

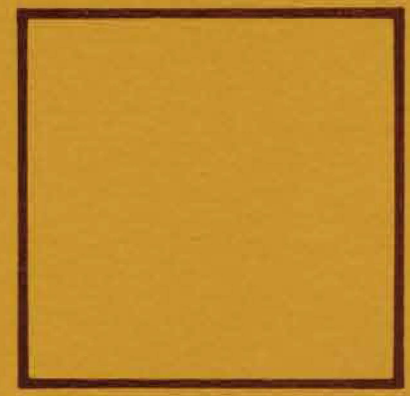
CAPILANO COLLEGE

SITE

PREPARED BY THE PLANNING
AND PROPERTY DEPARTMENT
OF THE CORPORATION OF THE
DISTRICT OF NORTH VANCOUVER

JANUARY 1969

STUDY



CAPILANO COLLEGE SITE STUDY

OF

NORTH VANCOUVER DISTRICT

The Corporation of the District of North Vancouver
Planning Department
January, 1969

ACKNOWLEDGEMENTS

Several references, either to individuals or to reports that we have used in our study, may be found in the main body of the text, and there is no need to repeat them here. However, particular mention should be made of the work of Mr. F. Sigurjonsson of the District Planning Department who undertook the site analysis (Chapter 6) virtually unaided. He was also responsible for the cover design.

Mrs. E. K. Coles prepared the general site location map and the individual site plans.

Other contributions are acknowledged from Mr. V. J. Parker of the L.M.R.P.B., Mr. M. G. Elston, Regional Highways Engineer, representatives of N. D. Lea & Associates and Swan Wooster Engineering; the District Engineering and Land Agent's Departments; and last, and by no means least, Mrs. Joy Irving for the clerical aspects.

C A P I L A N O C O L L E G E

SITE STUDY OF NORTH VANCOUVER DISTRICT

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SUMMARY OF REPORT

LIMITATIONS

- * The impact of the College upon the community is far from certain, since it is a comparative unknown as a form of development in British Columbia.
- * Large sites are at a premium throughout the region. On the North Shore 100 acre sites are only to be found on the periphery of developed areas. Although we have accepted one campus for purposes of the study, we query the wisdom of thinking in terms of two.
- * In accordance with our terms of reference from College authorities, only sites in the District of North Vancouver have been examined in detail. The study lacks balance on that account.

FUNCTION AND OPTIMUM SIZE

- * The College essentially offers two educational streams : academic and vocational.
- * The optimum size recommended by Davis, MacConnell & Ralston, Inc., consultants to the College, is 7,500 full-time students.
- * Enrollment is projected to be in excess of 10,000 students (gross) by 1985, equivalent to about 6,000 full-time students. The latter figure is of importance in determining site and building size and facilities such as parking spaces.

LOCATION

- * Some of the aspects of an urban versus suburban location are discussed in Chapter (5). On balance, we consider that a suburban location has some advantages over a so-called urban location in a North Shore context.
- * The five North Vancouver District sites are all peripheral. Two of them, No. 1 (Capilano Lake) and No. 3 (Inter-River North) present conflicts with Regional

planning and park policies, not to speak of the attitude of the Greater Vancouver Water District, whilst a third site No. 3 (Inter-River South) poses serious problems for the Provincial Department of Highways in terms of a complex interchange on the Trans-Canada Highway. Site No. 5 (Blair Rifle Range and vicinity) cannot be settled upon in view of the uncertainties attendant upon the development of the Rifle Range etc.

* The matter of a prominent site was mentioned by the consultants and by College staff : in our judgment, three of the sites possess this requirement, namely No. 1 (Capilano Lake), No. 2 (Cleveland Park) and No. 4 (Inter-River South).

ENVIRONMENT

* Land Use compatibility was investigated to identify conflicts and benefits. We recognized a collision of interest with regional interests in the case of the Capilano Lake site, coupled with possibility of greater incidence of fog that must be weighed in the scales against the drama of this superb natural setting.

* Since the sites are peripheral, the College has the opportunity to influence its environment to a very great extent. Most of the sites have the promise of good surroundings in due course, if not initially.

* The potential College sites are mainly associated with residential or wilderness areas. Very little chance to relate college sites to major commercial or service centres.

UTILITIES AND PUBLIC SERVICES

* In every case the need exists to extend utilities to the site. Major sanitary sewer problems at Capilano Lake and Cleveland Park sites.

* None of the District locations can provide adequate bus service. Improvements may occur with increased enrollment but a very high percentage of students can be expected to rely upon the automobile for transportation. Road widening (e.g. Capilano Road) and interchange re-design (Keith and Trans-Canada interchange) may be required, depending upon access routes used.

ACCESS AND TRAVEL TIME

* The traffic impact of the College upon the North Shore road system is an unknown quantity. Detailed studies are necessary. Traffic consultants possessing adequate background knowledge and base material are available and we recommend the retention of a firm to advise the College Council.

* General appraisal of travel times and accessibility :
No. 1 (Capilano Lake) best of sites, followed in turn by No. 2 (Cleveland Park), No. 4 (Inter-River South) and No. 3 (Inter-River North) - however, both of these depend upon the location and adequacy of an enlarged interchange and link with Trans-Canada Highway. Site No. 5 (Blair and vicinity) is the least accessible.

SITE CHARACTERISTICS

* The site requested was in the order of 100 acres. We consider that all of the sites in the District have this area or are within acceptable tolerances.

* Topography; rugged, with several benches, in case of Site No. 1 (Capilano Lake), fairly steep sidehill in Site No. 2 (Cleveland Park), and reasonably good in Nos. 3 and 4 (Inter-River North and South) and No. 5 (Blair and vicinity).

SITE DEVELOPMENT

* The degree of slope on the ground, the shape of the site and the effect of creeks and steep banks were measured and taken into account as factors in development costs. The Capilano Lake site, for instance, has quite steep slopes between the usable terraces whereas the Cleveland Park site is cut up by several well-defined creek beds. All sites have reasonably good shapes (roughly rectangular in the proportion of one to two or three).

OWNERSHIP AND ESTIMATED COST OF ACQUISITION

* Fortunately, most of the land involved is in public ownership, in other words is held by the District of

North Vancouver, Greater Vancouver Water District,
City of Vancouver, B. C. Hydro and Power Authority.
The Inter-River south site has the highest proportion
in private ownership.

* Estimated Cost of Acquisition (supplied by District
Land Agent) :

	\$
No. 1 Capilano Lake	1,310,000
No. 2 Cleveland Park	1,565,000
No. 3 Inter-River North	550,000
No. 4 Inter-River South	1,200,000
No. 5 Blair & vicinity	980,000

FURTHER INFORMATION REQUIRED

* In some instances, topographic information is lacking (especially for Nos. 1, 3 and 5). The occurrence of rock at Site No. 1 Capilano Lake is expected but rock may present a problem elsewhere and tests are needed to prove out - or otherwise. As noted previously, traffic studies are required and a feasibility study should certainly be commissioned in reference to access via West Vancouver and across the Cleveland Dam for the Capilano Lake site.

NON-COLLEGE BENEFITS

* In general these represent reductions in classrooms for secondary schools which may be of advantage to the entire public school system. This is offset, of course, by the subtraction of a considerable acreage from normal development and by a loss of tax revenue coupled with expenditures on those roads and utilities that serve the campus.

* If Site No. 1 (Capilano Lake) were to be selected a third crossing of the Capilano River would be effected which would form part of the major street system of the North Shore.

SUMMARY RECOMMENDATIONS

* We would recommend, therefore, that Site No. 2 (Cleveland Park) and Site No. 4 (Inter-River South) would appear to have the least problems with respect to development policy, although in the former case land and servicing costs would be high and in the latter case, we have to report that the Provincial Highways Department has expressed concern at the impact upon the major highway interchange. Site No. 1, is by all odds, the most dramatic, the most challenging and the most problematical.

Martin Glavin

(1) FOREWORD

With the formal establishment of the North Shore Regional or Capilano College in 1968, albeit in temporary quarters, a wholly new educational perspective opened for the North Shore communities. No-one can say with any accuracy just what the future holds in store in terms of the full impact of the College, whether this is measured in relationship to further education and those who are deemed to benefit by it, or, more particularly from a planning point of view, what size of plant or of site will be required. In undertaking this study we have been struck by the lack of definition on the whole subject, due in some measure to the fact that there is no body of local experience upon which to draw.

We are planners, of course, and not educators, but we cannot help but be optimistic concerning the role of the College and of its eventual importance in the life of the broader community. For this reason, we believe that the mere availability of land is not sufficient justification for the location of the College campus. Such an institution should be given a situation of prominence, reflecting the importance attaching to it as part of the total education system. We should not let ourselves forget that the College is to stand at the top, as it were, of our local pyramid and that we are planning to accommodate a student body equivalent to that of the present Simon Fraser University or to four large secondary schools with the prospect of a gross enrollment, at some stage in the future, in excess of ten thousand students.

We should caution the reader that this is most emphatically not an exhaustive study of the possible College sites in the District of North Vancouver: it is impossible to be precise about an installation that is not a known commodity in the sense that the public school system can be taken to be and, too, there are some detailed points that will require specialized study (engineering and architectural feasibility).



Martin Chesworth
Municipal Planner

(2) OBJECTIVE AND SCOPE

OBJECTIVE

The objective of this report is to provide the Board of the Capilano College, the respective School Boards and the municipal Councils, with an analysis and recommendations with respect to the suitability of five potential college sites in the District of North Vancouver. As noted elsewhere (Limitations of Study) it has not proven possible to determine any absolute differences or to thoroughly evaluate all of the myriad items that would bear upon a final choice. We do consider, though, that the study has been carried out with sufficient attention to detail to permit certain generally valid conclusions to be drawn in the matter of site selection. No doubt the Board will wish to commission specific follow-up engineering and servicing investigations and we would so recommend.

SCOPE

In Chapter 4 of the report we review the two previous site studies conducted by Dr. Walter G. Hardwick and Professor Ronald J. Baker (Tantalus Research Ltd, 1965) and Davis, MacConnell, Ralston, Inc. (Stanford Professional Center, Palo Alto 1968), because rather naturally they have tended to establish the framework for the current study. We then follow this aspect with a wide ranging commentary on the basis of Site Selection and attempt a regional, as distinct from local, perspective. Chapter 6 is devoted to the consideration of each of the five sites in accordance with the criteria supplied by the California consultants. Because of the tremendous importance attaching to highway access and traffic factors we have decided to tackle this subject separately, in Chapter 7. Certain other miscellaneous items are dealt with in the final Chapter.

(3) LIMITATIONS OF STUDY

Among the limitations that should be acknowledged in connection with this study, the following are of particular note:

(a) A Regional College, as a form of development, is a comparative unknown. Although such institutions are commonplace in the United States, we in British Columbia have almost no experience of them and in any case we may find differences arising in the degree and pattern of use from those south of the border. These differences could obviously have a bearing upon the size and composition of a college.

(b) More than one campus? There are some who argue that in the context of the service area of the Capilano College (from Howe Sound to Deep Cove) more than one college campus may be required. The steep and rugged mountain-side of the North Shore severely restricts the movement of pedestrians and vehicles and this fact coupled with the possibility that the predicted total enrollment of ten thousand students may be exceeded (vide (c) below), suggests that a split campus or even two separate campuses might be advantageous. We have, however, assumed one college site for purposes of this study.

(c) Changing Planning Concepts. The pressure upon relatively level and accessible land for all manner of development purposes in the Lower Mainland will undoubtedly be reflected in an increasingly severe competition for the available land supply within the inner circle of municipalities. We predict that this will mean higher densities than previously assumed will have to be accommodated, especially in the District of North Vancouver. Instead of providing for garden apartments and low-density housing schemes distributed throughout the fabric of the community but yet in accordance with a recognized apartment location policy, * we may find a tendency towards comparatively large concentrations of multi-family dwellings in areas that present no conflict

* Apartment Study, District of North Vancouver, May 1968.

to the "established" residential districts. The net effect could well be to add quite appreciably to the population served and hence to the potential student body, and at the same time to alter the weighting given to the College population.

(d) Peripheral Sites. Although we have been able to offer worthwhile general observations in respect to servicing the five sites in the District of North Vancouver, we cannot supply accurate engineering costs at this time partly because they are all peripheral to existing development and servicing lines. In two or three cases, moreover, we have had to rely upon aerial rather than ground survey and this has proven to be a distinct handicap.

(e) Study is partial. Other sites have been considered in the past in both the City of North Vancouver and in West Vancouver, but it is evident that they have not been found acceptable for various reasons. This concerns us, to the extent that as planners we are not able to present a real balance sheet of alternatives.

(f) Traffic Conditions. Perhaps the most nebulous and yet at the same time the most important factor in need of evaluation is the impact upon highway and traffic conditions. So much depends upon the size of the college, of the composition of the student body, of the peak travel hours and whether or not such travel patterns conflict with or complement normal commuter rush hour patterns. It is probably too early in the life of the college for us to pontificate upon the probable impact, but by the most conservative reckoning it is obvious that such roads as Capilano Road and Lillooet Road cannot handle peak loadings for a student enrollment of five, much less ten thousand. Furthermore, the Provincial Highways Department would be obliged to reconsider their design solution for the Keith-Lillooet interchange if either sites 3 and 4 in the Inter-River area were to be adopted by the college authorities. (See Chapter 7).

(4) PREVIOUS STUDIES

It might be of assistance, we feel, to offer a brief summary of the findings and salient observations of the two reports that were commissioned to provide the basis for action on a community college.

(A) NORTH SHORE REGIONAL COLLEGE STUDY
(by Tantalus Research Ltd) 1965;

(i) Recommendations

Three main points of relevance to the present investigation emerged from the Tantalus study and were put forward as summary recommendations by the authors;

"(1) A regional college will be desirable on the North Shore by September, 1968.

(2) The College should offer a comprehensive program including :

- an expanded academic program (only partially furnished at present in the Grade 13 program);
- new program packages unique to the regional college; and
- functions attractive to large segments of the North Shore population so that the College may assume the role of a focal point for the educational and cultural affairs of the community.

(3) The College should be centrally located within the region on a site clearly and visually identifiable by North Shore residents."

(ii) The Role of the College

In their analysis of the role of the College the Tantalus group identified several aspects :

"It is basically designed to offer a number of programs which will enable young people
(a) to find careers in which their abilities will be challenged and which lead to responsible

positions in the regional economy and society; and

(b) to progress to other institutions where formal education can be continued.

The college also has two secondary but vitally important functions. It should

(c) allow for the broadening and upgrading of educational levels among the community's adults, and

(d) act as both a catalyst and focus for the educational and cultural affairs of the community" (Footnote (1))

The authors proceeded to outline the scope of the programmes in the projected college, pointing out that "the academic program, designed for students wishing a broad general education and/or transfer to the Universities, would replace the present Grade 13, now offered on the North Shore and add an additional year. In addition, the College would offer a number of programs leading directly to careers in the community." It was remarked that career opportunities in greater Vancouver tended to be concentrated in the distributional and service sectors of the economy and especially in education, advertising, public relations and so forth. (Footnote (2)).

The Regional College is considered to be an adult institution, not an extension of high school. In this respect, it differs significantly from Grade 13. "A second major adult-oriented function of the community college might be called 'education for leisure'. As leisure time and disposable income, already high on the North Shore, continue their long-term upward trend, more and more adults turn to education either as an enjoyable leisure-time activity in its own right, or as preparation for some other leisure-time activity."

(1) and (2) North Shore Regional College Study (Tantalus report) pp. 10 and 11.

"Less tangible, but not less important", continued the Tantalus group, "is the potential of the college as a focal point for the cultural as well as for the educational life of the community. Such extra-curricular activities as amateur theatre, public lectures and panel discussions all enrich the community as a whole. The campus is a forum for public discussion of community and civic affairs." *

(iii) Projected College Enrollment

The projected enrollment for the North Shore (Capilano) College was estimated to be as follows :

<u>Component</u>	<u>Year</u>		
	<u>1968</u>	<u>1972</u>	<u>1976</u>
Freshman	-	1,050	1,700
Second Year	-	600	1,050
	<u> </u>	<u> </u>	<u> </u>
Total (full-time equivalent) (1)	800	1,650	2,750
	<u> </u>	<u> </u>	<u> </u>
Late afternoon & evening (2)			
	2,400	4,100	8,200

(1) Full-time equivalent, is a figure arrived at by condensing partial enrollment into a standard form for calculating space-cost indices.

(2) Late Afternoon and Evening attendance could prove to be three times that of the daytime population on the basis of experience with Community Colleges in the United States.

(Source, p.22 of Tantalus Report, Table 2).

* North Shore Regional College Study, p. 12.

(iv) Distinctiveness of North Shore Population

"The residents of North and West Vancouver have some of the highest average levels of education and income to be found anywhere in Canada. More managers and professional people make their homes on the North Shore than in any other section of the metropolitan Vancouver region, with the sole exception of the South Shaughnessy area of Vancouver." *

The consultants evidently felt that the peculiar character of the North Shore population had an influence in choosing a College site for at a later point in the discussion we find these statements :

"Although there are tendencies towards high social status in all areas of the North Shore, the concentration varies from place to place. The identification of this variation is critical in planning the location of the regional college." ** From a study of the occupation and income of fathers, father's education and the educational goals of parents for their children, the conclusion was reached that the Sentinel Hill - British Properties neighbourhoods in central and western sections of West Vancouver, in the Capilano, Delbrook, Forest Hills and Upper Lonsdale areas of North Vancouver are intermediate with respect to levels of education and income. By contrast, "residents of Norgate, Westview, and the older and lower levels of the City of North Vancouver consistently show up as having on the average less education and income, and having jobs rated lower on the social scale. Their expectations for their children are correspondingly less ambitious." ***

* North Shore Regional College Study, * p.22, ** p.23 and *** p.27;

(v) College Location : The Approach

The Tantalus group identified these conditions "which a community college location must satisfy in order to be a success" (where required, for the sake of brevity, we have paraphrased the original statements on p.33 and 34)

(a) In the long-run, minimum aggregate travel for the "customers" is of over-riding importance. The College must be located not far from the centre of its student hinterland, measured in terms of aggregate travel effort.

(b) In the short-run, location will determine the degree of community acceptance and recognition. To be successful, the site must satisfy (a), but it must also offer ease of visual identification. It must be distinctively located : it must stand out as a clearly recognized focus of North Shore educational, cultural and even partisan community life.

(c) Scale effects of location must be taken into account, i.e. on the broad, community level, general accessibility and travel time matter most, whereas at the specific site level, the immediate access and circulation pattern is of prime importance.

(d) A minimum of twenty acres of land is necessary, broken down into 2 - 4 acres for buildings, 5 - 10 acres for parking and 7 - 10 acres for landscaping, playing-fields and so forth. Forty to seventy acres would be desirable to allow for flexibility in future expansions. "Since the ultimate growth of population on the North Shore is limited by seashore and steep slopes, we see an ultimate enrollment of some 3,000 students for the North Shore Regional (Capilano) College" (cf. Simon Fraser University in 1965 with a comparable student body had 60 acres).

Professors Baker and Hardwick considered the foregoing to be mandatory conditions, but also took the view that other considerations should be brought to bear upon college location :

(e) To encourage people to participate in novel facilities a wellknown or familiar setting should be chosen;

(f) The College should be reasonably close to other services (e.g. eating places, bookstores, clothing stores) and if related to other land use, (e.g. parks) benefits and savings could result;

(g) It is preferable that the site be in one political jurisdiction;

(h) Level sites preferred; steep land straddling creekbeds "will incur ruinous building costs."

(i) A location close to the existing centre of community and business affairs would be preferable to the ivory towered isolation of either Simon Fraser or U.B.C.

(vi) College Location : Specifics

The consultants argued that West Vancouver would provide more students per capita for a college programme than North Vancouver and also the participation of students from Howe Sound and Sechelt School District would place a very strong bias on "traffic" from the west. They pointed out, furthermore, that the filling in of the eastern side of North Vancouver would tend to be slow, accelerating some time in the late 1970's.

"From the analysis of intra-urban travel patterns of North Shore residents, it is clear that two major destinations exist for community services other than downtown Vancouver. These of course are Park Royal and Lonsdale between Thirteenth and Seventeenth." *

"Taking into account the actual and potential distribution of college students, and the established patterns of interaction on the North Shore, we recommend that the site chosen for the North Shore Regional (Capilano) College should be somewhere between Lonsdale in North Vancouver and Taylor Way in West Vancouver. A location in this area would be a major step towards fulfilling the College's role as a community focus." **

* North Shore Regional College Study, * p.34 and
** p.36

Six sites were investigated

- (a) Park Royal Site
- (b) Capilano Bridge Site
- (c) Capilano View Site
- (d) Capilano Indian Reserve Site
- (e) North Vancouver Redevelopment Area
- (f) Indian Residential School Site

We do not propose to analyse the Tantalus sites because, in effect, they are beyond our terms of reference, in some cases have been rejected and, moreover several of them are badly undersized by most standards for major college campuses and one or two of the others present serious obstacles to effective development (e.g. bisection by PGE tracks and yards and lack of access routes).

What is worth considering in the light of the current study are the remarks directed by Professors Baker and Hardwick towards recommended sites in the District of North Vancouver. We quote :

"A note on eccentric sites. Several sites have been recommended to us which are outside the area discussed above. In particular, two sites have been selected by the Municipal Planner for the District of North Vancouver. Both are in the Inter-River area between Lynn and Seymour Creeks. In both cases, most of the land is owned by the Municipality, and the parcels are in the upper range of site sizes recommended in this report."

"We would not recommend that these sites be given high priority. They are isolated from the established foci of North Shore Community activity and are remote from the bulk of students who have high propensities for higher education. We believe that the college must be integrated into the community and would caution the Regional College Council about considering exotic and pastoral sites for what is properly an important central function of the urban area. We would reject these eastern sites for a second reason : West Vancouver people do not often penetrate far into North Vancouver, either for social or commercial purposes.

If the college is to develop as a community focus, it must be located at least on neutral ground." *

Now this is a significant passage from the Tantalus Study because it contains what can fairly be described as the philosophy of the authors in the matter of location policy and the place of the college in the community. In our view, and with the greatest respect to the two distinguished prime authors of the Tantalus report, the passage also contains some weaknesses or at least debatable propositions. The choice of the adjectives "exotic and pastoral", as applied to the District of North Vancouver sites, has little real meaning and the notion of a location centred between Park Royal and Lonsdale Avenue betrays a geographer's bias and a somewhat academic approach.

Our position with respect to site planning factors is set out in the succeeding Chapter, Chapter (5).

* North Shore Regional College Study, p.40

(B) A REPORT TO THE NORTH SHORE REGIONAL COLLEGE
CO-ORDINATING COMMITTEE
(by Davis, MacConnell, Ralston, Inc.) 1968.

We have been given to understand by Capilano College officials that the Davis, MacConnell, Ralston report has been the main source of policy and we have therefore used that document as the base for our activities.

(i) Recommendations *

The College Philosophy, Goals and Objectives were stated as follows :

Assumptions :

- Open door admission
- Quality instruction
- Comprehensive and multi-purpose in nature
- Planned for the people of the community in School Districts 44, 45, 46, 48.

The College is to Provide :

- General education for all
- University transfer programs
- Career training
- Continuing education
- Counseling services
- Community service.

.....The review of Demographic Data and Site Selection.....

If the College stands ready to serve all members of the community -

- How many members of the community will be served today?

* pp. iv and v of the Summary (Essentially a verbatim transcript)

- How many should the College be ready to serve tomorrow?
- And just what is "tomorrow"?

The population in the College community and the number of the community members attending institutions of higher education are both increasing rapidly. The population in the four districts is predicted to be 187,000 by 1986.

There is a potential full-time equivalent enrollment in the North Shore Regional College, if the College is to serve the community need, of 2,000 students by the early 1970's; and 3,500 by the mid to late 1970's, with an ultimate projected enrollment in the North Shore Regional College of 6,000.

Selection of General Site

- Of major concern - one site or two?
- Based upon the enrollment projections, one site of adequate size will best serve the community's interests.
- Given the desirability of a centrally located campus, and based upon the need for a truly adequate site - 100 acres or larger - the Capilano area seems the best choice.

(ii) The Community College as Part of Higher Education*

In the search for means to provide for the increasing demands extended by modern society for educational opportunities, there evolved the philosophy and subsequent establishment of the community college. The forces which led to the establishment of the community college were twofold.

* Davis, MacConnell, Ralston, Inc. p. 6

(1) Demographic Forces

- a. Rapid growth in the college-age population.
- b. A rising rate of the college-age population enrolling in institutions of higher education, not necessarily for four years or for full-time, but certainly for a substantial period beyond high school.
- c. The growing proportion of adults seeking further education both as an end in itself and as a means for achieving or holding a position in a competitive society.

(2) Economic Forces

Manpower needs in professional and vocational areas created by the explosive expansion of technology; the emergence of new patterns of employment and consumption practices in an expanding economy.

For a large number of occupations in today's circumstances a much more elevated level of general education than in the past is required before a man or woman can profitably embark upon his or her professional training.

(iii) Enrollment Projections *

The premise upon which the enrollment projections of the Regional College are based is the fulfillment of three major educational objectives.

- (1) Universal Opportunity for Post-High School Education to reduce or eliminate the barriers of cost, distance, social status, or similar impediments to continued schooling which discourage many able and talented persons from acquiring education training commensurate with their abilities.

* Davis, MacConnell, Ralston, Inc :- paraphrase of p.17 of report.

(2) Education in Art and Science

To provide opportunity for academic training beyond the high school for an increasing number of people and for an increasing number of adults continuing their education after taking full-time jobs.

(3) Vocational Education

To provide programs that prepare people to hold jobs at the semi-professional or technical level and for re-training youth and adults within the framework of an economy based largely upon technology and advanced business and commercial methods.

Regional College enrollment projections for academic and occupational -- vocational programmes, developed by Davis, MacConnell, Ralston, Inc., are combined in a summary form, thus :

Enrollment Projections - Summary Table

Type of Programme	1970 - 1985			
	North Shore Regional College			
	1970	1975	1980	1985
General Studies and Transfer Programmes (Ages 17-34)	1,310	2,234	2,885	3,158
Vocational Training & Occupational Programmes (Ages 17-64)	4,270	5,269	6,000	6,848
TOTAL :	5,589	7,503	8,885	10,006

The projections in the above table refer to total enrollments in the respective years. An estimated conversion of the total enrollment figures to full-time equivalent students indicates 2,000 F.T.E. students in the early 1970's, 3,500 F.T.E. students in the late 1970's, and an ultimate enrollment of 6,000 F.T.E. students by 1985.

Source of Table : Table 10, p.24, Davis, MacConnell & Ralston report.

Qualifications

The consultants felt it important to note that the projections shown in the Table, p.16, represent potential enrollments and not, by any means, actual forecasts of enrollments. It is assumed, furthermore, that a large percentage of the programme, both transfer and vocational - will be offered in the later afternoon and evening hours and since these courses would occupy the same rooms as the courses offered during the day, it should not be necessary to build facilities at the College of 7,500 students in 1975, or, say, 10,000 students in 1985.

Additionally, it is also assumed that only a portion of the vocational and occupational coursework which would be offered in the North Shore Region would be offered at the College. Just as the total academic programme for North Shore Residents will be shared by the Universities and the Regional College so will the vocational and technical programme be shared among several agencies such as Adult Education, the British Columbia Institute of Technology, training courses offered by industry and the Regional College itself.

(iv) Optimum Size of the College

The consultants used, as an illustration of the minimum and maximum enrollment figures, standards employed in the California Master Plan of Higher Education as modified somewhat by a technical committee.

The Master Plan sets the minimum up to 900 full-time students and also sets a time limit for attaining the minimum to 'the second school year after the district is in existence for all purposes.'

About "7,500 full-time students appears to be an appropriate recommended ceiling for Junior Colleges allowing for a maximum of service to a community (although exceptions may be required in certain metropolitan areas). The likelihood of the need for larger campuses is remote in view of the Junior Colleges' objective to serve a commuting public." *

* from 'A Master Plan for Higher Education in California 1960 - 1975.'

After further study and refinement at the technical level, the following enrollment ranges were incorporated into the Master Plan;

	<u>Recommended Enrollments</u>	
	<u>Minimum</u>	<u>Maximum</u>
Junior Colleges	900 ^(a)	5,000 - 7,500

(a) To be attained within seven to ten years after students are first admitted.

(v) Site Selection Study

Davis, MacConnell & Ralston identified (see p.29 of their report) five major criteria to be applied in the selection of a College campus, thus :

Site Size

Transportation Network

Community Relationship

Physical Characteristics

Cost Considerations

(a) Optimum Campus Size

Statements by three American College Presidents are quoted in support of the general contention that a site having a minimum of 100 usable acres for a community college campus site should be acquired. If anything, the view of the three gentlemen would seem to be that about 125 - 150 acres would be none too generous a provision.

(b) Transportation Network

The site should be highly accessible to as many people as possible; direct and easy connections to the residential communities and to major thoroughfares and transit routes.

(c) Community Relationship

Location on level to rolling terrain in an area suitably zoned for the purpose; protected from traffic and incompatible uses; easy traffic approaches and due consideration to the preservation of the amenities of the surrounding environment.

(d) Physical Characteristics

Reasonably level land for facilities involving structures, accessory parking and active recreation areas, with perhaps not more than a five percent slope.

(e) Cost Consideration

Specific cost items *land acquisition, *improvements upon the land *installation and connection to utilities *cost of access roads to site.

(vi) Sites : General Approach

"After extensive surveys in the field and follow-up investigations, four alternate sites were selected to be submitted for consideration by the Co-ordinating Committee on campus location. All four sites are suburban in character and are located in fringe areas of West or North Vancouver. No suitable site is available for an urban regional college campus location."

"The Consultants cannot recommend the urban-type location in connection with the present urban renewal scheme for the City of North Vancouver. Although aware of the fact that the placement of a campus in the city core, programmed for redevelopment, would create a force for the enrichment of urban life in the City of North Vancouver, the site is not recommended because of insufficient available acreage in the City core (20-38 acres) for the planned Regional College." **

(vii) Sites : Appraisal of Proposed Sites

Four sites were examined from the standpoint of general suitability although the Consultants refrained from indicating any particular preferences, leaving that to emerge from a detailed site study to be conducted by the Site Selection Committee.

** p. 31 and p.32, Davis, MacConnell & Ralston report

Site (1) West Vancouver (n. of Upper Levels)

Owned by British Pacific Properties. Sufficient area. Lies in path of immediate residential expansion.

Site (2A) North Vancouver (Capilano Lake & Cleveland Dam)

Owned by G.V.W.D. This location is on the divide between the two communities of West and North Vancouver. Area, circa 60 acres. "There are few college campuses that can rival the sublimity of this location."

Site (2B) North Vancouver (Cleveland Park, east of Lake)

Owned primarily by G.V.W.D., part by District of North Vancouver, Available area, 70 acres. "The Site Selection Committee should investigate with great care this site relative to slope and creeks and gullies tending to restrict functional development of land for a campus."

Site (3) North Vancouver (Seymour River or Blair Rifle Range Areas)

Blair Rifle Range, federal and municipal ownership; Inter-River area, mainly municipally owned. "Although the area is off-centre relative to population distribution in the Regional College District area, travel time would be shorter because of the proximity of this location to the Upper Levels Highway."

(5) THE CHOICE OF SITES

The two firms of Consultants adopted very different stands with regard to the preferred location for a College campus. Professors Baker & Hardwick attempted to place the College in close proximity to the two recognized centres on the North Shore, namely Park Royal and the Lonsdale spine, but in the process advanced site proposals that lacked the requisite area and some of which, in point of fact, did not exploit or reinforce either of the two centres. Davis, MacConnell, Ralston, Inc., were clearly less persuaded that an urban setting could be achieved on the North Shore - regardless of its desirability - and felt, indeed, that provided good access via major arterials was available to the site, a "central" location was less critical to the success of the College.

(A) AN URBAN LOCATION

The philosophy and benefits of a central, urban, location for a College have already been discussed to some extent and therefore we do not propose to indulge in a lengthy exposition of the case in favour of such a location. Nevertheless some observations are warranted, in our judgment, in view of the actual circumstances that prevail on the North Shore.

The North Shore (and here we include West Vancouver) is characterized by very definite physical limitations, including steep and rugged mountain slopes, significant rock outcroppings etc., cut in a basically north-south direction by three substantial river valleys and numerous creekbeds and ravines. These tend to make east-west communication both difficult and costly. The most direct and convenient east-west routes are to be found at a relatively low level (Marine Drive, Keith Road, Dollarton Highway and Upper Levels Highway). Upon this restricted road system is superimposed a traffic pattern that focuses upon two bridgeheads, with a third crossing in the planning state.

These are realities that no land use planning can possibly afford to ignore if it is to succeed. Unfortunately, due to the overwhelming importance of the commuter routes and inlet crossings the North Shore does not possess one single and undisputed centre. West Vancouver has two major centres; the old, traditional, linear Ambleside, with a municipal hall off to one side

in the middle and a community centre complex, totally disconnected, a short distance to the west of the Ambleside strip. Apartments (chiefly high-rise) have been encouraged around Ambleside and to some degree also adjacent to the newer, automobile oriented, Park Royal centre. Park Royal is recognized as a regional shopping centre and draws patrons from West Vancouver, from both City and District of North Vancouver and even from the West End of the City of Vancouver.

The City of North Vancouver has one principal centre, based upon the Lonsdale Avenue "spine" : this centre has moved uphill since the Second World War following the demise of the North Vancouver ferries and the tremendous upswing in commuter traffic using the automobile. City Hall is still located in the Lower Lonsdale area, although plans exist to replace it with a totally new structure uphill in the present centre. The joint City-District Recreation complex lies just north of the most active shopping area and adjacent to the Upper Levels Highway. Apartments (principally low-rise) have been built in recent years on either side of Lonsdale Avenue.

The District of North Vancouver has no major centre, no real "heart"; the closest prospect at the present time, is the growing Lynn Valley centre with its related garden apartment complex, but even by the most optimistic reckoning the Lynn Valley centre cannot be classified as anything else but a community centre for one segment of the District's extensive residential area. The municipal hall has no reference to anything, except as a compromise location roughly halfway between the Capilano Highlands and Lynn Valley The possibility exists for a major regional centre in the Seymour Heights - Maplewood area, occupying the same relative position to the eastern sector of the North Shore as Park Royal does today for the western sectors.

Given this admittedly somewhat crude delineation of centres and focal points on the North Shore just what real meaning can be given to the concept of an urban setting for a Regional College? Quite apart from the high cost of land assembly in areas peripheral

to the centres that we have mentioned, what would the College and the centre actually do for one another? Consider for a moment the added traffic movements and demand for parking space that would arise if the College were to form an intimate and physical part of any of the Centres. Either College traffic would clutter up commercial parking spaces and others on residential side streets or vice versa. On the other hand, what qualities do the shopping centres possess that would really contribute to an enrichment of College Life and student activities? We are not talking about the centre of town but of one centre of one part of the College service area and we are most certainly not in a position to offer the scale and quality of environment and variety of contact that is an undeniable facet of most big city centres. The North Shore is essentially a suburban area and those very qualities of openness, of space, of trees, of small scale domestic quality to the buildings, are what most of the residents apparently want. Considering the level of commitment to this conservative, suburban development character, little opportunity exists to do much else. Not that the suburban character of North Vancouver differs so radically from that of most of the central metropolitan city, Vancouver. An individual house on a fifty-foot lot looks pretty much the same wherever it may be located

Not only would a Central College location prove extremely expensive to acquire but the subtraction of 25 - 30 acres close to the City Centre would restrict possibilities for "normal" development and would substitute a tax-exempt facility. Architects, planners and urban geographers may bemoan and criticise the limitations of the position, but it is there and it is hard to remedy.

The best that we can do as planners is to change the emphasis for the future and to try and persuade the public and Council to broaden the range of development opportunity, especially in the new areas and to revamp the old, worn-out areas in a fashion consistent with realistic economic potentials.

(B) A SUBURBAN LOCATION

As both Consultants have amply demonstrated, land is scarce and expensive in the more central and accessible areas of North and West Vancouver, and the acreages that have been recommended for a College cannot be acquired unless, in fact, the more peripheral sites are accepted. Yet, if we can agree that the vast bulk of the North Shore has been developed in a suburban manner and therefore has that particular character, what is necessarily so illogical about considering Regional College sites that have something of the same character about them?

The fractured road pattern and inconsistent public transit systems coupled with the fact that College Students will be drawn from an extensive area from Howe Sound (or even the Sechelt Peninsula) to Deep Cove inevitably means that a very high percentage of the student body will have to travel by automobile. Now the automobile has a great many disadvantages, but it does possess the great advantage that it provides the optimum in mobility for the driver - door to door service in fact. This is important because if the student owns a car in the first place or must drive his car at all, he will find it of great convenience in an area such as the North Shore because he will be enabled to reach the College campus (almost regardless of its location) much more rapidly and easily than by any other conceivable mode of transportation.

Our detailed studies of travel time (described more completely in the next Chapter in relation to each of the five sites) support the idea that with regard to the probable travel time of the students, the eastern sites in the vicinity of the Second Narrows bridgehead can be reached via the Upper Levels for an insignificant penalty in terms of time, when compared to sites that are apparently much closer to the geographical centre of the College district. In other words, we would suggest that a forecast of likely performance in the matter of elapsed travel time is a more relevant consideration than a theoretical notion of a central location.

At the risk of being repetitious, we would also like to stress that we are not impressed with the argument that a central or so-called urban location would contribute much of substance to either College or community in view of actual conditions in North Vancouver.

Land costs would be a great deal higher and the acreage lower, with inevitable restrictions upon the expansion of the College, should this prove necessary later. In our view, this is too high a price to pay for what we would contend was a desirable but marginal benefit, at best.

(C) LAND USE POLICIES

Before considering the sites in detail it would be appropriate to review the broader land use policy framework relative to North Vancouver. We propose to approach this aspect under these headings :

- (1) Official Regional Plan
- (2) Regional Parks Proposals
- (3) Municipal Zoning

(1) Official Regional Plan

An Official Plan for the Lower Mainland Region was adopted and received Provincial Government approval in August of 1966. Subsequently, no development could, or can, take place that runs counter to the land use policies set forth in the Official Plan unless, in effect, it has been accommodated by the provisions of a local Zoning Bylaw that predated the approved Regional Plan.

The situation at the present time with respect to the five possible College sites in North Vancouver may be summarized thus :

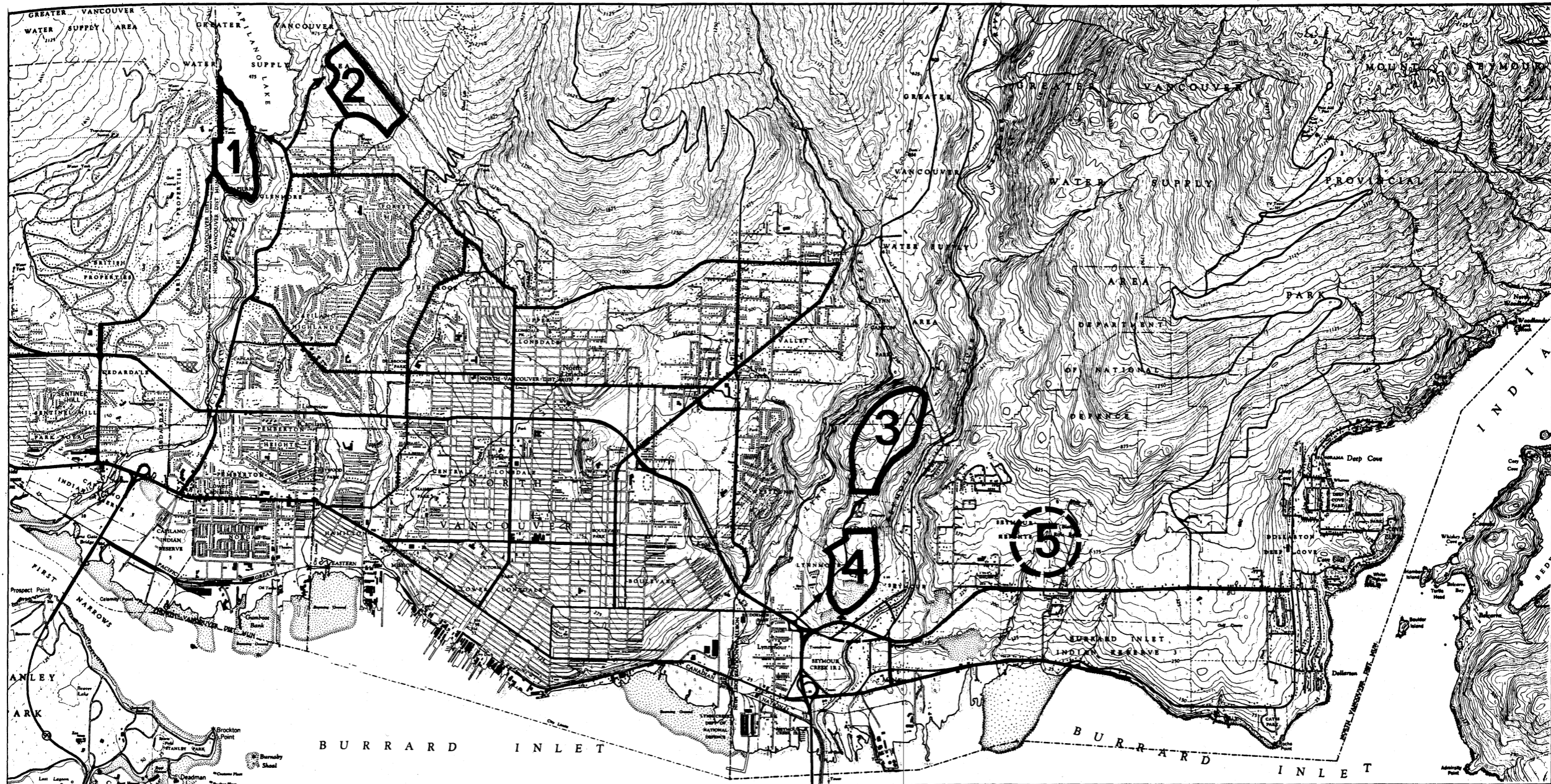
OFFICIAL REGIONAL PLAN LAND USE

POLICIES

<u>Site</u>	<u>Current Stage Plan Map</u>	<u>Long Range Plan Map</u>
(1) Capilano Lake	Reserve - 2	Reserve
(2) Cleveland Park	Urban - 1	Urban
(3) Inter-River (North)	Park - 1 } Park - 2 } Reserve - 2 }	Park } Reserve }
(4) Inter-River (South)	Urban - 1	Urban
(5) Blair & Vicinity	Urban - 1 } Reserve - 1 } Reserve - 2 }	Urban

Explanation of Notations

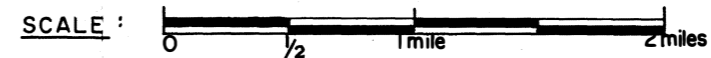
It is a little difficult to summarize the significance of the development policies - they are not zones, in the sense that one



Regional College Sites.

- 1 Capilano Lake Site.
- 2 Cleveland Park Site.
- 3 Inter-River North Site.
- 4 Inter-River South Site.
- 5 Site in vicinity of Blair Rifle Range.

→ Main access points.



would find in a municipal zoning bylaw, for example, because for one thing they are relatively broad in land use terms, and they also deal with lot size and servicing policies neither of which can properly be incorporated as such in a zoning bylaw.

For those interested in a more detailed explanation of the Land Use or Development Policies incorporated in the Official Regional Plan we would draw attention to Appendix 'A'. For the purposes of the present review the following shorthand notes should suffice :

Established Urban Areas (Urb - 1)

Areas already committed and appropriate to the whole gamut of urban uses, residential, commercial, industrial and institutional.

Limited Use Reserve Areas (RSV - 1)

Areas with difficult site features and servicing problems that may be used only for rural and transportation uses.

Institutional Reserve Areas (RSV - 2)

Designate lands used or held for major public and semi-public uses including watersheds, airports and forest reserves.

Established Park Areas (PRK - 1)

Designate lands that are in established public recreational use and having regional significance and are limited to that use.

Potential Park Areas (PRK - 2)

Earmarked for future acquisition for public recreational development and limited in the interim to rural uses.

Thus, if we now relate the Regional Plan policies and their implications to our five prospective sites we would find this situation:

(1) Capilano Lake : Watershed activities protected by the present Reserve Status. A formal proposal (advanced by the L.M.R.P.B. and discussed in the ensuing section) to replace this with a Park designation, was opposed by the District of North Vancouver basically in order not to further prejudice any decisions that might be made in relation to the College Site Study. A land use policy change facilitating the College would, undoubtedly, encounter opposition from both the Lower Mainland Regional Planning Board - or at any rate its staff, and also from the Greater Vancouver Water District. The latter body would be unlikely to sell the land if we may judge from a letter from Mr. F. R. Bunnell, Commissioner of the Water District and addressed to Mr. V. J. Parker, Executive Director of the Lower Mainland Regional Planning Board.

It is worth exploring the position of the Water District in a little more detail since in his letter to Mr. Parker (December 18th, 1968) Mr. F. R. Bunnell advised that the use of watershed lands for other uses than water supply had last been discussed by the Administration Board on August 15th, 1968, when the following resolution was passed;

"Moved by Alderman E. G. Adams,

Seconded by Alderman E. J. Broome

That this Administration Board of the Greater Vancouver Water District confirms the policy followed since its inception, in reserving its watershed lands for water supply use and the exclusion, insofar as it can be carried out, of all individuals seeking entry for other purposes or uses.

Carried"

Interestingly enough, the representative of Davis, MacConnell & Ralston, Inc., made specific enquiries of the Greater Vancouver Water District and came up with a contrary position. We refer now to a comment that appears on page 35 of their report : "According to information obtained from the office of the Water District the proposed site would be released for sale at a current market price." This surprised us a little and we therefore checked with the Consultants who promptly confirmed the validity of their original statement.

In his letter of December 18th, 1968, Mr. Bunnell states that "The northern portion of Lot 602 is the only property owned by the Water District and not on drainage. As far as we're concerned we regard this as a continuation of the park to the south." The northern portion of District Lot 602, to which Mr. Bunnell makes reference, contains about 27 acres and is a key portion of the proposed Capilano Lake College site. On balance, we may take it that the Water District would not favour sale of this spectacular site unless it could be shown that the lake, dam and other installations would be unaffected and only then if considerable pressure were brought to bear.

(2) Cleveland Park : No problem in respect of the policies of the Official Regional Plan or of the Water District. At one time this land was held to be undesirable for development purposes. However, the municipality was able to establish to the satisfaction of the Water District that no conflict would arise and it has been considered as available for other than watershed purposes for several years.

(3) Inter-river - North : As with the Capilano Lake site, we have a collision of interest, between the College (or other development possibilities to the north) and both a Regional Park and watershed use.

(4) Inter-river South : The urban designation of the Official Regional Plan would certainly include a College campus, so no land use policy conflict is anticipated.

(5) Blair & vicinity : Although the Blair Rifle Range and some of the other adjacent property carries a Reserve designation on the Current Stage Plan Map, the intention clearly shown on the Long Range Plan Map, is for the whole area to be designated for urban uses. If a site were selected in this general vicinity, there would be no reason to doubt passage of an appropriate Plan Amendment to the Official Regional Plan.

(2) Regional Parks Proposals

A regional parks system for the Lower Mainland first took shape with the production of a report entitled "A Regional Parks Plan", prepared by the staff of the Lower Mainland Regional Planning Board, and submitted to the Parks Committee of the Lower Mainland Municipal Association in May of 1966.

The Parks Plan was a broad ranging affair that identified the need for various types of park and recreation activity and then made recommendations for major parks and trail systems of regional significance, extending from Hope to the sea. Deservedly, the proposals received a great deal of support from the public, and from elected and appointed municipal officials. In large measure, the various dedicated regional parks obtained recognition and the support of regional land use policies with the adoption of the Official Regional Plan in 1966. Then, in a very broad statement of intent dated October 31st, 1968, the Lower Mainland Regional Planning Board indicated its intention to shepherd the other regional park proposals through the Official Plan amendment procedure. Under normal circumstances, this would have been an unexceptional step for the Board to have undertaken, but due in part to a lack of the usual liaison between the Board's staff and those of several area municipalities (ours included) the District of North Vancouver felt obliged to seek the deferral of the amendment. Of far greater importance than the procedural disagreement, however, was the fact that approval of the Park proposals would have largely pre-determined land use policy in reference to two of the projected College sites. As advisors to our Council and also to the Board of Capilano College, we considered that the park proposals embodied in the 1966 Regional Parks Plan should be examined most carefully in terms of local impact before ratification. Following upon the formal objection on the part of the District of North Vancouver, an exchange of views at staff level has taken place.

In Table 12 of "A Regional Parks Plan", the status, function and key features of each of the proposed regional parks is set out in a simplified form. Two regional parks were (and are) scheduled for the District

of North Vancouver and each has a bearing upon one of the possible College sites, as noted. The following passage has been re-arranged for ease of reading, but is otherwise a verbatim extract from the L.M.R.P.B. Table.

Capilano River Regional Park

(i) Natural Features and Existing Development

*Dramatic river runs from Cleveland Dam through deep canyon with evergreen cover into lower reaches of open gravel extending to river mouth at First Narrows.

*Generally in recreation use; landscape viewpoint and fish trap at Dam; Vancouver Parks Board development of canyon segment, including group camp and footbridges; private development of 21-acre section of canyon with totem park and suspension bridge; fishing and trails in lower reaches.

(ii) Regional Park Development Proposals

*Develop as riverside park; create trail system below existing Capilano Park with footbridge across west-bank tributary near Marine Drive; develop landscaping, parking areas and some picnic sites in lower reaches.

*Provides for strolling, picnicking, hiking, fishing, sightseeing, nature study, and some group camping.

Possibility of some conflict in lower reaches if Lion's Gate Bridge approaches are extended directly north to connect with Upper Levels Highway.

(iii) Effective Area

420 acres

(iv) Status of Land

21 acres suspension bridge (private)
7 acres other private
20 acres Indian Reserve

* An unlikely eventuality in the light of current Brockton Tunnel/Bridge Engineering studies.

28 acres Joint Indian-Provincial
 215 " Vancouver City, some leased from North
 Vancouver District
 35 " West Vancouver
 7 " North Vancouver District
 66 " Greater Vancouver Water District
 20 " Creek bed.

Commentary

The principle of establishing a continuous, linear, canyon and river park from the Cleveland Dam to the mouth of the Capilano River is one that we, in common with many other agencies and individuals, endorse as a worthwhile regional issue. However, we cannot accept that the use of the prominent shelf and related benches near the Cleveland Dam would seriously detract from the Capilano River park proposal.

The land is not accessible to the public today, and if the stated attitude of the G.V.W.D. is maintained against the entry of any persons or uses other than those devoted to the watershed (see previous section on Official Regional Plan) then the 66 acres of G.V.W.D. land will be park in name only. Both the Dam and the lake are resolutely artificial or man-made elements: we would suggest that an imaginatively and sympathetically handled College complex would not detract from the beauty of the Lake to the north or the rugged canyon to the south. Most of the river system would remain unspoilt - or as unspoilt as the proximity of residential development will reasonably allow.

Lynn Canyon Regional Park

(i) Natural Features and Existing Development

*Attractive rugged canyon and river bed area including Seymour and Lynn Creeks; Lynn Canyon is rugged; Seymour has canyon, flat river bed stretches, and fishing pools; lush evergreen forest between creeks and throughout area; rainfall increases rapidly to north.

*Recreation and watershed area; Lynn Creek has had attractive naturalistic development of trail and bridge system by North Vancouver District; Seymour Creek is in G.V.W.D. watershed, although the area in question is below the intake and is presently accessible to fishermen.

(ii) Regional Park Development Proposals

*Develop as natural area; extend trail system to give access to entire area; retain naturalistic development; improve road and parking facilities along Seymour Creek; develop picnic areas; develop golf course.

*Provides for hiking, strolling, sightseeing, golfing, nature study, picnicking, and fishing.

*Small, attractive, developed area below watershed on Seymour to be acquired.

(iii) Effective Area

1,300 acres.

(iv) Status of Land

2 acres	private
830 acres	G.V.W.D.
468 acres	North Vancouver District dedicated or reserved parkland.

Commentary

The boundary of the proposed park is not - in our judgment - altogether logical and consistent with the realities of the terrain. Moreover, given the marked emphasis upon a "naturalistic development" in the foregoing description and analysis, a Golf Course appears a little out of place. Unfortunately, we have not been provided with any schematic appreciation of the regional park as envisaged by the L.M.R.P.B., so that we cannot comment in depth at this stage. What can be said, though, is that the area offers two physically separate and distinct environments; canyon and river valley in the Lynn and Seymour Creeks and a ridge top bench of variable width between the two valleys.

It is worth remarking, as we did in the case of the Capilano River Regional Park, that the G.V.W.D. is likely to prove unenthusiastic over the prospect of public access (and that includes park use) to the 830 acres within its control (a low-level dam on the Seymour has been referred to as one possibility in support of restricted access to and use of G.V.W.D. lands). If the College were to be located north of the City of North Vancouver Cemetery, it could, perhaps, be confined to land owned by the District of North Vancouver. This area is currently designated for park purposes in the Official Regional Plan.

It was a coincidence, actually, that the L.M.R.P.B. initiative in regard to the parks amendment to the Official Regional Plan was advanced at about the same time that municipal staff began their first, preliminary, investigations in connection with this College site study. Quite apart from the College, however, a tentative notion was also under consideration relative to the possibility of creating a comprehensive townsite on the inter-river benchland focussed around Rice Lake and extending as far south as the North Vancouver City Cemetery. Depending upon the type of development and upon the range of housing, a population of 18 - 25,000 could be accommodated. The land is well situated having reference to the Vancouver metro area and could be linked with the major road system via the Lillooet Road (and Second Narrows) and also Lynn Valley Road.

Park activities, trails, picnic spots, etc., could be organized in the Lynn and Seymour river valleys and linked "over the top" as it were, by a system of trails and community parks that would serve the proposed townsite in a more immediate sense.

The reaction of the L.M.R.P.B. representatives to our concepts was not favourable. Mr. V.J. Parker, Executive Director of the Board, clearly felt that a townsite or any other comparable urban development form would be prejudicial to the regional park facility. Mr. Parker asked us, in turn, just what importance we attached to a regional park that had initially received some local recognition as a regional component. The position that we took was that ample area would remain to constitute an adequate regional park and that, indeed, other possibilities exist for park development on a regional scale on the North Shore that would not be in conflict with other land use claims. Furthermore, we are of the opinion that the land on the ridgetop that would be used for a townsite (or for a college, for that matter) was not vital to the preservation of the natural order in the river valleys which were the prime attraction.

Finally, we would suggest that both the Rice Lake townsite and the Regional College are also items of regional significance. Admittedly, they were not factors to be reckoned with at the time that the Regional Parks Plan was being formulated, but that is no reason - in and of itself - to deny their legitimacy or to deny them appropriate weight.

(3) Municipal Zoning

(a) General Remarks

The arrangements embodied in the Zoning Bylaw of the District of North Vancouver reflect the assessment of development potential as of 1965. A Zoning Bylaw and its accompanying map are implementation tools having an effective lifespan of about five years in a rapidly growing community. In other words, assuming fairly continuous growth in the residential, commercial and industrial land use sectors, a comprehensive overhaul of a Zoning Bylaw would be justified every five or six years in relation to the objectives of an overall community plan.

The Zoning Bylaw of 1965 had, as its basic policy reference, the Outline Development Plan for the District that appeared the previous year under the title of "Plan '64". In many ways this plan is still valid. Most of the key objectives and principles stand, although of necessity some of the details have had to change (for example, in reference to the public School System).

Unlike the development policies adopted for the Official Regional Plan, local zoning regulations must be capable of detailed application through more zoning categories and at the scale of the individual lot. One cannot very well make use of "Reserve" categories, as a case in point. Thus, we have had to employ the P.R.O. zone or Park, Recreation and Open Space Zone, in lieu of a Reserve designation. In several instances it should be pointed out that we do not consider that a P.R.O. zone necessarily represents a final solution to the land use policy question. Yet another important distinction that needs to be drawn between the Regional Plan and the local Zoning Bylaw is that a Zoning Bylaw can be changed at the local level by the appropriate municipal council, operating within the broad policy envelope of the duly approved Regional Plan, whereas any amendment to the Regional Plan itself (at present) entails a cumbersome three stage amendment procedure involving all of the member municipalities and their councils, not to speak of the provincial government.

(b) Status of College Sites

The zoning status of the five possible College sites, in simplified form, could be expressed in this fashion ;

(i) Capilano Lake

P.R.O (Park Recreation & Open Space)
Essentially a recognition of the status quo in the watershed and of proposed park areas.

(ii) Cleveland Park

Primarily RS3 (Residential, Single-family with a typical lot area of 7200 sq. feet and minimum width of 60 feet etc.)

Portion zoned P.R.O. on the basis of a projected subdivision layout that included a local park.

(iii) Inter-River North

P.R.O. (Park, Recreation & Open Space)

Various suggestions have been advanced for this area : at one time a small golf course was proposed but was rejected due to the limitations of area and topography.

The P.R.O. zoning reflects previous park proposals.

(iv) Inter-River South

Primarily RS1 (Residential, single-family with a minimum lot area upon subdivision of one acre) Portion zoned I4 (Interim Industrial). The municipality has been energetically removing sand and gravel from parts of the Inter-River area in accordance with a regrading plan and rehabilitation once gravel operations cease.

(v) Blair Rifle Range and vicinity

R.S.1 (Residential, single-family, one acre lot minimum). Rather like the P.R.O. zone, the RS1 classification acts as a reserve or holding zone where development prospects are uncertain or

may require further study or where it is decided to hold back on subdivision and use.

Summary Comment

It is reasonable to expect the co-operation of the Municipality where rezoning is concerned from, say, RS1 to RS3 to the Public Assembly Zone to accommodate the Capilano College. Should the case arise where the proposed zoning (Public Assembly) would not be consistent with the policies of the Official Regional Plan, the Council of the District of North Vancouver would have to be persuaded to sponsor an amendment to the Regional Plan on behalf of the College Board. In any event, it may be that with regard to Site (1) Capilano Lake, or Site (2) Inter-River North, the requisite support and approval may not be forthcoming, from the Regional Planning Board or its successor, the Greater Vancouver Regional District.

(6) SITE ANALYSIS

(A) INTRODUCTION

The following notes on the five regional college sites in the District of North Vancouver are made from more extensive data compiled on the basis of a report entitled "Criteria for College Site Selection" provided by Mr. Leslie Brooks.

All 25 factors affecting the sites were investigated in areas involving planning, engineering and appraising, but not those involving education principles and policies. The factors in the report comprise the following :

- | | |
|--|--------------------------------|
| 1. Availability | 13. Orientation |
| 2. Location | 14. Expansibility |
| 3. Environment | 15. Flexibility |
| 4. Accessibility | 16. Educational Adaptability |
| 5. Size | 17. Site Development |
| 6. Shape | 18. Utilities |
| 7. Topography | 19. Public Service |
| 8. Acquisition | 20. Community Use |
| 9. Cost of Land | 21. Outdoor Activities Desired |
| 10. Soil Condition | 22. Undesirable |
| 11. Sub-surface Condition | 23. Maintenance Implications |
| 12. Site Preparation | 24. Political Implications |
| 25. Master Planning Factors to be Considered | |

CAPILANO LAKE SITE.

(B) THE SITES

1 : Capilano Lake Site

Location

The Capilano Lake Site is located on the west bank of the Capilano River at Cleveland Dam, and is bounded by Capilano Lake and River, Houlgate Creek and the West Vancouver District boundary. It is 2 1/4 miles north of the Upper Levels Highway via Capilano Road, and 1 1/4 miles via Taylor Way, Stevens Drive, and the proposed access road in West Vancouver.

Environment

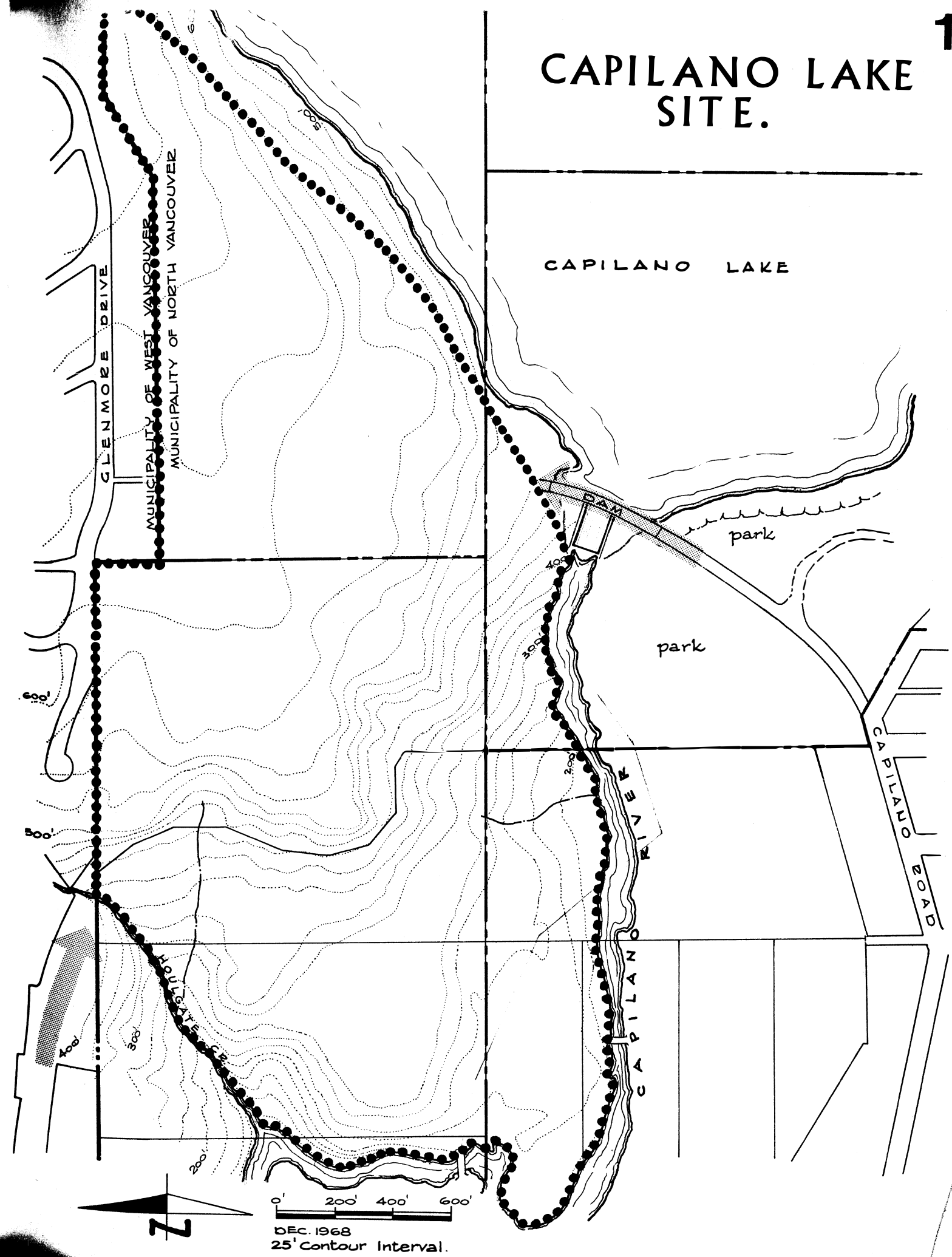
A very low density residential area adjoins the site on the west, a wilderness park (Capilano Park) borders it on the south and east, and Capilano Lake, which supplies water to the Greater Vancouver area, lies to the north. The open or distant view is up the Lake and toward Grouse Mountain (north and east), while the remaining views are of the park and nearby residential areas. Fog and mist will occur more frequently at this site than at the others because of its proximity to Capilano Lake and River. The site is sheltered from all but northerly winds, which are usually cold winds.

Utilities and Public Services

Of the utilities, only sanitary sewage disposal presents a problem. If the West Vancouver sewer system is large enough to handle the college effluent, sewage would have to be pumped to it. If the North Vancouver System is to be relied upon a new line may have to be installed from below the Upper Levels Highway (see also Site 2). No difficulties are expected in providing other public services at an acceptable standard.

Access and travel times

Access to the site from the east would require widening of the road across the dam (or, possibly, a new imposed road structure) and from the west construction of a



road (3 lanes minimum) from Stevens Drive near Onslow Place to the site, a distance of 2200 feet. Both of these routes are considered necessary to serve the College when it reaches maximum enrollment. Of all the sites, travel times are most favourable for this college site. Depending upon the peak traffic volumes encountered on Capilano Road, it may be necessary to widen and upgrade that road.

Site Characteristics

The site is about 100 acres (gross) in area : additional acreage is available, but not necessarily contiguous to the site. The naturally terraced land ranges in elevation from 150 feet to 650 feet above sea level, and thus, by comparison with the other four sites, presents the greatest challenge to development. Rock is exposed at the dam and may occur throughout the site.

Site Development

As most of the flat land will be required for parking areas, many buildings will be built in steep ground. Construction costs will therefore be higher than where the buildings are built on relatively flat ground. Landscaping would entail finding suitable means of breaking up parking areas into smaller units (e.g. by terracing) and of preserving the natural tree cover where possible.

Ownership and Estimated Cost of Acquisition

Ownership is divided into approximately the following proportions :

- | | |
|---|-------|
| A. Greater Vancouver Water District | 60% |
| B. City of Vancouver (Capilano Park) | } 40% |
| C. District of North Vancouver (leased to City of Vancouver until April 30, 1974) | |

CLEVELAND PARK SITE.

It may be possible for the District of North Vancouver to acquire by exchange all of the City's land within the College site. The GVWD has declared some of their land surplus and had informed Davis, MacConnell, Ralston that it could be placed on the market.

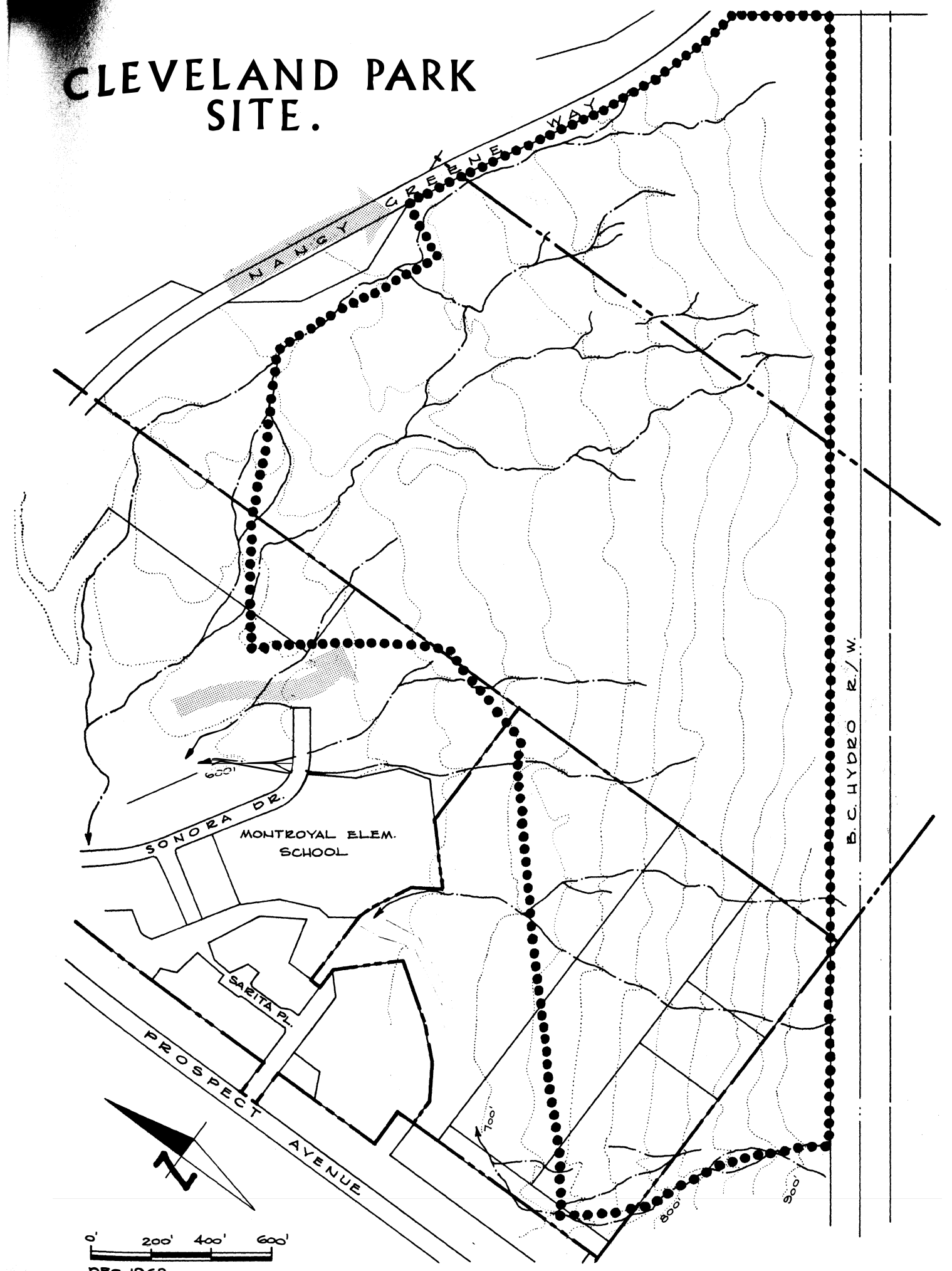
The District Land Agent estimates the present market value of this site at \$1,310,000.

Further Information Required

The analysis of this site has been handicapped by a lack of accurate ground survey information. In addition, test drilling for rock should precede the architectural or site planning stage. An engineering feasibility study should be commissioned to determine the best method and cost involved in crossing the Cleveland Dam and in constructing the main access route into West Vancouver via Stevens Drive.

Non-College Benefits

Also to be considered are the benefits which might accrue to the community through the establishment of the college on this site. When access is provided from both North Vancouver and West Vancouver a road link will have been established across the Capilano River. It would be difficult to prevent this link from becoming a part of the major street system on the North Shore, a factor which should be borne in mind from the beginning. This would have the disadvantage of possibly disturbing some West Vancouver residents who might resent College traffic using Stevens Drive but an offsetting advantage would be that the College traffic would tend to be divided with corresponding savings in respect to road improvements (e.g. Capilano Road).



2. Cleveland Park Site

Location

The Cleveland Park site is located east of Capilano Lake and at the foot of Grouse Mountain. The north-east boundary follows the B. C. Hydro powerline and the west boundary runs along Nancy Greene Way for about 1200'; the remaining boundaries would follow Creeks or the edge of residential development. The site is $2\frac{1}{2}$ miles north of the Upper Levels Highway via Capilano Road, and $2\frac{3}{4}$ miles via Cliffridge, Montroyal and Lonsdale.

Environment

Residential development would occur along the southern boundary and along Nancy Greene Way. The remaining adjacent areas are likely to remain in their natural state for some time to come. The site enjoys a south-westerly exposure with a distant, panoramic view extending from Capitol Hill to the Lions.

Some fog or mist can be expected to drift onto the site from Capilano River and Lake.

Utilities and Public Services

Sanitary sewage disposal will present a major problem for this site as for the Capilano Lake site. It may be necessary to extend a line from south of the Upper Levels Highway (some 3 miles at an estimated cost of \$300,000) to give the College adequate service. Water service would be supplied from new tanks on Grouse Mountain. The remaining utilities and public services can be made available without difficulty.

Access and Travel Times

Capilano Road and Nancy Greene Way would serve as access to the site from the west, and as it will probably be the main entrance to the campus, Capilano road may have to be widened. Cliffridge would serve as an alternate access. Travel times are comparable to those for the Capilano Lake Site for people living in North Vancouver, but some 2 minutes longer for residents of West Vancouver.

Site Characteristics

A site of 100 acres (gross) has been outlined on the plan. The upper area averages a 15% slope in the western half and 20 - 22% in the eastern half.

The lower area averages 10%. Several creeks of varying size cut across the site in roughly parallel lines at right angles to the slope. The elevation varies from about 625 feet to 875 feet above sea level. Expansion possibilities are limited at this time, but should more of the watershed area be opened up, the additional land requirements could be met.

Site Development

Similar comments to those for the Capilano Lake Site apply to this site. In addition, the several creeks that cross the site will present difficulties in the parking areas and perhaps for service vehicles to other parts of the site.

Ownership and Estimated Cost of Acquisition

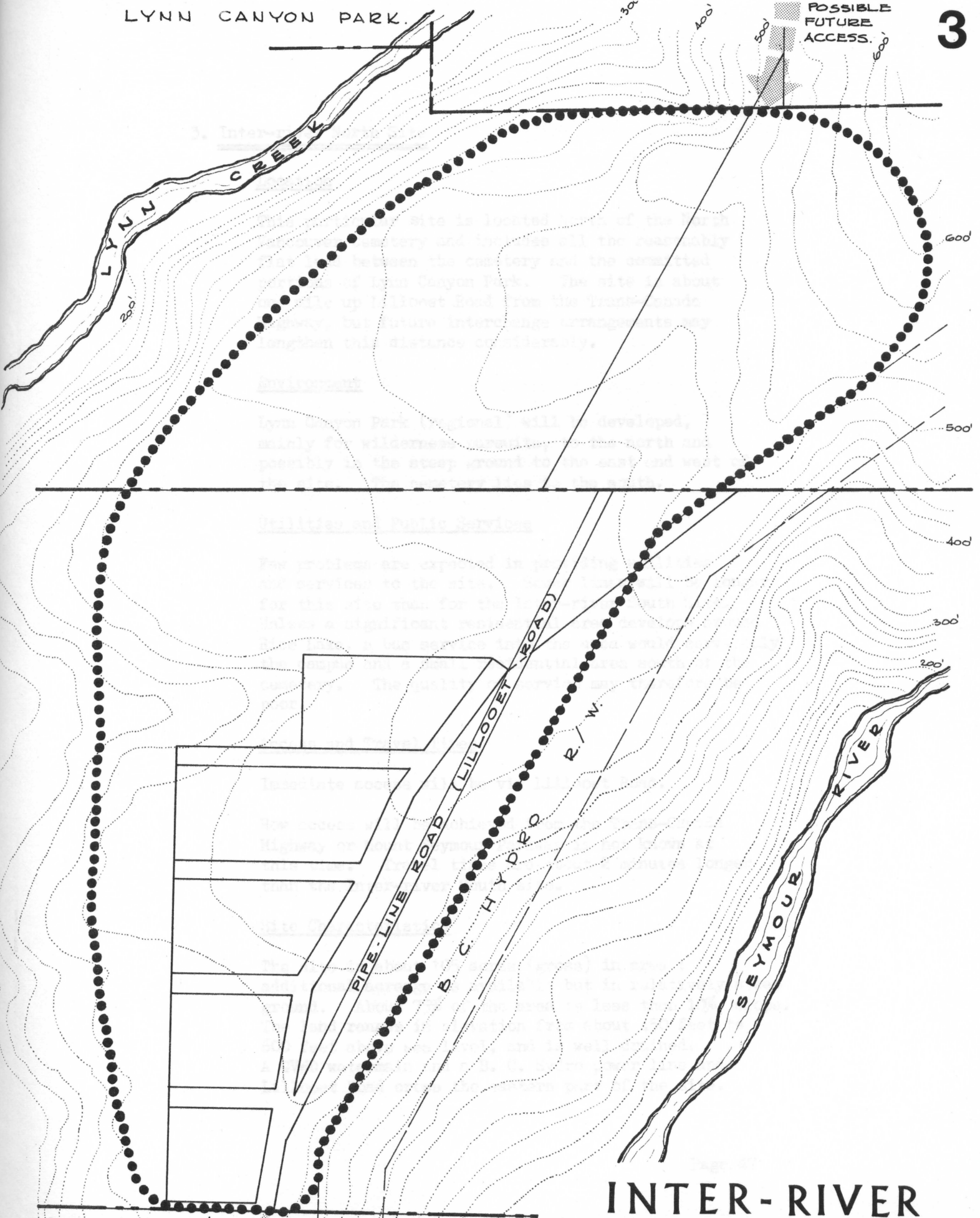
There would appear to be no difficulty in acquiring this site. The GVWD, which owns 75 acres of the land, has agreed that this area does not drain into Capilano Lake and is therefore surplus to its requirements. The remaining 25 acres is owned by the District of North Vancouver.

The District Land Agent estimates the present market value of this site at \$1,565,000 (same as Capilano Lake Site).

Non-College Benefits

Should the college be located on this site some 250 single-family residential lots would be eliminated from the potential calculated for the Cleveland Park subdivision. This represents a reduction in ultimate elementary school population of some 180 pupils or approximately 5 classrooms. An annex proposed for this area would not be required. A reduction in ultimate secondary school enrollment would also occur.

POSSIBLE FUTURE ACCESS.



INTER-RIVER NORTH SITE.

3. Inter-river North Site

Location

This particular site is located North of the North Vancouver Cemetery and includes all the reasonably flat land between the cemetery and the committed portions of Lynn Canyon Park. The site is about one mile up Lillooet Road from the Trans-Canada Highway, but future interchange arrangements may lengthen this distance considerably.

Environment

Lynn Canyon Park (regional) will be developed, mainly for wilderness pursuits, to the north and possibly in the steep ground to the east and west of the site. The cemetery lies to the south.

Utilities and Public Services

Few problems are expected in providing utilities and services to the site. Sewer lines will be longer for this site than for the Inter-river South Site. Unless a significant residential area develops around Rice Lake, a bus service into the area would serve only the campus and a small residential area south of the cemetery. The quality of service may therefore be poor.

Access and Travel Times

Immediate access will be via Lillooet Road.

How access will be achieved from the Trans-Canada Highway or Mount Seymour Parkway is not known at this time. Travel times are about 2 minutes longer than the Inter-river South site.

Site Characteristics

The site is about 105 acres (gross) in area : additional acreage is available but in relatively steep ground. About 75% of the area is less than 10% slope. The land ranges in elevation from about 450 feet to 600 feet above sea level, and is well drained. A GVWD watermain and a B. C. Hydro power line and Lillooet Road cross the eastern part of the site.

A view to the south is likely if a fair amount of clearing is done : the campus should be visible from the south.

Site Development

To judge from the topographic information available, little difficulty should be encountered in the development of the site. Lillooet Road alignment could be improved but would still have to cross the site.

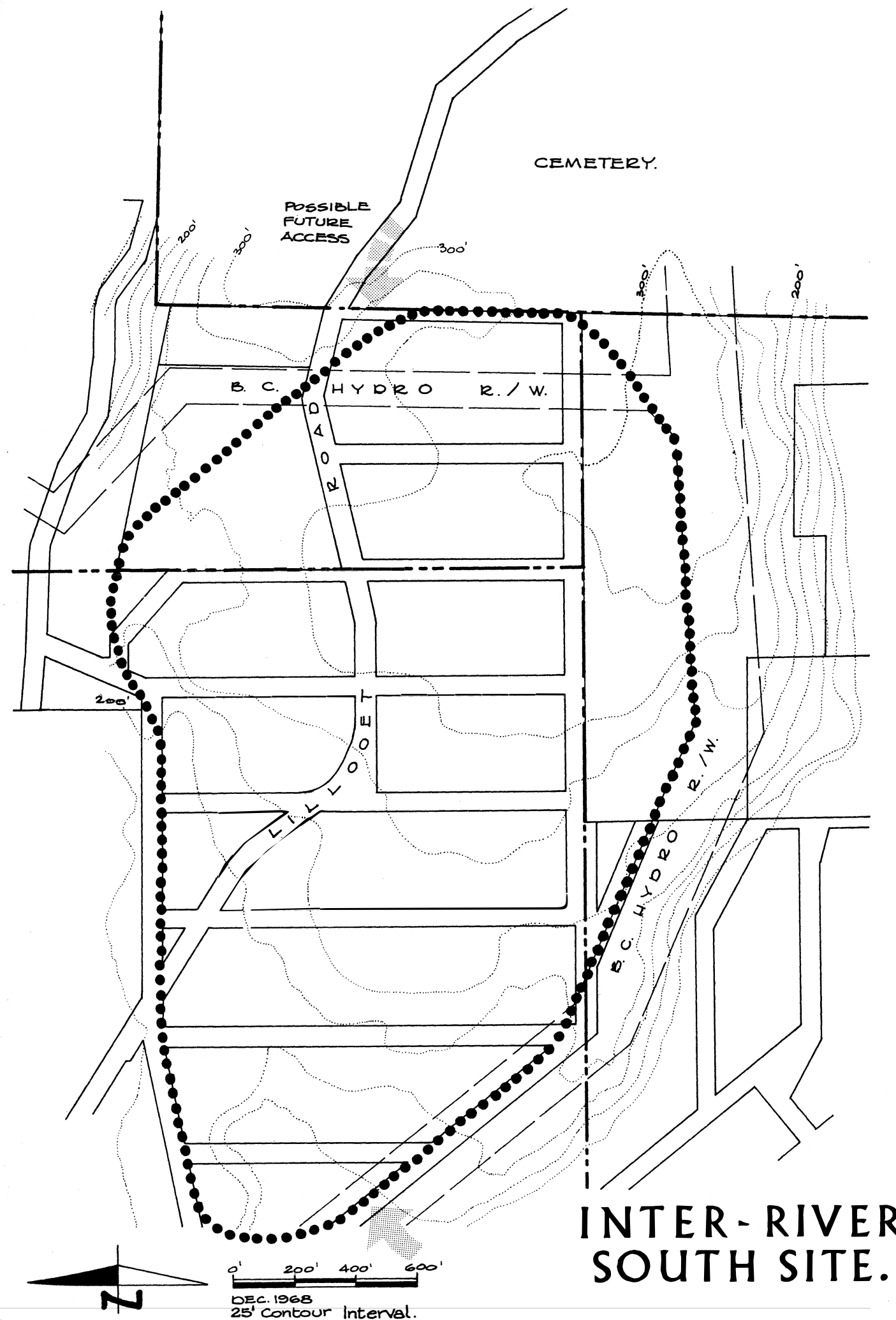
Ownership and Estimated Cost of Acquisition

About 25 acres lie within the Greater Vancouver watershed area. However, as this land does not drain into the Seymour above the proposed dam site it may be released by the GVWD. Except for two small private unserviced lots the remaining 80 acres is owned by the District of North Vancouver.

The District Land Agent estimates the present market value of the site at \$550,000.

Further Information Required

Accurate ground survey information is lacking.



**INTER-RIVER
SOUTH SITE.**

4. Inter-river South Site

Location

The Inter-river South Site is located south of the North Vancouver Cemetery and includes all of the flat ground lying roughly between the B. C. Hydro Power line on the east and Lillooet Road on the West. The site is about $\frac{1}{4}$ mile north of the Trans-Canada Highway, but if the accepted interchange arrangement between the Trans-Canada Highway and Mount Seymour Parkway precludes a direct takeoff for the Inter-river area the distance to the site will be much greater.

Environment

Residential development, some of fairly high density, will border on the site to the west and south; the cemetery is to the north, and steep sloping ground to the east. The site will be very conspicuous for an area extending from Westlynn to the edge of Seymour Heights.

Utilities and Public Services

This area is relatively easy to supply with the requisite utilities and services. As mentioned for the Inter-river North Site, bus service may prove to be inadequate. The site is well-drained.

Access and Travel Times

Access will depend upon what arrangements result from connecting Mount Seymour Parkway to the Trans-Canada Highway. Upon this factor also hinges the question of travel time. With a direct connection to either the Trans-Canada Highway or Mount Seymour Parkway the average travel time for a student or faculty member would be comparable to the time for the Cleveland Park Site. West Vancouver students would have to travel 2 minutes longer, Glenmore students 6 minutes longer, with Lonsdale students 1 minute less, Lynn Valley students 4 minutes less and Dollarton students 9 minutes less for the Inter-river South site than for the Cleveland Park Site.

Site Characteristics

The site is somewhat less than 100 acres (gross) with very limited chances for expansion. However, most of the land is relatively flat. If expansion of the site were required land could be used north of the cemetery or beside Lynn Creek on the sanitary fill disposal area. The land ranges in elevation from about 150 feet to 275 feet above sea level. As with the Inter-river North Site, this site is crossed by a watermain, a powerline and Lillooet Road.

Site Development

It is not expected that any major problems would occur in the development of this site. Its prominent location will call for some consideration of its relationship to adjacent land development. Gravel removal from the site will alter the present contours to conform with a prescribed and acceptable grade.

Ownership and Estimated Cost of Acquisition

Of all the sites, this one has the greatest percentage of land in private ownership (40%). The remaining land is owned by the District of North Vancouver. Expropriation may be necessary to assemble the site.

The District Land Agent estimates the present market value for the site at \$1,200,000.

Non-college Benefits

Based on a 1965 study of ultimate development potential for the comparable area, approximately 290 single-family dwellings and 385 apartments would not be constructed on this site should it be used as a college campus. This would reduce the number of elementary school children expected from the area by some 315 (9 classrooms). There would also be fewer secondary school students coming from this area.

5. Site in Vicinity of Blair Rifle Range

Location

The exact location of this site cannot be given. Land uses in the Blair Rifle Range have not been fully investigated (the range is now a Federal-Provincial land bank project), and the major street pattern east of Berkley has not been settled. The site would be from $1\frac{1}{4}$ to 3 miles from the Trans-Canada Highway via Mount Seymour Parkway.

Environment

The campus would very likely to be surrounded by low density residential development. Views to and from the site would be limited.

Utilities and Public Services

The District of North Vancouver Engineering Department suggests that there will be problems with extending utilities to the site. This would certainly be true if development of the campus preceded residential development in the area. Public services should be adequately met.

Access and travel times

Access to the site is expected to be by way of Mount Seymour Parkway which is likely to be adequate for this purpose. This location would be 1 to 2 minutes further than the Inter-river South Site from areas west of the Seymour River.

Site Characteristics and Development

As a site cannot be delineated at this time little can be said about site characteristics and development.

Ownership and Estimated Cost of Acquisition

Unless part of the Blair Rifle Range is sold by the Federal and Provincial Governments for the college site almost the whole of the site would be located on District of North Vancouver Land. Some private land comprised of small, isolated, unserviced lots may also be included.

The District Land Agent estimates the present market value of this site at \$980,000.

Non-College Benefits

A 100 acre campus in this area would displace about 350 homes, representing an elementary school population of about 260 pupils. The classroom requirement would therefore be reduced by about 7 classrooms. Secondary school enrollment would also be less.

(C) CONCLUSIONS

The selection of any one site out of the five studied depends to a considerable extent upon the weighting that is given to the key factors, whether these are taken to be initial capital outlays upon land and utility services; relative accessibility to the whole of the North Shore and to the potential student population; size of site or general suitability of the site, including regional land use policies, as examples. Each of the sites has advantages and each has its own particular set of disadvantages that must be set in some form of balance.

We offer, below, a summary of the pros and cons of the five sites :

(1) Capilano Lake

Advantages -

- (a) an exceptional, dramatic, setting;
- (b) prominent and conspicuous site;
- (c) best travel times overall;
- (d) excellent environment

Disadvantages

- (a) major land use conflict with Regional Parks Plan and with Greater Vancouver Water District;
- (b) land availability (from the G.V.W.D.) in doubt;
- (c) high servicing costs for immediate road access and probably for sanitary sewer;
- (d) relatively high land cost estimated at \$1,310,000;
- (e) highest building cost of any of sites.

(2) Cleveland Park

Advantages -

- (a) no land use policy or zoning conflicts;
- (b) good environment;
- (c) prominent site;
- (d) good travel times.

Disadvantages

- (a) high servicing costs, involving special sanitary sewer line estimated at \$300,000 plus necessity of widening and upgrading Capilano Road;
- (b) highest land cost of any site estimated at \$1,600,000;
- (c) relatively steep grades plus creekbeds create high building costs.

(3) Inter-River North

Advantages -

- (a) lowest land cost of any of five sites;
- (b) majority of land in municipal ownership;
- (c) reasonably close to Trans-Canada Highway hence reasonable travel times;

Disadvantages -

- (a) conflict with Parks provision of Official Regional Plan and with G.V.W.D.
- (b) comparatively remote location on narrow ridge-top;
- (c) restricted access;
- (d) comparatively long service line for sanitary sewer;

(4) Inter-River South

Advantages -

- (a) conspicuous site;
- (b) close proximity to Trans-Canada Highway interchange. Good travel times;
- (c) most of land in public ownership, hence readily available;
- (d) no conflict in land use terms;
- (e) utility services close at hand;

Disadvantages -

- (a) Highways Department concerned over limited capacity of interchange - requires total re-design, may render access less direct;
- (b) some environmental drawbacks in terms of B.C. Hydro transmission lines, municipal gravel removal programme, sanitary fill disposal area at foot of escarpment.

(5) Blair Rifle Range & vicinity

Advantages -

- (a) land not yet committed to any set form of development;
- (b) land almost entirely in public ownership;

Disadvantages -

- (a) may not fit in with land use policies relative to Blair Range land bank (Federal, Provincial & Municipal interests);
- (b) most easterly of five sites;
- (c) servicing problems if an immediate start is to be made on campus;
- (d) delays in planning College in reference to whole general area.

We would recommend, therefore, that Site No. 2 (Cleveland Park) and Site No. 4 (Inter-River South) would appear to have the least problems with respect to development policy, although in the former case land and servicing costs would be high and in the latter case, we have to report that the Provincial Highways Department has expressed concern at the impact upon the major highway interchange. Site No. 1, is by all odds, the most dramatic, the most challenging and the most problematical.

* * * * *

(7) MAJOR HIGHWAY AND TRAFFIC CONDITIONS

The introduction of a major traffic generating facility such as a college, into a community, clearly can have a tremendous impact upon the road system. Unfortunately, we have no certain knowledge of likely travel volumes in connection with the College nor do we have precise knowledge of the mode of transportation that will be employed.

(A) THE ROLE OF PUBLIC TRANSIT

The combination of natural characteristics and commuter travel patterns have lead to a situation whereby passengers hopeful of completing a journey by public transit from, say, Horseshoe Bay to the Inter-River area of North Vancouver or to Blair Rifle Range, are confronted with an exceedingly taxing, if not adventurous journey. We doubt very much whether there will be any early significant improvements to the system. B. C. Hydro loses money heavily on its North Shore operations and it can scarcely be blamed for any reluctance to add new routes or to improve the frequency and quality of service. The Capilano College will inevitably require an effective express bus system, and perhaps when the College enrollment enables an appropriate economic level to be attained we may find the licensed carriers prepared to offer a convenient and direct bus system, within peak travel hours, to serve the student body. In the meantime, simply because the sites selected in the District of North Vancouver are located on the fringes of suburban development, we have to assume that a very high proportion of all students will rely upon their own automobile or upon car pools to reach the College.

The future of public transit on the North Shore is far from clear. Certainly the three systems that now provide service do not constitute a satisfactory basis for public transportation for an area whose population may well exceed 240,000 persons in the long run. If we may be excused for peering into a murky crystal ball for an instant, we would predict that public transit (local and express buses, mini-buses and rapid transit) will, in due course, be operated by a metropolitan or Regional District transit agency. Should this come to pass, and with a far greater population base to deal with and to provide for, we may find some improvements taking place.

In the meantime, we can only remark that the private automobile appears to be the most practical solution to the student transportation problem in the first years of the College's life, supplemented as the numbers warrant, by specially chartered buses serving the principal residential areas and population concentrations. *

The situation would, of course, be eased somewhat if the College were to be located in proximity to one of the major centres or near the intersection of established transportation routes. Nevertheless, it is likely that the College would have to rely in part upon minor improvements to established routes and in part also upon chartered buses, because the normal commuter routes on the North Shore follow a different line (e.g. they relate to Vancouver) and, moreover, no one transit agency (West Vancouver Blue buses or B. C. Hydro) can offer a convenient and direct route for the great bulk of the student body to any of the prospective College sites.

(B) THE IMPACT OF THE PRIVATE AUTOMOBILE

The automobile is a way of life on the North Shore. The tremendous suburban growth since World War II would have been impossible without it.** Once established, it is very difficult to effect any change in transportation modes and experience both in North America and Europe gives ample demonstration of the influence of the automobile and its driver (in reality all of us). We may see a form of rapid transit, via rail, introduced to a limited extent in the Greater Vancouver area but we would be guilty of gross self-deceit were we to imagine that North Shore residents will readily give up the flexibility, independence and apparent economy of the car for any system that is less convenient and like ferries, buses, mini-buses, railway trains, requires a formal fare payment. The psychological aspect of the payment of a specific fee for parking or for use of a separate transportation facility frequently tends to be overlooked.

* A low-level rail rapid transit line along the waterfront, and fed by bus lines, is one possibility worthy of investigation.

** The Vancouver area is known to be heavily weighted towards the automobile. In 1967 the ratio of population to automobiles was estimated to be 2.88 for the Vancouver Metro area; 2.98 for the City of Vancouver; 2.48 for the City & District of North Vancouver (combined) and 2.11 for West Vancouver.

There have been occasions when a central city in order to preserve itself and provide for other uses and activities than streets and parking lots, has legislated to restrict the automobile. A case in point is New York, where severe restrictions have been placed upon the construction of garages; the city of San Francisco, in a valiant and determined effort to halt the onrush of freeways, planted its corporate feet firmly on the ground and refused to sell its rights to the registered road allowances to the Federal and State Highway authorities. As an alternative, the Bay Area is promoting and constructing a system of high-speed rail transit..... In our own situation we are proposing to construct a third crossing of Burrard Inlet - primarily for the automobile - and experts tell us that by the mid-1980's the demand may exist for a fourth crossing of the Inlet.

The point we wish to emphasize is this : unless an attractive alternative can be found to the automobile as the principal transportation means on the key commuter routes, we have very little hope of bringing about a radical change in terms of the much less promising east-west lateral traffic movements.

Assuming for the moment that we have to provide parking for a full-time equivalent of 6,000 students and assuming a peak load of 3,200 automobiles during the late afternoon and evening sessions plus 250 faculty, staff and visitor parking stalls, we would have to have an area of about 30 acres of level ground devoted to parking. * We believe that Capilano College will prove immensely successful but that regardless of whether it is to occupy an "urban" or a "suburban" location, the majority of students will want to, and will be in a position to utilize, their own automobiles. One can only plan on an alternative basis provided that one has the ability to offer, in a specific way, a valid and workable alternative. As planners, we have no wish to see either the central City core or a suburban college site devoted largely to the accommodation of cars but at this juncture we see no real prospect of affecting the parking situation in any substantial way.

* Assuming 4,000 students during late afternoon and evening sessions and assuming 80% use their own automobile; an allowance of 380 sq. ft. gross per automobile for parking space, aisles and principal driveways and miscellaneous space.

(C) HIGHWAY CONDITIONS

We may distinguish here between Provincial Highways involvement and the impact upon the municipal road system.

(1) Provincial Department of Highways

Two of the proposed College sites pose problems for the Provincial Department of Highways, that is Nos. 3 and 4, (Inter-River North and South), which must rely upon the Keith-Lillooet Road interchange with the Trans-Canada Highway south of the Coach House Motor Inn, for the bulk of automobile and bus traffic. We will set that concern aside for the moment and comment briefly upon the other college sites.

Site (1), Capilano Lake, would not appear to present much of a problem, since if our recommendations were to be followed, the main traffic flows could be split between West Vancouver and North Vancouver.

Site (2), Cleveland Park, would require all of the traffic from West Vancouver, Squamish, etc., to approach via Capilano Road and a good percentage also of North Vancouver traffic. It has been known for some time that the Capilano Road interchange on the Upper Levels Highway, was substandard, but no plans exist for a replacement. We can safely assume that this will be done once the details of movements associated with the proposed Brockton crossing have been worked out.

Site (5), Vicinity of Blair Rifle Range. Mr. M. G. Elston, Regional Highway Engineer, advised that the development of a College facility in the general vicinity of the Blair Rifle Range would not create any significant traffic problems.

Returning now to the Department of Highways' position with reference to Sites (3) and (4). Inter-River North and South, we find a truly difficult traffic situation in the making. Any attempt to mix and/or separate two high-speed, high volume, markedly directional traffic streams in a restricted physical environment with local traffic characterized by strong peak loads and without alternative means of ingress and egress, is bound to be difficult on technical grounds and expensive to achieve.

"Our planning" writes Mr. Elston, "looks for us to interchange SR401 (Trans-Canada Highway) with Seymour Parkway in the vicinity of the Coachhouse Inn. Both of these will be high volume facilities dictating the need for at least a semi-directional interchange. It is not possible to mix this quality of interchange service with grade street access, so a separate interchange is required for this. Our studies based on the area north of Seymour Parkway offering some 500 or so dwelling units led us to believe that an interchange on Seymour Parkway just west of the Seymour River would just operate satisfactorily. The peak ramp was of the order of 500 vehicles per hour. The Community College would expand this to some 1400 or 1500 vehicles per hour (peak is now a.m. instead of p.m.) and this location is just too close to the main interchange to operate satisfactorily. To set proper clearance we might have to go somewhere east of Willingdon and access the grade street system of the Inter-river area via Willingdon and the existing Dollarton Highway thus adding 1.6 miles to the travel distance to get to the area north of the Coachhouse compared with the possible interchange west of Seymour River." Mr. Elston concluded his letter on the subject on a pessimistic note: "It is a problem obviously most difficult of solution and I will not offer you any encouragement whatsoever."

(2) Municipal Roads

In very broad terms the situation applicable to the Municipal road network is as follows:

Site (1) Capilano Lake. This site would seem to have less of an impact upon Capilano Road than Site (2) (Cleveland Park) because nearly half the total enrollment is reckoned to originate in West Vancouver and Squamish. Since the College traffic would be proceeding in the opposite direction to commuter traffic there might be no necessity to widen Capilano Road solely on account of the construction of the College.

Site (2) Cleveland Park. The brunt of the traffic volume associated with this College site would fall upon Capilano Road and there is the real possibility that the road would have to be widened to accept the peak loadings.

Sites (3) and (4), Inter-River North and South.

The Lillooet Road has to be rebuilt and a major portion of it relocated, regardless of the introduction of the College. We have quoted at length from the Regional Highway Engineer in regard to the impact upon the Keith-Lillooet interchange and prospects are clearly not that bright. An additional load would be imposed and additional relief would be provided, if the so-called Rice Lake townsite were to be developed on the benchland north of the Cemetery since a crossing of the Lynn Canyon at its narrowest to link with Lynn Valley Road, Dempsey Road and the Cross-Town Route would also be involved.

Presumably an element of local participation would apply to the local road network in the area but details of the required layout are lacking and we cannot comment further at this stage.

Site (5) Blair Rifle Range, etc. For all practical purposes, no planning has been done with reference to the Blair Rifle Range and hence we can offer little of value. However, if a college were to form part of the land use fabric of the Seymour area the main road pattern would have to take the traffic contribution of the College into account in design terms. Fortunately since the page is almost blank, we have a correspondingly better chance of accommodating the traffic volumes and movements than in the more restricted and committed areas.

Need For a Study

We would recommend, most emphatically, that the Capilano College Council commission a study of the probable traffic impact of the College upon the feeder streets. The traffic engineering consultants to whom we have spoken, in the course of preparing this Chapter, have a great deal of base data already on file as a result of studies carried out for the Provincial Department of Highways and in connection with the Burrard Inlet crossing studies. Thus a traffic study would not be an unduly expensive undertaking and yet might identify some useful and money saving avenues worthy of exploration in relation to the development of the College campus.

(8) OTHER CONSIDERATIONS

In order to complete our presentation to the Capilano College authorities, we feel that one or two items should be discussed at least in a preliminary manner.

(A) CHANGES IN THE DEVELOPMENT PLAN

No plan worthy of consideration can be allowed to become a rigid framework. The moment that it does it begins to lose its relevancy and it is clearly ticketed for the shelf. We live in an era in which new pressures, new ideas, new ways of living and new techniques and horizons are opened up for us almost daily. Thus, a plan conceived with the standards and techniques of ten years ago or even five years ago, is in grave danger of becoming outdated.

For instance, the decision to proceed with the Roberts Bank superport with no consultation having taken place with other affected municipalities, etc., means that the development of our industrial waterfront has been postponed by ten to fifteen years at the least. Perhaps we should be considering a cutback in our existing and contemplated industrial zoning. No-one knows at this juncture and it would require a study conducted in real depth to plot the consequences of the Roberts Bank policy decision. Another example is provided by Blair Rifle Range (at which everyone is taking potshots). A great many suggestions have been made with regard to the future of the Rifle Range and the adjacent municipally-owned lands and in one sense it could be held to be a symbol of relief for an accumulation of public frustration in the housing field. Again, no plans exist in detail for this large tract of land, but we may nonetheless reasonably conclude that a mixed development will occur: it will fairly certainly not become a single-family preserve with the implications that that holds for population density and output of college students.

Members of staff of the District held a series of seminars during the Fall of 1968 during which they threw off many of the old concepts, restrictions and assumptions that have conditioned their outlook and thus tried to look afresh at the North Shore and the District. Various suggestions were made, including the notion of building much higher up the mountainside than the

limit established by the present water supply system of about 1050 feet. Already Grouse Mountain Resorts is contemplating a veritable community on top of Grouse served by the skyride. Another idea that emerged was that the benchland north of the City of North Vancouver Cemetery and between the Lynn and Seymour Rivers could be transformed into an exciting new community, capable of supporting anywhere from 18 - 25,000 people in the so-called Rice Lake Townsite.

The approach of the District Planning Department towards the accommodation of apartment units has - to put it mildly - not met with the approval of the established residents. Thus, the 1968 Apartment Report cannot be used as it stands as a land use policy base. A new policy will therefore have to be offered and in fact we propose to report on the matter to our Council early in 1969. One thing that is clear, however, is that with the exception of the uncommitted areas in Central Seymour, apartments will have to be concentrated in a few locations, with a marked influence upon population weighting and upon population characteristics.

Although we are unable to be specific at this time, we would suggest that the result of these changes to the plan will be to move the balance in College enrollment as between West and North Vancouver somewhat further east.

(B) ONE SITE OR TWO

The proposed college is expected to have a gross enrollment in excess of ten thousand students by the year 1985, equivalent to about six thousand full-time students. We are inclined to the view - and let us admit readily that we have no accurate alternative figures - that these forecasts may be conservative. We have only to experience the changes in development referred to in part (A) of this Chapter or, by virtue of provincial government investment limitations with regard to the universities, be confronted with increases in the Regional College to be much greater. Indeed, based upon situations that have occurred in the United States, a regional college could even be elevated to the status of a University. In which case we might find either an urban or a suburban campus totally inadequate. We would urge the College Council to weigh such possibilities carefully before endorsing any one particular site.

We may have to consider two sites, for instance, or a possible division of the physical plant whereby some of the facilities in fact occupied a key central location whilst the other (larger) portion was developed on an extensive suburban campus with greater capacity for expansion.

(C) STUDENT AND FACULTY HOUSING

We recognize that, in its present form, Capilano College is designed to function as a non-residential facility. Given the travel distances, though, from Squamish and Horseshoe Bay, or later, perhaps, from the Sechelt Peninsula, it may be appropriate to entertain the idea of student and faculty housing in close proximity to the campus. Students (married or otherwise) tend to be an independent breed and many welcome the opportunity of leaving their home environment and of achieving a measure of independence. Whether provided by the College on campus, or by private and co-operative enterprise nearby, it could be an advantage to have some land with the potential for development as student and faculty accommodation.

APPENDIX 'A'

OFFICIAL REGIONAL PLAN

An Elaboration of Development Policies, etc.

Note : the following explanations are taken directly from the text of the Official Regional Plan.

Established Urban Areas (Urb - 1)

Purpose : The Established Urban Areas designate lands that, because of :

- established small-lot urban development
- strategic proximity to regional transportation facilities
- assured freedom from flooding, and
- unsuitability for, or pre-emption of, productive agriculture, are best suited for the current stage of small-lot urban development on full urban services.

"Urban Uses" by definition, include all residential uses, commercial uses, industrial uses, public and semi-public uses, religious uses, recreation uses, rural uses and transportation uses.

Limited Use Reserve Areas (RSV-1)

Purpose : The Limited Use Reserve Areas designate lands that have difficult site features, servicing problems, or limited access and land or water areas that serve as major transportation routes and waterways. It is intended that these areas be retained as Limited Use Reserve Areas, with the possible redesignation of specific areas through Plan Amendment after study by the Board.

Use Policy : The Limited Use Reserve Areas may be used only for rural uses and transportation uses.

"Rural Uses" means uses providing for the growing, rearing, producing, harvesting, and extracting of primary agricultural, forest and mining products; may include Limited public, semi-public, religious, recreation, commercial and single-family country residential uses, etc.

"Transportation Use" means a use of regional significance providing for movement and temporary storage of people,

goods and energy by land, water, and air; includes free-ways, regional transit facilities, waterways, harbours, transmission lines and communications facilities.

Institutional Reserve Areas (RSV - 2)

Purpose : The Institutional Reserve Areas designate lands utilized for or held for major public and semi-public purposes. It is intended that these areas may be redesignated through Plan Amendment if and when a change of use is proposed.

Use Policy : The Institutional Reserve Areas may be used only for Institutional uses.

"Institutional Uses" mean major public and semi-public uses such as airports, clinics, Provincial Forests, reservoirs; include Light repairing and Light manufacturing uses, local commercial uses, residential uses, recreational uses, and rural uses, where any such included uses are customarily incidental to the particular institutional use.

Established Park Areas (PRK - 1)

Purpose : The Established Park Areas designate lands that are in established public recreational use of regional significance.

Use Policy : The Established Park Areas may be used only for Recreational uses.

"Recreational uses" mean public park, recreation and conservation uses; include such concessions as may be made by the Responsible Authority for commercial uses providing for the customarily incidental needs of the people utilizing the recreational use.

Potential Park Areas (PRK - 2)

Purpose : The Potential Park Areas designate lands that, because of a public recreational potential of recognized regional significance, are best suited for future acquisition for public recreational development, but in the interim must be protected from pre-emption by uses that would destroy or tend to destroy the recreational potential of the land.

Use Policy : The Potential Park Areas may be used only for rural uses.

"Rural Uses" - see definition under RSV - 1 Limited Use Reserve Areas.

