus,

(iii) Allows for the development of a second "ring" route around the greatest concentration of existing and likely building,

(iv) Increases the legibility and therefore the logic of the roadway pattern,

(v) Allows for a sympathetic closure of the roadway running along Ivey Hall's east side such that that particular roadway becomes a strictly pedestrian realm.

In view of these advantages, and the fact that the Soils Laboratory needs structural internal strengthening, it is suggested that the best measure in demolition of the afore-named building. Other buildings affected by the suggested road route are prefabs dating from years immediately post-war.

(7) Realignment of roads to the south of Central Campus has been recommended, and reasons for such propounded. Sufficient to say that:

(i) if alignment were to follow the existing "dairy lane" a minimal area for prospective building and car parking sites to the north occurs,

(ii) the building line established by the former Lecture Room "00" complicates road alignment and a straight simplified pattern for a westerly developed axial roadway would be best,

(iii) this roadway would be the southern limit of Central Campus building development. If a hypothetical centre of a circle with radius of 1/4 mile, is taken as a point in the vicinity of the back of Ivey Hall, Central Campus development could be contained within a 10 minute maximum walking distance. That is, a 1/4 mile diameter Central Campus spread is recommended as a measure to confine building within a viable pedestrian and servicing area.

(8) The private drive running past the Principal's Lodge offers an existing roadway that would complete a modified grid layout with emphasis on entry off Springs Road.

(i) Mature existing trees should be retained; and with minor modification a roadway linked to that fronting Ivey could be established. The existing roundabout is of doubtful functional purpose - and in view of a previous comment pertaining to a pedestrian precinct on the east of Ivey, the roundabout should be removed.

(ii) Roads related to car parking and servicing of the back of Hilgendorf and likely extensions thereof, must also abide by a total consideration of existing trees.

(9) In respect to the existing staff maintenance area any continuation of this development should be in the form of a second loop system rather than development off the existing Crescent; such a manoeuvre would avoid overtaxing of existing outlets onto Springs Road, at points which are likely to get greater usage in future.

THE NEED FOR A CAR PARKING SITE POLICY:

Up to the present, siting of car parks has in analysis been haphazard, in that as available space has occurred the immediate stress of car numbers has forced usage of the site for parking.

30.
As a consequence parking facilities occur on no firm logic of placement, and in fact are often contrary to the total demands on the site.

Accepting the 3 major student car parks as fait accompli, the following recommendations are put:

17. That all future major student car parks be placed in relation to ease of access off major external roads, so that they become peripheral to Central Campus development. Where necessary areas for non-residential parking may fall outside a Central ¾ mile diameter of land use.

18. That limited staff car parking only, be provided according to the immediate servicing of a building. It must be recognised that provision of all staff car parking needs cannot be serviced adjacent to the buildings of the driver's occupancy.

PEDESTRIAN USE CONCEPT:

In viewing the accompanying plate it is apparent that the roading pattern suggested does in fact allow a far greater linkage of strictly pedestrian (and emergency service) realm. The pedestrian ways so formed in effect form a modified grid superimposed on areas free from vehicular interference. Of course pedestrian/vehicular conflicts still occur and this is unavoidable because of the well-formed land use pattern already set. In general likely pedestrian crossings occur away from corners. The layout as shown is conceptual and must be modified according to actual usage patterns.

BUILDING CONCEPT:

Many site benefits related to the Circulation Concept are evident in improving the readability of existing and proposed Building Sites.

The accompanying plate analyses the facts of the 2 previous Building Surveys and demonstrates possibilities of site use when older buildings are demolished.

Points about the concept are:

(i) If the modified orthogonal layout already present is to be continued with visual strength, large multi-storeyed structures which use an available site to the full must be considered. Larger structures have visual strength in contrast to smaller aggregations of many types of buildings. The desired pattern is already set by Hilgendorf and proposed extensions of it, and the proposed Library/Administration complex.

(ii) A further benefit of larger structures that maximise a given site from the start, is that over time, spread beyond a ¾ mile diameter Central Campus site is forestalled.

(iii) In relation to the proposed roading pattern the sites shown would give visual strength to the layout; for example, most roadway vistas are climaxed by a proposed large building.

Pedestrian open spaces are not accidental but are based on the best spatial arrangement of buildings to accommodate -

(i) the pedestrian grid layout proposed, and

(ii) offer greater opportunity for the landscape development of pedestrian precincts so formed.

It is stressed that the layout shown is purely schematic; the form or density of the building is in no way dictated. In effect the Concept is purely a graphic register of potential building sites in relation to an improved circulation pattern to be carried through to the next section of the report.
Functionalism is a major objective in any plan; however in extracting a functional concept for the vehicular, pedestrian, servicing and building elements, the effects on the visual landscape must be considered. In effect, a primary concern for the visual is carried throughout each proposal. Mention has been made of 3 of these visual categories:

(i) buildings acting as a climax to a road vista; an end element that serves to define roadway open space,

(ii) pedestrian areas in the form of plazas and defined precincts to give identity to open space areas between buildings, and buildings that are sited to extract the best out of the open spaces so formed.

Further categories are:

(iii) open space linkage by careful placement of lawns and continuity of tree and shrub plantings,

(iv) open space definition using plant material as the tool, rather than using building structure to define space.

These various factors of open space development and use are positive means of creating a functional yet aesthetic environment and are carried through from the accompanying concept to the next section of the report. In effect the concept of "linked open space" must utilise all open space categories - some are named on the plate - but one should also be aware that roadways and pathways are in fact visual open space elements that serve to link one area to another. This point is a further reason for the proposed reading framework - at no place is it repetitive - each end point of a road offers a different visual climax.

If one considers the plate it is again obvious that the southern sector of Campus open space is under-developed. Conclusions from this suggest that any future developments particularly of car parking, must be very well designed if they are to register visually as part of an overall linked open space pattern.
Lincoln College
- Campus Development -

Landcape Concept
A Linkage of Open Space

Legend:
- Existing Developed Land Space
- Potential Developed Land Space
- Existing Linear Space
- Existing Open Space
- Potential Spread
- Visitors to be eliminated with visual screening
- Open Vistas associated with major areas

Lincoln College
Landcape Consulting Service-Dept. of Hort.
Lincoln College
Date: 11-70
Scale: [shown]
THE REGIONAL LINEAL CONCEPT:

Expressed graphically, the regional lineal concept demonstrates how such a land use proposal ensures that Lincoln College will retain its "rurality", by dint of the alternation of open space as one proceeds west along Ellesmere Junction Road.

The Concept shown is greatly expanded from a level of Central Campus maximisation. If future use of the Mixed Cropping Farm area to the north is contemplated, the linearity of regional land-use must be protected. In this case development should proceed along the arc shown and any buildings in the north should be able to exist as a separate entity from the Lincoln College Campus. Reasons for this approach have been outlined.

In effect, what is being stated, is that if the Canterbury University contemplates expansion in the Lincoln area a separate development based on a lineal approach would be sympathetic to the pattern already set.
LINCOLN COLLEGE
- CAMPUS DEVELOPMENT
REGIONAL LINEAL CONCEPT
In this section the process of survey and analysis is confined to selected areas of Central Campus. The abiding consideration of the following Case Studies is that they should suit the concepts and recommendations already set down.

Frequently the problems associated with Central Campus are viewed out of context from a whole understanding of site planning considerations. In this section priority is always given to future site planning considerations, rather than those incidental factors that often undermine, by their sheer immediacy, a total consideration.

The Case Studies are, in the main, self-explanatory; a system of selected alternatives based on plans and conversations in the preparation of this report are shown and the preferred alternative is opted for in the process of arguments presented. These "preferred alternatives" are carried through into the final master plan.

CAST STUDY 1: IVEY HALL PROPOSALS

The preferred alternative is shown at the bottom right of the accompanying plate. This alternative preserves the facade of Ivey Hall. In fact the shape of Ivey would revert to the original form of Ivey before accretion occurred.

Potential sites shown are those considered to extract the greatest sense of visual open space enclosure - so that the spaces so formed in effect become a viable pedestrian precinct.
CASE STUDY 1; IVEY HALL PROPOSALS:

**ALTERNATIVE (a).**

**ADVANTAGES:**
- Retains existing curriculum as architectural form of enclosed spaces.

**DISADVANTAGES:**
- Too close to existing A.M. building.
- Leaves too much of an important campus site.
- Difficult to relate future building site.

**SCALE: 100' to 1"**

**ALTERNATIVE (b).**

**ADVANTAGES:**
- Retains much of the architectural form.
- Character key.
- Removes the monotony of visual sections.
- Well-crafted.
- Slight structurally intact.

**DISADVANTAGES:**
- Too close to existing.
- Too close to future building site.

**ALTERNATIVE (c).**

**ADVANTAGES:**
- Less costly to maintain.
- Less ambitious alternative.
- Less likely to fail.
- Related to future building site.

**DISADVANTAGES:**
- Less ambitious architectural.
- More expensive alternative.
- Not related to future building site.

**PREFERRED ALTERNATIVE (d).**

**ADVANTAGES:**
- Related for alternative (b).
- Related well to future building sites.

**DISADVANTAGES:**
- Less ambitious architectural.
- More expensive alternative.

LINCOLN COLLEGE CAMPUS DEVELOPMENT
Initially in preparation of the Master Plan it was felt that there were strong arguments for:

(i) not over-working this particular site because by observation this is already the most densely worked locus on Campus.

(ii) closure of the existing roadway fronting Hilgendorf so that in effect a full pedestrian realm developed.

However, in view of accepting a policy of maximisation of Central Campus sites and to make logical the extensive length of Hilgendorf (which was originally designed to be one of a pair of buildings) the preferred alternative shown is opted for. A second building of height will add visual strength to this side of the Campus as viewed internally and from major external roads. To cater for staff car parking a reorganisation of available space is needed and the plan shown indicates areas most acceptable in view of service requirements and existing valuable trees. That current car parking does not meet the needs of Hilgendorf, let alone a further multi-storeyed building reflects the need for a policy minimising the number of cars allowed to park in the area (234 cars is the largest number so far recorded using the area). A minimal number of cars entering and leaving by way of the entrance opposite the Wool Research Building would have decided traffic control advantages. The entrance must be retained for servicing and emergency service so limited parking is logical. Car parks and access ways to the north i.e. across Ellesmere Junction Road, could be contemplated to supply adequate "Hilgendorf" car park space.

Immediate car parking needs generated by a new multi-storeyed Library-Administration complex would cause fracturing of the quadrangle upon which the existing Library is sited. Although the functionality and need of a car parking provision in the area is not questioned, it is felt that to preserve existing trees and retain the visual unity of the area no deep penetration of servicing and parking elements into the quadrangle should occur.

Comment should be made about the existing car parks in front of Ivey; with subtle change in alignment and a policy of short term parking only, the detractive nature of this area could be partly removed.
CASE STUDY 2;

HILGENDORF & LIBRARY

PREFERRED ALTERNATIVE (b)

PROPOSALS:

- CONFLICTS
- PROPOSED DRIVeways
- SCHOOL CROSSING
- SCHOOL PEDESTRIAN US
- PROGRAMMED SPACE UTILIZATION

- MAJOR FACILITIES REQUIRE A CRISS-ROADS
- PROPOSED NEW TEACHING WING
- PROPOSED HALL TO HILGENDORF

ALTERNATIVE (a)

ADVANTAGES:
1. CLOSER PROXIMITY OF RELATED RESEARCH & TEACHING FACILITIES
2. PROPOSED NEW TEACHING WING

DISADVANTAGES:
1. 1A2. MAJOR FACILITIES REQUIRE A CRISS-ROADS
2. PROPOSED NEW TEACHING WING
3. PROPOSED NEW HALL TO HILGENDORF
4. CONFLICTS
5. PROPOSED NEW TEACHING WING
6. PROPOSED NEW HALL TO HILGENDORF
7. MAJOR FACILITIES REQUIRE A CRISS-ROADS
8. PROPOSED NEW TEACHING WING

SCALE: 100' to 1'

LINCOLN COLLEGE

CAMPUS DEVELOPMENT
A case in point where valuable Central Campus space is in effect not used. The basic zoning pattern impressed by a lineal concept dictates that the Hall should always remain a student hostel area. Suggestions of accretion onto the existing structure to improve its visual character do not appeal; a misadventure of modern and outmoded building styles could only result. Suggestions to convert Hudson to an administrative capacity would also break the lineal concept suggested and also not abide by the centrality of Central Campus siting that administrative facilities usually require.

The preferred alternative shown considers the area of Hudson in relation to the new Student Union building and the Refectory. It is contended that this is the best method of viewing the area rather than as fractured unintegrated parts. This viewpoint has special import because of the pedestrian traffic likely to be generated when the Student Union comes into use. The preferred alternative shown caters for—

(i) a switch in axis of overall development
(ii) pedestrian traffic
(iii) immediate service and car parking needs

To effect the overall logic of the campus roading pattern the roadway running to the south of Hudson should be closed, that is except for the area servicing Hudson Hall.

Hudson Hall could be better related to other structures on campus by a repaint in sympathetic tan to brown tones.
CASE STUDY 3; HUDSON HALL PROPOSALS:

ADVANTAGES:

(i) Suggests road closure
offers a single ring system

(ii) Developed from (i) are the many car parking facilities

PREFERRED
ALTERNATIVE (b).

ADVANTAGES:

(i) Overcomes disadvantages
offered in alternative (a).

(ii) Car park shown is designed to cater for student union needs in association with car parks to the west and south. Had the car park proposed were taken into account, major existing plantings

ALTERNATIVE (a).

PARKING FACILITIES

- Offers a simple ring system
- Developed from (i) are the many car parking facilities

PARKING FACILITIES

- Offers a simple ring system
- Developed from (i) are the many car parking facilities

ALTERNATIVE (b).

PARKING FACILITIES

- Offers a simple ring system
- Developed from (i) are the many car parking facilities

ALTERNATIVE (a).

PARKING FACILITIES

- Offers a simple ring system
- Developed from (i) are the many car parking facilities

ALTERNATIVE (b).

PARKING FACILITIES

- Offers a simple ring system
- Developed from (i) are the many car parking facilities

LINCOLN COLLEGE CAMPUS DEVELOPMENT
Encroachment onto the lineal open space pattern must occur in the area shown if anything is to stop the visual "march" of the Colombo and Lowrie Halls. A strength in hostel zoning in this area would also occur.

Three alternatives are shown and that preferred extracts a far greater interest from the spatial enclosure than the symmetry of Alternative (a) or the fractured nature of Alternative (b).

Hostel accommodation of a multi-storeyed form, for visual character alone should be confined to one tower block to complete the present arrangement. Smaller hostels in the form of flats, of up to 2 or 3 storeys would form a transitionary element between the vertical tower wall components and the horizontal plane of the ground. Pedestrian ways are placed in relation to existing paving and in turn an overall grid layout.
CASE STUDY 4; COLOMBO & LOWRIE HALLS PROPOSALS:

ALTERNATIVE (a)

ADVANTAGES
1. Springs spatial enclosure of hostel court by proposed buildings
2. Proposed car park
3. Proposed tower blocks
4. Existing car park
5. Existing forecourt

DISADVANTAGES
1. Loss of public space
2. Loss of public space
3. Loss of public space
4. Loss of public space
5. Loss of public space

ALTERNATIVE (b)

ADVANTAGES
1. Car parking consistent with building density
2. Proposed tower blocks
3. Existing car park
4. Existing forecourt
5. Existing car park

DISADVANTAGES
1. Loss of public space
2. Loss of public space
3. Loss of public space
4. Loss of public space
5. Loss of public space

ALTERNATIVE (c)

ADVANTAGES
1. Car parking consistent with building density
2. Proposed tower blocks
3. Existing car park
4. Existing forecourt
5. Existing car park

DISADVANTAGES
1. Loss of public space
2. Loss of public space
3. Loss of public space
4. Loss of public space
5. Loss of public space

PREFERRED ALTERNATIVE

ADVANTAGES
1. Attempts to rectify disadvantages of the two earlier alternatives
2._rights

DISADVANTAGES
1. By placing a single multi-storey hostel to the south, a break in the streetscape is achieved
2. The overall scheme can be achieved

CAMPUS DEVELOPMENT

LINCOLN COLLEGE
CASE STUDY 5: ENGINEERING AND CAR PARK ZONE

The complementary plate and overlay shows the system of survey and analysis used to develop a proposed ultimate site use. This overall approach to the area was preferred because each building factor in the area relates to the next — a "visual disaster" area results. What is implied by this comment is that massive reorganisation is in order if anything of visual consequence is to be introduced into the area.

The plate underneath shows the area as it exists and information from previous Building Surveys is carried through onto it. By this means, areas of open space likely to occur over time become apparent. It is suggested that although open space may occur on building demolition, it is no reason to immediately replace the building with another; rather, as the ultimate site use shows, it is preferable to retain this open space for lawn, planting and pedestrian purposes.

The solution presented offers the opportunity of overcoming existing site disorganisation, and abides by recommendations already made as to car parking, road realignment, pedestrian ways and building type. A phasing of this solution is necessary, and this can be read from later plans presented that lead up to the Master Plan.
LINCOLN COLLEGE
CAMPUS DEVELOPMENT

CASE STUDY 5;
ENGINEERING & CAR PARK SURVEY & ANALYSIS
ULTIMATE SITE USE
This particular study is drawn up on the basis that the area defined as a possible extension of the ex-orchard car park on Case Study 5, is in fact accepted for this use.

The area has advantage in that it relates directly to access to and from Springs Road. However continuation of the format of the existing car park has limitations functionally, and has monotonous repetition visually.

The preferred alternative shown offers a compromise solution between a maximum number of cars (Alternative (b)) and an area of relative planting charm.

Planning in this way; that is, just before the need, offers opportunity of establishing planting of height before actual construction begins. The resulting car park would not suffer from a visual initial rawness so common a means of accommodation cars today.
CASE STUDY 6; CAR PARK:

To the south of the existing Orchard Car Park:

**ALTERNATIVE (a):** ONLY CARS

**ALTERNATIVE (b):** ONLY CARS

**ALTERNATIVE (c):** ONLY CARS

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**LINCOLN COLLEGE**

**CAMPUS DEVELOPMENT**

SCALE: 100' to 1"
CASE STUDY 7: EXISTING FARM YARD, FUTURE SERVICE CENTRE

The proposal shown offers a means whereby the existing farm yard can quite conceivably be converted from its current purpose to a major service centre. The advantages of occupancy of a site of such geographic importance on Central Campus are -

(i) of function, it is more simple and less costly to lay service lines from a central location.

(ii) phasing from a farm yard to a service area is more simple than an unrelated change of use.

However, both purposes have great visual disadvantages; and so the proposed alternative accepts that this area has a primary role of servicing, but at the same time offers a central servicing area which presents a pleasant building facade. For example, the boiler house site is worked solely from the centre - 2 facades are presented, that is, the east and south sides. This siting incidentally differs from Ministry of Works proposals.

Other points about this proposal are:

(i) A change of use of the existing roadway running north from the paint stores; this should become purely pedestrian and emergency service, thereby overcoming potential development of a cross-road.

(ii) The progressive removal of most present buildings in the area; some are of historic interest in that they reflect the trends of the concrete building age of the 1930's, however functionality of eventual site use outweighs historic interest.
EXISTING FARM YARD:

CAMPUS DEVELOPMENT:

LINCOLN COLLEGE
In effect this is a further case study which has developed further, to the stage of a firm proposal. The accompanying plate itemises the principles adopted in the plan proposed. At this stage the actual building units could be changed from those shown but the overall format would remain much the same. Further points about it are:

(i) the area should not cater for any greater density of flat accommodation than that shown if a village concept is to be preserved.

(ii) the area should exist as two workable entities; a staff maintenance housing area, and a student village.

(iii) double storeyed units are not favoured.

(iv) although in a pilot project the emphasis is on experiment, proposed buildings must still register adequate visual unity. That is, if each site accommodated a different kind of building no visual expression of "village" would occur. Two elements of two types are therefore shown.

(v) preservation of the cottage, "H1", is considered an essential part of this scheme. The particular cottage chosen for restoration is that which comes closest to original order, it is by no means in the best condition. Secondly it is chosen because the site it occupies acts as a precursor for a twin arc of building development. Any of the other 3 cottages constrict the viability of a village concept by the very placement of the site they occupy.

(vi) open space achieved by a relatively large set back of buildings off Springs Road is designed to show off the buildings and to give visual emphasis to the future importance of "The back drive". It serves also to overcome traffic hazards that could be associated with a further outlet onto Springs Road.
LINCOLN COLLEGE

CAMPUS

DEVELOPMENT

STUDENT VILLAGE

PILOT PROJECT

THE CRESCENT · PROPOSAL
SECTION B: STAGE 2. TO BUILD UP THE WHOLE

In effect the preceding "parts" are now aggregated into a "whole", that leads to the presentation of the Master Plan. That these parts do fit together is proof that the circulation and building concepts previously developed are workable.

In drawing up the Master Plan only one plan is presented and by close analysis can be found to be a synthesis of all the case studies and recommendations previously put.

In this report however, the Master Plan is presented as the final drawing because a time frame which was later impressed on it, is more logically presented in chronological order.
"The institution of higher learning is remarkable for pursuing an intricate programme with little agreement about fundamental purposes. Physical plant requirements cannot be planned until the purpose for which they are to be built has been articulated by those responsible for establishing educational goals".  

Dober 24

This statement indeed reflects the state of development at Lincoln College; in fact the formulating of a time span for any plan is a subject for conjecture.

Determining influences are:

(i) The number of years covered by the estimates of future enrolments and other programme statistics.

(ii) Capital budget programmes.

(iii) Degree of control the institution has in regulating growth or acquiring resources for development.

(iv) The time span of planning programmes beyond the campus boundaries.

(v) Consideration of special target dates such as a centennial celebration or construction schedules.

Information pertaining to these 5 categories is either limited for a 5 year time frame or subject to change due to the present restructuring of courses. 25

For this reason a "long range" planning schedule was opted for, because such plans allow some measure of discretion and decision for the future, yet provide sufficient information for evaluating the change and growth that must be planned earlier.

Rather than specify the period of years over which a time frame based on Full Time Equivalent (F.T.E.) student projections, would become operative the measure of site maximisation is used. By this measure some logic is impressed on the plans presented; admittedly these plans are subject to change, because one can seldom predict the future by using the facts and characteristics of the present. Site maximisation, in this case, is the "using up" of the previously defined Central Campus ½ mile diameter area.
A hypothetical stage of Development is shown whereby the final Master Plan presented can be reached.

Most factors are self-explanatory; differences from the present are -

(i) an increase in student hostelling on the vicinity of the Colombo and Lowrie Halls in line with comments made in Case Study 4, and the immediate requirements to satisfy a 1:1 resident/non-resident F.T.E. student policy.

(ii) a development in the north west of further staff housing in such a form that it is private, and of a greater density than housing that exists at present. "Pick up points" for further development are provided.

(iii) development of the new Library/Administration complex.

(iv) development of the Hilgendorf East area

(v) development of the Ivey Hall area and related road and pedestrian precincts.

(vi) development of the Hudson Hall, Student Union, Refectory complex as one entity.

(vii) development of the gymnasium.

(viii) initial phasing of the Service Centre, Agricultural Engineering and associated road and car parks.

(ix) student housing and further staff maintenance housing on the east of Springs Road.
Taking the proposals of Stage 1 as fixed, the accompanying plan again presents a hypothetical stage of development. Shown is -

(i) further development of staff housing in the north-west accompanied by an initial development of senior student housing in the form of flats, based on the premise that the proposed student village is in fact workable.

(ii) a relocation of the Horticultural Department Nursery.

(iii) further hostelling to the south of the Colombo and Lowrie Halls in line with a lineal land use pattern.

(iv) further phasing of the Service Centre and expanded car parking.

(v) new buildings on the current sites of the Veterinary Science Section, Tussock Grasslands; these should be of faculty and teaching use.

(vi) accretion onto the N.Z.A.E.I. building to improve both its functional and visual worth.

(vii) extended southern car parking - again perimetal to the Central Campus site.

(viii) Faculty building (teaching and research - to incorporate glasshouses etc.) to the south of the Principal's Lodge.

(ix) an increase in maintenance staff housing east of Springs Road.

Of the preceding two plans it must be stated that they are strictly hypothetical; both are subject to a change of priority or order in which a given section of development may occur. The form of the building is not dictated, however the siting abides by the principles of circulation (vehicular and pedestrian), tree planting, open space development, and services already set out in this report. Car parking is also subject to change of priority of site use; by observation of current needs around Hilgendorf it may be necessary to establish a car park to the north of Ellesmere Junction Road at an earlier stage than that shown on plan.

Less important changes have occurred on the two preceding plans from that existing today; these have not been itemised.
The accompanying Master Plan is in fact a synthesis of all previous recommendations and comments made.

The important aspect of trees and their effect on the visual and functional environment, has, up to this stage, been left as an incidental to other factors of the plan. Tree planting is a major natural tool which serves to break the severity of the man-made landscape. Particularly is there a need for trees to do just this at Lincoln College; being based on a modified grid layout Lincoln College is obviously man-contrived. Taking the existing planting of mature oaks in the north east as a fine precursor to natural group planting, the Master Plan displays areas suitable for the development of similar group plantings over the full Campus area. It is a sorry commentary that most plantings of stature are derived from the College’s earliest time; seldom have subsequent plantings been of sufficient density to carry a visual sense of naturalism.

From these proposed heavy plantings most others are derived; in some cases to provide a combined shelter and avenue effect (e.g. along the "southern back drive"); in other cases to provide that visual element in the landscape which links the planting together. In some areas they are designed to provide shelter without the harsh necessity of belt planting, and in certain places they are placed to foil the visual severity of vertical building lines.

In effect therefore, the Master Plan is a summary of all preceding points. An index of recommendations is provided at the back of this report for ease of reference.

Items that do not occur on the preceding 2 plans include:

(i) increased staff housing in the north-west, (this stage may never be required but should however be considered if a neighbourhood unit concept of planning is abided by),

(ii) increased student housing in the west,

(iii) completion of a recreation, gymnasium complex, including a new pool,

(iv) increased student hostelling to the south of the Colombo and Lowrie Halls,

(v) increased site usage in the Agricultural Engineering Zone,

(vi) final development of the Service Centre suggested in Cast Study 7,

(vii) increased car parking to the south.
LINCOLN COLLEGE

LEGEND

CAMPUS

DEVELOPMENT

MASTER PLAN 3

1 MILE DIAMETER SITE MAXIMISATION

LANDSCAPE CONSULTING SERVICE LINCOLN COLLEGE
A possible form that Lincoln College could take in the future - taken from a viewpoint looking west from the Ellesmere Junction Road/Springs Road Corner - so that a switch from the present emphasis of development is shown. That is, the "back drive" has increased in importance as the major axis of westerly directed development; pedestrian ways are similarly orientated; tree planting develops naturally from that already present, multi-storey buildings maximise individual sites - a planned and logical framework of development has occurred.
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References cited in the text:-


Further references not cited in the text:

1. Middlebrook, W.T. How to Estimate the Building Needs of a College or University, A Demonstration of Methods Developed at the University of Minnesota, 1958.
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