MINETTE BAY PARK DEVELOPMENT FOR KITIMAT

A Thesis submitted in partial fulfillment of the Requirements for the Degree of Master of Architecture at Massachusetts Institute of Technology

Submitted: August 7, 1957

To: Lawrence B. Anderson
Head of Department of Architecture

By: H. Kinoshita
Bachelor of Architecture,
University of Manitoba, 1956
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MISSING PAGE 41
Minette Bay Park development is to be a summer recreation center on a waterfront for the people of Kitimat. It shall create a setting of nature for the movements of people; to swim, to dance, to play, to rest or to love. Within this magnificent setting of nature shall float the architectural elements of man to arouse delight, gaiety, color and joy; to entice people to be gay, to be happy. In the twilight, music, laughter and light will float across the silent waters from where the people are dancing to music of their ethnic culture, to the callings of a square dance, or singing the old favorites beside a campfire. A sense of urbanity in the midst of wilderness, a sense of gaiety, sparkle, and excitement; this is the mood, this is the atmosphere to be achieved in this development—packed with people because it attracts, because they love it.
View of Kitimat from Douglas Channel
216 Beacon Street
Boston 16, Massachusetts
August 7, 1957

Pietro Belluschi, Dean
School of Architecture and Planning
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Dean Belluschi:

I herein submit this thesis, entitled "Minette Bay Park Development for Kitimat" in partial fulfilment of the requirements for the degree of Master of Architecture.

Yours very truly,

Héime Kinoshita
ACKNOWLEDGEMENTS

I AM INDEBTED TO those who have assisted me in the preparation of this thesis and whose criticism helped to bring it to its final conclusion.

James E. Dudley
Manager, Kitimat Real Estate Development
Aluminum Company of Canada, Ltd.
Vancouver, B. C. Canada

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Mayer and Whittlesey, Glass
Architects, Engineers, Town and Rural Planners
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New York 3, New York

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Rhode Island School of Design
Reginald C. Knight
Department of Architecture
Massachusetts Institute of Technology
Cambridge, Massachusetts

THE INTERESTED FRIENDS WITH WHOM DISCUSSION
BROUGHT FORTH NEW IDEAS.

TO ALL THOSE WHO HAVE GIVEN ME ENCOURAGEMENT
AND SPIRITUAL SUPPORT.
"The joy in living movements is a movement for the centuries and not just for to-day and tomorrow. It belongs to and is a part of religion, education, industry, social work, health, . . . yet it belongs exclusively to no one of these for it is in itself one side of life."1

1Howard S. Braucher, Recreation August 1936, P. 233.
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Correspondence

Bibliography
To Lana

 silent, yet near.
II. INTRODUCTION
"The purpose of Kitimat is the industrial success of the plant. That success will depend on the degree that workers are content, that they like living in Kitimat. Unless the town can attract and hold industrial workers, there will be continuous turnover and difficulty, interfering with dependable output."

Here was Clarence S. Stein's initial interpretation of the purpose of The Aluminum Company of Canada, Limited (Alcan). With this purpose, the plans of Kitimat, both operational and physical, have been developed to serve as a flexible setting for good living that is open to continuous growth and expansion.

The workers must find Kitimat a particularly fine place in which to live and bring up their families. It must become a place they want as homeland, the town they are going to make their own. It must be a place they love to work, and to play; a place where they will not be bored nor lonely by the wilderness and solitude.

Recreation will have a special significance in Kitimat because the only leisure time opportunities available to the residents, other than those provided in the homes and in the wilderness surrounding them, will be those in the town itself. Apart from large cities, old friends, customs, markets, Kitimat must provide a setting for the leisure time activities of the workers. Facilities for golf, swimming, folk dancing,
music, theatre, art and other forms of recreation is necessary for the success of the plan.

Adequate areas, structures and leadership are necessary to assure the residents recreation opportunities that will afford attractive and satisfying leisure time living.

A master plan for recreational needs for Kitimat is needed as a guide to ensure close relationship with the townsite master plant. Site development and architectural solutions are necessary to carry out the specific needs for Kitimat.
SCOPE OF THE PROBLEM

From the single family unit with its own private yards to the town center with its community auditorium and museum, many levels of recreation are necessary to meet the needs of every age group and sex for Kitimat. Community recreation facilities are needed together with high schools for soccer, track and field, baseball and those sports that are larger in scale. Neighbourhoods need their own community recreation buildings in addition to the movie theatre, neighbourhood parks, small library, and other facilities. Detailed developments of recreational facilities are urgently needed at every level and for all forms of recreation; in neighbourhoods, communities or for the whole town of Kitimat. One of the special items that was urgently needed in the schedule of the master plan by Mayers and Whittlesey was the development of the recreational facilities in Minette Bay. As this will be the only bathing area of Kitimat apart from the lakes that are dotted inland, it was important that an early start be made to clear the area and provide access to the Bay.

This thesis will study a part of the total recreational development. "Minette Bay Park Development" is one of the parks that will be operated by the municipality. It will be a waterfront park development to be used in the summer with facilities for bathing, boating, games, group gatherings, and quiet activities.
PURPOSE

The purpose of this thesis is to present to the citizens of Kitimat a visual idea of the possibility of developing the recreational potentialities of Minette Bay. It is recognized by planners and citizens of Kitimat that such an area is urgently needed to provide facilities for bathing, boating, picnicking and other forms of recreation. It is hoped that a visual presentation such as this thesis would make the citizens fully aware of the potentialities and to prevent and destroy any encroachment of undesirable elements upon the area. Dumping of refuse, log booms, mill operations, undrained swamps, unclean beaches do not enhance the area. Such operations as log dumping may continue for some time. If the recreational layout for this area as set aside in the Master Plan is studied, it will prevent further encroachment by these undesirable elements. Initial stages of plan can be executed together with the present logging operations. These industrial operations will soon stop with the completion of the clearing of the forests for townsite development. Then, the recreational development for this area may be carried to completion. This thesis is the author's proposal for the development of Minette Bay with a hope that it will be of some value to the total development of Kitimat.
II. BACKGROUND OF KITIMAT
BACKGROUND OF KITIMAT

LOCATION

Kitimat is located on Kitimat Arm at the head of the Douglas Channel some 70 miles inland from the open water of Hecate Strait on the Pacific seaboard of the British Columbia Coast. By air it is 400 miles southeast of Prince Rupert and 250 miles due west of the nearest inland British Columbia city of Prince George. It lies at the entrance to a valley 4 to 8 miles wide, with mountains at either side and a magnificent panorama. The valley extends some 40 miles north to the town of Terrace. Kitimat is accessible by regularly scheduled steamship, railway and airline services. Construction of a highway, to be completed in the near future, linking Kitimat and Terrace with other communities, has been commenced.
HISTORY

Kitimat has a cultural background similar to all the river-mouth coastal areas of British Columbia. The Kitimat Indians had numbered many thousands, living in an economy of never ending abundance based on the myriads of salmon spawning in the swift streams. They had a wood culture that even today is remembered by the old-timers in the little Indian village across the fjord from the new docks.

The inhabitants are a blend of Tsimpsians and Kwakiutl Indians and speak the Haisla dialect. Today the villagers, most of whom engage in the fishing industry, live in well-built frame houses, dating from the early 1900’s to bungalows of recent construction.

Athletic and social activities play an important part in the life of the Village, and a substantial community hall, erected in 1928, provides facilities for healthful recreational activities. The Kitamaat Athletic Club organizes the following sports: Basketball, soccer, softball, besides sponsoring community affairs such as the May 24 Sports Day.

For a few years just before the turn of the century, a land boom came to Kitimat when it was considered as the western terminus for the railway that now goes to Prince Rupert. But the few dozen settlers gradually moved away after the boom burst and the provincial reserve prevented further piecemeal development. In 1941 the last white
resident in the entire 100 square mile Kitimat area moved away.¹

In the second half of the century, new Kitimat began to stir. Behind the scene was the Aluminum Company of Canada, Limited (Alcan) seeking a new location for their aluminum smelter. The selection of the present site of Kitimat was made for two reasons: Power and Transportation. The primary reason is because of power. Power is the essential key to low cost aluminum production. The area around Kitimat was known by the British Columbia Department of Lands and Forests to have an unlimited potential source of hydroelectric power from the watersheds of high level lakes.² The preliminary surveys of the watersheds were made in 1928-31 and again in 1937-39. The results indicated exciting possibilities. But year after year, the waters continued to flow unused. At that time no Canadian industry required power so badly that it could afford the heavy engineering and financial responsibilities involved in creating the power development. In 1948, Alcan sent a survey party out to the area, and as a result of their field investigations, the Kitimat Project was proved possible.

The second reason for the location was the accessibility by ocean going vessels. Bauxite, the ore from which aluminum is made, is found principally in tropical countries. Canada obtains its ore from British Guiana, West Africa and Jamaica. Kitimat, located 70 miles inland from

¹"Kitimat, a New City", Architectural Forum, a special reprint, 1954.
the open waters is sheltered, providing suitable harbour for the purpose of Alcan. Kitimat Project was approved and by 1951, planning was complete. The Kitimat Project involved five separate engineering feats. First, a dam was constructed to impound the waters of the chains of lakes. Second, the ten mile tunnel was driven through the mountains to give passage to the falling waters. Third, a powerhouse was carved inside a mountain to connect the energy of the rushing waters into electrical power. Fourth, was the erection of a transmission line to carry the power to the smelter. And finally, came the building of the aluminum smelter at the end of a barren fjord.

Around the aluminum smelter was to grow a city that would eventually reach a size of 50,000 inhabitants. In order to plan this city of 50,000, the Aluminum Company of Canada, Limited appointed as planning coordinator, 3 Clarence S. Stein in September 6, 1951, and the firm of Mayer and Whittlesey as planning consultant of the master physical plan in September 12. This was the beginning of the master plan for "the first completely twentieth century 'new town', completely new, completely modern, in North America 4".

The method of planning employed was a unique double command at the head—Mr. Stein and his aides concerned with the overall policy and guidance only, paralleled by a physical planning team of Mayer and


4 Architectural Forum, op.cit., p. 1
Whittlesey concerned with implementation. Both were greatly aided by a company planning division created for liaison and continuing action headed by James E. Dudley.

Kitimat is based on planning concepts which include the Garden City idea of England, the Radburn idea of the separation of different types of traffic, the Greenbelt City idea of preplanning to a maximum growth and surrounded by a permanent forest and farming greenbelt, and the neighbourhood idea of a human scale of community relationships and activities.

Top flight consultants were engaged to study and recommend fundamental and administration, shopping, health, education, recreation, transportation, microclimatelogy, flood control, insect control, etc. Their contributions were welded together by Clarence Stein. Conferences with Alcan and provincial officials tested the proposed arrangements. Then Mayer and Whittlesey integrated the findings into their work to produce the Master Plan.

Kitimat became incorporated as "District of Kitimat" in March, 1953 by a special Act of the British Columbia Legislature, the affairs of the Municipality administered by a Reeve and six councillors and a Municipal Manager responsible to the Council. It now boasts a population of 15,000 people and supports a daily newspaper "Kitimat Northern Sentinel" that has a news coverage of Kitimat, Terrace, Hazelton, Smithers, Telkwa and Burns Lake.

The Master Plan is executed by a team of planners in Kitimat under Dr. Kent with the aid of Alcan's planning department. The Master Plan is implemented by a zoning by-law passed by the municipality. Therefore Kitimat is now a planned community in its own right, ready to make decisions for herself, guided by the Master Plan, yet room for flexibility.
TOWN PLAN FOR KITIMAT, B.C.

FOR THE ALUMINUM COMPANY OF CANADA
CLARENCE S. STEIN - COORDINATOR & DIRECTOR OF PLANNING
MAYER WHITTLESEY - ARCHITECTS - NEW YORK, N.Y.

RESIDENTIAL AREAS
INDUSTRIAL AREAS
LIGHT INDUSTRIAL & COMMERCIAL AREAS
RESERVATIONS FOR PARKS & PROTECTION
FLOOD PLAN RESERVOIRS
MAJOR ROADS
SMALL ROADS
RIVERS
LEVELS
ESTIMATED MAXIMUM FLOOD LEVELS
TOTAL REG.

KEY TO TOWN SERVICE CENTERS:
1. RAILROAD PASSENGER STATION
2. FREIGHT STATION
3. AUTOMOBILE SALES & SERVICE
4. AUTOMOBILE PARKING
5. PUBLIC SERVICE
6. PUBLIC WORKS & HOUSING MAINTENANCE
7. LOCAL SERVICE INDUSTRIES

NOTES:
The data is taken from a photographic survey made November 1911.

TOWN PLAN FOR KITIMAT, B.C., 1911

GENERAL MASTER PLAN: RESIDENTIAL, COMMERCIAL AND INDUSTRIAL AREAS
THE MASTER PLAN

Purpose

"The purpose of the Master Planning is to produce a balanced town which will make natural the best in living and working conditions. These become possible by mixture of modern progress in this field, combined with considerations for the durable personal and social values that are expressed in self-reliance, self-expression, the family and the community. The planning endeavors to make the most of Kitimat's natural advantages of scenic beauty and of close contact with nature--the wilderness and the open water. It also endeavors to achieve the best in "normal community" living. Its citizens should feel that while there are special weather factors and a certain degree of remoteness, the same good, normal living that their fellow citizens have anywhere else is available to them. In other words, the aim of the planning is to mould natural conditions into a setting for a particularly good and stimulating life."

Kitimat was limited by natural barriers as to its planning. To the west of the townsite, Kitimat River winds its way down the gravel bed at eight knots speed in the faster stretches. To the north lies the slopes leading to Hirsch Creek. To the east, steep slopes ascend the mountains. To the south lies Douglas Channel and accessibility to the ocean. Between Douglas Channel and the townsite lies the Flood Plains where Kitimat River discharges large quantities of water during the fall storms and spring thaws. With these physical limitations, the Master Plan was broadly divided into four general areas of use: Industrial, Townsite, Service Center, Recreation and Reservation. (See map--General Master Plan No. M-1).

The industrial area is located on the west side of Kitimat River, above the maximum flood level and extending along the harbour. At present, some of the recreation facilities are located in this industrial zone. Temporary golf course, located near the smelter site is convenient and practical as clearings for golf on Townsite has not been prepared as yet. Boating facilities are also provided near the harbour where deeper waters and direct access to the ocean makes it convenient for mooring.

The service center is located west of Kitimat River directly across from the bridge connecting the industrial site to townsite. It is located there as its function requires a close linking of rail and highway proximity to the city proper and separation from the industrial railholding yard serving heavy industry. This center is basically a device
for taking out of town but close to it the "working" side of town, combi-
ing it with stuff usually strung out along the roadside, working both
into a planned, designed complex more attractive and economical. These
elements would include: 1. Railside facilities--freight yards, ware-
housing, building material and contractors' yards, public work yards;
2. Land-rating operations that cannot afford downtown prices and are
unsightly--heavy repair, auto repair, laundry, milk plants, bakeries
and the like; 3. Service to the center's working force--eating places;
4. Limited retail outlets attached to sheet-metal shop, the lumber
salesroom, the electrician.7

The townsite proved to be a complex of irregular buildable areas
left by the heavy marks of nature. Rising from the flood plain, the
site was a formation of clay and gravel left by retreating glaciers.
The site was bisected from west to east by a sharp slope over which
the glacier had poured gravel, leaving a deep clay bed with occasional
lenses of gravel as it withdrew to the north. Therefore the buildable
land was divided into three levels. To the north lay some 700 acres
of land at elevations 250' to 350'. Below the slope lay 1,100 acres
at elevations 150' down to 50', with a flood plain and Minette Bay to
the south beyond it. At the extreme east, up against the mountain
slope, were some 760 acres of buildable land arranged in benches at
elevations 400' to 550'. Thus, after excluding land having slopes in
excess of 10% and including broken up areas of tortuous shapes, only
2,750 A.8 of buildable land was left. Beyond it, the general terrain

8Mayer & Whittlesey, Kitimat Townsite Report, op. cit., Section (6.0).
rose into the mountains or fell off into the flood plain.

The residential areas are divided into 10 neighborhoods. (See chart for density and size). These neighborhoods range in size, the optimum being 1,800 families which would support one supermarket plus competitive food stores in the same center, and two elementary schools of 300 to 500 pupils. The highest density (neighborhood "A") is 5.0 families/acre and it reduces to 3.0 families for neighborhood "E" & "H". Each neighborhood is a unit in itself with a periphery, a circulation system and a neighborhood center. These peripheral roads connect the neighborhoods to other neighborhoods, to city center, to industrial plant and to Minette Bay for recreation. The internal circulation system is a greenway system of pedestrian walks serving to inter-connect homes to schools, recreation areas and local shopping centers. It runs into all sorts of places; ravines, schoolyards, parks, creeks, connecting to adjacent neighborhood parks or leading to the larger forest parks. The neighborhood center provides shopping for daily necessities, for cinemas, churches, school and community buildings. Usually the school is a grade school but sometimes it may be a junior high school. In addition, and scattered within the residential area, to the shops in the city center, are local shops, limited to three per neighborhood to serve strictly for local convenience. Here, the wife could run and get a loaf of bread or a package of cigarettes.

The rest of the region is largely forest, flood reservations and recreational areas such as parks, golf courses, and beach areas. These

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9 Kitimat Townsite Report, op. cit., Section (6.0).
form the greenbelt of the entire townsite flowing in and between the neighborhoods, penetrating, circling and by-passing the centers. The Flood Plain Reservations swings broadly from the north to the south-east widening into the tidal flats between Minette Bay and Douglas Channel. This area will be left undeveloped except as a park where summer camping, horse riding, hiking and nature studies may be conducted. A dyke was built between the flood plains and the townsite for safety and also to make maximum use of available land. The Forest Park, agricultural allotments and the golf course will parallel the area between the dyke and the neighborhoods. The agricultural allotments would permit full time farming contributing a sense of security and wholeness to life in Kitimat apart from making available economically, fresh farm produce for the city.

Although the studies of parks and recreational layout were not part of the Master Plan assignment of Mayer and Whittlesey, they have indicated in general the major recreational areas and park systems. This is the framework to which the author will build and draw the program for his own Minette Bay Development. This will be covered in further detail in the next chapter.
Operations

Kitimat was designed for growth by stages. Careful attention to scale and to sequence of areas was studied so that at any stage, the town would operate as a whole and not as an unbalanced fragment of a whole. The study of the industrial capacity, size of city center, development of residential areas and requirements of recreational facilities all dovetail with the ever-changing, dynamic needs of people. The planner's anticipated four definitely marked growth stages. These stages were based on the number of potlines installed at the smelter; Stages I, II, III and IV representing respectively 2 potlines, 4 potlines, 6 potlines and finally 12 potlines which is in full operation. At each stage, they provided for provision and development of schools, recreation and other facilities, and of the main city center, assured a compact, interesting balanced core.

The stage figures are:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Neighborhoods</th>
<th>Workers</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>A, B-1</td>
<td>2180</td>
<td>7000</td>
</tr>
<tr>
<td>II</td>
<td>B-II, B-III, B-IV</td>
<td>1840</td>
<td>5900</td>
</tr>
<tr>
<td>III</td>
<td>C-D</td>
<td>3300</td>
<td>10600</td>
</tr>
<tr>
<td>IV</td>
<td>E, F, G, H, I, J</td>
<td>6900</td>
<td>22100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14220</td>
<td>45600</td>
</tr>
</tbody>
</table>

10 Ibid., Section (6.0)
11 Ibid., Section (6.0)
Paralleling the growth of industrial and residential areas in stages is the development of recreation facilities. Neighborhood parks, playfields, playgrounds, greenbelts are all integral part of the total growth. However, there are some special items of particular importance to note because the recommended stage order of development is not entirely usual. One of the special items will be quoted from Mayers and Whittlesey's final report:

"An extensive early development of the water recreational facilities and of a road to them from Neighborhood "A". Similarly, development of skiing and similar facilities. While these need not be developed to the full extent required for the complete final town, their development will involve a cost beyond that which the first neighborhood might be theoretically considered as being proportionally entitled to. As already noted, it is in the early stages that special efforts of this kind will need to be made to attract and hold good men and families. An extreme example of this early stage development is the road from Neighborhood "A" to the water sports area in Minette Bay. Of course, as the town develops, this road will always be available so that it is simply an early expenditure which would later be required in any case."
### SIZE & DENSITY OF NEIGHBORHOODS

<table>
<thead>
<tr>
<th>Neighborhood</th>
<th>Population</th>
<th>Area (Acres)</th>
<th>Density</th>
<th>Number of Elementary Schools</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>5700</td>
<td>280</td>
<td>5.0</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>7200</td>
<td>400</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>5400</td>
<td>300</td>
<td>4.5</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>5200</td>
<td>285</td>
<td>4.5</td>
<td>2</td>
</tr>
<tr>
<td>E</td>
<td>1800</td>
<td>150</td>
<td>3.0</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>6000</td>
<td>335</td>
<td>4.5</td>
<td>2</td>
</tr>
<tr>
<td>G</td>
<td>4500</td>
<td>250</td>
<td>4.5</td>
<td>2</td>
</tr>
<tr>
<td>H</td>
<td>3400</td>
<td>280</td>
<td>3.0</td>
<td>2</td>
</tr>
<tr>
<td>I</td>
<td>1800</td>
<td>145</td>
<td>3.0</td>
<td>1</td>
</tr>
<tr>
<td>J</td>
<td>4600</td>
<td>280</td>
<td>4.0</td>
<td>2</td>
</tr>
</tbody>
</table>
III. RECREATIONAL FACILITIES IN KITIMAT
Division of Recreational Facilities in Kitimat

a. Neighborhood

Indoor

playroom shelter
playground unit
recreation center
club house

Outdoor

playlots
junior playground
neighborhood playground
park

b. Community

Indoor

community center
indoor swimming pool

Outdoor

playfield
stadium (1)
park

c. Town Center

Indoor

Auditorium - Museum
Arena
library
theaters
bowling
recreation center
institutions

Outdoor

stadium (above)
outdoor theater
park (with community)

d. Waterfront Park

Indoor

bath house
boat house
Division of Recreational Facilities in Kitimat (con't'd)

- pavilion
- supply store
- public toilet rooms
- open shelter
- club rooms

Outdoor

- beach area
- active area
- quiet area
- boating area
- outdoor pool
- picnic and park
- open gathering place

Forest Park

- day camps
- picnic shelters
- riding stables
- club houses

Outdoor

- ski & toboggan slopes
- picknicking area
- hiking
- camping
- riding
- rifle range
- trap shoot
- nature trails

Golf Courses

- shelter - club house
### NEIGHBORHOOD *

#### OUTDOOR

<table>
<thead>
<tr>
<th>TYPE</th>
<th>NUMBER</th>
<th>DIVISION OF SPACES</th>
<th>AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>junior or primary</td>
<td>1/ K-3 school</td>
<td>pre-school area</td>
<td>5,000</td>
</tr>
<tr>
<td>playground</td>
<td></td>
<td>apparatus area</td>
<td>4,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>paved multi-purpose area</td>
<td>4,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>active games</td>
<td>24,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>quiet</td>
<td>6,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>court games</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>planted area</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>park</td>
<td>24,000</td>
</tr>
<tr>
<td>2 A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>neighborhood</td>
<td>1/ neighborhood</td>
<td>pre-school area</td>
<td>6,000</td>
</tr>
<tr>
<td>playground</td>
<td></td>
<td>apparatus area</td>
<td>6,000</td>
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<tr>
<td></td>
<td></td>
<td>free play</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>quiet</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>paved multi-purpose area</td>
<td>8,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>field games boys &amp; girls</td>
<td>160,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tennis court area</td>
<td>15,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>planted area</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>park</td>
<td>37,000</td>
</tr>
<tr>
<td>262,000</td>
<td></td>
<td></td>
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</tbody>
</table>

* Tables based on report by G.D. Butler  
Section (15.0) in Kitimat Townsite Report
<table>
<thead>
<tr>
<th>TYPE</th>
<th>AREA NUMBER</th>
<th>DIVISION OF SPACES</th>
<th>AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>play shelter</td>
<td>1/ junior playground</td>
<td>storage and heat playroom &amp; toilets</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>500</td>
<td>playroom &amp; toilets</td>
<td></td>
</tr>
<tr>
<td>playground building</td>
<td>1/K-6 school</td>
<td>recreation room platform chair storage toilets</td>
<td>600</td>
</tr>
<tr>
<td></td>
<td>800</td>
<td>office equipment storage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>equipment storage</td>
<td></td>
</tr>
<tr>
<td>neighborhood</td>
<td>1/ NK-6 school</td>
<td>gymnasium auditorium stage recreation room game room</td>
<td>1,000</td>
</tr>
<tr>
<td>recreation building</td>
<td></td>
<td></td>
<td>7,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>stage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>recreation room</td>
<td>2,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>game room</td>
<td>1,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 club rooms</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td></td>
<td>snack bar &amp; kitchen</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>toilets</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>display space</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>lobby</td>
<td></td>
</tr>
<tr>
<td>neighborhood</td>
<td>1/ neighborhood</td>
<td>social hall stage kitchen and lunch room adjacent to hall 3 meeting rooms</td>
<td>4,000</td>
</tr>
<tr>
<td>club house</td>
<td></td>
<td>( flexible )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>lounge</td>
<td>600</td>
</tr>
<tr>
<td></td>
<td></td>
<td>library</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>game room</td>
<td>1,800</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>office and service units</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 bowling alleys</td>
<td>4,200</td>
</tr>
</tbody>
</table>
## Community On High School Sites

### Indoor

<table>
<thead>
<tr>
<th>Type &amp; Area</th>
<th>Division of Spaces</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor swimming pool</td>
<td>pool, lockers, showers, toilets, dressing, seating, office</td>
<td>6,500</td>
</tr>
<tr>
<td>Community center</td>
<td>enlarge the facilities provided by neighborhood centers</td>
<td></td>
</tr>
<tr>
<td>Gymnasiums</td>
<td>to be provided by high school located adjacent to community building</td>
<td></td>
</tr>
<tr>
<td>Auditoriums</td>
<td>other facilities as libraries, etc. are similar to neighborhood centers.</td>
<td></td>
</tr>
<tr>
<td>Stadium</td>
<td></td>
<td></td>
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</tbody>
</table>

### Outdoor

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Community park</td>
<td></td>
</tr>
<tr>
<td>Track &amp; field facilities</td>
<td></td>
</tr>
<tr>
<td>Neighborhood facilities</td>
<td></td>
</tr>
</tbody>
</table>
## TOWN SITE

### INDOOR

<table>
<thead>
<tr>
<th>TYPE &amp; AREA</th>
<th>DIVISION OF SPACES</th>
<th>AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>commercial</td>
<td>bowling</td>
<td></td>
</tr>
<tr>
<td>downtown</td>
<td>billiards</td>
<td></td>
</tr>
<tr>
<td>recreation center</td>
<td>club rooms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>meeting rooms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lounge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>social hall</td>
<td></td>
</tr>
<tr>
<td></td>
<td>rifle range</td>
<td></td>
</tr>
<tr>
<td>auditorium</td>
<td>auditorium</td>
<td></td>
</tr>
<tr>
<td></td>
<td>complete stage facilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>storage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>workshops</td>
<td></td>
</tr>
<tr>
<td></td>
<td>practice rooms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>offices</td>
<td></td>
</tr>
<tr>
<td>museum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>art gallery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lounge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lobby</td>
<td></td>
<td></td>
</tr>
<tr>
<td>toilets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>box office</td>
<td></td>
<td></td>
</tr>
<tr>
<td>library (central)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>arena</td>
<td>hockey rink</td>
<td></td>
</tr>
<tr>
<td></td>
<td>curling rink</td>
<td></td>
</tr>
<tr>
<td></td>
<td>seating</td>
<td></td>
</tr>
<tr>
<td>theaters</td>
<td>bowling</td>
<td></td>
</tr>
<tr>
<td>bowling</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RECREATIONAL FACILITIES IN KITIMAT

The order of recreational facilities in Kitimat follows the order of the community groupings from the smallest unit of a family to the total city. The sequence of groupings are from sub-neighborhoods, neighborhoods, communities, to city scale with facilities for each level. Similarly, the recreational areas begins from the sub neighborhoods to the town. At each level, it will serve a certain function for a certain age and sex. Much of the information on these recommendations have been relied in the report "Recreation Areas for Kitimat" by G. D. Butler in part of the Kitimat Townsite Report compiled by Clarence S. Stein. In the purpose of this report, the levels of recreation will be divided into three general parts:

1. the neighborhood
2. the community--consisting of a group of neighborhoods
3. town level where special facilities such as sports areas and bowling in the city center, swimming and boating in Minette Bay, golf courses and so on will be included.
The neighborhood center is the hub of the neighborhood program and co-ordinates the indoor and outdoor public recreational programs and facilities for the area. The neighborhood center is related to the elementary school and would be for the use of all age and sex of the neighborhood. A small auditorium and a gymnasium is desirable, with a lounge, arts and crafts room, social or playroom, display space, snack bar and kitchen and checkrooms. The people of the neighborhoods would meet here for relaxation or competitive sports such as table tennis, badminton or see their son play in the Little League Baseball Team. In conjunction with the school are areas for field and court games for children of school age. The neighborhood playground is the chief outdoor play center for children up to 15 years of age. It also provides limited facilities for young people and adults and provides a place for outdoor gatherings, plays, festivities and other events. Desirable facility for a typical sized neighborhood will be two softball diamonds, a hockey and skating rink, and various areas of different surfaces and sizes for all types of sports and games. Also, an area for older people to meet, or to relax should be included. Scattered amongst the park are small play lots. These lots are small areas for use by children of pre-school age under supervision and offering a summer program similar to that of a nursery school, except held out of doors. It should be safe, sheltered and attractive. Within a park, it should be protected from the activities of older children by a fence, hedge or landscaped area. Some of the desired facilities in
such a play lot are spray pools, swings, slides, teeter totters, shelter house, toilet facilities and other equipments that would develop their sense of inquiry, imagination and creativity.
COMMUNITY

The community center is the administrative, co-ordinating and supervisory center for the affiliated and smaller neighborhood centers. It co-ordinates the indoor and outdoor recreation facilities and programs for the whole community and, as well, serves the neighborhood in which it happens to be situated. Besides offering programs for the smaller children of this immediate neighborhood, it would serve the older children and adults of the whole community. The buildings and grounds are related to the high school in the case of Kitimat where the facilities provided by the schools such as gymnasiums, auditoriums and swimming pools can be used in conjunction with each other. The two community centers are located on the site of the two senior high schools. The first one in neighborhood "B-1" and the second adjacent to the city center. The community center is where the people of Kitimat come to cheer their local soccer or basketball team playing against teams from other towns. This is where the children of Kitimat gather to have their annual inter-school sports event; or where the experts in swimming or the mile runner can train for the British Empire games. The major elements of a community center are an indoor swimming pool made to conform to standard racing sizes, an auditorium seating approximately 1000 persons and two gymnasiums with related services. The social room will be larger, but essentially, the type of activity will be similar to a neighborhood club room. Larger library facilities are available, also, the offices of the recreational organizations will be located here. The play field provides many facilities primarily for the young people and adults. It
will be a place where a variety of field and lawn games will be played; where families come to enjoy carnivals, holiday celebrations and sports events.
The recreation facilities at the level for the whole town of Kitimat are specialized recreation activities. Some are more limited in use than others, yet each is necessary for the balanced life of the town.

The four general areas of activities can be listed as follows:

1. Golf courses
2. City center
3. Forest park
4. Minette Bay Park

The golf course, originally proposed to be in the area surrounding the airstrip, is now planned to be located in the area bounded by the flood plain dyke, neighborhood "G" and Minette Bay. The growth of deciduous trees makes clearing easier with a minimum of spoilable to the natural beauty. Surprise spots can be located around the stream flowing through the golf course or overlooking the Minette Bay. Approximately 125 acres are required for the golf course--and the club house with parking facilities may be located close to the boat house.

The city center will provide facilities for commercial recreation and entertainment. The sports arena will be flexible to have hockey matches and ice skating during the winter and special occasions as mid-summer bonspiel for curlers. Exhibitions, carnivals and circuses may also be held in the arena. Facilities for bowling, billiards, club rooms for dancing, games and meeting, lounges for relaxation and reading or to meet a friend will be available. The main library also belongs to the city center. The Kitimat museum will serve to teach
the children where they are in space and time; to answer the questions by the child, newcomer to the rest of the world; and also by the adult, newcomer to Kitimat. There would also be commercially operated cinemas in addition to the neighborhood theaters. Not only will the school auditorium be necessary for dramatic and musical productions but also a proper theater to accommodate the needs of the whole city and for large productions with all the necessary equipment for staging is desirable. Kitimat already has community organizations such as Drama and Variety Club, Little Symphony under the Kitimat Concert Association, and in the lighter vein runs the Scottish Dance Club and "Broken Spokes" Square Dance Club under the sponsorship of Nêchako Square Dance Association. It appears to be very popular.

The Forest Park comprises all the forest stands between and around the neighborhoods on the townsite. The largest area, and the most concentrated activity so far is on the east side of Kitimat River near the bridge where Rod and Gun Club, Curling and Recreation Hall has already been established. The temporary housing now used will eventually (it is hoped!) disappear to be developed as part of the park. The Forest Park actually starts north of the bridge from the airstrip down between the townsite and industrial area to the delta. It will be left in its natural state and every effort should be made to preserve the natural beauty of the land. A proposal for a zoo has already been made and likely will be located in part of the Forest Park. Winter sports such as skiing and tobogganining will be ideal on the southern slopes of the airstrip leading down to the main highway and club houses. It will be readily accessible being on the direct route from smelter site to townsite. In this way,
seasonal sports can be clearly defined: the winter sports in this area and the summer sports in Minette Bay.

Minette Bay is the ideal spot to provide bathing and boating facilities of the town. Twenty miles up the valley from Kitimat, this valley uses slightly over a low divide to Lake Lakelse, a beautiful lake where fresh water recreational facilities may be established. Minette Bay has the advantage of being part of the townsite, also giving access to the open waters. It will be salt water and ever changing with the tide.

Outside the district of Kitimat, unlimited opportunities for year-round activity abounds. Some of the best skiing slopes are up, way up above the smelter site practically inaccessible at present. Three small but beautiful lakes are located only 2 miles south east of townsite. These will provide excellent camping and fishing opportunities. Also inaccessible at present except by hiking.

Along the numerous inlets and fjords and along the delta area of Kitimat River provides excellent duck and geese hunting grounds. Fishing is good, especially in the spring when Steelheads, Dolly Varden, and Cut Throats swarm the Kitimat River and Spring Salmon are caught in the Channel. Halibut and Cod are also caught in this area. Even whales are seen, if you care to fish them.
IV. DESIGN DATA
PHYSICAL FEATURES

Topography of the area

The British Columbia coastline is made up of what once were the steep sides of mountains. The drowned valleys, or fjords, are hundreds of feet deep and their sides rise 2,000 and more feet above sea level. Kitimat Arm of Douglas Channel differs from other fjords of the coast in only one important respect: it ends in a broad valley instead of a mountainside. This valley, averaging five miles wide, stretches northward to Terrace, 40 miles away. Mountains with permanent snowfields rise up to and over 6,000 feet on both sides of its swamps and heavily forested slopes.¹

¹ Kitimat Townsite Report, compiled by Clarence Stein., 1952, Section (2.12).
Kitimat River and valley to Terrace

The Kitimat River flows over a deep gravel bed at a reported 8 knot speed in the faster stretches. At summer low water it is only two feet deep in many places, with shallower bars. Thousands of tree stumps and logs line its banks and clutter its bed, making river navigation dangerous at all levels of water. A mile-wide delta of gravel and silt has been spread by the river into Kitimat Arm and Minette Bay.
Floods

The Kitmat River basin of about 800 square miles is capable of sending a large quantity of water down the river during fall storms and spring thaws, especially spring thaws.\(^2\) Along the river banks in the last eight miles of the river evidences of floods may be found at least five feet over the banks. Aerial photographs reveal that the river has been meandering over a large area near its delta. It even flowed eastward along the ridge to Minette Bay in the geologically recent past.

\(^2\)Ibid., Section (2.321).
Tidal Water: Minette Bay and Kitimat Arm

The Admiralty Chart covering these waters is Hecate Strait #1584, made from surveys in 1908 and 1935. It does not show many soundings in the area, although a note indicates the main channels are deep and free from danger. Soundings taken by the surveyors show up to 120 feet in Minette Bay and over 300 feet depth near Kitimat Indian Village. Ice forms in Minette Bay occasionally, but tidal action breaks it up. Kitimat Arm is ice-free.

Tide observations indicate maximum of 20 foot tides with average of 16 foot range.

The main valley floor up to Lakelse Lake is covered by evergreen trees, much of it in mature stands capable of yielding an average of 30,000 board feet per acre. Near the river bottom stands decadent, over-mature Hemlock and Balsam in varying degrees. The Spruce, usually old growth, has heights up to 150 feet and diameters up to 60 inches plus. In the lower slope, near the Minette Bay area where drainage is better, the timber consists of Hemlock and Balsam with a sprinkling of Cedar and Spruce and averages 20,000 to 30,000 feet B. M. per acre. 4

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3 Ibid., Section (2.33).
4 Ibid., Section (2.361).
CLIMATE

Kitimat's climate is the temperate, coastal type with extremes of temperature rarely encountered, yet Kitimat is situated far enough inland to be protected from the usual north Coast gales. It has, however, a definite rainy season in the late fall and considerate snow and rain in the winter. Records for 12 years at nearby Kitimat Indian Village show an average annual precipitation of 89.49 inches. It is expected that rain and snowfall records at the Townsite will show an annual mean precipitation of about 90 inches. The rainy season is concentrated in the last four months of the year. Average snowfall was 8.7 inches of precipitation (about 7 feet) per year for the 13 years. It is reported that the snow seldom stands deeper than 24 inches to 30 inches. Rain alternates with snow and keeps down the total depth of the snow on the ground.

Temperature records are available for only a short period. To date the annual mean temperature has been recorded at 44 degree F., ranging from a mean temperature of 23 degree F for January to 63 degree F for August. It is expected that mean temperatures will compare somewhat with those of Prince Rupert, where the annual mean is 46 degree F. In an average year temperatures run from a low of 0 degree to a high of 85 degree F.

The prevailing surface winds are essentially from the north and south sectors. This tendency, mostly governed by the topography of the Kitimat River Valley, is borne out by anemograph data from Kitimat wind

5 Facts about Kitimat & Kemano, Aluminum Co. of Canada, Ltd., Jan., 1956, p. 4.  
6 Kitimat Townsite Report, Section (2.42).
recorder. The on shore (S) winds are most prevalent in summer. Off shore (N) winds are prominent in winter.

No direct observations are available for sunshine but by deduction from regional characteristics, cloud cover observations, and synoptic weather charts, the following annual distribution of mean values of sunshine hours, by months:\(^7\)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>83</td>
<td>146</td>
<td>183</td>
<td>206</td>
<td>236</td>
<td>311</td>
<td>273</td>
<td>189</td>
<td>105</td>
<td>59</td>
<td>40</td>
</tr>
</tbody>
</table>

(estimated hours)

\(^7\)Ibid., Section (2.48).
PRECIPI TATION

ANNUAL RAINFALL

A  NONE
B  TRACE TO 0.09"
C  0.10" TO 0.19"
D  0.20" TO 0.29"
E  0.30" TO 0.39"
F  0.40" TO 0.49"
G  0.50" ½ UP

CLOUD COVER & FOG IN SUMMER

PERIOD FROM MAY 17TH TO SEP 21ST 1957

A  CLOUDLESS
B  PARTLY CLOUDY
C  CLOUDY
D  OVERCAST
E  FOGGY
F  CONTINUOUS RAIN
Minette Bay is a salt water bay 4000 feet wide by a mile and a half long formed by an extension of the inlet from Douglas Channel. Between the channel and the bay lies the tidal flats: covered with water during the high tide but definitely forming a barrier between these two bodies of water most of the time. The heavy 20 foot fluctuation of the tide reduces drastically the amount of water in Minette Bay making the mooring of boats and swimming difficult. When the water recedes less than \( \frac{1}{2} \) of the total area of water remains. There is a gradual slope from the high water level to the low water line, a rise of 20 feet in 3000 foot run. From the low water line, the slope suddenly drops to a depth of 110'. Navigation becomes difficult on the narrow strip connecting the bay to the channel with 8 knot pull in the spring tide.

Magnificent stand of hemlock, spruce and cedar surround the bay, some towering up to 150 feet. Deciduous growth can be noticed by aerial photograph in the north-west part of the bay. Many small streams flow into the bay forming interesting little inlets and bays. The area around the northern corner of the bay has splendid natural qualities for quiet picnic and canoeing. The deeper waters are towards the eastern shores where the high mountains comes directly in contact with the water. The shallow waters lie along the head of the bay where the recreational development will be located. At present, the beaches and tidal flats are cluttered with thousands of tree stumps and logs carried down by the flood by Kitimat River. A scheme has been proposed to cut many of the trees on the Kitimat River to drain all the old snags directly out to the channel.
during the flood. The timber that are cut on the townsite is trucked down to the bay, where a small pocket sawmill turns it into lumber to be used for construction. It is hoped that these operations will stop as soon as the townsite has been cleared so that the natural beauty of the bay will not be impaired any further.
DISCLAIMER

MISSING PAGE(S) 41
1. Bathing

Bath house

Dressing and locker space for 350
Men
- 6 toilets
- 6 urinals
- 6 lavatories
- 10 shower stalls
Women
- 10 toilets
- 6 lavatories
- 10 showers

Office
Checking space
First aid and lifeguard
Equipment storage

Public toilet rooms
Men
- as above
Women
- as above

Concession stands

Individual cabanas

Children dressing areas
Boys
- 50 lockers
- 2 toilets
- 2 urinals
- 2 lavatories
Girls
- 50 lockers
- 2 lavatories
- 4 toilets

Open shower

Concession stands
DESIGN

PROGRAM

2. Park

Picnic areas

Lawn games
Court games
Open fields
Restaurant

lawn bowling, cricket, croquet

tennis, horse shoe
volley ball
soft ball, soccer,

outdoor dining
kitchen
storage
take out service

Open air music & performing platform

3. Boating

Mooring platform for 50 small boats and canoes

Boat Rental

20 boats and canoes repair and storage

4. Parking

500 cars
DEVELOPMENT OF BAY

At the beginning, the site presented a problem. The twenty foot tide, the steep drop of grade from the low water line made the beach unsafe for swimming and caused difficulty to mooring any boats. This was solved by building a dam across the narrowest neck of water between Minette Bay and Douglas Channel so that a certain minimum level will always be maintained in the bay, yet rise with the tide from the channel. In other words, the dam will be constructed in such a way so that when the water rises during high tide, it will flow into the bay; when the water recedes, the water will stop draining out at a certain level thus retaining always a minimum amount of water.

If, at a later stage, the amount of crafts justified the use of Minette Bay as a mooring area for crafts seeking the open ocean, a channel may be dredged and a lock provided, sealing completely the waters of Minette Bay. The many streams flowing into it will keep the water fresh, and the level will not alter with the tide.

In the purpose of this thesis, the author chose the initial plan as he felt it is economical and practical and will be justified in the expense by making it a better, safer place for recreation. The tide will be held at 14.00 elevation and will rise to 20.00 elevation during high tide fluctuating 6 feet. This would create a very gradual slope of 14.00 feet in 1500.00 feet run before it hits the steep slope.
DEVELOPMENT OF THE PLAN

The main activity demanding a concentration of people was placed centrally on the area of activity. This core is to be urban in character, alive and gay. The quiet areas are scattered around the bay with a path connecting them so that it will create a sequence of spaces and surprises for the wanderer. The unifying element is the water, and each area views towards it, making the best use of the water. The focal point of the total development is the water and everything rotates around it.

The function of the plan was clearly divided into four parts:

1. bathing
2. park
3. boating
4. golf.

The primary attraction of the bay is the bathing facilities. This includes the bath houses for men and women, swimming pool, beach area, concessions and other services. The beach was located at the area where there was maximum amount of clear beach unobstructed by streams or configuration of land. At the core of the beach area were placed the elements of uses that would attract the most number of people. This is the center of the beach development. To approach this center, the area may be diagrammatically explained as a series of bands of uses. The whole beach development is backed by a residential area. Then a strip of road connecting the beach to other parts of townsite. Then follows the
parking strip accommodating 500 cars with room for expansion if necessary. A broad band of trees separate the parking area from the play area adjacent to the water. Scattered within this band of trees are the service buildings such as bath houses, storages, washrooms and offices. This band of trees become a screen, a transition area. Functionally, it is a strip of area where people change and prepare themselves for the activities near the water. Visually, it becomes a natural screen that must be penetrated offering a greater emphasis and surprise on the vastness of the water. The 200 to 250 foot strip of land bordering along the water then becomes the activity area dotted with buildings that lend interest, color, gaiety and delight to the atmosphere of the beach. These almost decorative structures include a restaurant, concession stands, sun shelters for rest or for play. They will also serve as shelters from the rain. These buildings will not be architecture in itself—the architecture is the whole development; the ever changing water, the broad band of sand, the green area for play backed by band of trees. This permanent setting of nature is used as the framework with impermanent gay structures and sculptures used as objects of delightful fascination to please, to dance, to lighten the hearts of people. To see and hear the people dance their long remembered folk tunes, or to group together to swing to a square dance. To see and hear the people sing and love beside a campfire after an evening swim, as they toast or burn weiners and mushrooms.

The major elements at this core were the service elements such as the locker rooms, a separate bathhouse for children, and washrooms. As
mentioned before, restaurants, concession stands and shelters are concentrated at this area. Other elements are a large swimming pool, a wading pool, both located close to each other, and a square is provided on the main green space where people may have outdoor concerts, festivities and dancing. Cabanas to be used by families or groups are separated from this main core yet on the same stretch of beach. These will be used by those who wish to be a little apart from the main activity--those who bring their own picnic lunch and wish to just relax.

The second major attraction of the bay is the park development. Actually, the whole bay area is a park with various areas of activities located within it. Areas for court games and lawn games such as horseshoes, croquet, shuffleboards, tennis and lawn bowling are located close to the center of beach activity where it will be convenient and constantly used--adding to the activity and concentration of the center. The greenbelt of the neighborhood "J" park continues from the neighborhood center down to the bay swinging towards north-west into the large forest reserve. Along this park located various facilities for activities that are quiet in character. Picnic areas are located where there is varied and interesting terrain, where streams and ponds add interest and surprises. Each of these areas will have an open view to the bay, yet, it will give a sense of enclosure and intimacy being surrounded by trees and elements of nature that attracts one's attention closer to the observer. Cricket fields, requiring a large open space, also has a view towards the bay, and easily accessible from the highway.

On the north-west shore of Minette Bay are located facilities for mooring small boats, yachts and canoes that will be used only in the
bay area. It is located close to the quiet picnic areas where one may canoe or sail in peace. Below the mooring grounds is the golf course. Here, interesting views and terrain may be exploited by opening certain areas to the bay, and at other points reflecting the view back to the streams.

The south-east shore of Minette Bay drops sharply into the water which creates an interesting marine drive for romantic couples in a moon-lit night. A lookout point for automobiles is provided at the termination point of the beach for such activities. This marine drive will lead to the Indian Village of Kitamaat, five miles south of the townsite. Access to this village at present is only by boats.

Therefore, the general character of the site is left natural except at the core where the purpose is to serve many people. The concentration of the people is at this point and, as one moves away from it, the scene of activity becomes more quiet, giving a feeling of repose and tranquility.
Minette Bay and Neighborhood "A" 1956
Minette Bay at high tide
Minette Bay showing present logging operations
View from Minette Bay looking towards Douglas Channel and industrial area
Logs being trucked to Mirette Bay from Townsite
View of Neighborhood "A" from North-East
Dear Jim:

I was pleased to receive your letter of 2 December and to note you are still interested in doing something on Kitimat for your thesis. There are three things which might be considered. First, a detailed layout of Neighbourhood "D". While detailed topography is not available, the general conditions could be summarized and sent to you as a guide to physical aspects.

The second possibility would be studies for development of recreational facilities for the town, particularly adjacent to and in conjunction with the High Schools, and the more general use of the banks of the Kitimat River and the head of Minette Bay for recreation. An indication of the need for this study is Mr. Arthur Henderson's letter of 26 November to Mr. R. M. Block, copy of which is attached hereto.

A third possibility might be a study of the regional area development between Kitimat and Terrace as a result of the highway and railroad connection.

I expect to be in Montreal early in January and anticipate a meeting with Albert Mayer. He may have some ideas as to a subject for a thesis. I will write him and let you know whether some arrangement can be made to meet with you in January to discuss the matter.

In the meantime, if you find that you need some particular
12 December 1956.

data for a Kitimat project, please let me know and we will get it together for you.

Best wishes for a Merry Christmas and a Happy New Year,

Sincerely,

(Signed) J. E. Dudley

J. E. Dudley

JED:BMH

Encl.

Mr. H. J. Kinoshita,
216 Beacon Street,
Boston 16, Mass.
U. S. A.
Dear Jim:

Thanks for your letter enclosing copy of the interesting note from Jim Kinoshita. I am sorry he was short-changed on my recent seminar-lecture at Harvard by the sad fact that, to quote him, "the professors monopolized him as soon as the discussion ended". Incidentally, there is in that remark a good lesson for me: to see that students do get a preferred chance in my occasional campus sessions.

Now as to suggestions that he might consider in connection with Kitimat, as a possible subject for his thesis and that would at the same time be of real use to the town, I suggest:

1. Recreation and Community Facilities: both Indoor and Outdoor. This is, as we all know, a tremendously important and urgent subject. I would like to state the problems briefly, for out of them he could pick three or possibly four separate specific subjects or aspects for his thesis, depending on his outlook and purpose. For this purpose, I will quote a statement first made some time ago:

   Even more than most communities, Kitimat's isolation requires an adequate amount and range of these facilities. A well-considered program, time-table for attainment, and actual layouts are very much needed if facilities are to become available as needed, and overall economy attained without duplication and by assignment to the most suitable agency. This would mean specific development growing out of the Master Plan Townsite Report standards. What is required as a policy and implementation basis:

   List of types of recreation and community facilities to be provided; and quantity.

   Location and function: whether sub-neighborhood, neighbourhood, joint-community, or town-wide.

   Assignment to agency: whether Municipality, School Board, private institutional (like Legion, Y, etc.), private club (e.g. Rod & Gun Club), or commercial (e.g. bowling alleys).

   Time-table of accomplishment or provision.

   The last time two items of course require a combination of goal-getting criterion and estimate of realistic capacities.
He might select the following separate specific aspects (each could be enough for a thesis; or, he could combine several):

- Types and quantities, of indoor and outdoor recreation. Location and function (i.e., the first two subjects noted above).
- Assignment to Agency of each of the recreation types (i.e., the third subject noted above).
- Time Table as related to need and fiscal capacity.

Architectural and planning solution of one of the specific elements, e.g., the library and cultural center in the Civic Center; or the Community Building for a single neighborhood center; or the community recreation–Community Building of a District (i.e., a unit meeting the joint requirements of several neighborhoods, which would contain facilities that neither neighborhood could afford, but which would be too remote and too large if only in the Civic Center); or, such an element as the Riverside Park.

2. Service Center and Service Elements. Architectural control for development of the Service Center; and practical ways of implementing it. This could and probably should include an architectural study; or even preferably, several alternative architectural studies. This is not only an urgent problem in Kitimat, but in every city, on every busy highway, everywhere!

The problems may be stated somewhat more precisely as follows:

In view of the policy adopted here to sell land to individual concerns, the question of control so that the area will not become unsightly and possibly "slum" in character must be considered. There are two specific sources of unsightliness:

- **(a) Height and facade of buildings.** This should not only involve the usual control of structural adequacy, zoning compliance etc., but some degree of uniformity of height and appearance. This should be required before issuing approval by the Municipality.

- **(b) There will no doubt be large open spaces in many of the enterprises, either because future expansion is being provided for, or because the operation itself involves permanent open area (e.g., for truck storage, or servicing jobs, or disused vehicles).** If these are all left open to view, this will be an unattractive area, deteriorated in appearance.

Kinoshita could offer one or both of two specific approaches and solutions:
Architectural study or alternative studies, as noted above.

Technical study, including costs or unit costs; and if possible including technical solution of modules and demountability, so that as more property becomes progressively built on and less therefore needed to be screened, there would be maximum salvage.

As in the case of Recreation in Section 1, it would be fine if the several aspects could be integrated into one study. The reason for suggesting break-up and selection of one only, is that the whole overall job in each case would probably be too big for a really creative and useful piece of work--it would most likely spread too thin.

3. "Temporary" Warehousing and Workshops. This is somewhat related to the previous topic, but still quite distinct. I know we all agree on the urgency of this one!

Here is a statement:

There is a serious dearth of, and need for, warehousing for shopkeepers and others, which will be accentuated when Alcan's new building in the City Center is finished this year. Also there is the acute problem of supply of necessary services such as automobile repair, small house repairs, window cleaning, etc. etc., by people who cannot afford to build premises at this time, for whom no suitable quarters exist, and who are consequently scattered in many places illegally as to zoning, and which are illegal and unsightly as to the nature of their makeshift quarters.

The thesis could involve a study of what municipalities can do and have done by way of special "temporary" zoning and special temporary relaxations of building by-laws, if anything (which is somewhat doubtful); or what can be done and at what cost, in the way of erection of some unit-standard buildings where space can be rented out on a short-term basis until occupants can acquire their own premises or until permanent facilities can be made available (e.g. new warehousing actually proposed for the Service Center). Such buildings can be a sort of revolving resource. This is somewhat similar to the small "standard" type factory buildings built by the development corporation in British New Towns, occupied by firms who later expand into their own permanent quarters.

Here again, there would be a multi-faceted solution: architectural-engineering, costs, and feasibility or profitability.

I hope these suggestions may be of some use. I am sending
an extra copy of this in case you want to send it on to Kinoshita.

Sincerely yours,

(Signed) Albert Mayer

Mr. J. E. Dudley
Aluminum Company of Canada Limited
318 Marine Building
Vancouver, British Columbia.
Mr. C. McC. Henderson,
Municipal Manager,
The Corporation of the District of Kitimat,
P. O. Box 400, Station "A",
Kitimat, B. C.

Dear Mr. Henderson:

Jim Kinoshita, who worked with us last summer, is interested in using recreation facilities for Kitimat as the subject of his post-graduate thesis. It would be of considerable help if Mr. Kent could summarize the Kitimat situation and, perhaps, suggest location and scope of facilities which are anticipated in the near future.

Personally, I would like to see interest centered on the development of the Minette Bay recreation area as well as the neighborhood recreation facilities and I hope to be able to send Mr. Kinoshita data from which the Minette Bay potentialities can be developed.

If Dr. Kent concentrated on the neighborhood and in-town facilities, that would give the best coverage of the more essential and pertinent recreational requirements and help make the thesis of value to the development of Kitimat.

The attached copies of correspondence relevant to the proposed thesis will help you understand what is intended.

Yours very truly,

ALUMINUM COMPANY OF CANADA, LIMITED

(Signed) J. E. Dudley

J. E. Dudley
Manager - Kitimat Real Estate Development
The Corporation of the District of Kitimat,  
c/o Mr. R. M. Block,  
Director of Recreation & Adult Education,  
Corporation of the District of Kitimat,  
KITIMAT, B. C.

Dear Bob:

You remember we discussed formulating an overall Recreation Program for Kitimat, and what our requirements are today and what we should aim at in the future.

I want to make provision in our forward planning now to allow for a comprehensive program to be developed. You remember I took the precaution of jotting down items as we talked, so for your convenience and to refresh your memory I am listing some of them below:

Tennis, Ice Skating, Hockey Rinks, Ski areas, Golf Course, Football fields, one with Stadium, Community Buildings at Neighborhood Centres, library pick up in A and D Neighborhoods, Auditorium, Swimming Pools - future, and how many. Will we have one in the City Centre for instance.

A major question arises now as to how facilities should be distributed: i.e. should tennis and the like go along with shopping and library pick up at Neighborhood Shopping Centres? Is the shopping centre the best place for Community Recreation, Community Centre, Youth Centre, etc.?

Needless to say a program that we formulate now will be only a general guide for the future in the same way that the "Master Plan" is only a general framework for us to plan the detailed development of the town. It has to be a flexible guide and will depend also to a large extent upon how well the finances are running.
Corporation of the District of Kitimat,  
c/o Mr. R. M. Block.  

29 November 1956.

Would you send me your outline program and expected requirements for the future as soon as possible.

Yours very truly,

ALUMINUM COMPANY OF CANADA, LIMITED

(Signed) Arthur Henderson

Arthur Henderson  
Kitimat Real Estate Development
19 February 1957

Mr. J. Kinoshita,
216 Beacon Street,
Boston 16, Mass.
U. S. A.

Dear Jim:

Over the past week or two we have been discussing various points relevant to your thesis with people directly concerned with recreation and related subjects. These people feel that, failing a visit to Kitimat by yourself, they would be pleased to answer any questions you would wish to pose. However, they are all very busy and suggest that a limited number of direct questions are far more likely to be answered than a great many general inquiries.

The following is a list of persons to whom such queries could be addressed.

Mr. R. M. Block
% The Corporation of the District of Kitimat,
P.O. Box 400, Nechako Postal Station,
Kitimat, B.C.
(Recreational Director to the Municipality.)

Dr. Hollister Kent,
% The Corporation of the District of Kitimat,
P.O. Box 400, Nechako Postal Station,
Kitimat, B.C.
(Planning Director to the Municipality.)

Mr. M. E. Gooding,
1421 Albatross Avenue,
Kitimat, B.C.
(Chairman of the Parks Committee. Also authority on yachting and boating facilities.)
Mr. J. Kinoshita.

Reeve P. W. Hallman,
8 Pintail Avenue,
Kitimat, B.C.
(Reeve of Kitimat)

Mr. J. A. Stretton,
% Aluminum Company of Canada, Limited,
P.O. Box 100, Nechako Postal Station,
Kitimat, B.C.
(Townsite Engineer for the Aluminum Company)

Mr. R. M. Hopkins,
% Aluminum Company of Canada, Limited,
P.O. Box 100, Nechako Postal Station,
Kitimat, B.C.
(Resident Town Planner for the Aluminum Company)

Mr. Ian Kennedy,
% Aluminum Company of Canada, Limited,
P.O. Box 100, Nechako Postal Station,
Kitimat, B.C.
(Authority on Golf course activities.)

We feel sure that as your research develops other authorities will come to light.

Recreation and the urgent need there for is well recognized. In the recent series of conferences various discussions surrounded this subject. A bye-law for the building of a Community Building in the Nechako Neighborhood was recently defeated when put to the vote. This would have provided a facility for many indoor activities.

A scheme is presently under study for the building of a swimming pool on or near the present High School site. This is generally referred to as a bird bath in letters to the editor in the Northern Sentinel. It would probably be to your advantage to subscribe to this twice weekly newspaper. Local cost - $5.00 per year.

Northern Sentinel Press Limited,
Service Centre,
Kitimat, B.C.
Canada.
The River Lodge recreation Hall is now completed and operating under the auspices of the Y.M.C.A. The Curling Club and the Rod and Gun Club are exclusive by virtue of general pressure to join an active group. Bowling alleys in the City Centre should be in operation this summer. A baseball park is proposed by an individual operator. Tennis courts are ready for use in the Nechako Centre and were well used for skating during the cold weather in January this year. Outdoor skating is very unpredictable. Fishing is by far the most popular sport with enthusiasts pulling good catches out every evening in Spring and Summer. Duck shooters and fishermen do not like the idea of development interfering with their locales. The Delta area and northern side of Minette Bay are apparently ideal for Duck shooting.

As a general guide, the recreation report in the Master Plan report is the best comprehensive guide developed to date.

Regarding the Minette Bay area in particular, various schemes have been put forward for making access to the area more feasible by the placing of sanitary fill and the excess overburden from Neighborhood "D" in desirable locations. Neither of these have reached a firm commitment stage but for the purposes of a thesis design both could be considered as a fair means of building up any specific area. The twenty foot tide variation makes sea walls etc. somewhat impractical however. It was suggested that various watercourses be left natural so that canoeing etc. could be carried up into the trees, and in fact there is presently a scheme for developing a permanent yacht basin in one of the channels close to the temporary golf course near the smelter site.

The Indian Reserves present a problem, as the Indians are quickly aware of potentialities and may well develop commercial enterprises, following no plan, on their own land where possible. At any rate, any
Mr. J. Kinoshita. 19 February 1957.

road into or across these reserves or other development whatever must have the sanction of the Indian Community. The Provincial Government is considering a road linking the Indian Village on the East Bank of the Kitimat Arm with the end of the Minette Bay Road. This has various advantages to the Indians related to Education etc. Although it would be a very costly operation, this road could be considered as travelling close to the water along the sough shore of Minette Bay to link the Transmission line right-of-way. This in turn may have potentialities creating accessible skiing on the transmission line right-of-way above the Indian village. However, there may be problems related to upkeep of the Transmission line itself. Exceptional, though virtually inaccessible, skiing slopes exist at the 3000 ft. level behind the Service Centre.

Behind and above Minette Bay are two lakes with a great recreation potential but to strike a road through to them is a difficult and costly venture. Minette Bay is apparently the ideal locale for log-booming and may well be used for this purpose for many years to come if and when the timber rights up the Kitimat Valley are developed, and more especially if the proposed Pulp and Paper Mill is developed. This would restrict but not destroy the recreation potential of the Bay.

To create a permanent yacht basin in Minette Bay would possibly be impractical. It would involve the completion of a diversion of the Kitimat River channel and the dredging of a two mile channel linking Minette Bay and the Kitimat Arm.

There are several old farm houses and barns etc. in various stages of disrepair on the Northern side of Minette Bay, but practically all of these are on private or Indian Reserve land.

This letter is not meant as a guide to anything specific, but we hope it will provide basic data from which to develop questions in your own mind as to how you can gain the information you will require.

Yours very truly,

D.M. Hickley
19th June 1957

Mr. Hajime Kinoshita,
216 Beacon Street,
Boston 16, Mass.,
U.S.A.

Dear Sir:

Thank you for your letter of 2nd June regarding the planning of a waterfront park area for Minette Bay. We now have about three groups doing the same thing.

I think it is a mistake for you to try to work out a proper recreational plan for an area which you cannot see and study first hand. For the last two years the Aluminum Company of Canada has been using Minette Bay for a booming ground for logs, and a great deal of the present waterfront area has been completely spoiled. It is likely that the area will continue in this use for at least the next ten years and maybe much longer. There is some talk of locating a spoil dump here and this further complicates the situation. All together I would say that the recreational possibilities of Minette Bay are wrecked for many years to come.

I am Chairman of the Parks Committee in Kitimat and Dr. Kent, to whom I have referred your letter, is our Municipal Planning Officer. We have both come to the conclusion that recreational development for Minette Bay itself will have to wait until there is at least some sign of these commercial operations being transferred elsewhere. Meanwhile, we have been concentrating our efforts on developing other park sites which will have much more to offer in the near future.
Mr. Hajime Kinoshite: Boston, Mass. -2- 19th June 1957

As far as yachting in Minette Bay is concerned, there is none, and will probably not be any for many years to come. The channel in and out of Minette Bay is narrow and treacherous with currents up to eight knots on the Spring tide. It is full of snags and stumps and would require one and one-half million dollars worth of dredging to make it usable at any other time than high water slack. The Kitimat Yacht Club has recently been relocated in the middle of Anderson Creek flats, close to the Golf Club. The basin has been dredged, but the channel in and out is not deep enough for passage of large boats at other than near high tide. We have a total of about one hundred boats in Kitimat, and this I would expect to increase to five hundred as the population expands and as there is space available to moor them. The cost of dredging a basin cannot be paid for completely by the Yacht Club, and thus expansion is likely to depend on the good will of the Aluminum Company of Canada.

I would suggest that any further questions be addressed to Dr. Kent or Mr. J.E. Dudley, who are probably in a better position to help you.

Yours very truly,

M.E. Gooding

Copies sent to:

Mr. J.E. Dudley: Vancouver

Dr. H. Kent.
District of Kitimat,
P.O. Box 400, Nechako P.O.
Kitimat, B.C.
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Architecture d' Anjou à 'hui
VIEW OF SWIMMING AREA

PERSPECTIVE
SIDE ELEVATION

ISOMETRIC

END VIEW

STRUCTURE