



SITE DEVELOPMENT PLAN
PROPOSED NATIONAL HISTORIC PARK
AT THE FORKS



PROPOSAL

MARCH 1985

IBI
GROUP

**PREPARATION OF SITE DEVELOPMENT PLAN
FOR THE FORKS**

Proposal to
PARKS CANADA

by
IBI GROUP
March, 1985

March 5, 1985

Ms. Olga I. Bailey
Contracts Clerk
Prairie Region
Parks Canada
4th Floor,
457 Main Street
Winnipeg, Manitoba
R3B 3E8

Dear Ms. Bailey:

Contract 501/84-79:
Preparation of Site Development Plan for the Forks, Winnipeg, Manitoba
Your File: 4870-102-4-2

In response to your letter of February 14, 1985, we respectfully submit our proposal for the above study. The proposal is submitted in six copies and includes the attached "Offer to Perform Services".

We have assembled a strongly qualified team which would be directed by Neal A. Irwin, Managing Director and Harold J. Katzin, Director, IBI Group. Mr. Irwin has wide experience in the tourism and recreational fields and Mr. Katzin is an architect/planner with experience in concept/site planning for themed attractions, parks and related developments. Other key members of the proposed project team include Mr. Randy Grimes (concept development/assessment, market/financial analysis), Mr. Don Epstein of Epstein Associates Inc. (integration with surrounding developments and implementation planning), Messrs. Bill Mann and Steve Shawcross (site planning and landscape architecture), Mr. Bert Luckhurst (economic analysis and implementation planning), and Mr. Gary Holman (concept planning and market/economic analyses).

Site planning advice will be provided by Philip H. Beinhaker, the other Managing Director of IBI Group and an architect/planner with strong relevant experience, and Steve Staples, former Chief Planner of Expo '67 and a recreational planner of wide experience.

Most members of the proposed project team are currently engaged in the Winnipeg Tourism Development study and are therefore extremely conversant with existing and proposed tourist/recreation attractions and events in Winnipeg, the status of urban development planning for the adjacent CN East Yard lands, and the various proposals for related developments. We are

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familiar with the government agencies and groups active in this situation and would be able to relate effectively with these groups while creating imaginative concepts and plans to meet the specific site objectives of Parks Canada. The proposed work program comprises three phases:

1. Preliminary planning and evaluation;
2. Site development planning;
3. Proposed plan and program;

thereby providing opportunities for interim concept review by Parks Canada and the Technical Review Committee and other parties as appropriate, leading to a steadily more detailed development plan in the context of a consultative process.

We are prepared to carry out the study as described herein for a fixed price of \$73,900, including fees and expenses, and to complete the project within 10 months from the date of authorization.

We appreciate your invitation to submit this proposal and would welcome the opportunity of meeting with Parks Canada staff as might be required, to discuss the proposal and address any questions which you may have. We are prepared to commence work immediately upon your authorization and would be pleased to assist Parks Canada on this important project.

Yours sincerely

IBI GROUP



Neal A. Irwin
Managing Director

OFFER TO PERFORM SERVICES

Page 2



Neal A. Irwin, Managing Director

Signature of Offeror or his authorized
representative

438-755-758

Social Insurance Number (Individual's only)

Managing Director

Title

This offer dated this 5th day of March, 1985.

LOWEST OR ANY OFFER NOT NECESSARILY ACCEPTED.

PARKS CANADA
OFFER TO PERFORM SERVICES

SUBMITTED BY:

CONTRACT NO: 501/H4-70

PROJECT DESCRIPTION: SITE DEVELOPMENT PLAN
PROPOSED NATIONAL HISTORIC PARK AT THE FORKS.

LOCATION: WINNIPEG, MANITOBA

WORK:

The undersigned hereby offers to Her Majesty the Queen in right of Canada as represented by the Minister of the Environment, to provide all labour, plant, materials, supplies, tools, equipment, clerical and technical services, professional advice and assistance required to complete in a careful and workmanlike manner, to the entire satisfaction of the Minister, the work as set out in Appendix "D" Statement of Work, in accordance with Articles of Agreement, Appendix "A" General Conditions and Annex "A", Appendix "B" Supplementary Conditions and Appendix "C" Terms of Payment, all documents attached hereto, for the -

All inclusive FIXED PRICE of\$ 73,900

COMPLETION DETAILS:

It is understood and agreed that, if awarded the contract, the offeror will start work immediately and will complete the work by within 10 months of authorization

Offeror's full name or trading style (print
or type)

IBI Group
105-62 Hargrave Street
Winnipeg, Manitoba
R3C 1N1
947-0318

Offeror's full address and telephone
(for all purposes of this contract)

PREPARATION OF SITE DEVELOPMENT PLAN
FOR THE FORKS

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THE FORKS: COMPREHENSIVE SITE DEVELOPMENT PLAN
PROPOSAL

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1. BACKGROUND

The place where the Red and Assiniboine Rivers join, known as "The Forks", is a historic crossroads which has played a strategic role in the exploration, fur trade, military security and settlement of Canada's Prairies. Aboriginal artifacts attest to its earlier importance as a campground, and its strategic location led to the growth of Winnipeg into a cosmopolitan city which serves as a transportation hub and a centre of resource development, agriculture, manufacturing and commerce.

A succession of forts acted as fur trade posts at the Forks, in particular:

- o Fort Rouge (1738);
- o Fort Gibraltar I (1810);
- o Fort Douglas (1813);
- o Fort Gibraltar II (following 1816);
- o Fort Garry I (1821-1835);
- o Upper Fort Garry (following 1835).

As the fur trade era drew to a close and the railway era led to mass immigration and prairie agricultural development, the strategic location of The Forks led to its being used as railway yards by the Northern Pacific and Manitoba Railway (chartered in 1888) and (following 1906) for a station shared by the Northern Pacific and Manitoba Railway, the Grand Trunk Pacific Railway and the National Transcontinental Railway. These and other railways amalgamated in 1923 to become Canadian National Railways. The CN East Yards currently occupy some 60 acres of land north and west of the historic river junction. Archeological remains of the earlier forts are, for the most part, buried under the railway yards; parts of Upper Fort

Garry are also buried under Main Street, and the North Gate of the fort is the only visible remnant of these structures.

Evolutionary changes in the railway system are such that much of the CN East Yards will become available for other uses, and it seems likely that urban development and related recreational/cultural uses will take place in due course. Development concepts have been proposed for the East Yards and have been the subject of discussion between CN, CN Real Estate, the City of Winnipeg, the Provincial and Federal Governments, and related agencies, but no agreement has emerged to date.

Development of The Forks was identified as the major federal component of a 1978 Canada-Manitoba Agreement for Recreation and Conservation (ARC) of the Red River corridor. A number of conceptual development alternatives were presented for this area in the 1980 draft Master Development Plan for the corridor and were discussed publicly in 1980/81. A Master Development Plan, comprising a Visitor Interpretive Centre with parking facilities and general landscaping of the site (some 30 plus acres) was approved by the Federal and Provincial Ministers. However, only 13.5 acres are presently available for development, as shown in Exhibit 1, under the ARC Agreement.

Parks Canada has recently completed the first stage of archeological work on these lands and further work is proposed for 1985. Historical research has also been carried out and additional work is proposed to provide a factual basis for the interpretation of archeological and historical findings, preparation of the site development plan, and initiation of the interpretation plan.

2. PURPOSE AND OBJECTIVES

As noted in the Terms of Reference, "the primary purpose of the planning process is to formulate a comprehensive site development plan to be utilized as a basis for the development of a National Historic Park at the Forks and for such ancillary development as may be compatible with the Park, the existing adjacent uses and such concepts and ideas as have been

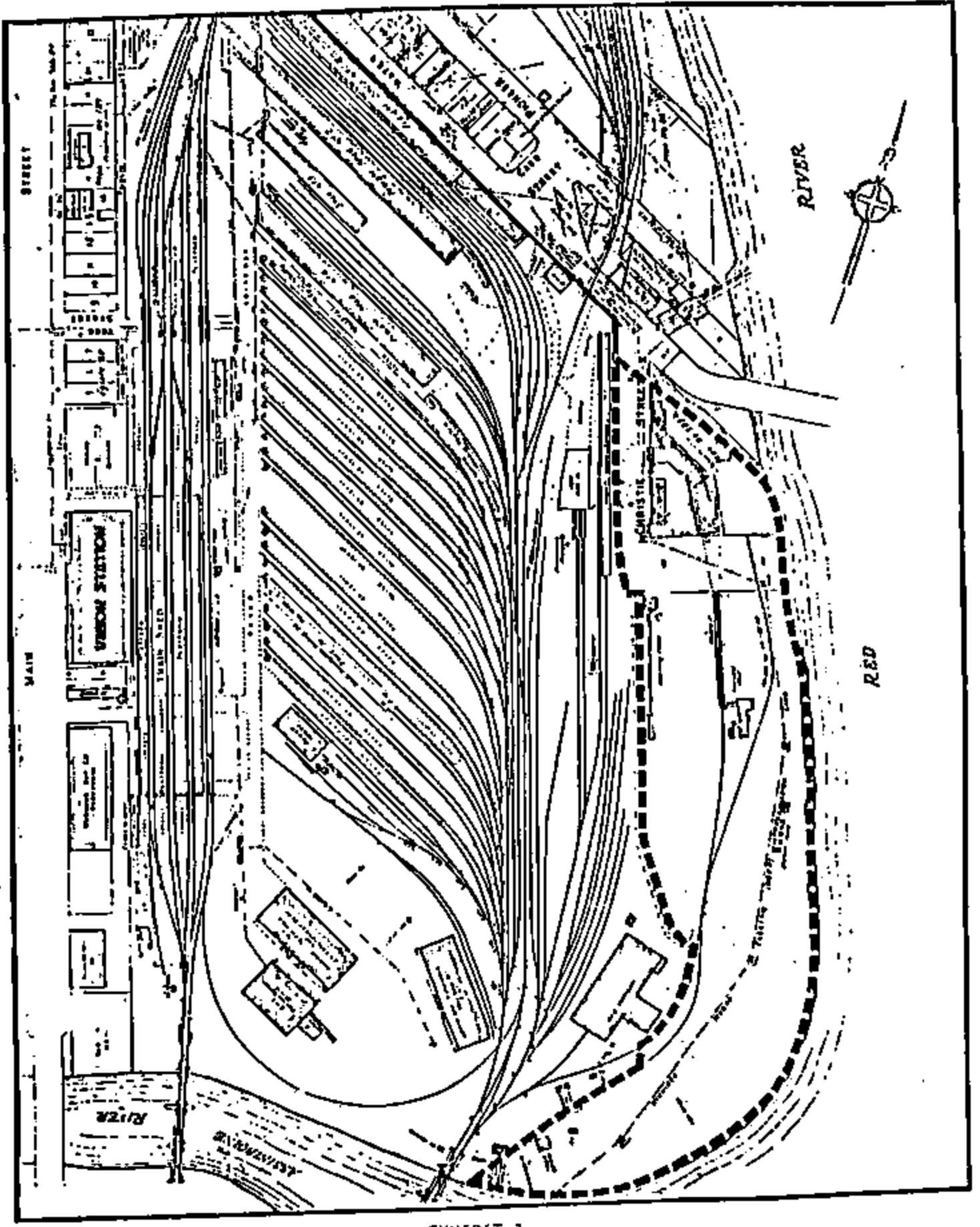


EXHIBIT 1

The Forks - 13.5 Acres (approx.) For Proposed Parks Canada Development

put forward in the past for use of the East Yard lands. This plan will identify, describe, substantiate and provide assessment of proposed facilities and services at The Forks site (5.5 ha) through the development of increasingly detailed concepts and site development options". This is to include:

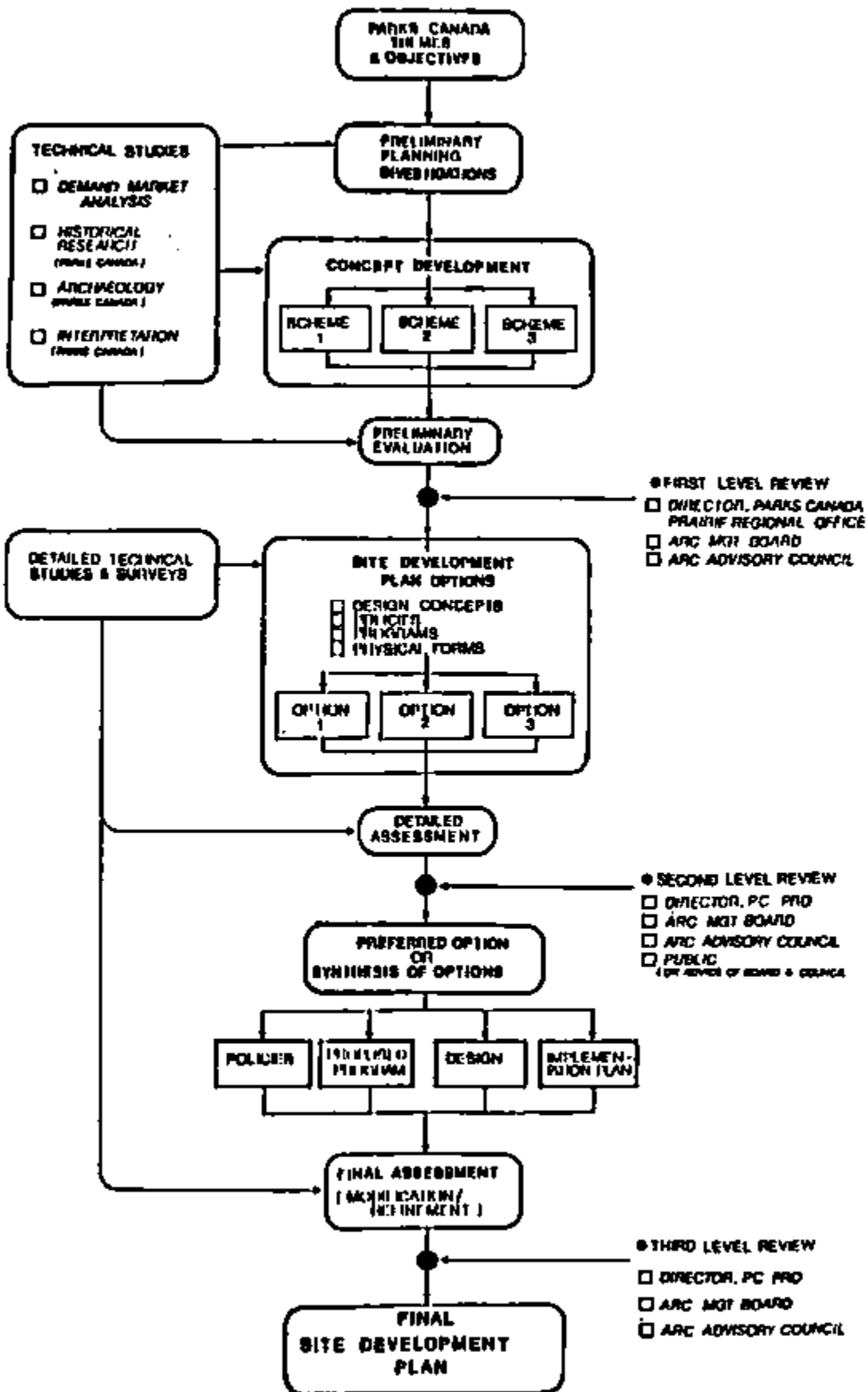
- o investigation of the market potential and anticipated user patterns and trends;
- o development of concepts, preliminary designs and cost estimates for a size, mix and range of facilities and services which will portray the historic importance of the site in a manner compatible with its recreational amenities and generalized land use proposals for the East Yards;
- o utilization of the results of on-going historical research, archeological investigations and interpretative research being conducted by Parks Canada;
- o general investigation of the potential impact of developing the site area on adjacent areas; and
- o preparation of the site plan and related analyses and their presentation in a manner suitable for decision-making and public presentation.

3. APPROACH

Our proposed approach in meeting these objectives follows the flow chart of activities presented in the Terms of Reference which is reproduced here as Exhibit 2. Under this approach, the work will be carried out in three phases, as follows:

- o Phase 1: Preliminary Planning and Evaluation;
- o Phase 2: Site Development Planning;
- o Phase 3: Proposed Plan and Program.

**PARKS CANADA
THE FORKS: COMPREHENSIVE SITE DEVELOPMENT PLAN
EXHIBIT 2: FLOW CHART OF PROJECT WORK ELEMENTS**



This provides for a steadily increasing level of detail as called for in the project objective and provides a basis for interim reports, presentations and their discussions with client groups, such that the resulting plan will reflect a thorough review of proposed concepts by interested parties.

We place great emphasis on continuing close contact with the Parks Canada Project Manager, Mr. Tim Sookocheff, other Parks Canada staff (in particular those conducting the archeological and historical work on and related to the site), and staff of other agencies and governments (eg. ARC, Core Initiative, Canadian National and various City and Provincial departments) in order that all relevant information and opinions are known to the project team as it develops findings and proposed site development concepts and plans. Contact of this nature, which will be facilitated by a series of meetings with the Technical Review Committee (TRC) established for this project and the ARC Management Board, is essential for the project's success, given the strategic nature of the site and the large number of parties which have an interest in the way it is developed.

IBI Group is currently carrying out the Winnipeg Tourism Development Study on behalf of Destination Manitoba. The Forks and the adjacent East Yard area has emerged from Phase 1 of that study as a prime area for an interpretive attraction and multiple use waterfront development, and our proposed team for the comprehensive site development plan will be fully familiar with this work. The tourism development study has produced basic tourism demand estimates for Winnipeg and will include more specific market testing of a number of potential attractions and events which could be located in the general area of the East Yards. Familiarity with the market data and its analysis will provide our team with important information directly relevant to the development of the site plan and enable significant efficiencies in our approach.

Our general methodology in preparing the comprehensive site development plan for the 13.5 acre site will be to draw on the background information and market analyses available from the Tourism Development Study

and the wealth of other studies and data available, and to combine imaginative thinking with careful analysis and conceptual design, to produce a plan and program which will successfully meet the project objectives. In doing so, we will take strongly into account the unique and historic attributes of the site, its great importance as a focal point for the general development of the East Yards and as a tourism attraction for Winnipeg and Manitoba, and the need for a cost-effective plan and implementation program which will be both exciting and achievable.

The work to be carried out and products produced by each phase of the project are described in the following section.

4. WORK PROGRAM

The overall structure of the proposed work program is shown in Exhibit 3, which lists the seven tasks under Phase 1, seven tasks under Phase 2 and eight tasks under Phase 3, with the proposed timing of each task and of the various reports and meetings.

The work content and results of the phases and tasks are described below.

Phase 1: Preliminary Planning and Evaluation

Work carried out under this phase will provide background information, site inventory/analysis, preliminary market analysis and an understanding of development opportunities and constraints. In this context, preliminary concepts will be developed and evaluated, leading to initial selection of the preferred concept, preparation of the Phase 1 report, and presentation/discussion of these results with client groups.

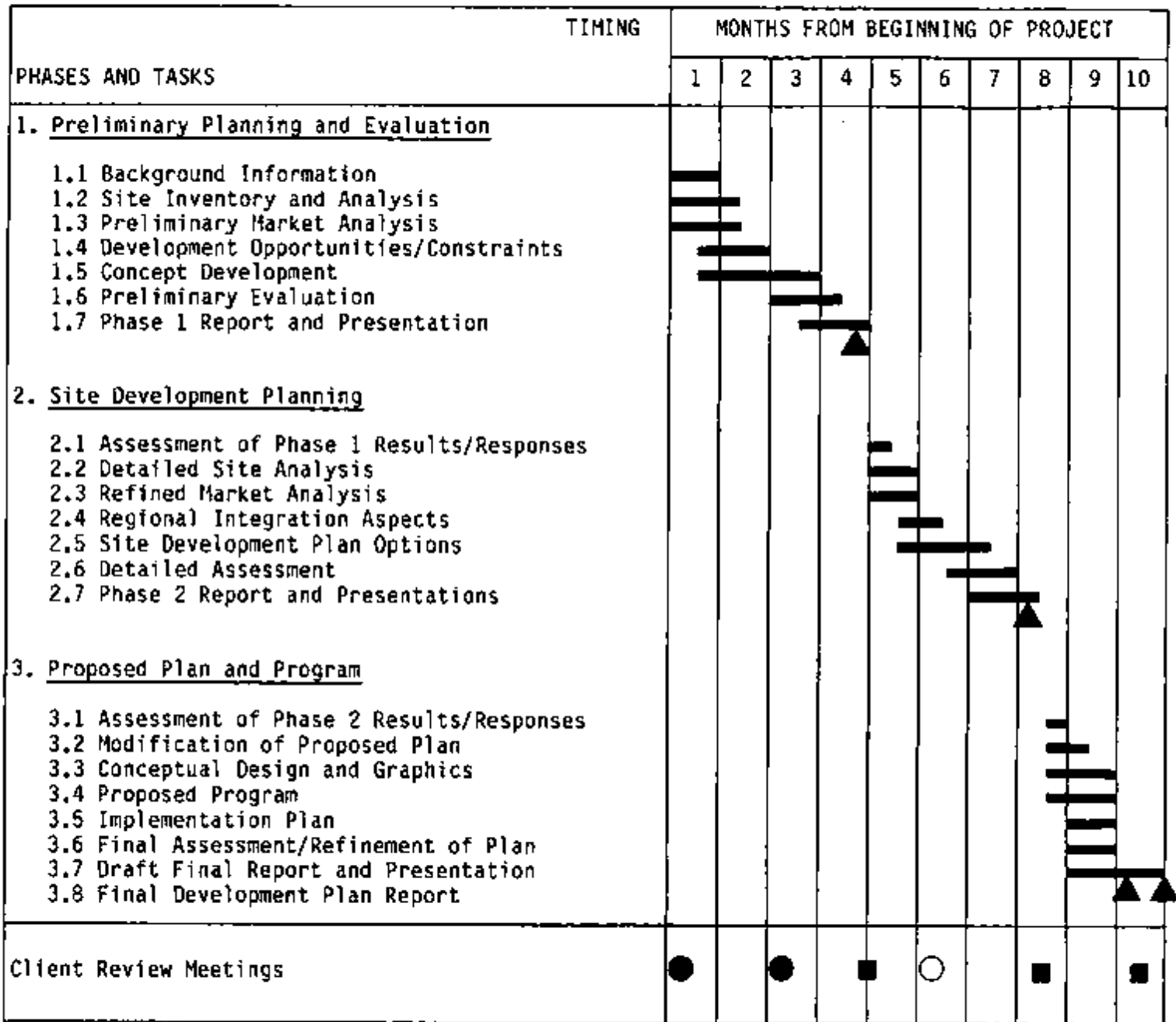
Task 1.1: Background Information

As noted above, members of the proposed study team are already familiar with much of the relevant background information and have

PARKS CANADA

THE FORKS: COMPREHENSIVE SITE DEVELOPMENT PLAN

EXHIBIT 3: PROJECT SCHEDULE



Legend:

- ▲ = Report
- = Meeting with Parks Canada and Technical Review Committee (TRC)
- = Meeting(s) with Parks Canada, TRC and possibly with ARC Management Board plus other invitees
- = Meeting with Parks Canada (may include TRC also)

assembled the various reports and data. A number of the more significant documents are listed in Exhibit 4.

Under this task we will review this information with the client and augment it as necessary, particularly as regards base data and information relevant to the 13.5 acre site itself and adjacent areas. Of central importance will be archeological and historical information pertaining to the site, and we will be in continual contact with the Parks Canada people working in those areas to achieve the necessary information transfer.

The product of this task will be an inventory of relevant background reports, data and information and a project library for easy access by the project team throughout the project.

Task 1.2: Site Inventory and Analysis

We will prepare a detailed site inventory and analysis including at a minimum the following factors:

- o soils and geology;
- o vegetation;
- o hydrology;
- o macro/micro climate;
- o topography/drainage;
- o aesthetics and perceptual characteristics;
- o uses and activities on adjacent and nearby sites;
- o physiographic characteristics;
- o historical and archeological features;
- o existing conditions: land use, public utilities, legal and physical boundaries, easements, buildings, bridges, roads, etc;
- o wildlife;

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THE FORKS: COMPREHENSIVE SITE DEVELOPMENT PLAN

EXHIBIT 4: BACKGROUND REPORTS

DEVELOPMENT PROPOSALS

The Canada-Manitoba Agreement for Recreation and Conservation, Red River Corridor Master Development Plan;

Parks Canada Proposal Report for Development of the Winnipeg Forks Area;

Great West Life Development Proposal for the Winnipeg Forks Area;

The Winnipeg Tourism Development Plan, Marshall Macklin Monaghan for Destination Manitoba;

The Winnipeg Tourism Development Study Phase 1 Report, IBI Group for Destination Manitoba;

The Winnipeg Core Area Initiative Program Reports;

Seasonal Market Improvement Program;

Year Round Market Improvement Program, IDS Systems Ltd., for the City of Winnipeg and the Core Area Initiative Program;

North Portage Redevelopment, Final Concept and Financial Plan;

The Heritage Area Coalition - Discovery Place Manitoba Proposal;

Analysis of Development Potential of Manisphere Amusement Facilities;

Manitoba Children's Museum Feasibility Study;

St. Norbert Tourism Project;

Bullwinkles;

MARKET ANALYSIS

Travel Manitoba Visitor Survey Reports;

Tourism Development Strategy for Manitoba - Market Study;

Manitoba Accommodation Occupancy Surveys;

The Folklorama Survey;

Red River Exhibition Visitor Survey;

A Survey of Race Goers at Assiniboia Downs;

Market Analysis of the Assiniboine Park Zoo;

- o special features including views from the site, and views to the site from various points in the surrounding area;
- o proposals for new development on adjacent and nearby sites.

We will analyze and present this information, and relevant information regarding adjacent property that surrounds or otherwise affects the site, to provide a basis for site planning and development/evaluation of alternative concepts for the site.

Task 1.3: Preliminary Market Analysis

Under this task we will assemble information on existing visitation to Winnipeg, trends and seasonality of use of relevant parks and attractions in the Winnipeg area, and factors likely to affect the demand for proposed facilities and services at The Forks. As noted earlier, members of the proposed study team have already developed much of this information as part of the Winnipeg Tourism Development Study and we would build on this base. As mentioned earlier, we anticipate that the results of these efforts will be directly applicable to site planning for the Forks land.

Specifically, we will estimate the extent to which various types of interpretive centre and related facilities and services at The Forks site would likely penetrate the various market segments of visitors to Winnipeg and residents of the City, leading to estimates of likely visitation to the site, its seasonality, and the demographic and socio-economic characteristics of expected clientele. This will include an assessment of the extent to which the centre might be expected to influence tourism patterns in Winnipeg and contribute to overall visitation levels to the City. These estimates will be prepared on an annual basis, and by season within each year, for the first ten years following opening of the attraction at the Forks site.

We anticipate that the market survey being carried out as part of the Winnipeg Tourism Development Study will provide sufficient information on the likely impact of attractions such as a historic/interpretive centre and related parks/recreation amenities on the propensity of people to visit Winnipeg from various market origin areas. The likely draw of such attractions and components is being tested by a telephone market survey of some 650 residents of Winnipeg, Manitoba, Northern Ontario, Saskatchewan, North Dakota and Minnesota. This preliminary conclusion will be reviewed during the course of Phase 1.

The product of this task will be a series of tables providing estimates of visitation to the proposed attraction at the Forks site for the time periods indicated above, showing the expected demographic and socio-economic profile of estimated visitors, and discussing factors likely to influence visitation levels and the seasonality of use.

Task 1.4: Development Opportunities and Constraints

Under this task we will identify and describe all significant development opportunities and constraints likely to affect concepts for the site and adjacent areas.

Among the opportunities are the waterfront amenities inherent in the site, its historic significance and strategic location in downtown Winnipeg and adjacent to the core area, relative ease of access, the south point lookout, views across the river to St. Boniface, docking opportunities, linkages to other ARC projects, and related attributes. Among the challenges are the undetermined nature and timing of developments on the adjacent CN yards and the related importance of developing a concept for the Parks Canada site which will at once be a focal point for related development, provide an informative and entertaining interpretation of the historic significance of The Forks, provide a recreational resource which makes full use of the area's riverfront amenities and provide a degree of flexibility for compatibility with subsequent developments in the area. Specific constraints include the nature of the present uses of the CN lands and the extent to which these current uses screen views of the site from

central Winnipeg; winter climate; ice scouring and erosion; variations in adjacent water levels; and the development budget (\$3.4 million).

The product of this task will be a statement and discussion of development opportunities and constraints, providing an important backdrop for the development and evaluation of concepts.

Task 1.5: Concept Development

Under this task, we will develop up to three alternative concepts for the Forks site, including but not necessarily limited to an interpretive centre and related amenities and services. The alternatives will involve varying mixes of uses, including interpretive facilities and displays, railway components, river edge treatment, access routes and pedestrian/vehicular circulation, parking, pedestrian linkages to other ARC components and adjacent developments, utilities, other visitor requirements as may be appropriate to the site, buffers between the site and railway facilities, conservation of extant heritage resources, and operational considerations. For each alternative, opportunities for growth will be reviewed, along with impacts of current and possible future uses of the CN lands.

The preliminary concepts developed in Phase 1 will concentrate on overall concepts and substantive differences in the theme, scope, location, size and mix of the various components, in order to provide a range of alternatives for preliminary evaluation. The preliminary concepts will reflect, among other things, potential user group preferences as identified by the market testing now underway in the Winnipeg Tourism Development Study, as described earlier.

The product of this phase will be graphical portrayal of the alternative concepts including pedestrian and vehicular access at the scale of the Winnipeg central area; site plans showing land use patterns and change over time; view corridors; and pedestrian movement and roadway systems. These will be accompanied by written descriptions and tabular

material showing the approximate size and broad cost estimates for the various components and services.

Task 1.6: Preliminary Evaluation

The alternative plans and concepts for the site will be subjected to a preliminary evaluation based on criteria such as the following:

- o likely demand levels;
- o effectiveness in portraying the historic significance and interest of The Forks area including the historic themes and sub-themes defined by Parks Canada and included in the proposal call;
- o recreational amenities and effective use of the river-front site for recreational purposes;
- o compatibility with likely types of development on adjacent lands;
- o anticipated demand levels by visitors to Winnipeg and residents of the City;
- o complementarity to other existing and proposed tourism attractions in and around Winnipeg;
- o broad initial estimates of capital costs and net annual operating costs or revenues;
- o flexibility for modification and further development in the context of future adjacent developments;
- o other criteria as may be mutually agreed with the client.

The evaluation will be carried out on a systematic basis by rating each alternative in terms of each criterion and assessing in this context the overall cost-effectiveness of each alternative relative to the others.

The product of this task will be a description of the evaluation process and its results in terms of the preferred option and reasons for its selection.

Task 1.7: Phase 1 Report and Presentation

The Phase 1 report will be prepared under this task, presenting the data, methodology, analyses, concepts, evaluation and findings of Phase 1. The emphasis will be on graphical and tabular presentations to the extent possible with supporting text as required for a clear exposition of Phase 1 and its results.

The Phase 1 report will be submitted in 20 copies.

We will also prepare self-explanatory graphics and audio-visual materials (e.g. slides) illustrating the results of Phase 1, and will make a verbal presentation using this material to the Technical Review Committee (TRC) at a meeting which will be held to review the Phase 1 report. We will also make a similar presentation to the ARC Management Board and possibly other parties to be identified in consultation with the client, either at the TRC meeting referred to above or at a separate meeting held back-to-back with the TRC meeting. The report and our Phase 1 findings will be discussed with the Parks Canada Project Manager and other Parks Canada staff on a continuing basis during and after Phase 1, to maintain a close mutual understanding of the work being carried out (eg. the archeological and historical work by Parks Canada and site planning by the consultant) and related background information and opinions.

Phase 2: Site Development Planning

This phase will build on the conceptual results of Phase 1 to prepare and evaluate more detailed site development plan options based on the preferred concept(s) selected from Phase 1. The work will involve more detailed site and market analyses, consideration of regional integration aspects and more detailed treatment of the site plans and services.

Task 2.1: Assessment of Phase 1 Results/Response

Under this task we will assess the response of the client and associated groups to the conceptual site treatment options and preliminary

evaluation produced by Phase 1, including consideration of possible modifications to and detailing of the preferred conceptual alternatives.

The purpose of this assessment is to provide a background for the more detailed analyses and site development planning to be carried out under Phase 2.

Task 2.2: Detailed Site Analysis

This task will be a refinement of the site inventory and analysis work carried out under Task 1.2 of Phase 1. It will focus on information collection and analysis relevant to the preferred development option(s). We will consider aspects of the physical site and its historical/archeological features, recreational amenities and attributes of the surrounding areas in more detail as may be required to develop and assess more detailed site plans. Technical aspects to be investigated include soil conditions, storm water drainage patterns, local effects of wind, potential shadow patterns of possible adjacent development, capacity of site access routes, and locations of potential adjacent nuisances of odors and noise.

Task 2.3: Refined Market Analysis

More detailed market estimates will be made for each of the alternative site development plans developed under Phase 2, based on the target population and the regional tourism patterns in the study area. A demand profile will be prepared showing expected visitation for each of the first ten years of operation of the centre and giving estimated typical demand profiles in terms of the following:

- o origin and destination information on potential visitors;
- o socio-economic characteristics of potential users;
- o types of recreational and educational activities sought;

- o numbers of potential Forks users daily, weekly, monthly, and seasonally;
- o length of stay and peak daily periods of potential Forks uses;
- o incidents of repeat and first time users;
- o perceived need for ranges of services and activities, including accommodation;
- o related regional activities of potential users;
- o expenditure data on potential users;
- o perceived value of Forks development in attracting additional visitors; and
- o special parking requirements.

The results of this task will be tabular, graphic and text material presenting these more detailed demand analyses and estimates.

Task 2.4: Regional Integration Aspects

Under this task we will investigate, describe and evaluate a number of important regional integration aspects of the proposed interpretive centre and park at The Forks, including the following:

- o compatibility with existing and proposed facilities and programs on adjacent lands, with emphasis on other ARC components, the Historic Winnipeg program of the Core Area Initiative, and the existing and proposed uses of adjacent CN lands insofar as they may be known;
- o the feasibility of sharing or integrating project components such as access, parking and interpretive programming with the adjacent uses;
- o an estimation of the requirement of such ancillary visitor services as food, craft and souvenir sales and the availability of such services in adjacent areas;

- o the potential contribution of the proposed site development to the Winnipeg tourism infrastructure; and
- o the impact on transportation (circulation) patterns.

The results of this task will provide a basis for assessment of the extent to which each alternative site development plan (to be prepared in Task 2.5) contributes positively to the above integration aspects and the extent to which one or more of the plans may have shortcomings in some or all of these areas.

Task 2.5: Site Development Plan Options

Under this task we will prepare up to three site development plans. These will be based upon the preferred concept(s) selected from Phase 1, taking into account the client responses at the end of Phase 1 and the more detailed analyses carried out as part of Phase 2. The development plans will contain more detail regarding the land and floor areas, costs, likely usage levels and revenues, and operational aspects of the various components as itemized for Task 1.5 of Phase 1.

The development plan options will vary with respect to:

- o design concept - i.e. mix of buildings vs. open space, soft landscape vs. hard surface, relationship of plan elements to the water, to the adjacent CN lands, internal circulation patterns, and other aspects;
- o infrastructure and policies for development - i.e. phasing, extent of on-site parking vs. transit access and possibly transit connections to/from offsite parking, extent of allowing some compatible and complementary development to occur on the site, physical implications for alternative operational policies (i.e. seasonal, large events, etc.) docking provisions, flood proofing, winter use facilities, and others;
- o program - i.e. mix of "hands-on" activities versus more passive displays, continuing archeological work as an on-going demonstration of the historic importance of the site, the extent of major off-tourist season visitor activities such as school trips, etc.;

- o physical form - built form disposition and massing, plant material types by location and visual impact, alternatives for paved surfaces and textures, location and nature of dominant focal points, and others.

These design concepts, policies, programs, and physical forms will be selected so as to provide a representative range in the three site plans. Capital and operating costs/revenues will be broadly estimated for each. The results of Tasks 2.1, 2.2, 2.3 and 2.4 will provide a means for generating and selecting these elements. They will be described in sufficient detail to provide a basis for developing alternative site plans. The three sets of site plan design concepts, policies, programs and physical forms will be discussed with the client prior to development of the site plans.

The product of this phase will be site plans at a scale of 1:500 for each of the up to three alternatives, plans and sections of buildings and other facilities, and a description of proposed services and programming related to each alternative plan plus the traffic, parking and pedestrian facilities, utilities, treatment of the waterfront and park areas, etc. Landscaping provisions will be indicated as appropriate.

Task 2.6: Detailed Assessment

Each of the up to three site development plans will be subjected to a detailed assessment using the criteria itemized under Task 1.6 of Phase 1 with appropriate modifications and possibly including other criteria based on client comments from Phase 1 and the more detailed work carried out under Phase 2.

The results of this task will be an evaluation table and accompanying text showing the evaluation process and its results, and identifying the preferred site development plan.

Task 2.7: Phase 2 Report and Presentation

The Phase 2 report will present the analyses, site development plans, assessments and results of Phase 2. Again, maximum use will be made

of graphics and tabular presentation with accompanying text as required for clarity and precision. The report will be submitted in 20 copies.

As described earlier for Phase 1, appropriate graphical and audio-visual material will be prepared and used at a verbal presentation to client groups at one or two meetings held to review the Phase 2 report and results. Interactions with staff of Parks Canada and other agencies, and the meeting(s) with the TRC and the ARC Management Board will be carried out at the end of Phases 2 and 3, respectively, as described above for Phase 1.

Phase 3: Proposed Plan and Program

This phase will involve modification of the preferred site development plan from Phase 2, as appropriate in light of client comments received at the end of Phase 2 and will produce a final site development plan showing disposition of all the main elements and preliminary conceptual design for such individual elements such as paving, buildings and landscaping. We will include a proposed program of components and implementation plan, and a report fully describing the work and results of the project.

Task 3.1: Assessment of Phase 2 Results/Response

Under this task we will assess the findings of Phase 2 in the light of client responses received at the end of that phase, particularly as regards the preferred site development plan and possible modifications to it.

Task 3.2: Modification of Proposed Site Development Plan

Based on the above, we will develop modifications and refinements of the proposed plan as deemed appropriate. These will be carried to the same level of detail as described above under Phase 2. The result will be the description of the preferred design concepts, policies, programs and

physical forms. We will add development programming details such as estimates of areas for floor space, paving, landscaping and other quantitative descriptions of the major plan elements.

Task 3.3: Conceptual Design and Graphics

Under this task we will carry out a preliminary conceptual design of the buildings, paving, landscaping and related facilities involved in the proposed site development plan and will prepare plans and sections of these facilities, sufficient to illustrate the design concept of each and to provide a basis for pre-engineering capital cost estimates. These will be provided at Class C level as defined in Appendix 2 of the Terms of Reference.

The product of this task will be sketch plans and sections at the above level of detail plus a limited number (up to 3 or 4) of perspective sketches showing how the facilities will be sited and major views from vantage points on the site.

Task 3.4: Proposed Program

Under this task we will list the proposed program of components, facilities and services for the preferred site development plan. This will include a written description of each component and tabular presentation of the components, showing for each the floor area, estimated capital cost, operating cost and revenues if any, and related information. Capital cost estimates will be based primarily upon published unit costs and our judgement regarding appropriate features and construction quality.

Task 3.5: Implementation Plan

Under this task we will show on a step-by-step basis the major actions required to implement the Parks Canada development at The Forks, including items such as management/organization, funding, staging, review

processes, integration with developments on adjacent lands, and related aspects. Every attempt will be made to keep the project's capital costs within the budget of \$3.4 million. If a concept with a higher budget is favoured by the evaluation, the budget amount in excess of \$3.4 million will be noted and possible funding sources identified along with consideration of a staging approach which might allow deferment of the additional expenditure.

The product of this task will be a tabular and text description of the proposed implementation plan.

Task 3.6: Final Assessment/Refinement of Plan

Under this task we will subject the proposed site development plan and the related program and implementation plan to a final assessment which may lead to certain refinements or modifications.

Task 3.7: Draft Final Report and Presentation

Under this task we will prepare the final report of the project in draft form and will submit the report in 20 copies. We will also prepare appropriate graphics and audio-visual materials and make a verbal presentation of the project findings to the client group at meetings called to review the Phase 3 and overall study results and draft report. Again, the procedures of client contact and review meetings, as described earlier for Phases 1 and 2, will be followed during Phase 3 and presentation/discussion of the draft final report.

Task 3.8: Final Development Plan Report

Under this task we will make editorial changes and clarifications as may be appropriate in light of comments received from the client on the draft final report. This report will be submitted in 20 copies. In addition to maps and/or graphics and a text description of the study findings and results, the draft final and final reports will also include an Executive Summary concisely presenting the most important features of the project; this will be provided as a separate section in the plan report. The

report will also include a table of contents and list of exhibits and appropriate appendix material including data tabulations and technical descriptions to supplement the main body of the text. The report will also include a description of the procedures and methodologies applied and the deficiencies, constraints and opportunities identified during the planning process, as well as the list of contacts used in conducting the planning project and a complete bibliography of sources and references used. When the final study report is submitted we will also provide text and camera-ready artwork which will enable Parks Canada to produce a concise summary document of the final development plan, suitable for general public distribution. Artwork will be two colour and at a 14" x 20" format capable of being reduced to 7" x 10" for presentation on an 8 1/2" x 11" page. This will be based on continuity of artwork from the interim planning products to the final plan report. Site plans will be based on topographic coverage of the site (1:500 scale) to be provided by Parks Canada and plans at other scales as deemed appropriate by the project team in consultation with the client.

Project Schedule and Client Review Meetings

As shown in Exhibit 3, the project schedule calls for submission of the Phase 1 report during the third week of month four of the project, submission of the Phase 2 report during the second week of month eight, submission of the draft final report during the first week of month ten and submission of the final plan report at the end of month ten.

We propose five formal client review meetings during the course of the project. As shown, the first of those would be during the first week of the project to provide a basis for discussing study organization, approach and information/data arrangements. The second such meeting would be held during the first or second week of month three to provide an interim review of the concept development work and related preliminary analyses, as well as a discussion of the evaluation process to be used. The third client meeting would be held at the end of month four to receive the Phase 1 verbal presentation and discuss the Phase 1 report which will have been submitted approximately one week earlier. The fourth client

meeting is scheduled for midway through month eight, to receive the Phase 2 verbal presentation and discuss the Phase 2 report which will have been submitted approximately one week earlier. The fifth client meeting is scheduled for midway through month ten, to receive the verbal presentation of Phase 3 and final project results and to review/discuss the draft final report submitted approximately one week earlier. As described earlier all of the above meetings will be with the TRC and the latter three may involve joint or separate meetings with the ARC Advisory Board and possibly other relevant parties, as determined in consultation with the client during the course of the project.

In addition to the above formal review meetings members of the study team will be in continual contact with the Project Manager and other staff of Parks Canada and other agencies, as required to ensure that information transfer is effected and the client is kept informed of the project team's analyses, findings and interim conclusions throughout the course of the project. An important example of this interaction is a meeting with the Parks Canada manager and other relevant staff which we propose to be held early in month six of the project to review the alternative site plan design concepts, policies, programs and physical forms being developed under Task 2.5 as described earlier, prior to development of the alternative site plans. Some or all members of the TRC might also be invited to this meeting as determined by the client.

5. PROJECT TEAM

As noted earlier, we feel that there will be substantial gains in both project effectiveness and efficiency in assigning to the project team members who are currently involved in the Winnipeg Tourism Development Study. This will ensure that the Parks Canada Project is able to build effectively on the findings of the earlier study, while addressing specifically the purpose and objectives of the Parks Canada project and seeing this project in the overall context of Winnipeg's requirements for historical interpretation and recreational facilities at The Forks to serve both visitors and residents.

We feel that the timing of the Tourism Development Study and the Parks Canada project is such that the existing tourism study team, augmented as required, will be capable of completing the tourism study during the next month or two and moving ahead on schedule with the Parks Canada project over the ten month period of that project.

Recognizing the more detailed site planning and conceptual design aspects of the Parks Canada project, we propose to augment the team with persons having skills and in landscape architecture, site engineering, environmental considerations and related aspects which require careful and sensitive treatment in the Parks Canada project.

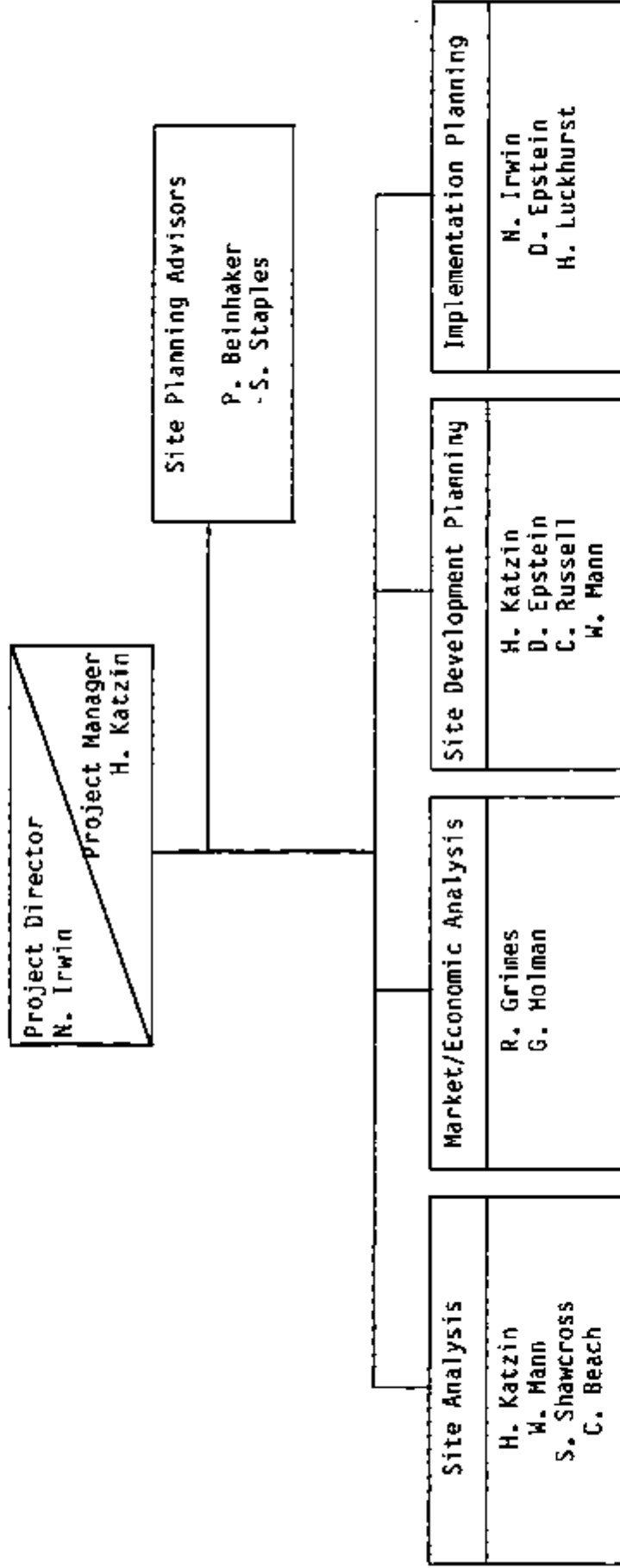
The proposed core team for the project will be Mr. Neal Irwin as Project Director and Mr. Harold Katzin as Project Manager, closely supported by Mr. Randy Grimes in terms of site and market analyses and economic benefits, Mr. Don Epstein and Mr. Bert Luckhurst in terms of implementation planning and urban development interactions; Mr. Bill Mann and Mr. Steve Shawcross in terms of landscape architecture and environmental aspects, and Mr. Gary Holman in terms of market demand and planning analyses. The proposed project team organization is shown in Exhibit 5.

Mr. Neal Irwin, Managing Director of IBI Group, has directed a large number of projects in the tourism and recreational fields, including the Winnipeg Tourism Development Study (currently underway), the Sault Ste. Marie Northern Visitors' Centre, the Temagami Waterfront and Tourism Development Study, the Bedford Waterfront Cultural/Entertainment Centre Study, a major tourism development study for the Atlantic region of Canada, a study of fly-in tourists to northwestern Ontario, a study of tourism development in the Patricia-Rainy River region of northwestern Ontario, and marina feasibility/planning studies for public and private sector clients. A number of the above studies have involved planning of parks and historic/interpretation centres; the conceptual design of Great Lakes Centre on behalf of Sault Ste. Marie and the Province of Ontario is a strong example of this, featuring a four acre waterpark including a large replica of the Great Lakes as an integral part of the park. Mr. Irwin also

PARKS CANADA

COMPREHENSIVE SITE DEVELOPMENT PLAN

EXHIBIT 5: PROPOSED PROJECT TEAM ORGANIZATION



served as an advisor on the Banff/Lake Louise Recreational Development Study carried out several years ago on behalf of Parks Canada.

Mr. Harold Katzin, an Architect and Director of IBI Group, was study manager of the Sault Ste. Marie Northern Visitors' Centre study and has been involved in a variety of similar studies including the feasibility study of a major hotel/convention centre/exhibition complex to be located in the City of Cambridge, Ontario. He is directing the site analysis/planning component of the current Winnipeg Tourism Development Study and is playing a similar role in the Temagami and Bedford Waterfront Development studies. He has extensive experience with private sector clients and public officials in the development and tourism fields, with his involvement ranging from financial feasibility and market analyses through to the site planning, concept development, land assembly, financing, design and development of such facilities.

Mr. Randy Grimes, Manager of the firm's real estate, tourism/recreation and market research group, has extensive experience in waterfront and interpretive centre projects. Recently Mr. Grimes managed a study of the Port Credit Harbour for Public Works Canada, the Buffalo Waterfront Study, the Bluffer's Park Marina Study, Parry Sound Waterfront Study, and the Orillia Waterfront Financial Impact Study. Collectively these studies involved recommendations of some \$500 Million in infrastructure/opportunity improvements. Mr. Grimes is strongly experienced in identifying, planning and evaluating tourism opportunities including recreational and theme parks, resort hotels, and conducting market/economic/financial analyses relevant to such opportunities. He has extensive experience with waterfront projects that have been successfully completed. Mr. Grimes is currently acting as Study Manager for the Winnipeg Tourism Development Study and the Bedford (Halifax) cultural centre.

Mr. William Mann is a landscape architect with extensive experience in site planning, landscape design and environmental planning for tourism and other developments. He played this role, for example, in the conceptual planning, including landscaping and conceptual design of the 4 acre water park and related landscaping around the Great Lakes Centre

building complex. He has played similar roles on a number of other planning and feasibility studies for recreational developments.

Mr. Steve Shawcross is a recreational planner with strong experience in parks, marinas and related interpretive and visitor information centres. Relevant projects include the Columbia Ice Field Visitor Information Centre, Nipawin Park Master Plan, Sheerness Recreation Study, Buffalo Lake Recreation Study, and the old CN Station in Calgary. Mr. Shawcross is also strongly experienced in flood plain management.

Mr. Gary Holman, is a tourism planner with extensive experience in identifying, assessing and assisting in the development of tourism/recreational facilities. Mr. Holman has personally directed a number of studies identifying the economic, social and environmental impacts of tourism and recreation development. He is playing a major role in the Winnipeg Tourism Development Study and is strongly familiar with the current situation in Winnipeg as regards tourism markets, other tourism/recreation attractions in the area, and the attributes of the Forks site.

Mr. Don Epstein, a well-known planner in the Winnipeg area who is affiliated with IBI Group for this project, is very familiar with tourism/recreation and urban development planning in Winnipeg. He directed the recent study of a rejuvenated market in the Exchange District area of Winnipeg and has carried out relevant projects on behalf of ARC, the Core Area Initiative, the City of Winnipeg and others. Mr. Epstein will be concerned in particular with interactions of proposed concepts for the Forks site with other urban developments in adjacent areas, and in the formulation of a viable implementation plan.

Mr. Bert Luckhurst, who manages IBI's Winnipeg office, is experienced in development planning, tourism and recreation, transportation, economic development, and related areas. He is strongly involved in the Winnipeg Tourism Development Study and was a study team member for the Cranberry Portage Tourism Development study. Mr. Luckhurst would focus on interaction of the Forks project with other related developments, and on implementation planning for the project.

Mr. Calvin Beach, Chief Engineer of IBI Group, is experienced in municipal engineering in terms of water/sewer services, drainage systems, etc. He is also widely experienced in the planning and design of road and transit facilities, having worked on a variety of projects in these areas in cities such as Calgary, Vancouver and Toronto. Mr. Beach will apply this knowledge to consideration of the engineering/infrastructure aspects of the site plan.

Mr. Clive Russell, a member of our architectural/planning staff, is strongly experienced in concept development for tourism and recreational facilities, and in the preparation of graphics portraying such attractions. For example, Mr. Russell produced the site plan graphics, building plans and sections, and perspective sketches for the Sault Ste. Marie Great Lakes Centre. He would play a similar role for the Forks project.

Advisory assistance on the entire project and in particular the concept development and site planning, will be provided by Mr. Philip Beinhaker, Managing Director of IBI Group. Mr. Beinhaker is an architect-planner with extensive experience and contacts in the development industry. He served in a similar advisory capacity in concept development for the Great Lakes Centre in Sault Ste. Marie, the Banff/Lake Louise recreational development study, and similar projects. Mr. Steven Staples, an Affiliate of IBI Group, would also serve in an advisory capacity, with particular reference to concept development and site planning. Mr. Staples first earned his reputation as a tourism/recreation planner as Chief Planner for Expo '67 in Montreal from 1963 to 1967. He has since been involved in various other tourism and recreation planning studies, including the Mont Ste. Marie Resort Complex in the Gatineau area of Quebec, a major destination resort in Ontario, and a study of tourist facilities in Cape Breton Island, Nova Scotia, among others.

Biographical information on the above persons is presented in Appendix A.

6. FIRM QUALIFICATIONS

IBI Group is a national multi-disciplinary consulting firm and is affiliated with the design firm, Beinhaker/Irwin Associates, Architects, Engineers, Planners. Our combined firms represent a unique combination of analytical disciplines and design skills offering a broad range of services from research and environmental assessment to project planning, design and construction management.

The seven major areas of our practice are as follows:

- o municipal and land use planning including social, environmental and tourism/recreational planning;
- o facilities design, landscape architecture and urban design;
- o economics, market assessment, finance and business management;
- o transportation and communications;
- o infrastructure: planning and design;
- o energy management;
- o project management.

The firm has a total staff in excess of 130 people and operates out of eight offices across Canada and two in the U.S. The head office is in Toronto with a multi-disciplinary staff in excess of 70, with the full range of professional skills covering the above areas. Our proposed team for this project draws on staff from our Winnipeg, Toronto and Calgary offices.

The firm has extensive experience in tourism/recreation planning and feasibility and planning/development studies related to water-oriented parks and related recreational developments and themed attractions/events.

Relevant studies include the following:

- o Columbia Icefield Visitor Information Centre;
- o Banff-Lake Louise Recreational Development Plan;
- o Winnipeg Tourism development Study;
- o Temagami Waterfront and Tourism Development Study;
- o Bedford, N.S., Waterfront Cultural/Entertainment Centre Study;
- o Highbanks Park Marina Feasibility Study;
- o Cranberry Portage Area Tourism Development Study;
- o Small Craft Harbours Study for the Atlantic Provinces;
- o South Georgian Bay Recreational Development;
- o Shearness Recreational Potential Study;
- o Buffalo Lake Tourism/Recreation Study;
- o Sault Ste. Marie Northern Visitors Centre Study;
- o Market Studies for a Destination Resort in Muskoka;
- o A variety of Waterfront Development Projects in Toronto and other areas.

More information on these and other relevant projects is presented in Appendix B.

7. FINANCIAL ARRANGEMENTS

We are prepared to carry out the project as described herein for a fixed price of \$73,900 including fees and expenses. This is based on an estimated \$66,400 for staff fees and \$7,500 for expenses, as shown in Exhibit 6. Exhibit 6 also provides an estimated cost breakdown of fees and expenses for each individual working on the study. This allocation may be subject to some change during the project but reflects the anticipated level of involvement of the various team members. Recognizing that \$75,000

PARKS CANADA

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EXHIBIT 6: ESTIMATED FEES AND EXPENSES

<u>Staff</u>	<u>Fees</u>	<u>Expenses</u>
N. Irwin	\$ 16,800	\$ 2,700
H. Katzin	17,250	1,700
(D. Epstein	10,000	
B. Luckhurst	3,375	
R. Grimes	1,350	
C. Russell	4,950	
W. Mann	3,250	
G. Holman	3,125	
S. Shawcross	900	
C. Beach	900	
Secretarial/Graphics	4,500	
<u>Other Expenses</u>		
Materials and deliveries		400
Reproduction		2,400
Long Distance Telephone		300
Totals	66,400	7,500
Total Fees and Expenses		<u>\$ 73,900</u>

has been budgetted for this study, we suggest that the remaining \$1,100 be designated as a project contingency to be under the control of Parks Canada, for possible use as may be determined during the study; eg. for public presentation of the project results by the consultant, if required in addition to the presentations described earlier in this proposal.

We propose to submit progress invoices during the project in accordance with the billing schedule shown in Exhibit 7. Invoices would be payable within 30 days in accordance with Government of Canada terms for method of payment as described in Annex "A" to the Terms of Reference.

PARKS CANADA

THE FORKS: COMPREHENSIVE SITE DEVELOPMENT PLAN

EXHIBIT 7: PROPOSED BILLING SCHEDULE

End of Month 1	\$ 10,000
End of Month 2	8,000
End of Month 3	8,000
End of Month 4	6,000
End of Month 5	7,000
End of Month 6	6,000
End of Month 7	10,000
End of Month 8	8,000
End of Month 9	8,000
End of Month 10	<u>2,900</u>
Total	<u>\$ 73,900</u>

IBI
GROUP

THE FORKS: COMPREHENSIVE SITE DEVELOPMENT PLAN PROPOSAL

APPENDIX A: STAFF BIOGRAPHIES

Neal Irwin
Harold Katzin
Randy Grimes
William Mann
Steve Shawcross
Gary Holman
Don Epstein
Bert Luckhurst
Calvin Beach
Clive Russell
Philip Beinhaker
Steven Staples

NEAL ALEXANDER IRWIN

POSITIONS:

Managing Director - IBI Group
Chairman - InterBase Incorporated
Partner - Beinhaker/Irwin Associates
Architects, Engineers, Planners
President - Neal A. Irwin Ltd.

MEMBERSHIPS:

Travel and Tourism Research Association
Institute of Management Consultants of Ontario
Roads and Transportation Association of Canada
Chairman, Planning Committee, 1972 - 1975
Vice-Chairman/Chairman, Technical Council, 1975 - 1979
Member, Council on Transportation Policy, 1980 - 1982
Canadian Transportation Research Forum: President, 1982 - 1983

EDUCATION:

B.A.Sc., University of Toronto, 1955
Studied Economics and Political Science at University of Toronto, 1950-51
Special lecturer in Urban Transportation Planning, University of Toronto,
1966-70

EXPERIENCE:

1974 - Present Managing Director, IBI Group
1967 - 1974 Partner, Peat, Marwick and Partners, in charge of Transportation, Planning, Management Sciences and Economics
1960 - 1966 Vice-President in charge of U.S. operations, Traffic Research Corporation
1957 - 1959 Canadair Ltd. and Atomic Energy of Canada Ltd. - Design Engineer
1955 - 1957 Industrial fellowship in the United Kingdom
1954 (summer) Ontario Research Foundation - research assistant

CONSULTING PROJECTS:

Mr. Irwin has directed a large number of tourism/recreation, strategic planning, financial analysis, transportation, regional development and economic studies on behalf of public and private sector clients throughout North America and abroad.

RELEVANT PROJECT EXPERIENCE

During the course of this work, Mr. Irwin has pioneered in the development of mathematical models for estimating future conditions and assessing the cost-effectiveness of alternative courses of action, and in their application as planning and management tools. He has designed and carried out public participation programs, seminars and attitude surveys as part of the planning process. Among the tourism and recreation related projects he has played a major role in the following:

Sault Ste. Marie Northern Visitors' Centre Study - Mr. Irwin directed this study to develop concepts for and assess the feasibility of, a major waterfront development in Sault Ste. Marie aimed at attracting increased visitation levels, providing economic stimulus and spin-off business opportunities, and acting as a catalyst for appropriate development of the entire waterfront area. The study included development of an overall theme, components and physical concept for the Centre, market analyses and revenue projections, estimates of capital and operating costs, preparation of five-year pro forma financial projects, assessment of economic impacts and opportunities and preparation of an action plan including organizational, funding and marketing requirements.

Hamilton Stadium/Arena/Trade Centre Feasibility Study - Directed this major study to establish the feasibility of developing a new/improved stadium and a new arena/Trade Centre in the City of Hamilton. The study involved surveys of public attitudes; market analysis; identification and evaluation of 22 alternative sites; concept development and design; financial and funding analyses including impact on the taxpayer; examination of management options and determination of economic and other impacts.

Cranberry Portage Area Tourism Development Strategy Study - Currently involved in a senior advisory capacity in this study being conducted in connection with the Destination Manitoba program.

Northwestern Ontario Tourism Industry - This formed an important part of a major socio-economic baseline study for Northwestern Ontario. The importance of the tourism industry to the region was assessed, along with an assessment of the prospects for future growth.

Atlantic Region Tourism Development Study - Participation in a major study of tourism and recreation in the Atlantic Provinces including: detailed surveys and inventories of demand levels and available facilities; assessment of the financial capabilities of hotels, motels, and other establishments; assessment of tourism development potential; forecasting of travel to and from the Atlantic Provinces and other parts of North America; and master plans for selected park areas throughout the Atlantic Provinces.

Tourism and Outdoor Recreation Plan Study (Province of Ontario) - This major study of the tourism/recreation resource base and tourist behavioural patterns included development of a comprehensive model of tourism/recreation supply and demand in Ontario. This model was used to produce forecasts useful for tourism/recreation planning and investment purposes.

Transcontinental Rail Passenger Marketing Survey - This included a major behavioural and attitudinal survey of persons travelling by rail, bus, air and automobile interprovincially across Canada (sample size: 4000), development of a wide variety of possible transcontinental passenger services tailored to the attitudes and requirements of travellers, demand estimates and financial assessment of alternative transcontinental passenger services, and recommendations for the development of improved services.

Study of Fly-in Tourists to Northwestern Ontario - This study of the Northwestern Ontario tourism industry focussed on the fly-in market segment consisting principally of sport fishermen and hunters.

Patricia/Rainy River Tourism/Recreation Planning Study - Existing tourism/recreational facilities in the study area were evaluated, and plans made to upgrade them along with other recommendations for improvement of the area's tourism/recreation industry.

Alberta Travel Surveys - For Alberta Transportation, conducted extensive surveys of travel behaviour and developed forecasting model capability regarding intercity person-travel and traffic flows.

Passenger Travel and Freight Transportation in Northern Ontario - A study of the financial prospects and related aspects of the Ontario Northland Transportation Commission to assess the impact of cost increases of various types, varying rate structures, different debt equity ratios and financial instruments, and various subsidy formulae. Recommendations were made on a new financial structure, corporate structure and subsidy formulae to improve the efficiency and effectiveness of the transportation commission, which includes rail, truck, ferry, air, communications and tourism services.

British Columbia Department of Economic Development - Assessment of the potential for attracting freight and passenger traffic to and from the Pacific Rim countries to pass through British Columbia, the benefits and costs of such additional traffic, and required government initiatives.

Population Growth and Travel Patterns in the Greater Toronto Area - Mr. Irwin acted as consultant to the Toronto Area Liaison Committee (TALC) to prepare a series of working papers aimed at achieving a common perspective on likely growth rates, development patterns, and travel patterns in the Greater Toronto Area, including the Regional Municipalities of Hamilton-Wentworth, Halton, Peel, Toronto, York and Durham. The working papers describe the number of scenarios, the underlying causal factors of each scenario (demographic, economic, etc.) and the likely implications of each scenario in terms of housing, municipal services, transportation related infrastructure, and regional travel patterns.

Feasibility Studies of Tourist Facilities - Involvement in a variety of specific feasibility studies aimed at assessing the markets and commercial viability of marinas, convention centres, and other tourist attractions.

HAROLD JOHN KATZIN

POSITIONS:

Director - IBI Group
Partner - Beinhaker/Irwin Associates
Architects, Engineers
Director - InterBase Incorporated

MEMBERSHIPS:

Ontario Association of Architects
Royal Architectural Institute of Canada

EDUCATION:

B. Arch., McGill University, Montreal, 1965
M. Arch. and Urban Design, Washington University, St. Louis, 1967

AREAS OF SPECIALTY:

Architecture, Facilities Planning, Urban Design, and Real Estate
Development.

EXPERIENCE:

Mr. Katzin is based in Toronto and for one year coordinated the firm's
practice in Peterborough.

Prior to the founding of IBI, Mr. Katzin held positions with the following
firms:

1972 - 1974

Peat, Marwick and Partners.

1967 - 1972

Peter Barnard Associates.
Frederick Gibberd and Partners

During a three-year period of work and research abroad, assisted by a post graduate fellowship, Mr. Katzin's activities included visiting urban design projects and the officials and designers responsible for them in Great Britain and Northern Europe, and reviewing the implementation process and its effects on design.

For a period of ten years Mr. Katzin has been active in the Continuing Education Program of the Ontario Association of Architects and served as Chairman of the Task Force developing guidelines for a possible program of Mandatory Professional Development. He authored the Professional Development section of the Canadian Handbook of Practice for Architects.

1974 - Present

IBI Group, Toronto

Sault Ste. Marie Northern Visitors' Centre Study - Project Manager for this conceptual design, feasibility analysis and cost-benefit study of a proposed major waterfront tourist attraction. Components of the multi-use complex include a major exhibit oriented attraction, specialty retailing, restaurants, live and film theatres, amusement areas, and a marina (1984).

Feasibility Study for Hotel/Office/Exhibition Complex - As the architect member of the IBI consulting team, Mr. Katzin prepared preliminary space planning, layout and urban design studies for the development of a 25-acre site as part of a feasibility study for the land owner, the City of Cambridge, Ontario (1979).

Factors Affecting Conservation of Historic Buildings - Prepared a study for Parks Canada outlining factors relating to the retention and restoration of old buildings.

Review of Architectural and Engineering Resources for the Canadian Air Transport Administration - Mr. Katzin participated in a comprehensive review of technical resources for the Construction Branch of CATA. The work involved discussions with major consulting firms, development companies, construction companies and utilities to compare management of projects and human resources. This effort was part of a broad ranging A-Base Review being initiated by Treasury Board to evaluate staffing levels and use of consultants in the Federal Government (1984).

Overview of Commercial/Industrial Fiberglass Insulation Market - Mr. Katzin directed this study for an Ontario fiberglass insulation product manufacturer, focussing on recent market share of industrial/commercial fiberglass products primarily in the Ontario market (1983).

Conceptual Design, Parking Garage, Town of Oakville - Mr. Katzin, working with a firm specializing in functional design of parking garages, directed the work of IBI Group in preparing concepts for siting, (and related land acquisition) financial analysis, traffic analysis and urban design. Of particular importance was the establishment of massing and elevation treatment to achieve an acceptable fit with the small scale buildings of the older part of the Oakville central business district (1983).

Development Feasibility Study, Edge of Toronto Core - Mr. Katzin managed a study of related zoning and official plan requirements for a 2-acre property on the east edge of the Toronto core in a neighborhood of renovated and historic buildings. Initial concepts included incorporation of a large designated historic structure into a commercial development with a proposed gross floor area of 350,000 sq. ft. (1983).

Conceptual Planning, LeBreton Flats, Ottawa - Mr. Katzin managed this study of analysis of alternative uses, access, visibility and relation to the Ottawa core of this strategically located site on the edge of the institutional core of Ottawa-Hull. The results will be used by the National Capital Commission as part of a detailed framework for development (1983).

CN Railway Lands, Toronto - Mr. Katzin participated in the multi-disciplinary team developing and analyzing urban design, transportation, municipal services and financial aspects for the redevelopment of some 70 acres of prime land located near the Toronto financial district. He developed conceptual designs, undertook quantitative analysis and managed the development of public documentation as part of the submission of the secondary plan application (1982).

Site Redevelopment Potential, Central Toronto - Prepared a detailed planning and zoning by-law study for a commercial/industrial site containing historic buildings in Central Toronto. Designed alternative development concepts for preliminary construction costing and financial analysis (1982).

Developer Proposal Call - Canadian Chancery in Tokyo - Mr. Katzin managed the preparation of a proposal call to Japanese developers as a means of providing the Department of External Affairs with a chancery and related facilities on Government of Canada land in Tokyo (1981).

Review of Interactions of Physical and Operational Aspects of Airport Passenger Terminals - Case study using Mirabel International Airport, Montreal to illustrate expansion requirements considering alternative operational procedures. Sponsored by Canadian Air Transport Administration (1980).

Site Capacity Study, Condominium Complex - Mr. Katzin reviewed municipal planning and development requirements and prepared alternative site layouts and massing for a 5-acre site in Metro Toronto for Bramalea Ltd. (1980).

Space Planning, University of Toronto - Participated in the work of the IBI team in preparing a functional analysis and space planning program for a \$45 million Environmental Sciences complex on the St. George Campus of the University of Toronto (1978-79).

Update Expansion Studies, Ben Gurion Airport - Prepared preliminary report of possible land areas for all major airport functions for balanced long term development. The report outlines land needs for the runway/taxiway system, aircraft parking, cargo area, passenger terminal buildings, ground transportation and parking, hotel and commercial support, aircraft maintenance and airport industry.

Rental Apartment Building, Peterborough - Developed the site plan and economic building form for a 105-unit apartment building, to take into consideration stringent requirements of local conservation authority with respect to the flood plain, Peterborough (1977).

Street-Townhouse Development, Mississauga - Managed the preparation of site plan and unit design for a 10-acre street-townhouse development in Mississauga, involving single aspect townhouse units serving as a noise barrier against the Queen Elizabeth Way (1977).

Subdivision Plan, Peterborough - Prepared the physical plan of a 70-acre subdivision for 600 units of moderate income housing of varied types in Peterborough (1976).

Air Cargo Facilities, Jamaica - Reviewed forecast assumptions for air cargo at Manley International Airport, Jamaica; analyzed existing accommodations and cargo handling methods, and allocated cargo warehouse space by airline among the existing and proposed facilities (1975).

Studies for New Toronto International Airport, 1974 - 1975 - Participated in various planning management activities and functional analyses:

- Developed work programs for successive stages of the master planning process;
- Prepared master planning space standards for apron layout, general aviation, and airport support facilities;
- Generated and systematically reviewed alternate apron configurations to help position the passenger terminal complex;
- Managed study to generate options and analyzed alternative locations and building types suitable for preliminary passenger terminal building facility;
- Generated location options for the air traffic control tower and directed the subsequent analysis.

RANDY H. GRIMES

POSITION:

Manager, Economics, Tourism/Recreation and Real Estate Services - IBI Group

EDUCATION:

B.Sc., University of Toronto, Ontario, 1969
M.B.A., University of Toronto, Ontario, 1972

PROFESSIONAL BACKGROUND:

1984 to Present

IBI Group - Manager, Economics, Tourism/Recreation and Real Estate Services
- Responsible for land and facility based market analysis, economic and policy studies for both public and private sector clients. Responsible for overall professional and technical management of Toronto practice.

1980 - 1984

Marshall Macklin Monaghan Limited, Chief Economist, Associate - Responsible for land and facility-based marketing economic and policy studies. Projects have included analysis of institutional, recreational, residential, retail and commercial developments including cash flow analyses, market demand analyses, economic impact and financial feasibility. Studies have been undertaken throughout Canada and internationally.

1977 to 1980

Ontario Hydro, Planning and Development Officer, Property Division - Responsible for the planning and promotion of the joint use and sale of Ontario Hydro surplus land and the monitoring of specific developments in Ontario which could possibly affect Hydro's present or planned facilities. Long range property planning to identify development and demographic trends through the province.

1972 to 1977

University of Toronto, Administrator - Engaged in capital planning and budgeting, property management, acquisition, lease, sale and physical planning of University's land and buildings. Responsible for financial evaluation of University non-academic divisions including cash flow analyses of various ancillary enterprises.

City of Winnipeg - Responsible for market analysis and financial feasibility of proposed major tourism attractions in the City of Winnipeg including a major development at the Forks of the Red and Assiniboine Rivers.

City of Saskatoon - Carried out market and financial feasibility study of proposed multi-use cultural facility in Saskatoon including two theatres, YWCA and relocated Western Development Museum.

Bedford, Nova Scotia - Coordinator for feasibility study of a mixed use waterfront cultural and entertainment centre for the Town of Bedford within the Halifax Metropolitan area.

Township of Temagami - Project Manager for tourism study investigating the potential markets and financial feasibility of proposed waterfront developments in this Northern Ontario resort community.

CN Domed Stadium - Responsible for the economic benefits analysis of the \$135 million domed stadium in the City of Toronto including municipal tax benefits and employment generation.

Town of Parry Sound - Coordinated the preparation of plans and feasibility analyses leading to the establishment of Parry Sound as a regional service centre for tourism through the redevelopment of its waterfront. Included in the future economic development of the town was the proposed 300-slip marina and hotel development.

City of Orillia - Coordinated a study to analyze the market and resource characteristics of the area in order to produce a waterfront development plan and identify a development form for private sector accommodation. Study components include financial feasibility assessment, preliminary design, infrastructure requirement, marketing plan and guidelines for preparation of a prospectus. The intent of the study is to identify markets and development forms for year-round tourism.

Metro Toronto and Region Conversation Authority - Responsibilities included the preparation of an investment prospectus for a new 350 slip marina to be developed on leased, publicly owned land in Bluffers Park Marina. The study involved market studies, capital costing, operating costs and revenue assessments.

Federal Enterprise Development Board - Retained to ascertain the ability of the contractor/owner of the Windsor Hilton Hotel to complete and operate the 300-plus room hotel next to Cleary Auditorium on the Windsor waterfront. The study examined the costs expended to date and remaining costs to complete the hotel. The financing was analyzed to determine the ability of the owner/contractor to complete the project without the need for additional interim financing. The report also commented on the market and financial viability of the hotel to operate in the Detroit/Windsor market.

City of Buffalo - Coordinated international team of professionals developing a Master Plan for 3,500 acres of the Buffalo Waterfront including retail, commercial, residential, industrial, waterfront and port related developments. Responsible for market analysis and financial feasibility components of the study.

Westcastle Destination Resort - Responsible for the market analysis and economic feasibility assessment components of the Westcastle Destination Resort Feasibility Study in Alberta. The ultimate development of the year-round resort will centre around a major expansion to the existing ski area and the construction of a regulation 18-hole golf course in the valley.

Mont Farlagne Ski Resort - Undertook a preliminary market analysis and financial feasibility assessment for the expansion of a ski facility for the Mont Farlagne Ski Resort in New Brunswick.

Talisman Resort - Market Analyst for a study of the Talisman Resort which involved concept development for the expansion and redevelopment of the existing resort to create a multi-facility recreation complex capable of attracting diverse market segments.

Lakeshore Lodge Resort - Responsible for the market analysis and financial components of the Lakeshore Lodge Resort Feasibility Study in Prince Edward County. The assignment included an analysis of the market and economic feasibility for upgrading the existing historic lodge structure.

Resort Complexes in Western Canada - Conducted market and financial feasibility of three resort complexes in Western Canada, involving detailed market projections by geographic area and pro forma cash flow projections by individual profit centres.

Maple Leaf Estates - Team member on the Resort/Retirement Community Study for Maple Leaf Estates, north of Toronto. The project involved the development of a physical plan for an 850-unit retirement community to be built in conjunction with a variety of resort facilities, ranging from a golf course to a luxury hotel on the shores of Lake Simcoe.

City of Port Alberni - Analysed a major multi-facility tourism generator in Port Alberni, British Columbia involving market demand and financial feasibility.

Town of Regina Beach - Analysed the economic impact of proposed recreation redevelopments in the Town of Regina Beach, Saskatchewan.

British Columbia Theme Park - Responsible for financial analyses of a world-class British Columbia theatre and theme park, based on an Elizabethan concept.

City of Saskatoon - Responsible for market analysis, financial feasibility and economic impact study of proposed cultural and civic centre in Saskatoon, Saskatchewan. Included in this study was the proposed relocation of the Western Development Museum from the urban fringe area to a downtown location.

Metropolitan Separate School Board - Responsible for providing a planning assessment of various proposals submitted by a number of developers for the redevelopment St. Edwards School site. Disciplines involved included land valuation, planning and project financial assessment.

City of Etobicoke - Headed a team responsible for a detailed analyses into the various levels of office, retail and residential developments on a micro and macro scale respecting the Michael Power/St. Joseph's High School site. This is an integral component in an area proposed as the new City Centre. Identification of these development trends as they related to the City of Etobicoke and the Toronto CMA, were essential in determining the subject site's competitive position within these markets.

Public Works Canada - Responsible for a market and financial analysis with respect to lands at Dufferin Street between Orfus Road and Samor Drive.

Toronto Board of Education - Conducted a review of market potential of the vacant lands at the former St. Clair Public School where an extensive review of planning considerations for both the City of York and City of Toronto was undertaken.

Baffin Region - Undertook a market analysis of existing and potential tourists to the Baffin Region in the Canadian Arctic.

Giza, Egypt - Studied the market and financial feasibility of an historical museum and associated hotel in Giza, Egypt.

Maadi Developments - Evaluated the market and financial feasibility of hotel and retail facilities of the Maadi Development, Cairo, Egypt, with particular emphasis on its attractiveness to potential foreign investors.

City of Buffalo - Provided market analysis and implementation strategy for the Allentown Retail Revitalization Study in the City of Buffalo, U.S.A.

Mixed Use Development Project - Undertook market analysis and financial feasibility for a mixed-use commercial/residential development in Palm Beach County, Florida.

Condominium Development - Undertook market analysis of a condominium development on the east coast of Florida, U.S.A.

Market and Financial Studies - Project Manager for market and financial studies which looked at non-university use of the lands of the University of Toronto, Scarborough College and York University. Recommended methods of attracting joint-venture development to the lands under study and proposed methods of evaluating financial prospects.

City of Fort McMurray - Undertook a financial impact analysis for the City of Fort McMurray, under various growth options for the oil exploration industry in Northern Alberta. Assignment included calculations of increased population, assessment base and mill rates.

Market and Financial Analyses - Responsible for market and financial analysis of a number of downtown Toronto sites for major institutional owner. Made recommendations on how to market these parcels to interested private sector prospects. Project included assistance to the client in evaluating various types of proposals in an economic sense.

Industrial Property Development - Responsible for land use economic analysis, site development and market strategy for a large industrial property in Toronto.

Economic Impact Study - Responsible for a study to determine the economic impact of transmission lines on agricultural and estate residential property values using advanced statistical techniques including multiple regression analysis.

Expert Witness - Appeared as expert witness before various regulatory authorities to support land use and economic analysis of various and development sites.

Market Supply and Demand Study - Reviewed the commercial-office market supply and demand in the Metropolitan Toronto area for a major multi-national owner-occupant company.

Property Management - Managed commercial, retail and residential properties with overall responsible for revenue and cost expenditures.

East Coast Petroleum Development (Benefits Study) - Determined the local, regional and Canadian levels of involvement in, and the benefits associated with, a major offshore east coast petroleum development. Analysed the differing benefits associated categories from regular operations and actions geared to promoting Canadian participation.

Retail Market Analysis - Responsible for a market analysis of urban fringe properties in Scarborough, Victoria County (Lindsay), and Lake Simcoe (Barrie).

Planning and Marketing of Property - Supervised the planning and marketing of property for commercial and recreational use including obtaining approvals of municipal and principal authorities for a development in Hamilton, Ontario.

05/03/85

WILLIAM MANN

POSITION:

Senior Consultant - IBI Group
Senior Consultant - Beinhaker/Irwin Associates

MEMBERSHIPS

Member - Ontario Society for Environmental Management
Member - Canadian Institute of Foresters
Member - Ontario Professional Foresters Association
Member - Ontario Association of Landscape Architects
Member - Canadian Society of Landscape Architects
Provisional Member - Canadian Institute of Planners

AREAS OF SPECIALTY

Urban Design
Landscape Architecture
Environmental Assessment and Design
Parks and Master Planning
Urban and Regional Planning
Land Use and Development Planning

EDUCATION

Bachelor of Science in Forestry, University of Toronto, 1977
Master of Landscape Architecture, University of Guelph, 1980.
Graduate courses, Faculty of Management Studies, University of Toronto,
towards MBA Degree.

EXPERIENCE

- 1980 - Present - IBI Group, Toronto,
Beinhaker/Irwin Associates, Architects, Engineers,
Planners, Senior Consultant.
- 1980 - Canada Mortgage and Housing Corporation, National Office,
Ottawa. Projects Manager, Site Development, Technical
Research Division.
- 1979 - British Forestry Commission, London, England, Land Manage-
ment and Development Consultant.
- 1977 - 1979 - Canada Mortgage and Housing Corporation, Ontario Regional
Office, Toronto, Landscape Architect.
- 1977 - Department of Parks and Recreation, Forestry Section, City
of Toronto, City Forester.

1976 - Ontario Ministry of Natural Resources, Parks and Recreational Areas Branch, Parks Planner I.

PROFESSIONAL EXPERIENCE:

Mr. Mann is the senior consultant of the IBI Group's Toronto office responsible for the site planning, landscape design and development for municipal and architectural projects in Ontario, and until recently, throughout Canada. Mr. Mann's experience relevant to infrastructure planning, design, and construction includes direct major involvement for the following selected projects or studies:

URBAN DESIGN

CN Lands, Toronto - An on-going project, Mr. Mann is responsible for the preparation of the master plan for the lands adjacent to the Toronto waterfront. Planning considerations include urban design, transportation engineering, architectural massing and landscape planning.

Waterpark Place, Toronto - Mr. Mann was heavily involved in the preparation of the urban design for this mixed residential-commercial development located on the Toronto waterfront. The main features included in the urban design were the streetscape, a waterfront park and landscaped roof deck.

Scarborough Corporate Centre, Scarborough - Mr. Mann was involved in the preparation of the urban design for this site which featured a mixed commercial/residential use connected by various pedestrian and landscape/open space systems.

Runnymede Property, Toronto - This property, on the eastern edge of the Toronto central area, contains a large historical warehouse building. IBI Group prepared a detailed zoning analysis of the area and produced a variety of redevelopment concepts. Mr. Mann's involvement included the preparation of the urban design concept and related landscape site plan for the entire area.

LANDSCAPE ARCHITECTURE

Terwilliger Park, Showhome Sales Pavillion, Edmonton - The '1981 City of Edmonton Design Award' winner in the commercial classification. Mr. Mann prepared and supervised the site design and construction for this showhome marketing facility.

410 Russell Hill Road, Toronto - As Project Landscape Architect, Mr. Mann designed and supervised the front courtyard construction for this prestigious private residential project.

Broadway Court, Toronto - Mr. Mann was responsible for the preparation of draft plan of subdivision, site and landscape plans, plus all site details, for this infill housing project situated in downtown Toronto, including negotiations with the various municipal authorities.

Credit Point Village, Mississauga - As Project Landscape Architect, Mr. Mann was directly responsible for the design and preparation of draft plan of subdivision and conceptual landscape design plus the preliminary landscape construction cost estimates, for this 400 unit single-family residential subdivision.

179 John Street, Toronto - IBI has provided full architectural and streetscape renovation services for a variety of existing building in downtown Toronto. 179 John Street is a mixed-use, seven storey brick building, typical of these projects. Mr. Mann supervised the streetscape renovation which included hard and soft landscape materials, seating and lighting details.

Queen-River Interior Design, Toronto - The Queen-River project is a commercial renovation which features a new atrium positioned between two existing buildings. As project landscape architect, Mr. Mann provided full landscape design and specifications for the central atrium interior landscaping.

ENVIRONMENTAL ASSESSMENT AND DESIGN:

Ecological Inventory Report and Vegetation Study, Mohawk Community, Ancaster - Studies include full ecological inventory for 400 acre site and individual tree identification study for 90 acre area identified for development purposes. The studies were the basis for preparation of draft plan of subdivision and regional park design. Mr. Mann was also heavily involved in the land use planning strategies developed through the various agencies and government organizations.

Costain Town Centre Study, Calgary - As leader of the multi-disciplinary team responsible for preparing the environmental impact assessment for this 250 acre parcel of natural woodland outside Calgary, Mr. Mann directed the environmental inventory and assessment dealing with the area's developability.

Credit Point Village Orchard Study - This study included a full ecological inventory and analysis for the proposed residential subdivision. Mr. Mann's study concluded with a number of recommendations for maintenance and preservation with regard to the existing orchard.

GO ALRT North Line, Etobicoke Segment Environmental Assessment - An ongoing project, Mr. Mann is project manager responsible for the environmental assessment required for the Etobicoke segment of the GO-ALRT north line. Phases I and II involvement includes the identification of preliminary corridor alignments, based primarily on environmental data requirements.

City of Swift Current Flood Management Study - Mr. Mann was involved in this flood plain study which was prepared under the auspices of the joint Federal/Provincial floor damage reduction program. The study entailed an assessment of potential flood damages in economic and environmental terms and the formulation of a flood plain management plan aimed at reducing the potential damages.

PARKS AND MASTER PLANNING:

Canada Hill, Jerusalem, Israel - Mr. Mann was responsible for the preparation of the site plan, including road layout, for this 500 unit residential community overlooking the Old City. Natural features included in the design are the existing vegetation and topography.

Alberta Power and Energy Station Master Plan, Sheerness - Incorporating the man-made lake used in the cooling-down process, a recreation plan was designed for both land and water activities. Mr. Mann was responsible for the development of all design concepts and final site plan. The study involved an assessment of regional trends and demands, detailed fisheries and waterfowl investigation, costing and design, and the generation of a comprehensive recreation master plan for the site.

Muskoka Sands Inn - As part of a multi-disciplinary team, Mr. Mann was involved in a master plan study for a unique recreational-resort development in Ontario's Muskoka Lake district. Studies included market analysis, environmental impact assessment, engineering and servicing feasibility studies and the processing of various planning applications.

Nipawin Provincial Park, Saskatchewan - Mr. Mann was actively involved in the preparation of a master plan for the development of a provincial park in northern Saskatchewan. The studies included the development of implementation strategy and formulation of development policies.

URBAN AND REGIONAL PLANNING:

River Oaks/Oakmeade Secondary Plan, Oakville - At a regional planning level, Mr. Mann prepared structural and land use planning concepts to support the designation of a specific uptown core location based on the premise of residential movement within the urban envelope.

University of Toronto, Southwest Campus Project - The 'SWC' Project involved a detailing of priority site plans combined with a functional planning system to strategically allocate various faculty facilities. Mr. Mann prepared the conceptual site plans to accommodate the various identified functions.

Toronto Island STOLport - Mr. Mann was responsible for the development plan for the Toronto Island STOLport facility including runway location and lighting systems.

LeBreton Flats North, Ottawa - Mr. Mann was involved in the conceptual planning of the LeBreton Flats North area in Ottawa. Planning concerns included urban design, transportation systems, architectural phasing and landscape planning.

Victoria (Montreal) and Rockliffe (Ottawa) STOLports - Mr. Mann has developed conceptual redevelopment plans for the abandoned STOLport facilities in Montreal and the proposed groundsite STOLport facilities in Ottawa. On an on-going basis, Mr. Mann is developing landscape site plans for these areas which will include full landscape planting plans, details and specifications.

LAND USE AND DEVELOPMENT PLANNING:

Mohawk Community, Ancaster - On behalf of Carma Developers Limited, Mr. Mann prepared the draft plan of subdivision located within the Mohawk community on the edge of the Niagara escarpment. Subdivision design was based on the ecological inventory and assessment also prepared by Mr. Mann.

Mohawk Industrial-Business Park, Ancaster - Within the Mohawk community, Mr. Mann prepared a draft plan of subdivision to be located at Mohawk Road immediately adjacent to Highway 403. The draft plan of subdivision, based on a first phase development of 70 acres, was prepared on a wide range of Industrial-Business Park uses.

Silverpine Subdivision, Richmond Hill - On behalf of Pinetree Development Company, Mr. Mann prepared a draft plan of subdivision comprising of 470 single-family detached lots located north of Elgin Mills Road in Richmond Hill. Work on the draft plan was carried out concurrently with strategic activities within the context of the town's new official plan resulting in a secondary plan exemption for the Pinetree lands.

Credit Point Village, Mississauga - On behalf of Shell Canada, Mr. Mann prepared a draft plan of subdivision for lands owned by Shell Canada and located adjacent to the Credit River in Mississauga. The subdivision provides for prestige single-family detached development located around a central park which is complemented by the valley lands of the Credit River.

STEPHEN W. SHAWCROSS

POSITION:

Associate, IBI Group
Planning Consultant

MEMBERSHIPS:

Ontario Society for Environmental Management
Soil Conservation Society of America
Canadian Water Resources Association
Association of Community Planners of Alberta
American Association of Landscape Architects

EDUCATION:

B.A. (Geography) York University, Toronto, 1973

AREAS OF SPECIALTY:

Environmental Assessment
Recreation and Tourism Studies
Design and Process Planning
Resource Management Planning

EXPERIENCE:

1981 - Present

IBI Group - Associate

1979 - 1981

IBI Group - Environmental Planning Consultant

1976 - 1978

The Kleinfeldt Group - Project Manager

1976

ECOS, Ecological Consulting Services - Senior Environmental Consultant

PUBLICATIONS:

"Flood Plain Management Alternatives in Ontario," O.S.E.M. Conference, May, 1978.

"Wet and Dry Detention Ponds: Environmental Concerns, Maintenance, Liability and Incidental Benefits," City of Edmonton Stormwater Seminar, June, 1978.

PROJECT EXPERIENCE:

IBI Group - Toronto, Calgary - Mr. Shawcross has either directed or been actively involved in a diversity of projects since joining the IBI Group. These are listed under the following headings:

- o Architectural and Landscape Design
- o Environmental
- o Financial and Market Analysis
- o Land Use and Development Planning
- o Recreational

ARCHITECTURAL AND LANDSCAPE DESIGN:

Sheerness Landscape Design and Implementation - Alberta Power - Mr. Shawcross directed a detailed study of landscape design requirements for the Sheerness Thermal Generating Plant. This included visual and site line analysis, vegetation tolerance analysis, design of berming, signage, landscape components, and irrigation systems. The project also involved costing, tendering, and construction supervision.

Development Standards and Design Guidelines, City of Edmonton Industrial Research and Development Park, Edmonton - Mr. Shawcross undertook a review of development controls for research and development parks across North America and formulated a set of specific and detailed standards for the proposed park relative to building setbacks, heights, materials, parking, signage, lighting, landscaping, and environmental performance standards, etc.

Core Area Study, City of Edmonton Industrial Research and Development Park, Edmonton - Programming and preliminary design and formulation of development policies for the central commercial facility of the Research and Development Park.

Edgemont Parade of Homes, Carma, Calgary - Mr. Shawcross recently managed Calgary's largest and most prestigious show home project, which featured a parade of 11 homes in the \$400,000 range complemented by \$250,000 worth of landscaping. The project entailed the establishment of architectural guidelines for the project, landscape architecture, tendering, and site supervision, as well as the coordination of signage, graphics, and advertising.

Landscape Design, Terwillegar Park, Carma Developers, Edmonton - Coordinated a team of architects, planners and landscape architects in the generation of design guidelines and landscape design concepts including entry areas, show homes, streetscapes, sales pavillion, park, fences and landscaping on individual lots for a 200 acre residential development.

Architectural Design Guidelines, Edgement 3 and 4, Carma Developers, Calgary - Involved in the formulation of landscape design guidelines for these two residential developments in the northwest section of the City.

ENVIRONMENTAL:

Noise Study for Credit Point Village, Shell Canada, Mississauga - This study entailed an assessment of projected noise levels as a result of expanded rail and road facilities adjacent to this prestige residential development; formulation and evaluation of various abatement alternatives including berms, barriers, intervening structures, dwelling orientation and location of outdoor recreational areas, etc. A multi-objective approach was employed in the evaluation of the various alternatives, which recognized not only effectiveness and economic efficiency, but non-commensurable objectives as well.

City of Swift Current Flood Plain Management Study, Saskatchewan Environment, Swift Current, Saskatchewan - Mr. Shawcross jointly managed this flood plain study which was prepared under the auspices of the joint Federal/Provincial Flood Damage Reduction Program. The study entailed an assessment of potential flood damages in economic and environmental terms and the formulation of a flood plain management plan aimed at reducing the potential damages.

City of Calgary, Light Rail Transit - Coordinated study of noise and security fencing requirements and landscaping requirements within and adjacent to the LRT right-of-way along the southern portion of the line.

Tree and Woodlot Vegetation Survey Carma Developers, Oakville - Detailed inventory and evaluation and the generation of site management techniques. Vegetation of the site was classified and evaluated employing the Urban/Rural Fringe Land Unit Classification System, which is comprised of three major components:

1. Inventory: description and analysis of existing vegetation resources;
2. Biotic Functions: description and evaluation of those functions provided by the vegetation resource;
3. Evaluation: evaluation in terms of inherent opportunities and constraints for urban development.

Flood Plain Management Program - Data Collection, Saskatchewan Environment - Under the direction of Mr. Shawcross, IBI was retained by Saskatchewan Environment to establish a data base for eleven flood prone communities in Saskatchewan including: Regina, Saskatoon, Prince Albert, Battleford, Lumsden, and several similar centres. The data base included:

1. Land use, zoning, ownership and property values in and adjacent to the flood plain;
2. Flooding history and flood damage potential;
3. Estimated property acquisition and property relocation costs;
4. Estimated flood proofing costs;
5. A description of existing flood protection works.

Fort McMurray Flood Damage Reduction Program: Phase II-B Flood Damage Estimates - For Alberta Environment, Mr. Shawcross recently completed a detailed assessment of potential damages resulting from flooding of the Clearwater River in the Lower Townsite area of Fort McMurray. Flood damages were based on a detailed contents survey of residential and commercial properties in addition to structural damage estimates for various unit types. New stage-damage functions and values were created for typical residential and commercial unit types within the study area. A stratified random sample of residential units was undertaken rendering data confidence levels of 95%. Total damages which included residential, commercial and infrastructure damages, damages as a result of ice and sediment, damages to utilities and highways and indirect damages were computed for the 1:25 year, 1:50 year, and 1:100 year flood events. Average annual damage and future flood damage potential were also generated for the study area.

Fort McMurray Flood Damage Reduction Program: Phase III-8 Appraisal of Alternatives - For Alberta Environment, Mr. Shawcross was project manager for a detailed assessment of various structural and non-structural remedial alternatives including:

1. An ice weir upstream of the Lower Townsite on the Athabasca River;
2. Flood plain zoning in conjunction with expropriation and relocation;
3. Flood plain zoning in conjunction with a low level dyke;
4. Flood plain zoning in conjunction with flood proofing;
5. Dyking inside the river channel;
6. Dyking outside the river channel;
7. Contingency measures;
8. Downstream blasting to remove ice jams;
9. Downstream channel improvements;
10. A multiple objective storage structure upstream at Crooked Rapids;
11. Upstream storage on the Clearwater River;
12. A dual function ring road and dyke.

FINANCIAL AND MARKET ANALYSIS:

Land Value Appraisal - Cadillac Fairview - For a major international development company, land holdings within Calgary and Edmonton including commercial and residential components were appraised in terms of planning status, competitive position, projected build-out period, and current market value. A market strategy for divestment of these resources was also devised.

Financial Analysis for Edgemont V Stormwater Management/Open Space System, Carma, Calgary - This particular report detailed the economic feasibility of the above mentioned system, elaborating upon the revenue generation aspects through an examination of alternative marketing and development scenarios. All lots within the Edgemont development were characterized according to amenity type and corresponding lot premiums established. Marketing and construction schedules were subsequently generated. The combination of these elements rendered potential revenue recovery scenarios for the property which were subsequently matched to system costs to assess the overall profitability.

Land Development Strategy, Carma, Calgary - The study involved the generation of a comprehensive marketing and development strategy for 2,000 acres of land in the northern section of the City. The primary purpose of the exercise was to generate a residential land development strategy aimed at optimizing profitability and risk. The strategy in turn provides guidance for subsequent detailed planning, community guidelines, marketing and advertising strategies, and general conduct of the overall development program. The study entails a detailed evaluation of market demand and land supply over a 5-year period, a detailed physical assessment of the landform, and a matching of various market segments and housing types to corresponding classes of land. This in turn leads to an overall market plan and a short term marketing program.

Industrial/Commercial Land Survey, Private Developers - For several private development clients, industrial/commercial land supply/cost data has been determined through a survey of existing and proposed serviced land.

LAND USE AND DEVELOPMENT PLANNING:

Muskoka Sands Inn, Cotrusco Limited, Gravenhurst - Directed multi-disciplinary team involved in master plan study for unique recreational-resort development in Ontario's Muskoka Lake District. Studies included market analysis, environmental impact and financial impact assessment, formulation of alternative development concepts, engineering and servicing feasibility studies and the processing of various planning applications.

Calgary Research and Development Park, Nova-Husky, Calgary - Environmental analysis, coordination of sub-consultants, and the generation of a master plan for a proposed 1200 acre industrial research and development park in Northwest Calgary. The study also included a review of relevant examples of research and development parks as well as marketing and policy planning aspects.

Residential Property Annexation Report, Esso Resources Canada Ltd., Cold Lake - The purpose of this study was to provide technical information on the development capability of the Esso property in the Town of Cold Lake. The report was prepared for submission to the Local Authorities Board during the conduction of the Annexation Hearings for the Town of Cold Lake. The scope of the report included a technical review of the physical features of the property, accessing and servicing requirements, and preliminary subdivision planning.

Review of Christie Property, Costain Ltd., Calgary - The study involved an assessment of the potential of the Christie property for a regional shopping centre. Issues considered included detailed vegetation inventory and analysis, market assessment, and transportation considerations.

Area Structure Plan, City of Edmonton Industrial Research and Development Park, Edmonton - Area structure planning, including background studies and documentation, development policies, development and open space concept, and implementation strategy for a 640 acre prestige industrial development in the City of Edmonton.

Crowchild II, Outline Plan, Carma Developers, Calgary - Preliminary subdivision design and lot layout for a 350 acre development in northwest Calgary.

Rosewood Country Residential Development, Pine Lake - Environmental inventory, evaluation and establishment of development suitability pattern, formulation of development concept and generation of site management guidelines aimed at mitigating the adverse impacts associated with development of a 160 acre property located on the southern shore of Pine Lake.

Clearview II Outline Plan, Wimpey Western Ltd., Calgary - Outline planning and related background studies including soils, geotechnical, and archeological surveying for 285 acres of rolling terrain in the Northwest section of the City. The project entailed intensive negotiations with the Province and the City regarding expressway interchanges and road alignments, affecting the property.

Crowchild IV Design Brief/Area Structure Plan Private Developers, Calgary - For six major developers, Mr. Shawcross undertook an Area Structure Plan for the Crowchild IV planning area which comprises some 2,500 acres situated within the extreme northwest corner of the City, extending into the southern portion of the provincial Restricted Development Area. The study entailed detailed bio-physical analyses resulting in the delineation of environmentally significant and sensitive areas; the identification of development opportunities and constraints; formulation of general development principles and the generation of a development concept detailing internal and regional transportation networks, land use servicing and open space aspects as well as development staging and implementation.

Sarcee Trail Planning Study - Sarcee Indian Band - On this major study of the Sarcee Reserve, jointly sponsored by the Province of Alberta, the City of Calgary, and the Sarcee Indian Band, Mr. Shawcross was responsible for the synthesis of baseline data and the establishment of the bio-physical determinants employed in the evaluation of alternative land use options. He also undertook the primary liaison with the Band and directed the mapping component of the entire exercise which involved the coordination of input from various other consultants involved in the study.

Edgemont III and IV Outline Plans, Calgary - Responsible for the generation of the outline plans for approximately 450 acres in the Edgemont area. The land is characterized by a series of steep sloped escarpments and a major ravine. The design included a re-evaluation of the concept plan transportation system and permitted a design solution which responded more closely to the natural terrain, extensive studies relating to the environmental impact of alternative geometrics and a consideration of passive solar collection. Extensive liaison was carried out with the City Parks and Recreation Department regarding the treatment and interpretation of the City Policy Paper on Environmentally Sensitive Areas. This aided in the modification of the road system to accommodate a more environmentally and economically viable design and ultimately led to a shortened approval process (approximately 12 weeks).

Janvier Outline Plan, Department of Indian and Northern Affairs - Mr. Shawcross conducted a village design layout and outline plan exercise for the Janvier Reserve located just to the south of Fort McMurray. This project involved detailed bio-physical analysis, base mapping, and the generation of various concept alternatives for the Reserve. An integral component of the study was the identification of the needs and aspirations of the Band through extensive dialogue with the Chief and Council members. This resulted in the identification of key planning issues and the incorporation of them into the outline plan for the reserve.

RECREATIONAL:

Stormwater Management/Open Space System for Edgemont V Carma, Calgary - The project involved the preliminary design and costing of what has been called the most innovative system in Calgary by the City Parks and Recreation Department. The system includes four interconnected retention lakes, ponds, a continuously flowing stream, waterfalls, feature areas, and related recreational facilities, covering approximately 117 acres and servicing an immediate development of some 600 acres.

Nipawin Provincial Park, Saskatchewan - Actively involved in the preparation of a master plan for the development of a provincial park in northern Saskatchewan.

Sheerness Recreational Potential Study, Alberta Power, Hanna - For Alberta Power, Mr. Shawcross managed this study which entailed an assessment of the potential for intensive recreational usage of a 1200 acre cooling pond associated with the Sheerness Thermal Generating Plant. The study involved an assessment of regional trends and demands, detailed fisheries and waterfowl investigation, costing and design, and the generation of a comprehensive recreation master plan for the site.

Buffalo Lake Stabilization Project, Recreation Component, Alberta Environment, County of Red Deer - Involving assessment of the recreation potential of 81 miles of shoreline under various water level regimes and the generation of management alternatives aimed at maximizing recreational potential while concomitantly minimizing potential environmental problems, user conflicts, etc.

PROJECT EXPERIENCE PRIOR TO 1979:

Projects have been broken down according to type as follows:

Environmental Studies

- o The Meadowvale Conservation Area Environmental Study, 1975
- o The Silver Creek Environmental Impact Assessment, 1975
- o The Rattray Marsh Hydrological Study, 1975
- o The Rattray Marsh Ecological Inventory and Management Concept, 1975
- o The Credit River Water Quality Study, 1975
- o The Credit Valley Sensitive Area Mapping Study, 1975
- o Environmental Impact Assessment for Melair Industrial Development, Region of Waterloo, 1977
- o Environmental Impact Assessment for Sherk Gravel Pit, Region of Waterloo, 1978
- o Site Management Guidelines for Fendley Estates, Brampton, 1977
- o Site Management Guidelines for Kennedy Park Estates, Brampton, 1977
- o Woodlot Management Guidelines, Beaverdale Estates, Cambridge, 1977
- o Site Planning and Management Guidelines, Doon, Kitchener, 1976
- o Tree Conservation and Management Guidelines, Patey Development Corporation, Southhampton, 1978
- o Huron Township Secondary Plan, 1977
- o Noise Abatement Study, Chapel Development, Kitchener, 1976

Development Planning

- o The Greenfield Residential Plan, Ayr, 1976
- o Buttonwood Residential Plan, Fort Erie, 1976
- o The Doon Residential Plan, Kitchener, 1977
- o Chippawa Lodge, Ottawa, 1976
- o Beaverdale Estates, Cambridge, 1977
- o Beacon Hill, King Township, 1978
- o Clyde Hamlet Study, Clyde, 1976
- o Lakeview Estates, Prince Edward County, 1977
- o Site Plan for Sherk Gravel Pit, Waterloo, 1978
- o Site Plan for Axler Gravel Pit, Tiny Township, 1978
- o Fendley Estates Concept Plan, Amex Development, Brampton, 1977
- o Kennedy Park Estates Concept Plan, Amex Development, Brampton, 1977

RECREATIONAL PLANNING:

- o The Woolen Mills Conservation Area Development Plan, 1976
- o The Meadowvale Conservation Area Master Plan, 1975
- o The Buttonwood Marina Study, 1976
- o Wakunda Woods Recreational Community Master Plan, 1978

ENGINEERING STUDIES:

- o Sheridan Creek Channelization Project, Mississauga, 1975
- o The Mississauga Crescent Erosion Control Study, 1976
- o Stormwater Management Program for Doon, Kitchener, 1977
- o Stormwater Management Program for Melair Industrial Development, Kitchener, 1977
- o Storm Detention System, Wimpey, Windsor, 1978
- o Servicing Prefeasibility Study, Melody Village, Orangeville, 1977
- o Servicing Prefeasibility Study, Sandy Cove, Simcoe County, 1978
- o Evans Pond Infilling Feasibility Study, Kitchener, 1978

GARY A HOLMAN

POSITION:

Tourism and Recreation Planner

EDUCATION:

B.A. (Honours), University of Western Ontario, London, Ontario, 1978
M.A., University of Western Ontario, London, Ontario 1982

PROFESSIONAL BACKGROUND:

1984 to Present

IBI Group - Tourism and Recreation Planner - Responsible for land and facility-based marketing, planning, financial analysis and research studies for both public and private sector clients in the tourism and recreation fields.

1983 - 1984

City of Sarnia, Department of Parks and Recreation, Researcher (Leisure Services) - Responsible for research and planning of parks and recreation facilities and programs, and for an overall assessment of the importance of these components to the Municipal Tourism Industry.

1980 - 1981

Ontario Ministry of Natural Resources, Recreation Researcher, Parks and Recreational Areas Branch - Responsible for updating recreational and tourism facilities information as contained in the Ontario Recreation Supply Inventory phase of the Tourism and Outdoor Recreation Planning Study (T.O.R.P.S.). Consultant on market analysis and cost/benefit feasibility studies.

PROJECT EXPERIENCE:

Winnipeg Tourism Development Study - Responsible for the review and assessment of related marketing studies and development proposals having impact on the City's profile as a tourist destination area. Involved in the market analysis, impact assessment, marketing plan and implementation strategies of the various development programs and projects proposed by IBI Group as part of this study.

Resource Based Communities - Responsible for a major study of the recreational characteristics of life in a resource based community. Included analysis of community facilities and programs and their effect in attracting and influencing people to stay in the community for an extended period of time.

City of Sarnia, Comprehensive Inventory Methodology - Responsible for the design of a comprehensive inventory methodology to promote the planning, development and management of public and privately owned recreation facilities and programs, as a means of enhancing and marketing the tourism and recreation potential of a municipality.

City of Sarnia, Municipal Annexation Report - Involved in the preparation of report outlining the case of the City of Sarnia, Department of Parks and Recreation, regarding the need for the City to extend its boundaries by means of annexation into the surrounding township. The report based its findings on demographic projects for the study area, an inventory of facilities and programs, and a breakdown of the percentage of users who financially support the facilities/programs (City residents) against those who do not (Township residents).

Economic Impact Analysis - Designed, developed and implemented a two-phase research study to determine the economic impact that a short-term recreation or culturally related tourism event could have upon a host community.

Cost/Benefit Analysis - Planned, coordinated and presented a two-session workshop series identifying and estimating the economic, social, and environmental benefits and costs of tourism and recreation development.

Computerization - Prepared report outlining the anticipated requirements for computerization for municipally-based parks and recreation departments.

Facility Needs Study - Prepared report determining the need for a third ice pad skating facility for the City of Sarnia. This was undertaken previous to a feasibility study to decide whether to upgrade or replace one of the City's three existing arenas.

DONALD E EPSTEIN

Donald Epstein is president of his own Winnipeg-based planning, development, and management consulting company, Epstein Associates Inc. He has over fifteen years combined experience in professional consulting, municipal government and politics, organizational management, and university teaching and research. During this period, he has worked with a wide variety of public, private and non-profit organizations in Canada, Europe and the United States.

Don Epstein has provided extensive consulting services on several major public sector development initiatives in Winnipeg. He was a member of the initial core consultant group selected to prepare the Red River Corridor Master Development Plan for the tri-level ARC Authority. He served the tri-level Winnipeg Core Area Initiatives Corporation as principal consultant on a number of projects. He prepared a feasibility and development study of a year-round public market in the Historic District, and an improvement program for the Old Market Square and its seasonal market. He also prepared for the Core Area Office a set of plan alternatives, design guidelines, cost estimates, and implementation strategy for the North Logan redevelopment area.

All of these projects involved detailed analyses of concept options, feasibility, plan alternatives, management recommendations, and cost estimates for various mixes of land uses--food, retail, commercial, public amenities, park and open space, manufacturing, local business, housing, parking, and transportation. During the course of these projects, he worked very closely with ARC and Core Area Office staff, political and administrative officials from three levels of government, and a range of other parties-at-interest from the local community.

In 1984, he was appointed by the Minister of Urban Affairs of the Province of Manitoba to the City of Winnipeg Act Review Committee. This committee is charged with recommending statutory changes in political and administrative structure, planning processes, regional jurisdictions, provincial-municipal relations, public participation practices, and numerous other items relevant to the City's charter. On behalf of the Committee, he has been given special responsibility for the possible establishment of a permanent "rivers authority" or "capital commission", as well as a regional planning mechanism.

In 1975-76, collaborating with a landscape architect, Don Epstein wrote and directed the preparation of a submission for the tri-level Regina International Urban Development Competition. This submission--a major urban planning and implementation scheme for 114 acres of downtown rail relocation land in Regina--was accorded one of five finalist prizes by a distinguished urban design jury from Canada, the U.S., and Japan. The jury commended the proposal as a "beautifully articulated scheme that had the 'guts' to question accepted practices...In all, the approach was very humane. The jury liked their philosophy; it liked their priorities".

Don Epstein has managed and prepared numerous other urban, regional, and neighbourhood planning studies. He has designed urban residential subdivisions for private and public sector clients, prepared community development plans for a large rural municipality and for Indian reserves, directed local neighbourhood improvement and district plan studies, and prepared an inner city retirement housing study with residential rehabilitation/infill designs. Virtually all of these projects involved a substantial public involvement and information program. He also prepared an early environmental impact assessment of and recommended design alternatives to an early \$40 million commercial-residential development proposed for the former St. Paul's College site. Prior to coming to Winnipeg, he served as planning consultant to the City of Copenhagen, Denmark, where he prepared a major proposal for university decentralization, neighbourhood revitalization, and integration of educational, community, recreational, and transportation facilities in Copenhagen's central precincts.

Mr. Epstein has substantial experience in the field of housing and community development. He has been president of a CMHC-funded non-profit corporation devoted to design and development of mixed-use social housing in downtown Winnipeg. As chief executive officer, he was responsible for all of its operations, including management of professional consultants, market and financial analysis, and feasibility assessments. He also advised the National Capital Commission on land policy and housing guidelines for the LeBreton Flats Development in Ottawa. More recently, he prepared for the City of Winnipeg and a private land developer several financial implications reports on the economic impact of major residential subdivisions.

Mr. Epstein's experience in park planning includes the preparation of a master planning strategy and system plan advice for the Manitoba Provincial Parks Branch, management of an assessment of technical studies on Whiteshell Provincial Park, preparation of the Grass River Provincial Park Master Plan and public involvement brochure, and direction of the park improvement design for Old Market Square in Winnipeg's Historic District.

In the field of management and program evaluations, Mr. Epstein most recently served as a member of a three-person senior consulting team selected by the Core Area Agreement Management Board and Policy Committee to review the Agreement's tri-level management structure and procedures. In addition, he provided the Core Area Office with an evaluation framework for the Agreement's housing and community improvement programs. He has also prepared several evaluation studies for the Department of Indian Affairs and Northern Development in the fields of environmental protection in the Northwest Territories and Yukon, and infrastructure projects on reserves in Alberta and Saskatchewan.

EPSTEIN ASSOCIATES INC.
123 Middlegate
Winnipeg, Manitoba R3C 2C6

DONALD E EPSTEIN

EDUCATION: B.A., Government, Hamilton College, New York, 1961
Graduate Study, Public and International Affairs, Princeton University, N.J., 1961-62
M.A. (Ph.D. Program), Politics, Princeton University, 1965
Advanced Study, Town and Landscape Planning, Royal Danish Academy, Copenhagen, 1971-73
Workshop on Presenting Environmental Evidence, Banff School of Management, 1979
Supervisory Management Course, Manitoba Institute of Management, 1980
Course in Business Administration, University of Manitoba, 1984

POSITIONS:

1980-85 Partner, I.D. Engineering Company, Winnipeg
1978-85 Director of Planning and Socio-Economic Studies, Interdisciplinary Systems (IOS) Ltd.,
Winnipeg
1976-77 President and Chief Executive Officer, Winnipeg Housing Alliance, Inc.
1973-76 Assistant Director, Institute of Urban Studies, Winnipeg
1971-73 Consultant, to City of Copenhagen and Royal Danish Academy.
1963-78 University Teaching Positions: Princeton, Connecticut, Waterloo, Danish Town Planning
Institute, Winnipeg, Manitoba
1965-66 Executive Assistant to the Deputy Mayor, Hartford, Connecticut
1961 City Desk Reporter and Editorial Writer, The Brooklyn Daily, New York

MAJOR PROJECTS:

Planning and Development

- Prepared a Winnipeg seasonal market improvement program, including physical plans, cost estimates, financial analysis, management recommendations, and implementation strategy, for the City of Winnipeg and the Core Area Initiative Program.
- Directed a feasibility, site planning, and parking study of a year-round public market in the Historic Winnipeg Area, for the City of Winnipeg and the Core Area Initiative Corporation.
- Directed the Grand Rapids Reserve Development Plan, for the Grand Rapids Indian Band.
- Directed the Waywayscappo Village Development Plan, for the Lizard Point Indian Band and Department of Indian Affairs.
- Advised Manitoba Parks Branch on a new provincial parks system plan.
- Designed, evaluated, and prepared cost estimates of North Logan redevelopment plan alternatives (for manufacturing, business, and residential uses), for Winnipeg Core Area Initiative Corp.
- Prepared financial implications reports on major residential subdivision proposals, for Qualico Developments Ltd. and the City of Winnipeg.
- Prepared the Grass River Provincial Park Master Plan, for the Manitoba Parks Branch.
- Directed and prepared the Macdonald Basic Planning Statement, and served as consulting planner, for the Rural Municipality of Macdonald Council.
- Prepared designs, financial analyses, marketing strategies, and promotional materials for municipally-developed and privately-developed residential and recreation subdivisions in the R.M. of Macdonald.
- Participated in the preparation of the Red River Corridor Master Development Plan, for the Management Board, Canada-Manitoba Agreement for Recreation and Conservation (ARC), Winnipeg.
- Prepared a Master Planning Strategy for Provincial Parks, for the Manitoba Parks Branch.

- Designed 73-acre East Kildonan Properties subdivision, Winnipeg, for Cairns Homes Ltd.
- Managed all planning, design, feasibility and market studies for proposed social housing developments in the central city, for Winnipeg Housing Alliance, Inc.
- Prepared a redevelopment plan and implementation program for Regina's downtown rail relocation lands (awarded Finalist Prize in 1976 Regina International Urban Development Competition).
- Prepared an inner city retirement housing study and rehabilitation/infill designs, Winnipeg.
- Prepared a report and recommendations on regional development, urban renewal, university relocation, and community facility integration, for the City of Copenhagen, Denmark.

Program Evaluation and Policy Development

- Member of 3-person team reviewing and recommending improvements in the management structure and processes of the tripartite Winnipeg Core Area Initiatives Agreement, for the Management Board.
- Prepared an evaluation framework for housing and community improvement projects funded under the Canada/Manitoba/Winnipeg Core Area Initiative Program.
- Prepared an evaluation assessment of the Northern Affairs Program's environment protection, assessment, and review activities in the NWT and Yukon, for Evaluation Branch, DIAND, Ottawa.
- Advisor on the evaluation of the Hire North employment, training and business development program, for the Government of the Northwest Territories, Yellowknife.
- Technical manager of the mid-term evaluation of the Indian reserve components of the Canada/Saskatchewan/Alberta Northlands Agreements, for Indian and Northern Affairs, Ottawa.
- Evaluated the Arctic Land Use Research Program (ALUR), for DIAND, Ottawa.
- Prepared corporate strategies document for implementing socio-economic policies for, and maximizing local opportunities from, the Arctic Pilot Project, for Petro-Canada, Calgary.
- Prepared socio-economic policy options and corporate policy documents on the Dempster Lateral Gas Pipeline Project, for Foothills Pipe Lines (Yukon) Ltd., Calgary.
- Assessed, recommended, and attempted operational changes in federal housing programs, for Winnipeg Housing Alliance, Inc., and CMHC, Winnipeg.
- Drafted policy recommendations and terms of reference for a municipal citizens commission on core area housing and living conditions, for the Commissioner of Environment, City of Winnipeg.
- Advised the National Capital Commission, Ottawa, on land and housing policies.
- Responsible for corporate policy, government negotiations, program evaluation, reorganization, and financial control, for Clinic Community Health and Social Services Centre, Winnipeg.

Impact Assessment and Regulatory Services

- Managed an assessment of socio-economic impacts of improved electrification to north central Manitoba Indian communities, for the Island Lake Tribal Council, Inc.
- Assessed the impacts and costs of alternatives to improve navigation obstructed by the footprint River Causeway, Nelson House, for Manitoba Department of Northern Affairs.
- Directed socio-economic review and regulatory advisory services on the proposed Alcan aluminum smelter, for the Province of Manitoba.
- Managed a comprehensive assessment of the impacts and socio-economic damages resulting from the Grand Rapids hydroelectric project, 1960-2000, for the Chehawwin (Esterville), Moose Lake, Grand Rapids, and the Pas Indian Bands, Manitoba.
- Managed and prepared a preliminary environmental and socio-economic impact assessment of a proposed underground research laboratory, for Atomic Energy of Canada Limited, Pinawa.
- Managed an environmental and socio-economic impact assessment and management plan for the Minksi Crown Management Unit access road, for Ontario Ministry of Natural Resources, Kenora.
- Directed an assessment of technical documents on Whiteshell Provincial Park, for Manitoba Department of Mines, Natural Resources and Environment.
- Managed an updated socio-economic impact assessment of the Arctic Pilot Project, Calgary.
- Advisor on the socio-economic impact assessment of the proposed Dempster Lateral Gas Pipeline Project, Yukon and Northwest Territories, for Foothills Pipe Lines (Yukon) Ltd., Calgary.

- Prepared socio-economic stipulations, in response to Northern Pipeline Agency terms and conditions, for the Alaska Highway Pipeline Panel, Winnipeg.
- Directed and prepared an impact assessment and plan alterations of a proposed \$40-million downtown development project, presented to Winnipeg City Council and Environment Committee.

Surveys, Public Participation, and Information Programs

- Prepared a booklet on the Arctic Land Use Research Program (ALUR), for DIAND, Ottawa.
- Designed and implemented numerous questionnaires, surveys, information booklets, and public participation programs for many of the impact assessment, program evaluation, and planning projects listed above.
- Prepared report on environmental and social affairs communications, personnel information/training, and community consultation programs for Petro-Canada, Calgary.
- Directed and prepared a survey of senior citizens regarding inner city housing conditions and residential preferences, Winnipeg.

Commissions, Hearings, Presentations, Negotiations

- Member of the 1984-85 City of Winnipeg Act Review Committee, appointed by the Minister of Urban Affairs, Province of Manitoba.
- Advisor to legal counsel and member of Band negotiating committee on compensation for damages suffered by four Indian bands as a result of the Grand Rapids hydroelectric project, Winnipeg.
- Presented paper on impact mitigation and damage assessment, at the Third International Symposium on the Human Side of Energy, Knoxville, Tennessee.
- Delegate to the First Canadian Symposium on Social Impact Assessment, Banff Centre, Alberta.
- Managed the preparation of socio-economic testimony and witnesses for National Energy Board and Environmental Assessment and Review Panel hearings on the Arctic Pilot Project, Calgary.
- Presented recommendations on governmental/administrative structures and local control of zoning and subdivision, before a Provincial Commission Reviewing the City of Winnipeg Act.
- Presented recommendations on environmental impact review legislation to Winnipeg City Council.
- Presented policy and program recommendations for improving core area housing and living conditions at Winnipeg City Council and Environment Committee hearings.
- Presented submission on Kitchener-Waterloo regional government, to Ontario Royal Commission.

HERBERT A. LUCKHURST

POSITIONS:

President - Resource Development Associates Ltd.
Affiliate - IBI Group

EDUCATION:

Bachelor of Commerce, University of Manitoba, 1946

AREAS OF SPECIALTY:

Economic analysis, financial evaluation and advisory service, transportation research, government and private sector funding, rural economic and industrial development, financial and business management services.

EXPERIENCE:

Mr. Luckhurst has undertaken a broad range of consulting assignments independently and in association with other consulting groups. These assignments have included analysis of markets and conduct of data collection programs, tourism and transportation studies.

Consulting assignments have been conducted for a variety of businesses and for government departments and other agencies concerned with business operations and with human and natural resource development, supplementing their activities and experience.

Projects have included:

- financial and management advisory services;
- project feasibility studies;
- market research;
- commercial business evaluation services;
- transportation research;
- industrial development services;
- regional economic analysis and evaluation;
- land use studies;

- tourism and recreation research;
- project and program auditing;
- advisory services on utilization and impact of government programs;
- preparation and submission of applications for government funding.

Other projects have included studies of business opportunities and operations, impact analyses of events such as relocation of business operations, and plant location studies.

Mr. Luckhurst has been responsible for organizing, phasing and managing consumer surveys in a number of fields. A representative selection of such projects includes:

- Survey of the demand for health/fitness in an urban area;
- Survey of the market for grain storage bins;
- Detailed analysis of market for housing in rural areas;
- Market review of food products;
- Surveys of tourism and accommodation markets in a number of areas;
- Origination/destination survey of tourist travel for a western province;
- Survey of campground use to identify user origin;
- Survey of the demand for Arctic clothing;
- Consumer survey of electronic sound equipment.
- Survey of rail traffic within a specific area and involving refrigerated traffic. Conducted a study into the uses and demand for nitrogen.

CALVIN BEACH

POSITION:

Associate - IBI Group

MEMBERSHIPS:

Association of Professional Engineers, Ontario
Chartered Civil Engineer, Institution of Civil Engineers, England
Chartered Municipal Engineer, Institution of Municipal Engineers, England

EDUCATION:

Higher National Certificate in Civil Engineering
Ordinary National Certificate in Mechanical Engineering at East Suffolk
College for Higher Education, England

POST GRADUATE COURSES:

Design of concrete bridge decks, Cement and Concrete Association, England;
Design of steel structures, Sheffield University, England;
Network analysis, International Computers Limited, England;
Limit State Analysis, Cement and Concrete Association, England;
Shrinkage, creep and temperature movements in concrete, Leeds University,
England;
Art of effective speaking, West Yorkshire Metro County Council, England.

AREAS OF SPECIALTY:

Municipal Engineering: Twelve years of design and site supervision experience. Project manager on land development projects in Edmonton, Calgary, Town of Leduc, Vancouver and Toronto. Experienced in all areas of municipal infrastructure design, storm water management, client/municipal/provincial liaison and negotiations. Previous to joining IBI he worked for various Public Authorities in England on highway route location, geometric design of highways, and storm drainage of highways.

Civil Engineering: Eleven years design and site supervision experience in the design of bridges, retaining walls, subways, culverts, load assessment of bridges, bridge maintenance, remedial work to bridges, piled foundations, under pinning works, structural calculation checks on building structures, structural computer analysis, resident engineering, planning and scheduling of works and network analysis.

PROJECT EXPERIENCE:

General

Mr. Beach is a project manager of the IBI Group with overall responsibility for the technical direction of the engineering practice in all of the offices. His experience is wide ranging in municipal and civil engineering works.

He spear-headed the development of the engineering practice in Calgary as a project engineer and was a member of the project management team on the Calgary South Corridor Light Rail Project. He is currently engaged on the feasibility studies, engineering planning and design and cost estimating for the proposed development of CN Railway Lands in the City of Toronto. Mr. Beach is also the project engineer on a segment of the Ministry of Transportation and Communications' GO ALRT northern link program which includes corridor selection, preliminary rail alignment selection and the conceptual layout of stations and parking areas. He was also the project manager for engineering on the Bay Street LRT feasibility study which investigated various surface and subterranean options for a Light Rail Transit system on the Bay Street alignment. This included station locations and cost estimates of the various alternatives.

Prior to joining the IBI Group in 1978, Mr Beach worked as a Chartered Engineer for various Public Authorities in England on highway and bridge design projects. He was also engaged on the project management of various engineering projects.

Civil/Municipal Engineering

1978 - Present

Project manager for the development of 25.6 hectares of CN Railway Toronto Lands on behalf of CN Real Estate Division. Included in this project are transit and vehicular access to the site, bridge links across an existing depressed rail corridor, road hierarchy and pattern within the site, infrastructure design including provision for a sanitary lift station and a new storm water outfall into Lake Ontario, meetings and liaisons with various levels of government, strategic advice to client, estimated cost of the proposed works and report preparation. Included in the access roads, to the site are conceptual designs of the Front Street extension to the Gardiner Expressway, on and off ramps from the Gardiner Expressway into the CNE grounds, and a reconfiguration of the existing Bay and York Street ramps to the Gardiner Expressway. He was also the project manager engineering for an LRT study on Bay Street linking the Bay subway station on the Bloor line with Union subway station on the Yonge/University line.

Project manager for a 130 acre single family subdivision (Westridge Greens) Town of Leduc, Alberta. Design incorporated a wet retention pond as a storm water management facility and aesthetic feature. Also included was a preliminary engineering study, infrastructure design, client liaison and negotiations and contract documentation.

Project manager for a 120 acre mixed residential subdivision, City of Edmonton. Preliminary engineering study, infrastructure design, client liaison and negotiations, preparation of all contract documentation.

Project manager for design concepts of storm water management and sanitary drainage for a drainage area of 2,500 acres in Riverbend Terwillegar, City of Edmonton. Preparation and presentation of preliminary design to City of Edmonton.

Project manager for a preliminary engineering study on Boundary Bay Aerospace Industrial Park; a proposed 1,200 acre industrial subdivision built around a reactivated general aviation airport in the Municipality of Delta, City of Vancouver.

Project manager for a 130 acre single family subdivision (Westridge Greens) Town of Leduc, Alberta. Design incorporated a wet retention pond as a storm management facility and aesthetic feature. Included was a preliminary engineering study, infrastructure design, client liaison and negotiations and contract documentation.

A member of the management team for the City of Calgary Light Rail Project. Liaison with City Manager and his staff and other consultants on various aspects of the work. Project manager for the design of bus operation areas, parking, kiss and ride facilities, relocation of underground utilities, road intersections; also prepared contract documents.

Engineering support to planning and architectural staff on projects in the Edgemont area of the City of Calgary. This included analysis of road hierarchy, highway design and municipal servicing.

Project manager on preliminary engineering and feasibility studies for private sector clients in the Cities of Burlington and Mississauga.

Project manager on preliminary engineering study and design of a sanitary drainage system for approximately 760 acres in the Iroquois Ridge Area, Municipality of Oakville, Region of Peel.

AIRPORT EXPERIENCE:

1978 to present

London (Ontario) Airport Master Plan - ATC tower siting studies and general aviation area development plan.

Victoria STOLport (Montreal) - Directed engineering and related studies regarding the assessment of site and pavement conditions.

Toronto Island Airport - Conceptual planning related to provision of STOL facilities and cost estimating.

Boundary Bay Airport (B.C.) - Utilities planning and cost estimating for developing industrial land on airport.

Faro Airport, Yukon - Runway and apron design and cost estimate for airport improvement.

West Yorkshire Metropolitan County Council, England, 1972 - 1978

Project engineer on Tumblebeck overflow storm sewer. Design of concrete drainage channel and reinforced concrete cover slab, devised innovative construction technique for construction of coverslab, prepared contract documents.

Project engineer on the Armley Link Road Project. In charge of the design of 4 multi-span voided prestressed precast concrete box section footbridges. Design of columns and piled foundations, design of reinforced concrete pedestrian subways. Prepared the contract documents and acted as consultant to the site supervision staff.

Project engineer on the South West Expressway, City of Leeds. Designed 2 multi-span highway bridges using prestressed precast concrete box beams, cantilever abutments supported by piles, designed reinforced concrete pedestrian subways and retaining walls. Prepared the contract documents.

Project engineer on the South East Expressway, City of Leeds. Designed two prestressed composite concrete slab decks, piled cantilever abutments, reinforced concrete pedestrian subways and retaining walls. Prepared the contract documents and supervised construction.

Project engineer and member of the bridge maintenance team. Load check and evaluation of permissible design loading for turn of the century built wrought and cast iron bridges. Performed load check on bridges in the Metro area built prior to 1950. Yearly visual inspection of all bridges in the Metro area, recommended maintenance work where necessary. Statutory check of design calculations for various building structures built in the City of Leeds.

City of Leeds, 1965 - 1972

Assistant resident engineer on the construction of the Leeds Inner Ring Road, a depressed expressway through the city centre. In charge of contract management including layout and construction of works for half of the project. Supervised construction of bridges, subways, retaining walls, under pinning works, relocation of all major utilities, concrete and asphalt paving.

Assisted in the preparation of contract documents, the development of the PERT network construction management program and the negotiation of tender prices.

Project Engineer on the design of the above works. Geometric design of grade separated intersections, design and relocation of trunk services and assisted in the development of the construction program.

East Suffolk County Council, Ipswich, England

1960 - 1965

Articled to the East Suffolk County Surveyor. Trained in most aspects of civil and municipal engineering. Supervised direct labour staff on road improvement projects. Assisted in the route location and geometric design of the following expressways:

- Woodbridge By-Pass
- Capel St. Mary By-Pass
- Wangford By-Pass
- Lotts Road - Leather Jacket Farm By-Pass
- Felixstowe Dock Spur road

Designed various intersection improvements, storm drainage systems and prepared the contract documents.

CLIVE RUSSELL

POSITION:

Senior Architect/Planner - IBI Group
Senior Architect/Planner - Beinaker/Irwin Associates

EDUCATION

B. Arch., MRAIC, OAA

AREAS OF SPECIALTY:

Regional planning, urban planning and design, and commercial and residential, architectural design.

EXPERIENCE:

URBAN PLANNING AND DESIGN

Beautiful Beaumont, for the Village of Beaumont, Alberta, 1976 - Preparation of improvement project proposals for application to the Glenbow Foundation's Main Street Alberta fund.

Syracuse Urban Design Study, City of Syracuse, New York, 1972 - Senior Planner with Arcop Associates. Development of means for revitalizing downtown areas, land use and transportation studies, detailed design proposals, community action strategies.

Midtown Forum, proposal to Office of Midtown Planning and Development, New York City, with van Ginkel Associates, Senior Planner, 1971 - Development of a system of rational programming of high density urban space utilizing transfer of development rights and amenity criteria, as applied to the Times Square area.

Entre Deux Rues, proposal to businessman's association, with van Ginkel Associates, Senior Planner, 1971 - Design of a small commercial development utilizing public rights-of-way between Mountain and Crescent Streets in Montreal.

Midtown Manhattan Circulation Study, for Office of the Mayor, New York City, with van Ginkel Associates, Senior Planner, 1970/71 - Study of movement patterns as related to land use, analysis of future development patterns, alternative transportation and land use schemes, requirements for utilities, parking, emergency access, environmental amenity, design of pedestrian streets and minibus system. Canadian Architect Yearbook Award, 1972.

ARCHITECTURE

Edmonton Convention Centre, for the City of Edmonton, with B. James Wensley and Associates Architects Ltd., Project Architect, 1979/81 - Programming and preliminary design, detailed design and supervision of working drawings for a 400,000 sq. ft. convention centre built into the hillside of the North Saskatchewan River Valley.

B. James Wensley Office Building, for and with B. James Wensley and Associates Architects Ltd., Project Architect, 1978/79 - Detailed design, supervision of working drawings and construction for a 19,000 sq. ft. office building. City of Edmonton Design Award, 1980.

Ormsby Place Housing, for the Alberta Housing Corporation, with Sinclair and Naito, Architects, Project Architect, 1977 - Design and working drawings for a 58 unit row house public housing project.

Environmental Research for the Province of Alberta, with Sinclair and Naito, Architects, 1976 - Detailing and working drawings.

Mirabel Airport, for the Department of Transport, Canada, with van Ginkel Associates, 1969 - Program of requirements and performance specifications for terminal building.

Prototype Terminal Unit, for the Department of Transport, Canada, with van Ginkel Associates, 1969 - Systems analysis of airport operations and passenger movement sequences, analysis and design of airport information system, development of physical design concepts for terminal, evaluation and ranking of design alternatives, for modular terminal unit for use at Canadian airports.

REGIONAL PLANNING:

Beaufort Sea Development Planning Study, for Gulf Canada Resources Inc., with van Ginkel Associates, Senior Planner, 1982/83 - Projection of employment, population, industrial and community infrastructure in the Beaufort Sea region resulting from offshore drilling over the next twenty years. Recommendations with regard to employment practices, location of industrial installations and communities, logistics and scheduling.

Building in the North, for Canadian Arctic Gas Study Ltd. with van Ginkel Associates, Senior Planner, 1975 - Compilation of a two volume study of environmental constraints to building and planning in arctic regions and of responses to these constraints in Canada and elsewhere in the world.

Communities of the MacKenzie, for Canadian Arctic Gas Study Ltd., with van Ginkel Associates, Senior Planner, 1974 - Research and preparation of an Atlas of communities of the Mackenzie region, Northwest Territories, and a report on the socio-economic effects of a proposed gas pipeline.

Prince Edward Island Educational Facilities, for Department of Regional Economic Expansion, Canada, with van Ginkel Associates, 1969 - Analysis of existing facilities relative to population development, planning of requirements.

Interlake Region Housing Study, for Manitoba Housing Authority, with van Ginkel Associates, 1968 - Study of location and condition of housing stock relative to population development. Recommendations for investment in housing, community facilities and infrastructure.

PHILIP HOWARD BEINHAKER

POSITIONS:

Managing Director, IBI Group
Managing Partner, Beinhaker/Irwin Associations, Architects, Engineers,
Planners
President, InterBase Incorporated

MEMBERSHIPS:

Ontario Association of Architects
Order of Architects, Quebec
Royal Architectural Institute of Canada

DIPLOMAS:

Bachelor of Architecture, McGill University, Montreal, 1964

AREAS OF SPECIALTY:

Design

Design of facilities for housing, transportation, commercial and institutional projects.

Development

- o Physical planning for urban properties and suburban/new communities;
- o Market Research
- o Development Program Assessments
- o Approvals

Policy

Advice on land and housing.

Transportation

Transportation policy advice and transportation systems particularly in air and urban transportation.

Project Management

Management of major physical developments for institutional and commercial projects.

POSITIONS:

Prior to the founding of IBI (in 1974) Mr. Beinhaker held the following positions:

1969-74

Peat, Marwick and Partners, Partner responsible for the national practice of the firm in physical planning and development consulting.

1967-69

Project manager, New Montreal International Airport on behalf of the Government of Canada.

1964-67

Practice with architectural firms in Paris, France and London, England including private commissions for housing projects.

PROJECT EXPERIENCE:

Land Development

Directed large number of projects in preparing conceptual plans, outline or secondary plans and draft plans of subdivision for major land areas across Canada including:

- o Riverbend-Terwilligar in south west Edmonton
- o NW Calgary
- o NW Regina
- o Scarborough, Oakville, Richmond Hill, Hamilton, Ancaster in Ontario
- o Aylmer in the National Capital Region
- o North Shore sector and West Island, Montreal
- o Charlebourg and Quebec City in Quebec Region

Work included processing and negotiating of approvals as well as physical planning and community design.

New Communities and Resort Development:

Directed projects with respect to

- o urban program for new community in conjunction with oil mines
- o strategic plan for land and housing program for major oil developments.

Site Development:

Directed numerous assignments on large urban land assemblies as well as individual properties including by way of example:

- o Rail Lands Edmonton: 88 acres of land north of the existing core for which the firm provided advice on urban design, development program, transportation planning and services;
- o CN Rail Lands Toronto: strategic land assembly south west of existing financial district for which firm is providing urban design, rail and urban transportation and development program advice for Part 2 Official Planning;
- o property assessment: for various private interests, assessed potential property taking into account market, zoning potential, approval timeframe, development and construction costs and residual property value including extensive work in this area in the City of Toronto.

Official Plan/By-Law Approvals:

Represented private interests at Ontario Municipal Board including:

- o Oakville: Iroquois Ridge North Development Group successful representation in order to secure OMB approval for development of Phase 1;
- o Richmond Hill Official Plan and secondary plan processing: representations defence of client's interest to assure processing of draft plan;
- o Muskoka Sands Hotel: preparation of development plan and processing of approval;
- o Oakmeade: preparation of plan for uptown core and representation of client's interest with respect to draft official plan of Oakville.

Housing and Subdivisions.

Preparation of over 8,000 suburban housing units for various projects across Canada from highrise luxury condominium to woodframe multiple housing including:

- o Ranchman's Club Calgary: 25 storey tower.
- o Yonge-Richmond: 147 luxury condominium units in central Toronto.
- o St. Amable, Quebec: 106 condominium units in central Quebec.
- o Tramwell Crow, San Francisco: design of luxury residential housing integrated on top of office building.
- o Burnaby Housing: 500 housing units of woodframe multiple housing which won Canadian Housing Design Award.
- o Eldorado Housing, Uranium City: innovative housing program for this community including efficient multiple housing which won Canadian Housing Design Award.

Hospitals and Science Facilities:

Lead responsibility for major health care project in Lethbridge, 500 bed regional referral unit

Commercial Developments

Directed various projects of the firm in commercial building design including:

- o Yonge-Eglinton: some 300,000 sq. ft. of office space on air right development TTC lands.
- o Yonge-Eglinton: 150,000 sq. ft. of office space for Bramalea and Bank of Commerce
- o Yonge-Richmond: 320,000 sq. ft. of office space in highrise complex in conjunction with commercial development
- o Queen-Richmond: 250,000 sq. ft. of renovation of existing office warehouse complex to new office and retail
- o CN Telecommunications and Express: renovation of 200,000 sq. ft. of space including new pedestrian network
- o MacDonald Hotel: design of hotel renovation in major office complex for CN and Nu-West.

Transportation Terminals:

Directed a number of assignments on urban and airport terminals and various airports across Canada and overseas. Designed transportation terminals in Calgary LRT.

Space Planning and Interior Design:

Various assignments of the firm including:

- o renovation of 156 Front Street which is the firm's offices and other tenant layout and design totalling 112,000 sq. ft.
- o Coopers & Lybrand computer centre

Project Management

Acted as project manager and provided project and management advice for major institutional projects including:

- o project manager during planning and design stages for New Montreal International Airport
- o project director for major urban hospitals program approximately 5400 million of construction value for two hospitals in Edmonton and Calgary
- o project director for renovation of firm's premises at 156 Front Street including construction management.

Infrastructure

Land Engineering

In conjunction with engineering partners of the firm, led projects of the firm in provision of engineering services for roads and piped utilities including:

- o Oakville, Ontario, Carma
- o Oakville, Ontario, NHD
- o engineering services with respect to CN lands in Edmonton and Toronto
- o Riverbend-Terwilliger neighbourhoods 8 & 9

o LeDuc in Alberta.

Economics Finance and Management

Market Research

Directs market research practice of the firm including:

- o research on housing program for Olympia & York Yerba Buena Gardens in San Francisco
- o research for Campeau Corporation California for residential developments at Bush Street and Post Street in San Francisco
- o research for property potential Daltons Toronto
- o research for R & D park for Southern Ontario
- o research on determination of targeting of land development for major suburban land assemblies Calgary, Edmonton and Southern Ontario, etc.

Transportation Policy

Overall policy advisor to Government of Canada on national transportation policy review.

Policy advice to transportation authorities on airport and aviation policy, financing.

Transportation Planning

Planning and facilities for urban, transportation and aviation.

Aviation Airport Systems

Extensive work in the air transportation field including master planning, facility planning and design of facilities:

- o Toronto International Airport
- o Montreal International Airport
- o Dorval Airport
- o Calgary Airport
- o Jamaica Airports Program
- o Trinidad Airport
- o Ben Gurion Airport.

Communications

Communications complex for Toronto communications district.

Energy Management

Energy in Buildings

Directed a number of assignments on policy guidelines and assessments with respect to energy efficiency and conservation in preparation plans for communities and buildings.

STEVEN M. STAPLES

POSITION:

Affiliate - IBI Group
Principal - Steven M. Staples Planning and Urban Design Consultants

MEMBERSHIPS:

Member, Canadian Institute of Planners
Member, American Institute of Certified Planners
Member, American Planning Association

EDUCATION:

Bachelor of Architecture, University of Cape Town, South Africa, 1954
Master of City Planning, Harvard, 1960
First year of 3-year diploma course in Economics, University College of -
Rhodesia and Nyasaland, 1962.

PUBLICATIONS & PAPERS:

Transportation Network at Expo 67, Architecture Canada, August 1966

Expo 67: Is it a Success?, Architecture Canada, August 1967

Transportation Systems Design for Expo 67, Paper given at 8th Annual Meeting of the Transportation Research Forum, Montreal, September, 1967.

EXPERIENCE:

1980 to 1983

Director of Planning, R. V. Anderson Associates Limited

1983 to present and 1976 to 1980

Principal, Steven M. Staples, Planning and Urban Design Consultants. This was a small firm providing a wide range of planning services, with specialties in urban design and tourism/recreation planning. The following were representative assignments: Mont Ste. Marie Ltd.- implementation of

master plan for a resort community and design of recreation facilities; Cantrakon Ltd. - planning studies and expert witness in connection with a proposed Conference and Training Centre at Caledon, Peel Region; Incana Investments Ltd.- conceptual planning for an all seasons resort in Northern Ontario; Deer Run Ridge Investments Ltd.- planning studies for an estate residential subdivision and subsequent severance plan in King Township, York Region.

1973 to 1976

Managing partner in the firm Zeidler Staples, Planning Consultants.

Planner for Zeidler partnership, Architects. During the years 1970 - 1976 consulting services were provided to Governments and private clients. Public sector work included the planning and design for Harbour City, and the concept design for a resort community in Northern Ontario. Commissions for private clients included: concept plans for a small resource community on Baffin Island; concept plans for the new Mississauga City Centre, Ontario. (This project was awarded a Citation by the Canadian Architect Yearbook, 1975); concept plans for a Theme Park near Toronto; concept plans for a vacation development in the Gatineau region; planning and design for a resort community of 6,000 in the Gatineau region.

1968 to 1970

Project Director with Conseillers en Projets Communautaires Ltée (Community Development Consultants Ltd.), Montreal, Quebec. Responsible for all aspects of a study to replan and redevelop a part of the Montreal Expo 67 site for the Federal Government, including the direction of a multi-disciplinary team of consultants in the performance of various aspects of the study. Also involved in the planning of a new community of 50,000 near Toronto for the Ontario Government.

1967 to 1968

Head, Research and Planning with Crosstown Design Team, Chicago, Illinois.

1963 to 1967

Canadian Corporation for the 1967 World Exhibition (Expo 67), Montreal - Jointed as a Senior Planner; promoted to head, Planning Division in December 1963. My duties included the direction of staff and consultants; liaison with other Corporation Departments and reporting to Management on Attendance, Traffic and Transportation; and the preparation of the Master Plan, detailed physical plans, and special functional analyses.

1961 to 1963

Assistant to the Senior United States Housing Advisor for Rhodesia and Nyasaland, Agency for International Development.

1960 to 1961

Planning Assistant, Planning Services Group, Cambridge, Mass. - Responsible for economic base and population studies, general and industrial land use plans, and capital programming for several New England communities, including one small region in the Merrimack Valley.

RELEVANT PROJECT EXPERIENCE:

Sault Ste. Marie Northern Visitors' Centre - Involved in the conceptual development, market assessment, preliminary conceptual design, and financial feasibility analysis for this proposed multi-use tourist attraction on the city's waterfront. Components of the Centre will likely include a major exhibit-oriented attraction, specialty retailing, restaurants, amusement areas, an entertainment facility and a marina.

Tourist Facilities, Cape Breton - Design of a holiday cottage complex and three tourist restaurants for the Cape Breton Development Corporation.

Maple Mountain Resort Community, Ontario - A study for a year round resort community, focused on downhill skiing, for the Ontario Government. Concept plans for a variety of recreation facilities and three villages; responsibility for environmental and engineering studies.

Lake Pemichangan Recreational Resort, Quebec - A study for a summer community of 200 units of varying types and densities on a lake in the Gatineau region; included boating and tennis facilities and trails for summer and winter use.

Mont Ste-Marie Resort Village, Quebec - Planning on a 4,500 acre resort, for Mont Ste-Marie Limited, in the Gatineau region. Two villages, with a total of 6,000 beds, as well as a range of year round activities are being developed around downhill ski facilities which were used by teams training for the 1980 Olympics. Also included the detailed planning and design of a Tennis Complex, Fitness Trail and Cross Country Ski Trails.

Destination Resort, Ontario - A year round recreation resort planned on 9,000 acres in Northern Ontario. The firm acted as prime consultant for this study. The scale of the project is similar to that at Mont Ste-Marie, however, with the emphasis on summer and wilderness related activities.

Theme Park, Ontario - Concept studies for a themed amusement area in the Toronto Metropolitan Area.

Expo 67, Montreal - Direction of all planning studies for the World Exhibition from initial concept plans to implementation. These included the Master Plan and special studies relating to estimated attendance, visitor services, urban design, lighting, signage and visitor movement systems.

Federal Lands, Welland, Ontario - Preparation of background information for a study of the feasibility of a major tourist recreation development on Lands owned by the Federal Government adjacent of the abandoned canal in Welland.

15/08/84

THE FORKS: COMPREHENSIVE SITE DEVELOPMENT PLAN PROPOSAL

APPENDIX B: RELEVANT PROJECTS BY IBI GROUP

PARKS, HERITAGE, WATERFRONT DEVELOPMENT AND MARINA PLANNING

Columbia Icefield Visitor Reception Centre

On behalf of Parks Canada, IBI Group carried out the planning and preliminary design of an integrated system of interpretive facilities and visitor services at the Columbia Icefield. This involved an on-site workshop with exhibit designers, naturalists, and other park staff, to involve a wide range of parks staff in the design process. Subsequent planning included preparation of site concepts for the summit area, space programming and design of a 1,000 square metre visitors' centre, and design concepts for interpretive structures at the Glacier itself.

Lake Louise Village Planning Study

The study, conducted for Parks Canada, was directed by the IBI Group with two other consulting firms participating. It suggested alternative plans for future development to accommodate additional overnight visitors, and management policies needed to control commercial services, operate visitor reception services, develop rental housing and finance public utilities. An extensive public participation program was undertaken which included:

- o storefront information centre for the dissemination of information;
- o newsletter with Canada-wide circulation;
- o open houses and information centres in Western Canada;
- o workshops directly involving the public and planning officials;
- o meeting with vested interest groups throughout the process.

Master Plan for Nipawin Provincial Park, Saskatchewan

IBI Group prepared a Master Plan for this park in Northern Saskatchewan which included identifying a role for the park, analyzing recreation trends, administering and analyzing public surveys, a resource inventory, examination of visitor services and programming, preliminary engineering, and provision of phasing and cost estimates for implementation. The park is in the heart of the "Fishing Lakes" district and considerable interface was required with provincial Natural Resources programs and personnel.

Northern Visitors' Centre Feasibility Study

IBI Group undertook a study to assess the feasibility and likely physical, financial, economic and social implications of a major visitor attraction situated in the central waterfront area of Sault Ste. Marie. The proposed complex, called Great Lakes Centre, features extensive indoor and outdoor theme-oriented areas and experiences including a four acre water park and "hands on" indoor exhibits depicting the Great Lakes theme with working

models, etc., combined retail, food and beverage outlets, a marina with full services/supplies and amusements/entertainment, related to the theme, for people of all ages. Study tasks included the identification and assessment of potential activities and functions, development of an overall theme for the complex, site selection, market analyses of the proposed activities, a financial and economic impact analysis, development of conceptual designs, and preparation of an action plan for development of the centre. The study recommendations are currently being acted on by and the City of Sault Ste. Marie.

Bedford, Nova Scotia Cultural/Entertainment Centre

This study, currently being undertaken by IBI Group on behalf of the Bedford Waterfront Development Corporation, will assess the market for a cultural/entertainment centre, develop one or more concepts with an appropriate mix of cultural and entertainment features, assess the financial feasibility of the preferred concept, and will present conclusions/recommendations regarding the nature, location and other attributes of the centre as part of the overall waterfront development.

The market analysis includes estimates of likely visitation levels to the proposed development by visitors and Bedford residents and also examines the needs and estimated usage levels by the current performing arts groups such as theatre groups, chamber music groups, opera, dance, orchestra and other potential users which could use such a facility. The second task of this study is to develop design concepts with schematic drawings for the centre which reflect the estimated audience potential from the visitors and residents; the ability to meet the physical requirements of the existing performing arts groups as well as other potential user groups; flexibility to meet changing program requirements; and compatibility with the rest of the waterfront development which is currently being planned. The study will provide preliminary capital cost estimates of the proposed concepts and will identify possible funding sources to help cover the required capital investment. IBI will also provide an estimate, as part of the financial analysis, of annual revenues and operating costs over the first five years of operation. Finally, recommendations for development and management will be presented based on the conclusions reached during the first three steps of the study.

Temagami Waterfront and Tourism Development Study

On behalf of the Township of Temagami and the Ministry of Northern Affairs, IBI Group is undertaking a waterfront and tourism development study. Specific components of the study include the market analysis and identification and evaluation of tourism development opportunities, the development of physical conceptual plans, and a financial feasibility analysis of the various plans which are to be developed. IBI Group will also prepare detailed phasing and action plans for all projects proposed. Markets to be investigated include roofed accommodation market, boat tour market, outfitters market, and fishing, hunting and camping markets. Investment opportunities for private sector interests will be detailed and a prospectus prepared for distribution to potential private sector investors.

Heritage Resource Analysis - GO-ALRT

As part of a major transportation planning study for the Ontario Ministry of Transportation and Communications, a heritage resource inventory was compiled and assessed by IBI Group to determine any possible impacts on the cultural/historical landscape as a result of the development of a light rapid transit line in Etobicoke, Ontario. The first stage of the study reviewed the development history of the area to the present. The second component provided a description of the area in terms of its "cultural landscape units" including the various building types, ages and styles, and those land uses which have created a pattern or image distinct from their surroundings. The third section described the visual and spatial sequence of the areas' heritage resources along each of the alternative route alignment corridors.

Point Saline International Airport, Grenada

The IBI component of this project involves landscape and land use planning and design. On an on-going basis, IBI Group is providing a comprehensive landscape and land use master plan and design for the Grenadian International Airport, designed to further enhance facilities initiated by the Government of Cuba. The major objectives of the landscape design are to develop a dramatic entrance boulevard using a variety of hard and soft landscape elements, seating and lighting details, and to develop botanical gardens featuring representative native flora. Interfacing with USAID and the Government of Grenada, IBI is also developing a landscaped pedestrian system throughout the airport property in conjunction with the comprehensive land use plan.

Environmental Assessment and Market Analysis for the Buttonwood Marina, Buttonwood Holdings Fort Erie

This particular site, located just outside Fort Erie on the northern shore of Lake Erie, contained a mature Carolinian forest, an important Bass spawning area, regionally significant floral species, and was a major stop-over for migratory birds. An environmental assessment was conducted which determined the impact that development of a 500 slip marina would have on the aforementioned environmental features. This included guidelines outlining practical methods of conserving, enhancing and managing these resource features.

This project included market surveys of recreational boaters and marina operators on both the Canadian and American side of Lake Erie. Another component included the design of a 500 slip marina and associated facilities.

Highbanks Park Marina Feasibility Study

Conducted for the Federal Department of Indian Affairs and Northern Development, this study reviewed the feasibility of a marina on the Walpole Island Indian Reserve. The study included:

- o analysis of the pleasure boat traffic in the Lake St. Clair-Detroit River - St. Clair River waterway system;

- o analysis of the number and types of marinas in this system;
- o assessment of the market by types of boaters (individuals, travelling groups) and by types of trips (long trips, short trips);
- o estimate of the market share that the proposed marina could obtain.

From the market analysis members of the firm determined the requirements of the potential clients, and also the minimum facilities and recreational attractions needed at the proposed marina site. Having defined the marina (excavating, walls, docks, piles, building, landscaping, as well as water, sewage, and electrical system), they also estimated annual operating costs, and revenues based on the key assumption of the occupancy rate of boat-wells.

Possible sources of funds were investigated and non-economic considerations essential to the operation of a successful marina were considered (e.g. required skills, level of service, marketing).

Joussard Marina Feasibility Study

A comprehensive analysis was recently undertaken to determine the need for a major marina on Lesser Slave Lake, the largest lake (1128.78 km²) in Alberta. The study involved a user survey of recreational boaters and commercial fishermen. A detailed site analysis was conducted and four conceptual designs were developed for a 200 slip marina. Conceptual designs were also produced for associated facilities such as a marina building containing washrooms and concessions, clubhouse, storage for commercial boating activities and a fuel dock. One aspect of design of the marina was an examination of the impact of fluctuating water levels on the proposed marina.

Other elements of the study included detailed costing analysis, implementation scheduling and examination of funding and tenure options.

Small Craft Harbours Study for the Atlantic Provinces

For the Small Craft Harbours Branch, Department of Fisheries and Oceans, IBI Group conducted a study of the recreational harbours in the Maritimes Region which included the preparation of an inventory of recreational harbour facilities, analysis of boat ownership and the demand for harbour facilities, and projection of future growth in recreational harbours in the Atlantic Provinces. Other tasks in the study included analysis of development policies and strategies of the various Provincial Government agencies, examination of the Federal Government role in recreational harbour development and management, and assessment of policy options in the implementation of the Fishing and Recreational Harbours Act.

South Georgian Bay Recreational Development

This project consisted of a user survey of recreational boater demands in Tiny-Tay Township. Analysis included definition of primary and secondary market areas, and conceptual design of a 350 slip marina. Included in the design were related facilities such as a clubhouse, washrooms, boat storage, chandlery and maintenance and repair areas.

Sheerness Recreational Potential Study, Hanna, Alberta

For Alberta Power, IBI assessed the potential for intensive recreational usage of a 1200 acre cooling pond associated with the Sheerness Thermal Generating Plant. The study involved an assessment of regional trends and demands, detailed fisheries and waterfowl investigation, costing and design, and the generation of a comprehensive recreation master plan for the site. Analysis included market demand for a marina and conceptual design of a small marina (800-100 slips) and facilities.

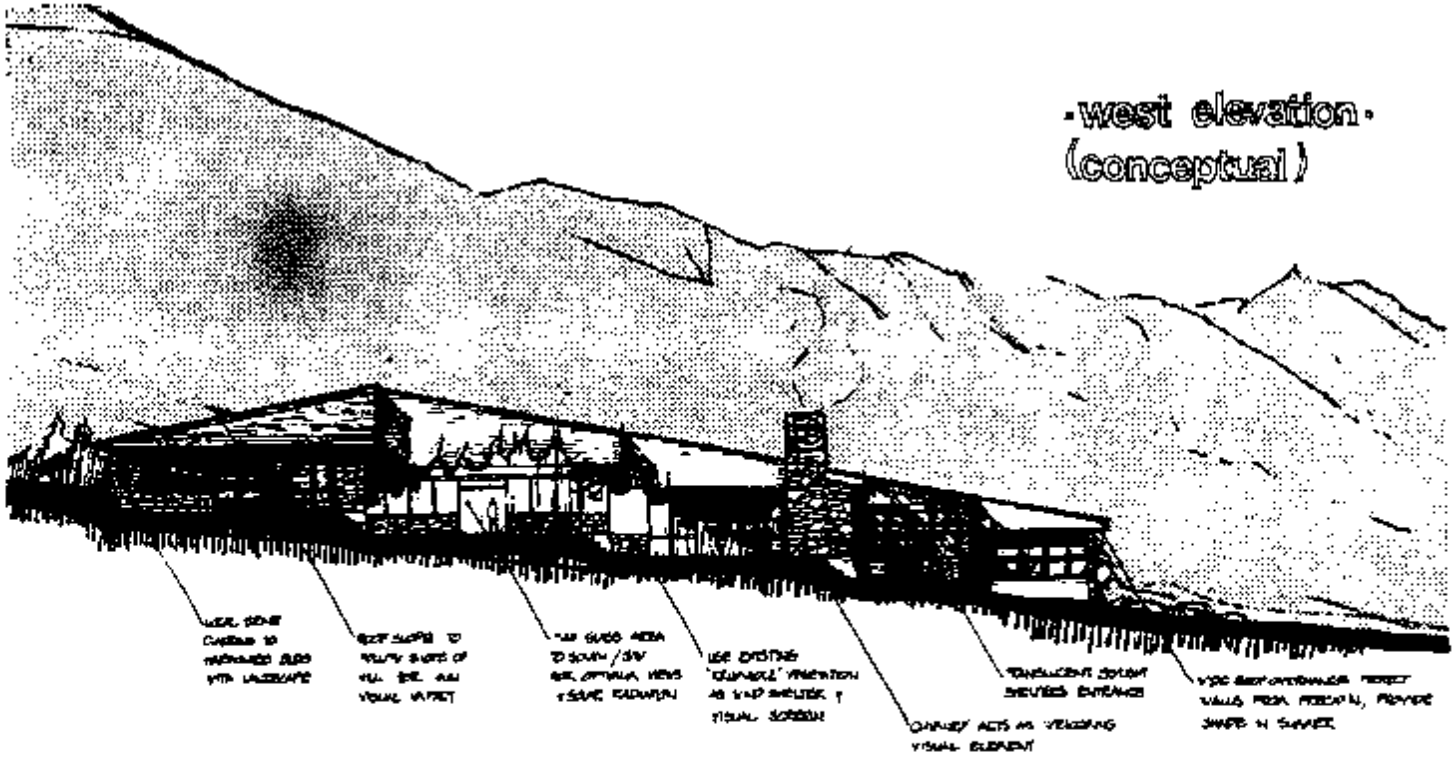
Dalton's Property

IBI Group carried out a market study and development feasibility study for redevelopment of this property on the east edge of the Toronto central area. The property contains an historic warehouse and is near several other designated historic buildings. The redevelopment alternatives generally retained the historic building as office space and added new office and residential space. Extensive economic and market analysis accompanied the design studies.

Runnymede Property

This property, on the eastern edge of the Toronto central area, contains a large history warehouse building. IBI Group prepared a detailed zoning analysis of the area and produced a variety of redevelopment concepts, all of which preserved the historic building and integrated it into new commercial development. Residential development is also included to relate to renovated smaller scale buildings on the edge of the site.

-west elevation-
(conceptual)



USE SOME
CANNES TO
REINFORCE
W/TA LANDSCAPE

REF. SLOPE TO
REIN. SLOPE OF
MOUNTAIN
W/TA W/TA

"AN GUID AREA
TO SOUTH / SW
RE. OPTIMAL VIEW
ISSUE RADIATION

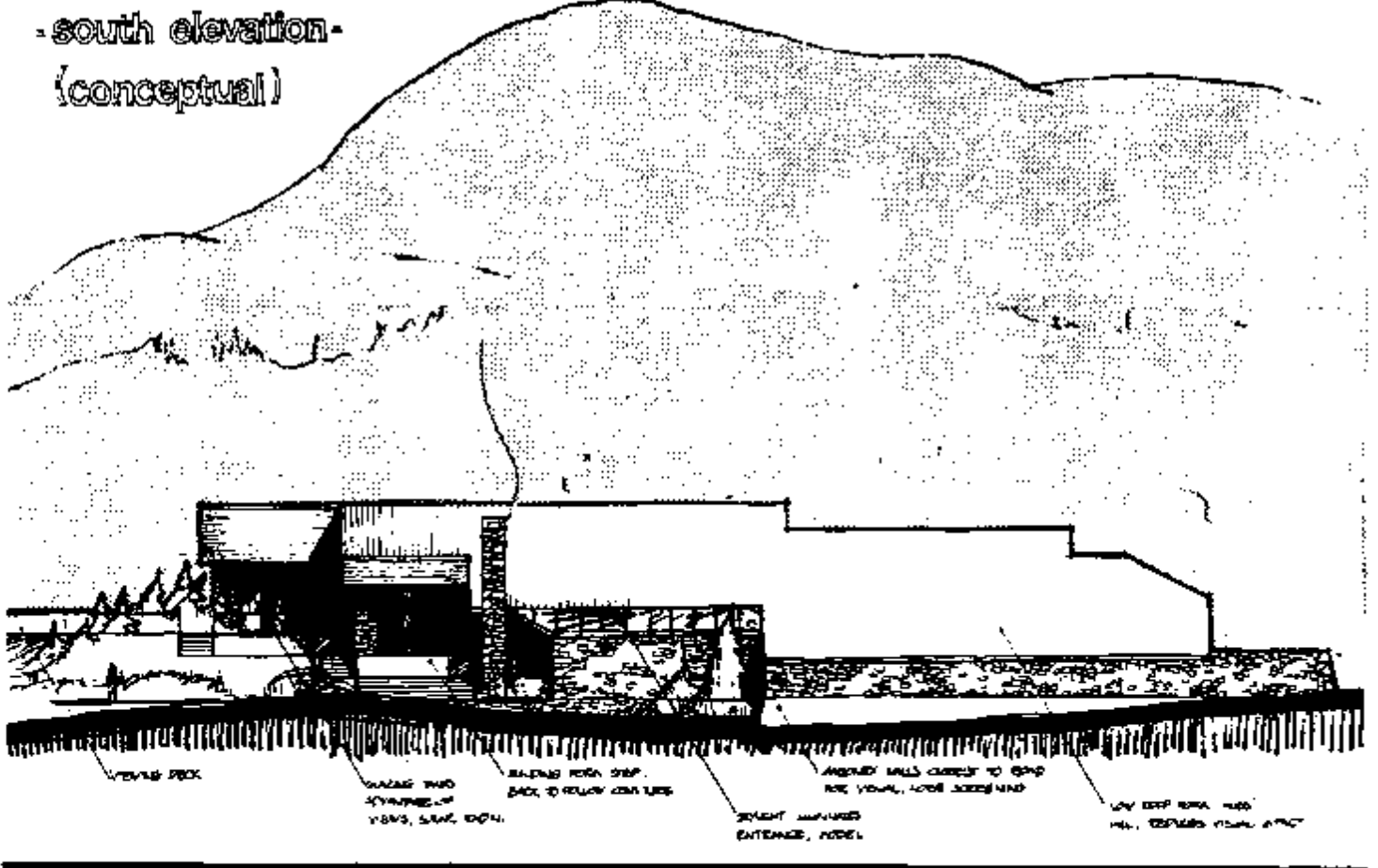
USE DOTTING
'CANNES' VARIATION
AS WIND BREAKER &
VISUAL SCREEN

TOWER ACTS AS VERTICALLY
VISUAL ELEMENT

USE REFERENCE
SLOPE TO REIN. SLOPE
W/TA W/TA

USE REFERENCE
SLOPE TO REIN. SLOPE
W/TA W/TA

-south elevation-
(conceptual)



USE REF. SLOPE
W/TA W/TA

USE REF. SLOPE
W/TA W/TA

USE REF. SLOPE
W/TA W/TA

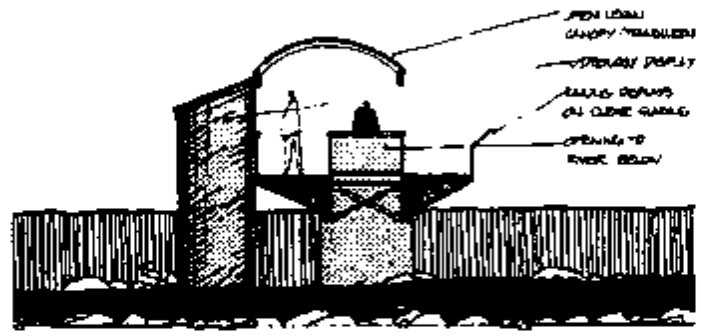
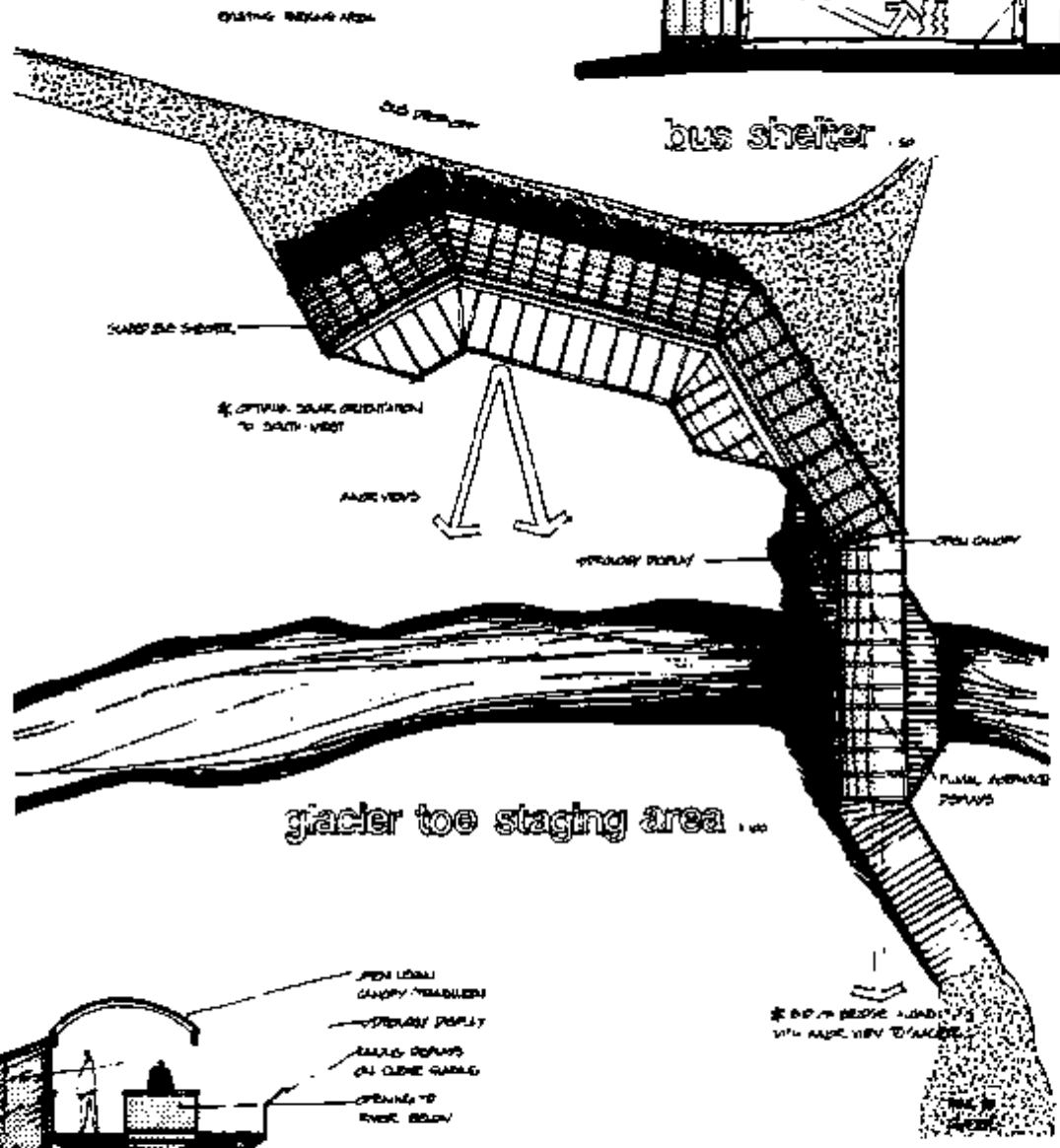
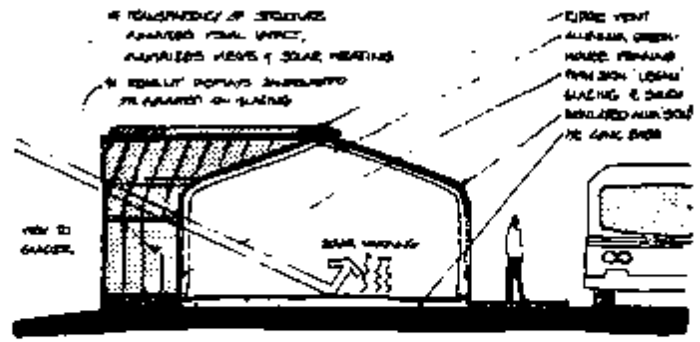
USE REF. SLOPE
W/TA W/TA

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USE REF. SLOPE
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**COLUMBIA
ICEFIELD
CENTRE**

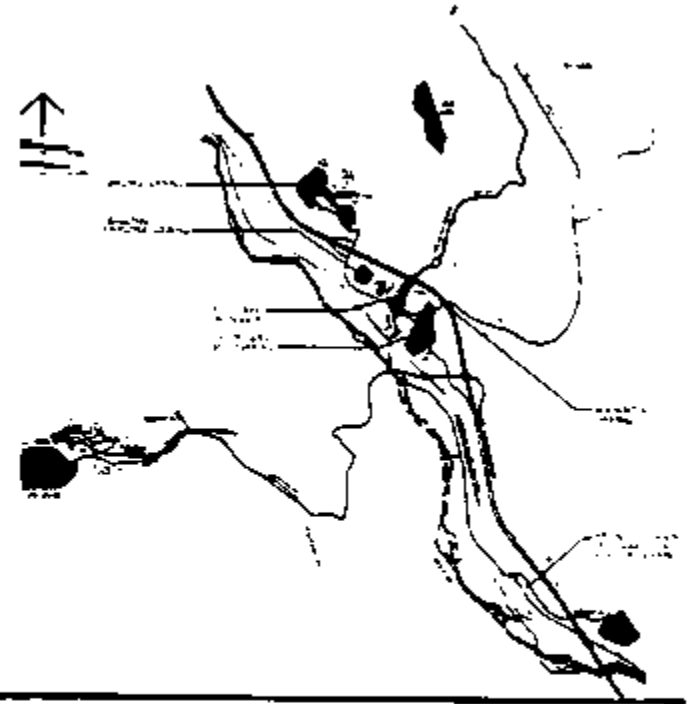
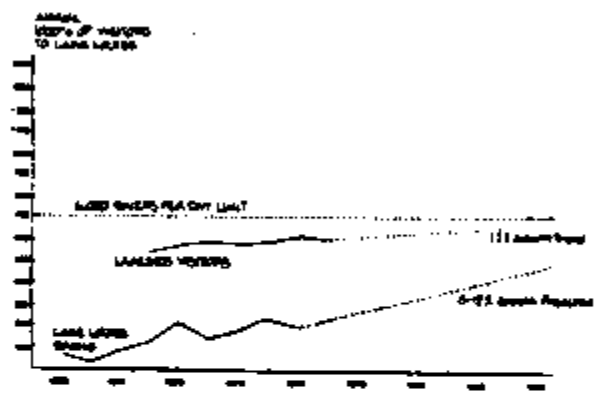
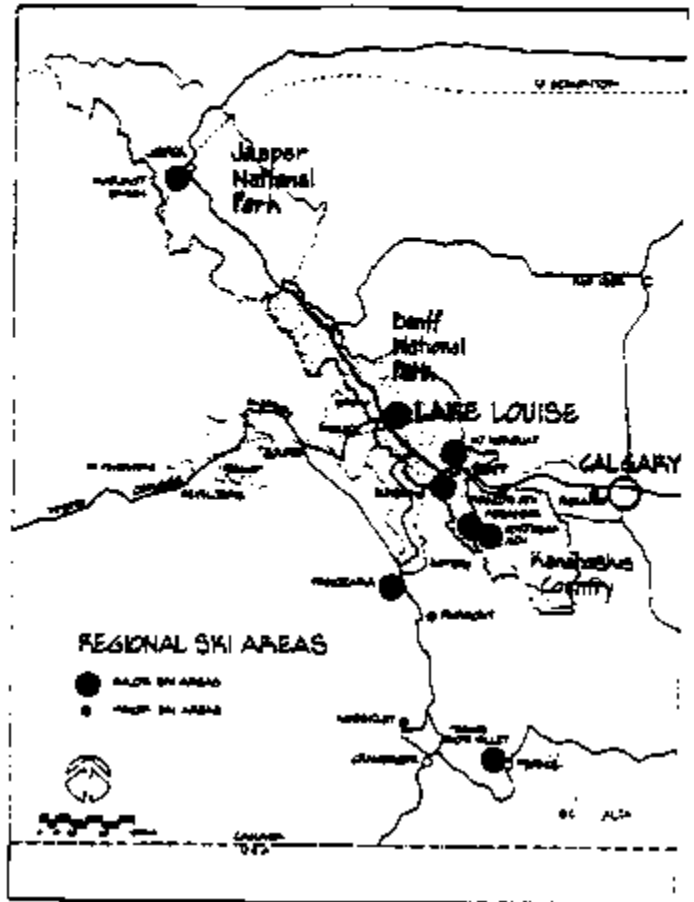
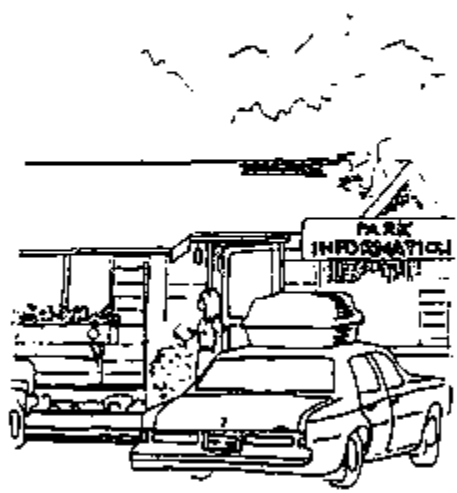




bridge . . .

**COLUMBIA
ICEFIELD
CENTRE**

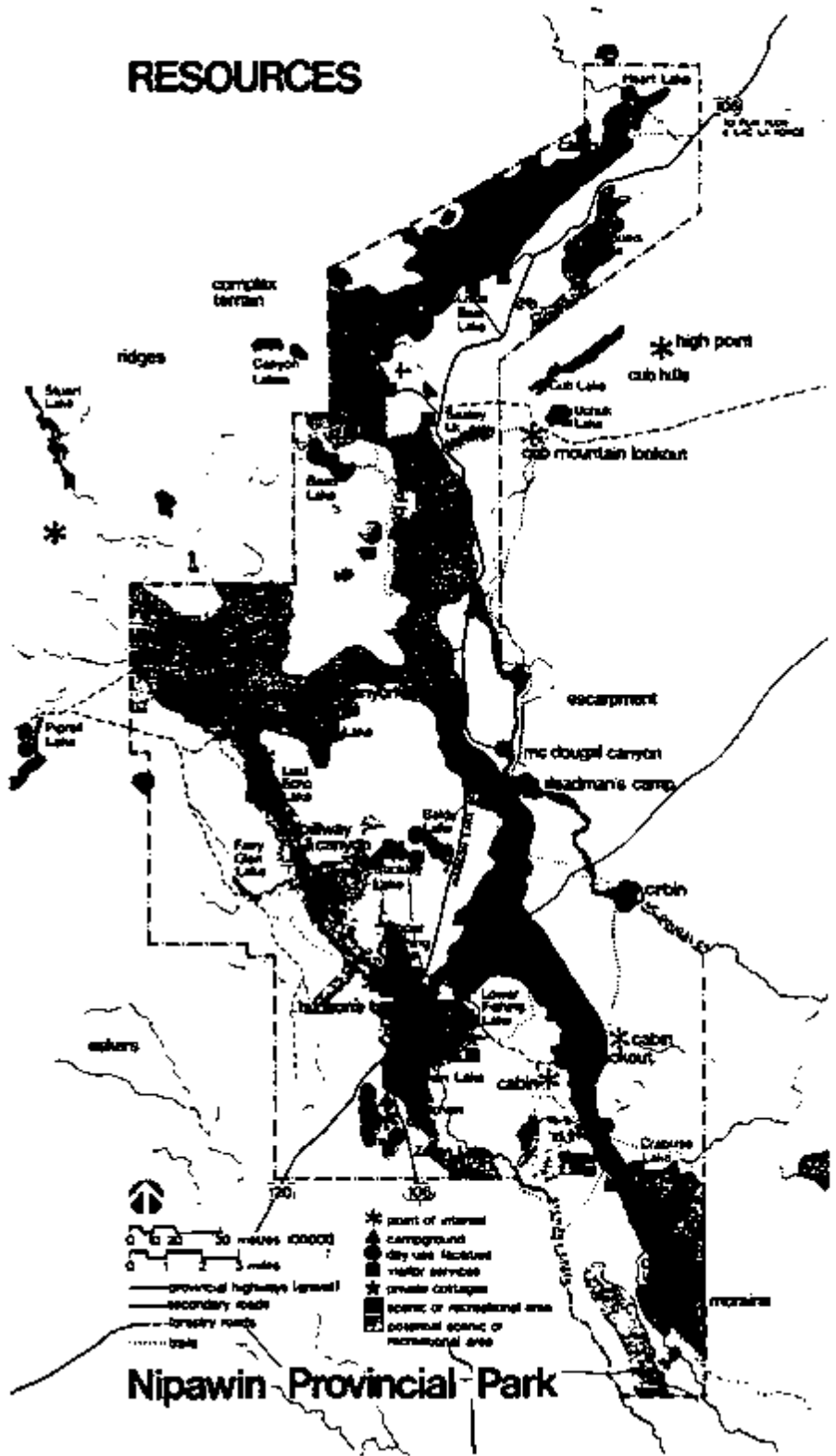




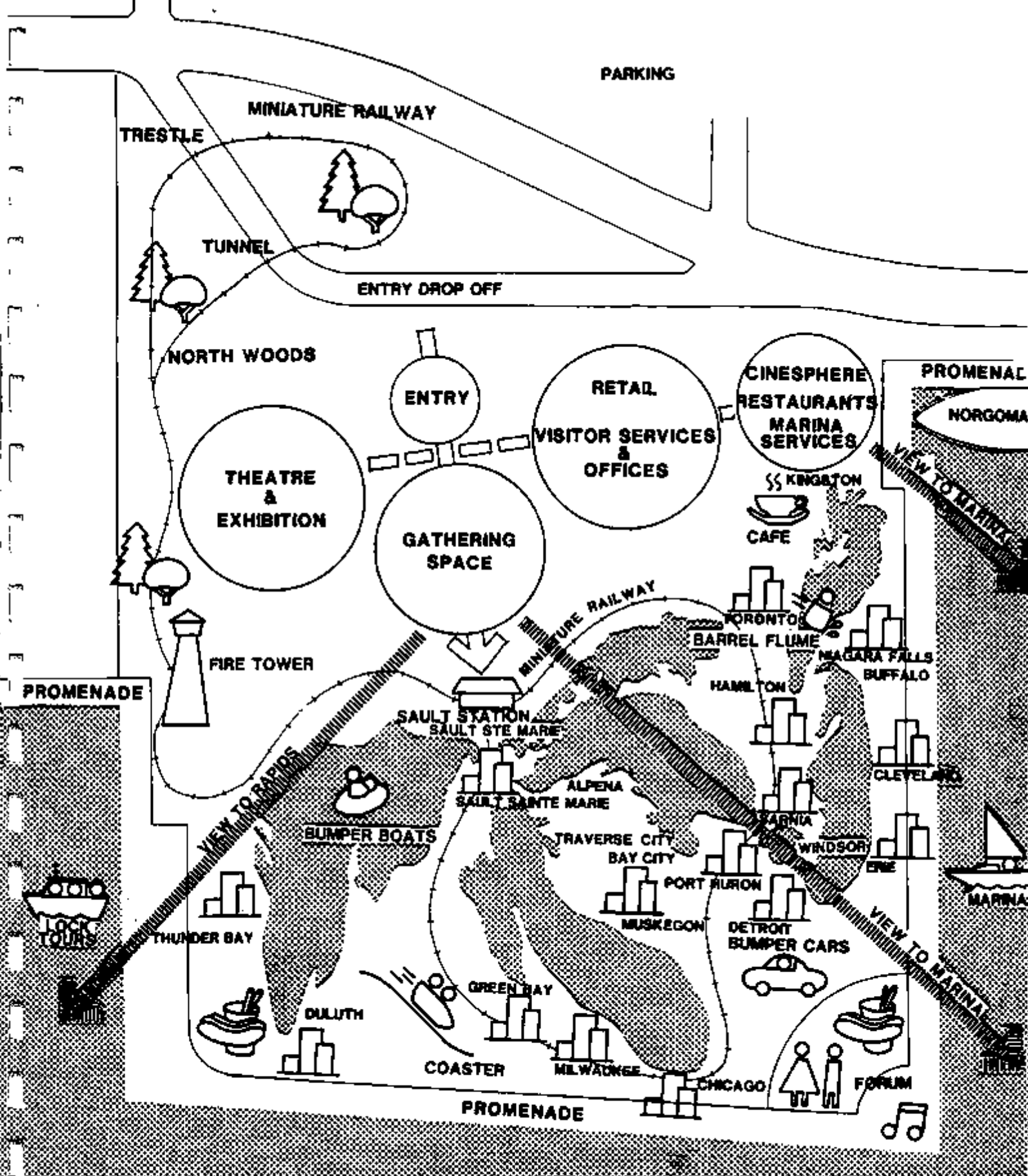
**LAKE LOUISE AREA
PLANNING STUDY**
client : PARKS CANADA

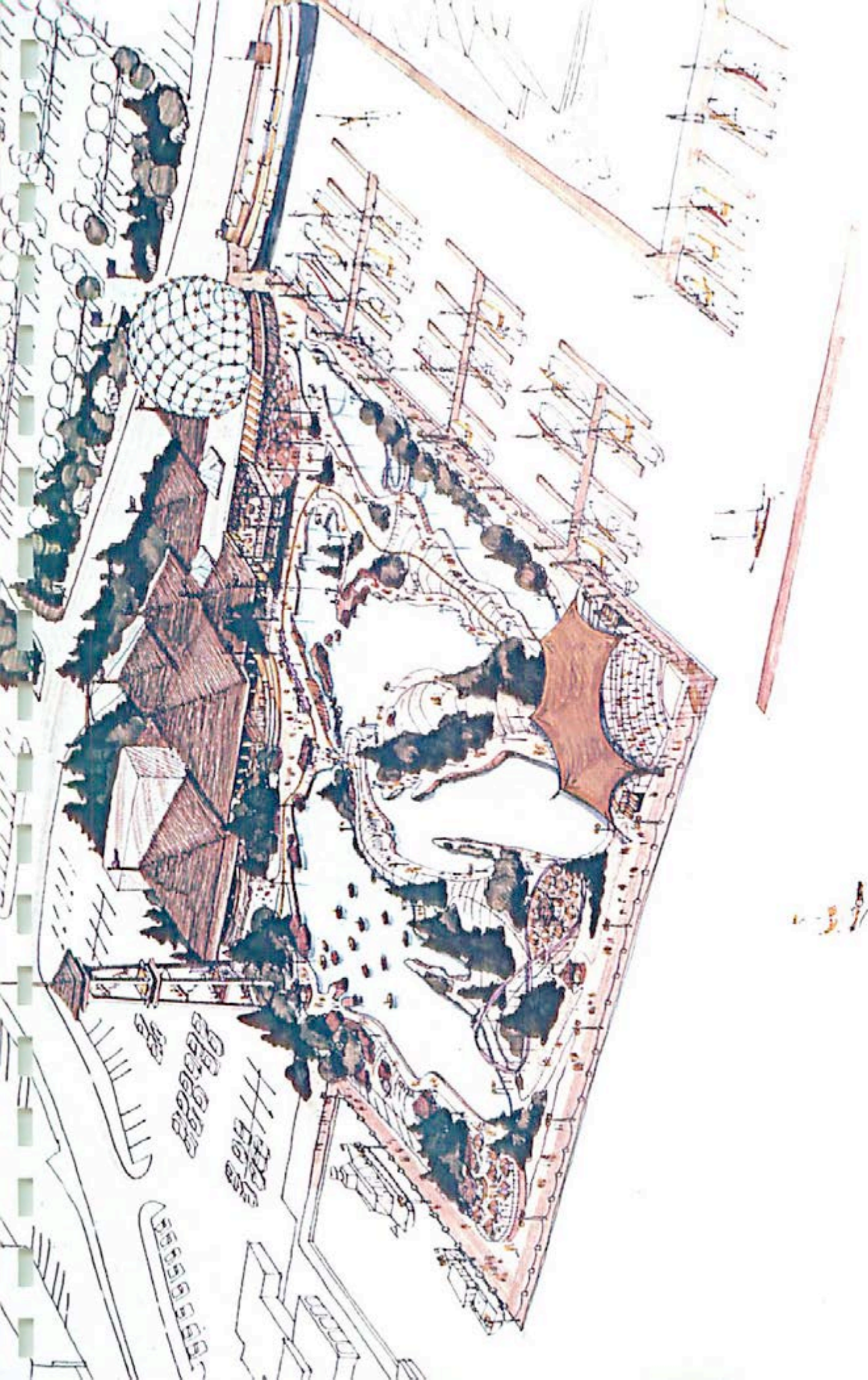


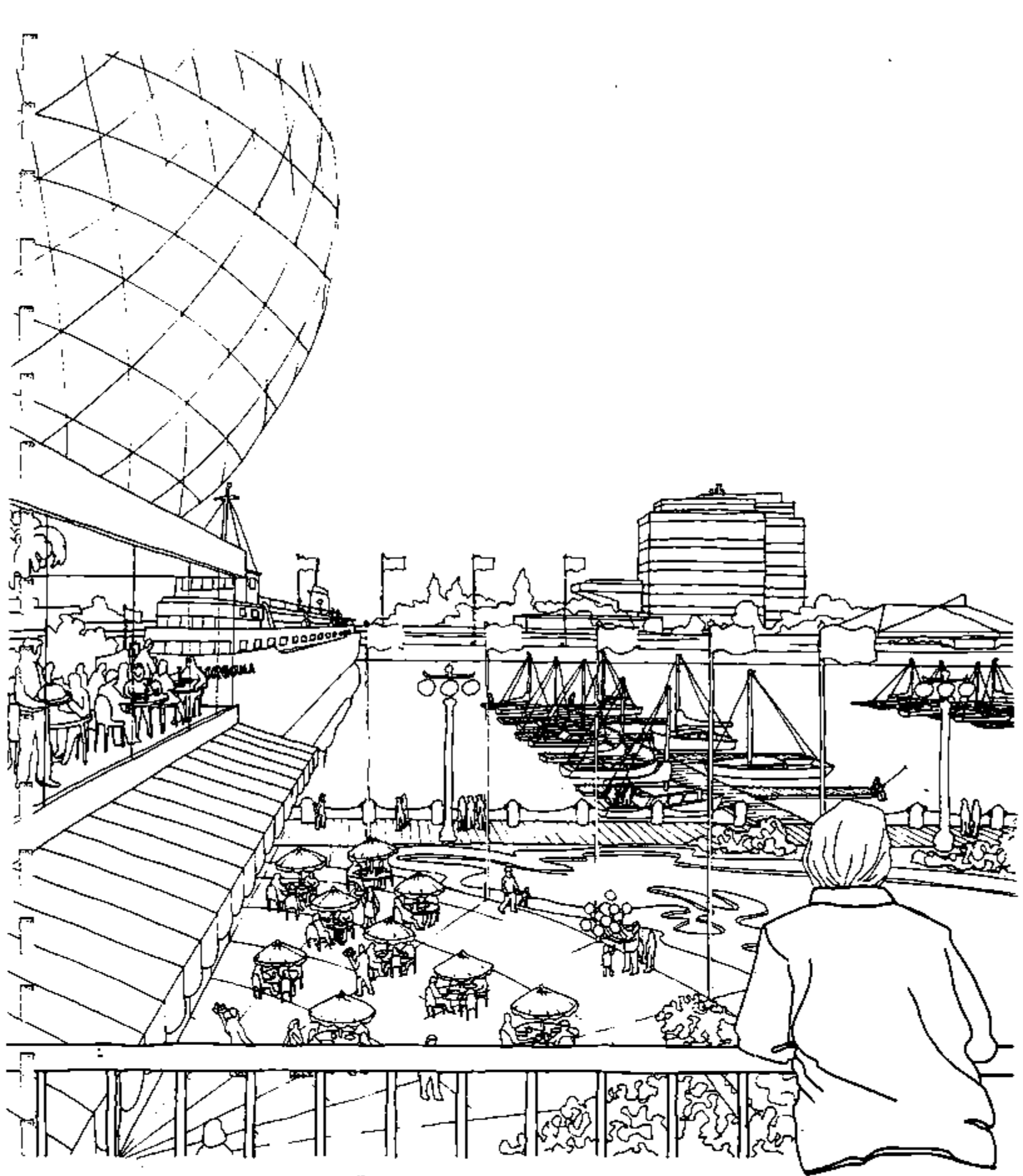
RESOURCES



NIPAWIN PARK MASTER PLAN

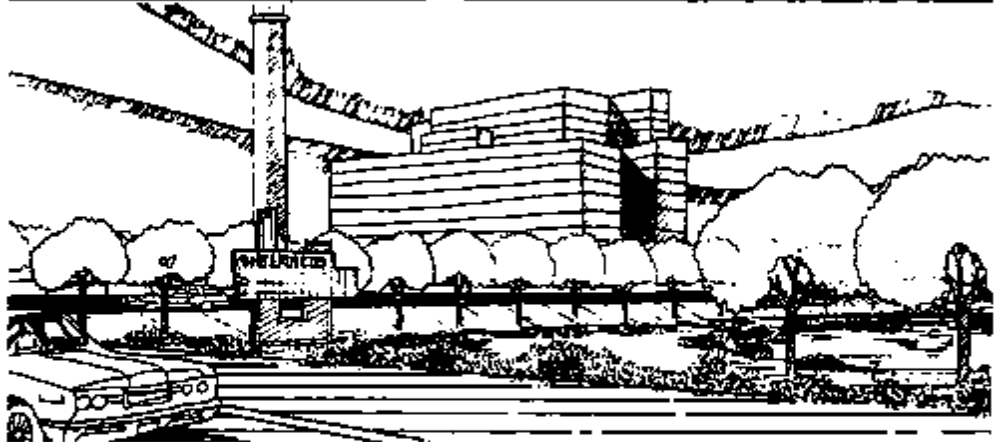
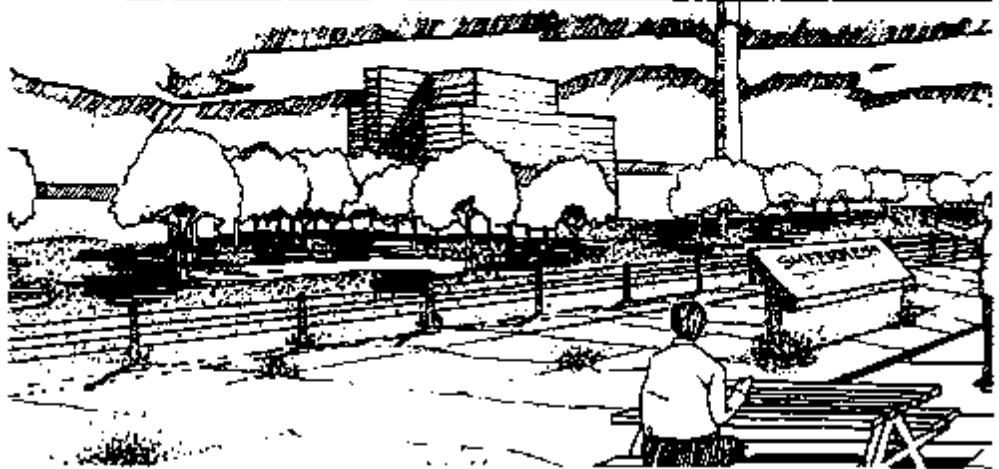








The IBI Group was retained by Alberta Power and TransAlta Utilities to conduct a detailed study of landscape design requirements for the Sheerness Thermal Generating Plant located just south of Hanna in Southeastern Alberta. The study included visual and site line analyses, vegetation tolerance analyses, design of berming, signage, landscape components and irrigation systems. Emphasis was placed on the creation of a naturalistic landscape setting consistent with the surrounding features and requiring for the most part little or no maintenance. Consequently, planting design focused on informal massing of locally indigenous species around a series of dug-out features supplied by the cooling pond associated with the generating plant.

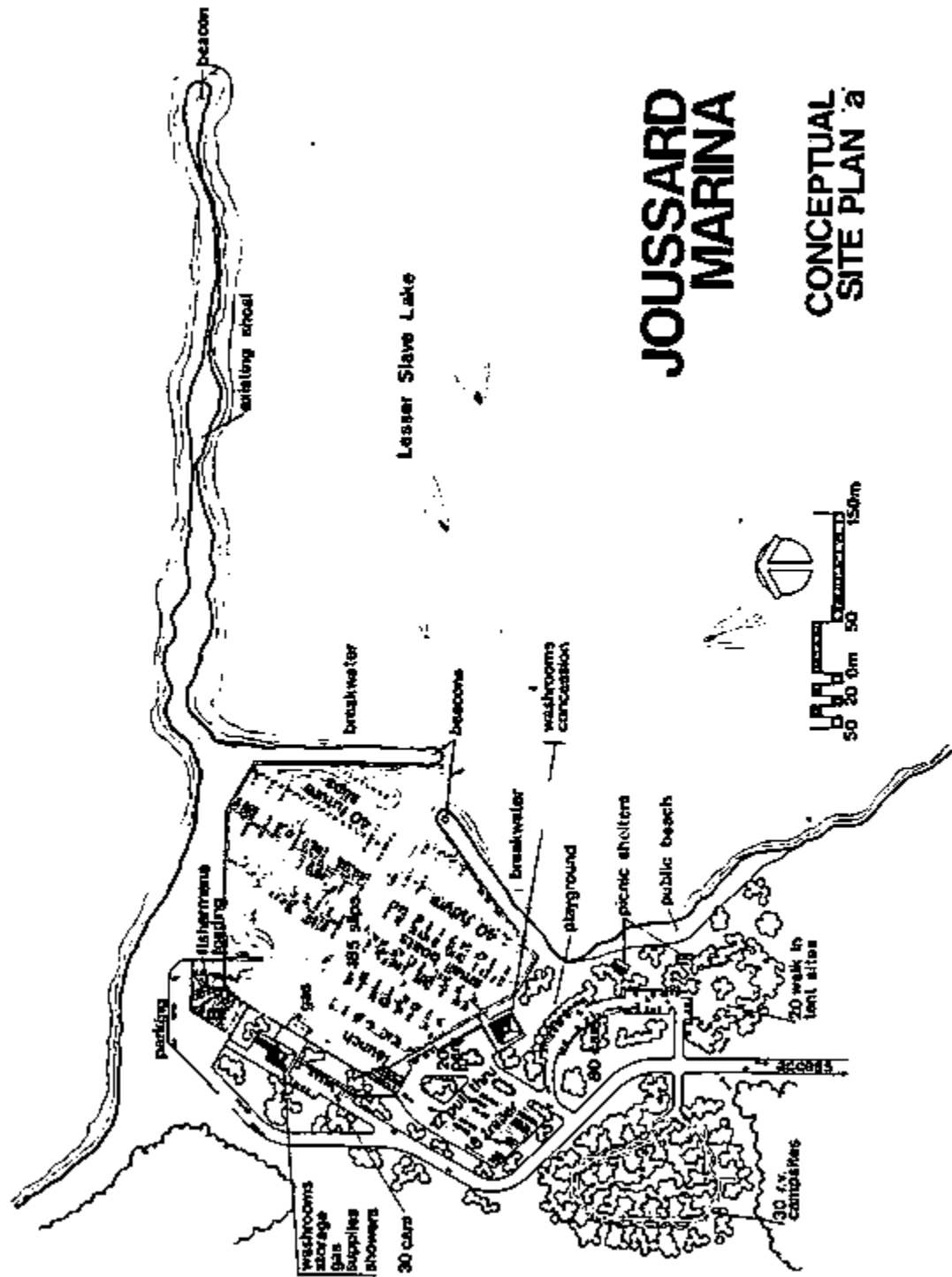


SHEERNESS LANDSCAPING STUDY

IBI Group

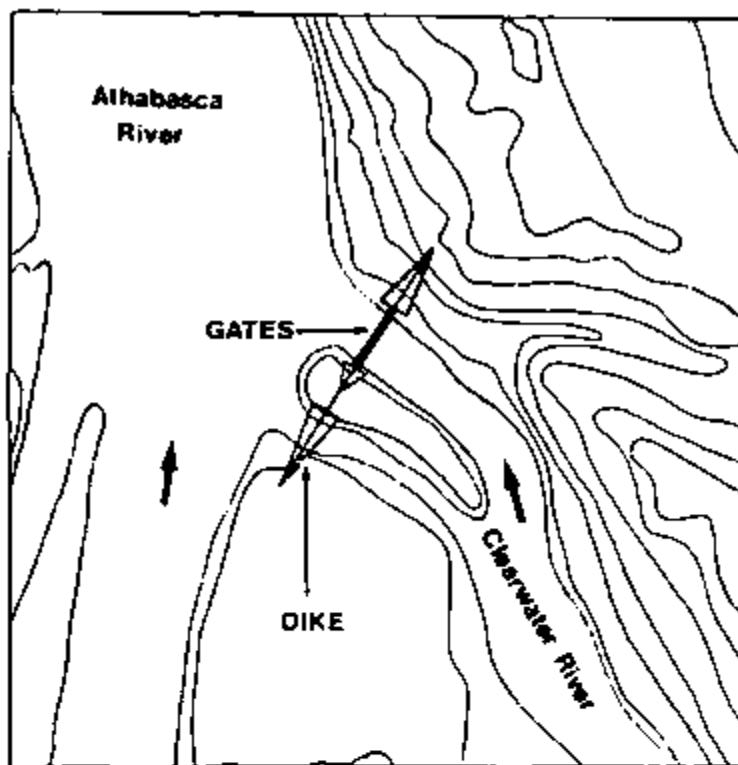
JOUSSARD MARINA

CONCEPTUAL SITE PLAN 'a'

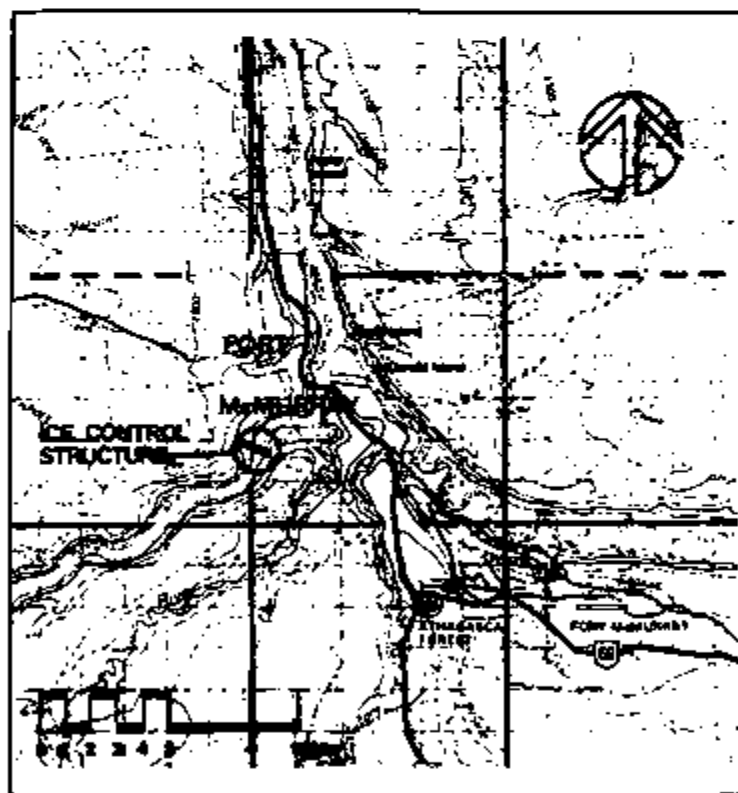
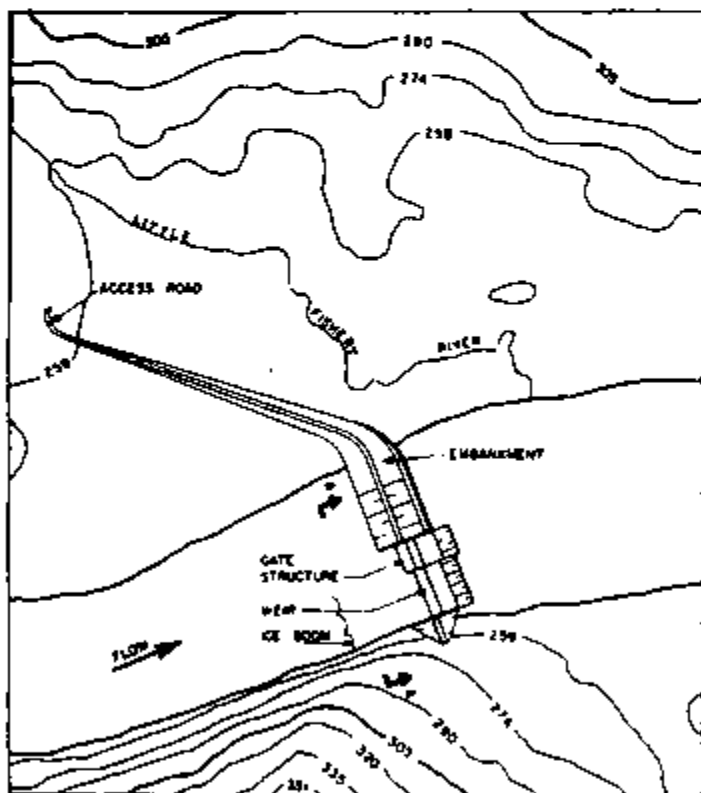


Each alternative was developed in sufficient detail to allow for direct comparison and ranking. Where applicable, alternatives were designed to provide for a 1:100 year level of protection. In determining economic efficiency, average annual costs were calculated based on a common discount rate of 6% and a discount period consistent with the typical life of a particular alternative (between 30-50 years).

Evaluation criteria included commensurable objectives relative to economic efficiency and non-commensurable objectives which included disaster prevention aspects, environmental impacts, implementation and incidental benefits.



CLEARWATER GATES LAYOUT



ICE CONTROL STRUCTURE LAYOUT KEY PLAN

**FORT MCMURRAY
FLOOD DAMAGE REDUCTION
PROGRAM : PHASE IIIB**

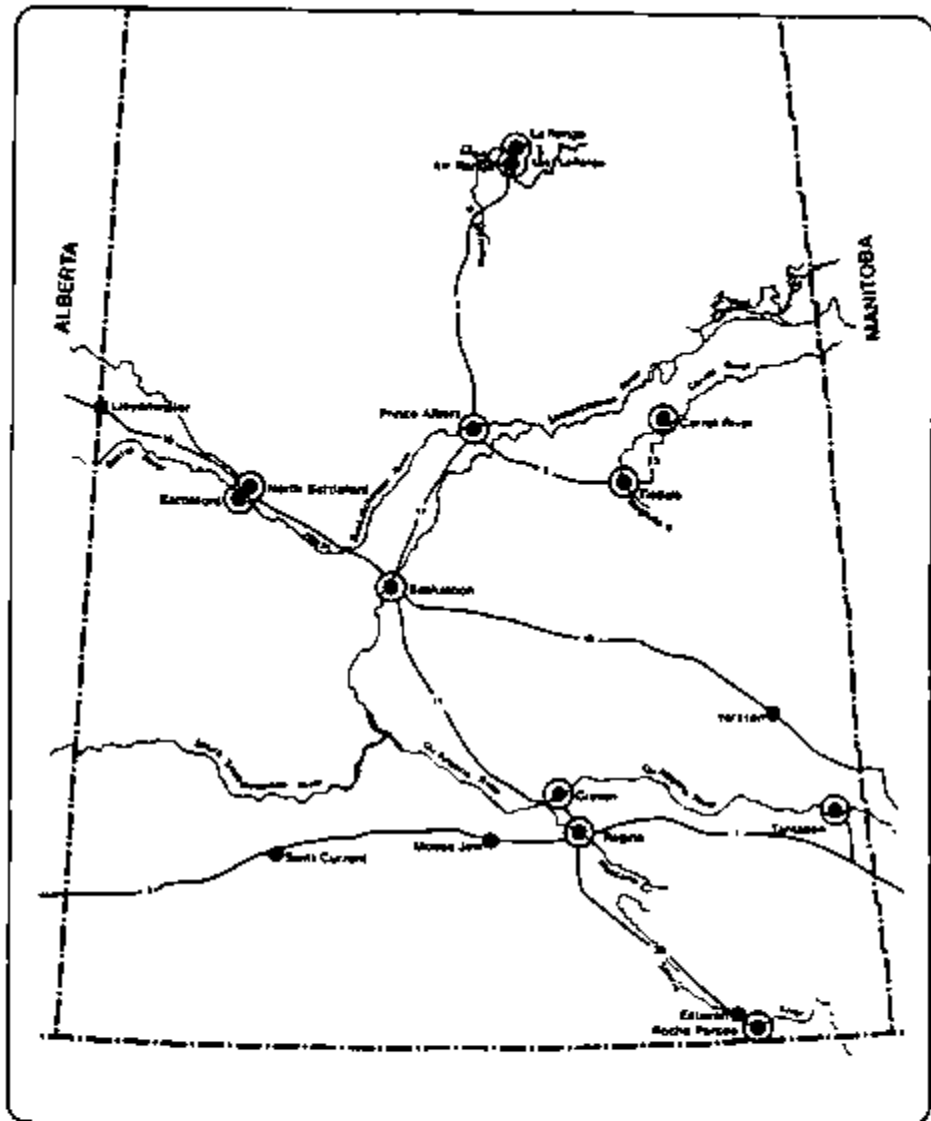




The IBI Group was retained by Saskatchewan Environment to establish a detailed data base for eleven flood prone communities in Saskatchewan including: Regina, Saskatoon, Prince Albert, Battleford, Lumsden, and several smaller centres. The results of the data collection project form the essential baseline data for future planning studies and associated flood damage reduction programs.

The scope of work undertaken included collection or development for each community of the following data:

- land use, zoning, ownership and property values in and adjacent to the flood plain;
- development of computerized flood damage estimates model;
- flooding history and flood damage potential;
- estimated property acquisition and property relocation costs;
- estimated floodproofing costs;
- description and analysis of existing flood protection works.



SASKATCHEWAN F.D.R.P. FLOOD DATA COLLECTION PROJECT



TOURISM, RECREATIONAL STUDIES AND MARKET/ECONOMIC IMPACT ANALYSIS

Winnipeg Tourism Development Study

This major study is being undertaken by IBI Group on behalf of The Manitoba Department of Business Development and Tourism. The study has produced profiles of the existing tourism resource base and existing and potential tourism markets for the Winnipeg area. The study also included a review of attractions, themes and events in other cities, and is currently market testing several potential attractions, themes and events which are seen to be financially viable and which are suited to the City of Winnipeg and its riverfront Forks area in particular. Conceptual plans will be prepared and will reflect the presence of and the anticipated impact upon the existing urban form and proposed development plans and programs. Recommendations will be made regarding the upgrading of support facilities. Finally, potential funding opportunities and sources will be examined and the study will provide an implementation plan, a marketing and promotional program and an assessment of the likely economic impacts of the proposed tourism developments.

The Feasibility of an Agricultural/Commercial Exhibits Complex

The Edmonton Exhibition Association (EEA), recognizing the growing needs of the Association and the problems related to existing facilities, initiated this study to determine the feasibility of an agricultural/commercial exhibits complex. The project was divided into two phases. Phase I was to determine if an agricultural/commercial complex was feasible; Phase II was to locate the complex, develop building program guidelines and resolve existing site problems related to access, utilities, etc.

The study examined existing events, facilities and practices of the Association, practices of exhibition associations across Canada and the United States, discussed exhibition problems, requirements and potentials with exhibitors and exhibition contractors and evaluated numerous facility and siting alternatives. Recommendations were made on feasibility and the solution of numerous logistic, access and other problems. These recommendations were supported by a detailed evaluation of alternatives. The evaluation process involved an estimation of numerous economic (from the point of view of the Association and the community) environment, social, and operation factors associated with alternative developments. The recommendations were accepted by the Board of Edmonton Exhibition Association.

Multiple Use Urban Commercial Development

A market feasibility and financial viability evaluation was carried out on behalf of a major banking institution and a large Toronto-based developer. IBI Group undertook a market demand analysis and financial viability evaluation of redeveloping a commercial site located at a major intersection and transit transfer point at two of Toronto's sub-cores. The study involved an analysis of the office market, retail market, and condominium market for the purpose of providing market absorption estimates and space parameters of the use mix as input to financial viability evaluation. Financial forecasts were undertaken over a ten year investment period.

Buffalo Lake Tourism/Recreation Study, Alberta

This study included a detailed inventory of natural resources, facilities, services, and land uses at the lake and in the surrounding area. Tourism/recreation opportunity constraints were also identified through the intensive field work component of the study. Current demand for tourism/recreation services was measured by existing facility utilization and by recreational activity participation rates; future demand was considered in terms of trends in population, participation, tourism, and travel. Public impact was sought through a survey of lake users and property owners.

As part of the study, a detailed analysis was undertaken of the impact of fluctuating water levels on existing marinas on the lake.

Various development options were identified and evaluated in terms of their impacts on the recreation capability of the region and the lake, and the optimum development option was identified and the appropriate recommendations made.

Retail and Office Complex Financial Viability Evaluation

On behalf of a major western-based developer with regional offices in City of Toronto, IBI Group undertook a financial evaluation of the viability of a 500,000 sq. ft. historical building refurbishment for the purpose of Class B offices and ground floor retail. The results of the evaluation provided the client with the information required to evaluate the viability, profitability, and therefore the residual value of the proposed project lands.

Greater Toronto Area Common Perspective Study

For the Ontario Government and the area municipalities, future growth prospects for the Toronto area were investigated in terms of potential industrial, employment and population growth. Potential alternative allocations of this growth to the various areas within the Region were investigated and reported on.

Cottage Impact Study - Haliburton County

On behalf of a group of private individuals, IBI Group undertook an environmental impact study to determine the possible implications of approval of a proposed cottage development on a small lake in Haliburton County. Environmental impact was measured in terms of shoreline capacity, impact on water quality, and impact on the boat-carrying capacity of the lake. Detailed information on shoreline characteristics from the Ontario Land Inventory was reviewed as well as measurements of water quality taken as part of the Ontario Fish and Wildlife Lake Inventory. This information was then used to generate an estimate of the range of cottage units which could be developed on the lake bearing in mind its known environmental sensitivity.

Township of Harvey: Impact Study

On behalf of the Township of Harvey, Peterborough County, IBI Group undertook a comprehensive study of the impact of a 3,200 unit resort condominium project which had been proposed for development on Pigeon Lake. In addition to reviewing the possible environmental impact of the development, market demand, financial impact on the Township, social impact, transportation impact, legal aspects of control, and financial viability were examined. With respect to environmental impact, the primary issue of concern was the possible effect of the development on the boat carrying capacity of Pigeon Lake. Using accepted methodological techniques, the boat generation and boat traffic implications of the project were studied and the likely effect of approval of the project on boat traffic and congestion on Pigeon Lake was estimated.

Market Studies for Destination Resort in Muskoka

On behalf of a major private sector corporate client IBI Group reviewed the operation and the facilities of a year-round destination resort in the Muskokas. The first phase of the study entailed an assessment of the property, its market potential and suggested major modifications. The study examined and made projections of the tourism market and the market potential of the meetings and convention trade. The result was a series of recommendations for physical improvements, operational changes and a revised marketing strategy. Working with the client's advertising agency we have developed a new merchandising program.

IBI also carried out a market survey of the development potential of surplus land on the property with a view towards assessing the supply/demand relationship for recreational property sales, time-share concepts of development as well as alternative sale/lease-back arrangements whereby units could be sold to the public with some of the units and/or parts of units being leased back to the resort operation for its use.

In a subsequent engagement, IBI Group was retained to design the physical expansion of the resort as well as develop the land use concept for expansion on additional lands owned by the client.

Hamilton Stadium/Trade Centre/Arena Feasibility Study

On behalf of the City of Hamilton, IBI Group undertook a comprehensive feasibility and financial study aimed at determining the nature and viability of a trade centre/arena and stadium complex in the City of Hamilton. In order to provide this comprehensive analysis, various development alternatives were investigated including:

- o refurbishing of the existing stadium with an arena complex either adjacent to it or located elsewhere in the City;
- o the development of an entirely new stadium/trade centre/arena complex on a single site.

A further objective which followed a preliminary site selection from some 26 potential sites was to define the market and financial analysis, and to develop detailed suggestions for the design and operations of the above facilities. The final report, presented at Council, was an objective technical analysis which provided information required for a decision on this project.

Impact of Rose Community on Town of Thornbury

This was a study to assess the environmental, social, and financial impact of a four seasons resort of 12,000 people on prime agricultural land, the Niagara Escarpment, and 1,200 residents of the Town of Thornbury. The four seasons resort is intended to complement the Georgian Peaks ski resort which the developer owns, and is to include an industrial park, European style village, golf course, and hotel.

Survey of Cruise Ship Passenger Traffic over Pier B.C.

IBI Group was retained by the National Harbours Board to study the adequacy and suitability of facilities at Pier B.C. in view of the rapidly growing number of cruise ships based in the Port of Vancouver during the summer tourist season and operating Inside Passage cruises to Alaska.

City of Toronto

For the Department of Public Works and the City of Toronto Planning Board, IBI conducted a study to determine the parking and loading requirements related to various types of land use in the Central Area of the City of Toronto. The study involved an extensive survey of over 200 buildings, 250 companies, 40,000 employees and 20,000 visitors within the Central Area of the City. The results of this study have been incorporated into a new zoning by-law.

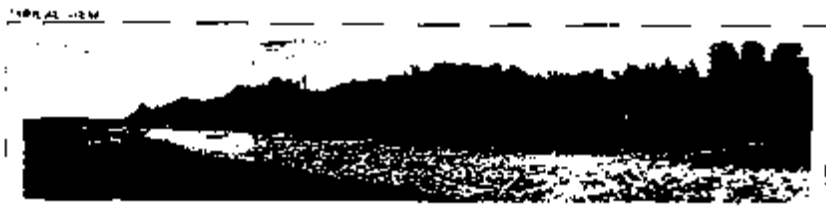
Whitehorse Centre

IBI was retained by a private sector client to investigate the feasibility of developing a large site in Whitehorse. This assignment included market and urban design investigations for a range of possible developments including recreational facilities and a hotel/commercial complex.

SHORELAND EVALUATION MATRIX

BUFFALO LAKE RECREATION STUDY
UNIT 25

DESCRIPTION		LIMITATIONS		RECREATION CAPABILITY	
<p>NEAR SHORE</p> <p>1.00 - 1.50</p> <p>1.50 - 2.00</p> <p>2.00 - 2.50</p> <p>2.50 - 3.00</p> <p>3.00 - 3.50</p> <p>3.50 - 4.00</p> <p>4.00 - 4.50</p> <p>4.50 - 5.00</p> <p>5.00 - 5.50</p> <p>5.50 - 6.00</p> <p>6.00 - 6.50</p> <p>6.50 - 7.00</p> <p>7.00 - 7.50</p> <p>7.50 - 8.00</p> <p>8.00 - 8.50</p> <p>8.50 - 9.00</p> <p>9.00 - 9.50</p> <p>9.50 - 10.00</p>	<p>WATER QUALITY</p> <p>1.00 - 1.50</p> <p>1.50 - 2.00</p> <p>2.00 - 2.50</p> <p>2.50 - 3.00</p> <p>3.00 - 3.50</p> <p>3.50 - 4.00</p> <p>4.00 - 4.50</p> <p>4.50 - 5.00</p> <p>5.00 - 5.50</p> <p>5.50 - 6.00</p> <p>6.00 - 6.50</p> <p>6.50 - 7.00</p> <p>7.00 - 7.50</p> <p>7.50 - 8.00</p> <p>8.00 - 8.50</p> <p>8.50 - 9.00</p> <p>9.00 - 9.50</p> <p>9.50 - 10.00</p>	<p>BE BA</p> <p>1.00 - 1.50</p> <p>1.50 - 2.00</p> <p>2.00 - 2.50</p> <p>2.50 - 3.00</p> <p>3.00 - 3.50</p> <p>3.50 - 4.00</p> <p>4.00 - 4.50</p> <p>4.50 - 5.00</p> <p>5.00 - 5.50</p> <p>5.50 - 6.00</p> <p>6.00 - 6.50</p> <p>6.50 - 7.00</p> <p>7.00 - 7.50</p> <p>7.50 - 8.00</p> <p>8.00 - 8.50</p> <p>8.50 - 9.00</p> <p>9.00 - 9.50</p> <p>9.50 - 10.00</p>	<p>ACTIVITY</p> <p>1.00 - 1.50</p> <p>1.50 - 2.00</p> <p>2.00 - 2.50</p> <p>2.50 - 3.00</p> <p>3.00 - 3.50</p> <p>3.50 - 4.00</p> <p>4.00 - 4.50</p> <p>4.50 - 5.00</p> <p>5.00 - 5.50</p> <p>5.50 - 6.00</p> <p>6.00 - 6.50</p> <p>6.50 - 7.00</p> <p>7.00 - 7.50</p> <p>7.50 - 8.00</p> <p>8.00 - 8.50</p> <p>8.50 - 9.00</p> <p>9.00 - 9.50</p> <p>9.50 - 10.00</p>	<p>LEGEND</p> <p>1.00 - 1.50</p> <p>1.50 - 2.00</p> <p>2.00 - 2.50</p> <p>2.50 - 3.00</p> <p>3.00 - 3.50</p> <p>3.50 - 4.00</p> <p>4.00 - 4.50</p> <p>4.50 - 5.00</p> <p>5.00 - 5.50</p> <p>5.50 - 6.00</p> <p>6.00 - 6.50</p> <p>6.50 - 7.00</p> <p>7.00 - 7.50</p> <p>7.50 - 8.00</p> <p>8.00 - 8.50</p> <p>8.50 - 9.00</p> <p>9.00 - 9.50</p> <p>9.50 - 10.00</p>	<p>COMMENTS</p> <p>1.00 - 1.50</p> <p>1.50 - 2.00</p> <p>2.00 - 2.50</p> <p>2.50 - 3.00</p> <p>3.00 - 3.50</p> <p>3.50 - 4.00</p> <p>4.00 - 4.50</p> <p>4.50 - 5.00</p> <p>5.00 - 5.50</p> <p>5.50 - 6.00</p> <p>6.00 - 6.50</p> <p>6.50 - 7.00</p> <p>7.00 - 7.50</p> <p>7.50 - 8.00</p> <p>8.00 - 8.50</p> <p>8.50 - 9.00</p> <p>9.00 - 9.50</p> <p>9.50 - 10.00</p>
<p>NEAR SHORE</p> <p>1.00 - 1.50</p> <p>1.50 - 2.00</p> <p>2.00 - 2.50</p> <p>2.50 - 3.00</p> <p>3.00 - 3.50</p> <p>3.50 - 4.00</p> <p>4.00 - 4.50</p> <p>4.50 - 5.00</p> <p>5.00 - 5.50</p> <p>5.50 - 6.00</p> <p>6.00 - 6.50</p> <p>6.50 - 7.00</p> <p>7.00 - 7.50</p> <p>7.50 - 8.00</p> <p>8.00 - 8.50</p> <p>8.50 - 9.00</p> <p>9.00 - 9.50</p> <p>9.50 - 10.00</p>	<p>WATER QUALITY</p> <p>1.00 - 1.50</p> <p>1.50 - 2.00</p> <p>2.00 - 2.50</p> <p>2.50 - 3.00</p> <p>3.00 - 3.50</p> <p>3.50 - 4.00</p> <p>4.00 - 4.50</p> <p>4.50 - 5.00</p> <p>5.00 - 5.50</p> <p>5.50 - 6.00</p> <p>6.00 - 6.50</p> <p>6.50 - 7.00</p> <p>7.00 - 7.50</p> <p>7.50 - 8.00</p> <p>8.00 - 8.50</p> <p>8.50 - 9.00</p> <p>9.00 - 9.50</p> <p>9.50 - 10.00</p>	<p>BE BA</p> <p>1.00 - 1.50</p> <p>1.50 - 2.00</p> <p>2.00 - 2.50</p> <p>2.50 - 3.00</p> <p>3.00 - 3.50</p> <p>3.50 - 4.00</p> <p>4.00 - 4.50</p> <p>4.50 - 5.00</p> <p>5.00 - 5.50</p> <p>5.50 - 6.00</p> <p>6.00 - 6.50</p> <p>6.50 - 7.00</p> <p>7.00 - 7.50</p> <p>7.50 - 8.00</p> <p>8.00 - 8.50</p> <p>8.50 - 9.00</p> <p>9.00 - 9.50</p> <p>9.50 - 10.00</p>	<p>ACTIVITY</p> <p>1.00 - 1.50</p> <p>1.50 - 2.00</p> <p>2.00 - 2.50</p> <p>2.50 - 3.00</p> <p>3.00 - 3.50</p> <p>3.50 - 4.00</p> <p>4.00 - 4.50</p> <p>4.50 - 5.00</p> <p>5.00 - 5.50</p> <p>5.50 - 6.00</p> <p>6.00 - 6.50</p> <p>6.50 - 7.00</p> <p>7.00 - 7.50</p> <p>7.50 - 8.00</p> <p>8.00 - 8.50</p> <p>8.50 - 9.00</p> <p>9.00 - 9.50</p> <p>9.50 - 10.00</p>	<p>LEGEND</p> <p>1.00 - 1.50</p> <p>1.50 - 2.00</p> <p>2.00 - 2.50</p> <p>2.50 - 3.00</p> <p>3.00 - 3.50</p> <p>3.50 - 4.00</p> <p>4.00 - 4.50</p> <p>4.50 - 5.00</p> <p>5.00 - 5.50</p> <p>5.50 - 6.00</p> <p>6.00 - 6.50</p> <p>6.50 - 7.00</p> <p>7.00 - 7.50</p> <p>7.50 - 8.00</p> <p>8.00 - 8.50</p> <p>8.50 - 9.00</p> <p>9.00 - 9.50</p> <p>9.50 - 10.00</p>	<p>COMMENTS</p> <p>1.00 - 1.50</p> <p>1.50 - 2.00</p> <p>2.00 - 2.50</p> <p>2.50 - 3.00</p> <p>3.00 - 3.50</p> <p>3.50 - 4.00</p> <p>4.00 - 4.50</p> <p>4.50 - 5.00</p> <p>5.00 - 5.50</p> <p>5.50 - 6.00</p> <p>6.00 - 6.50</p> <p>6.50 - 7.00</p> <p>7.00 - 7.50</p> <p>7.50 - 8.00</p> <p>8.00 - 8.50</p> <p>8.50 - 9.00</p> <p>9.00 - 9.50</p> <p>9.50 - 10.00</p>

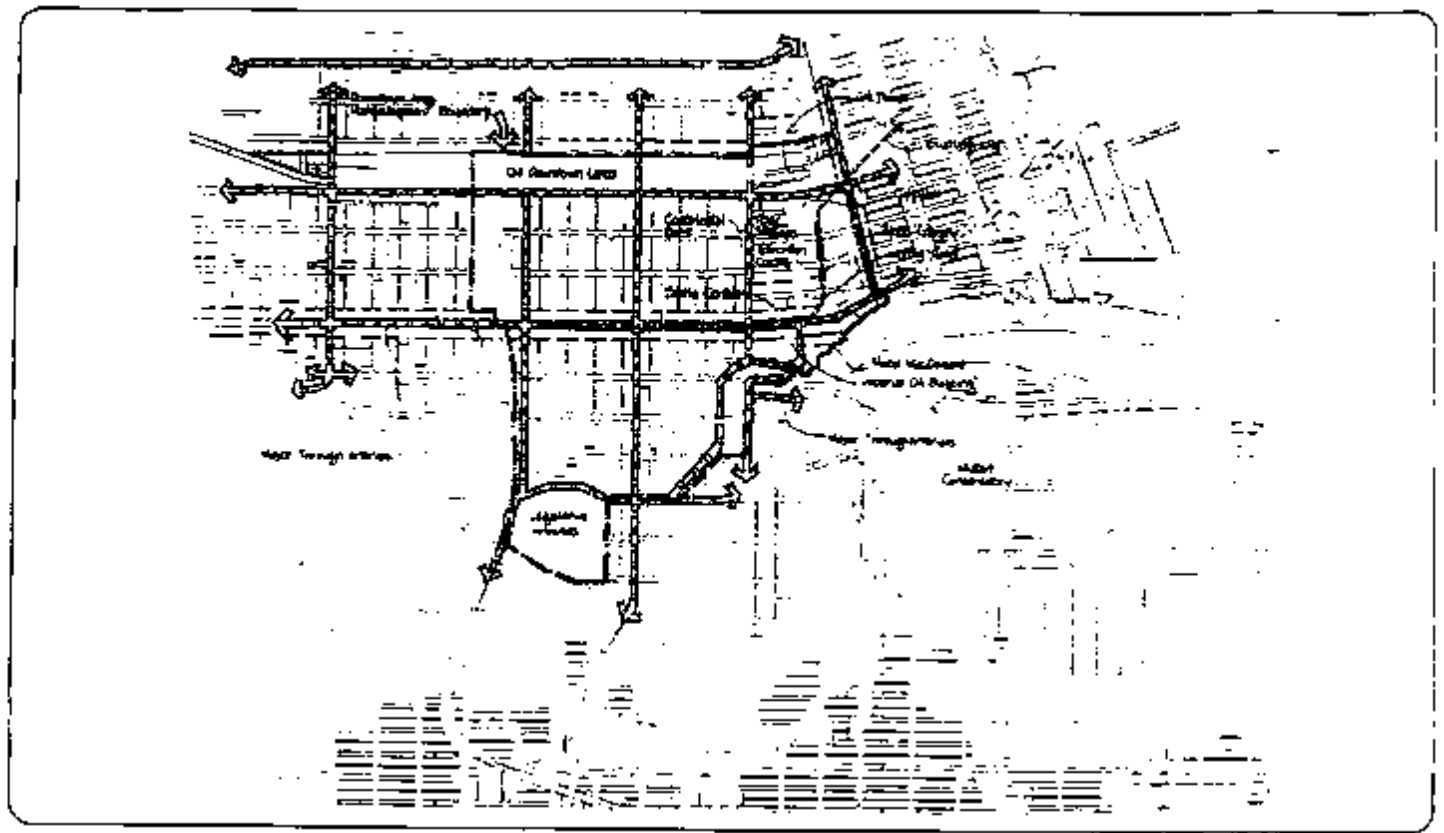


The IBI Group recently conducted an assessment of the impacts of fluctuating water levels on the recreational resources of Buffalo Lake, one of central Alberta's largest lakes with a surface area of over 8,000 hectares. The study culminated in the selection of a water level regime which optimized recreational capability while minimizing environmental impact. It also reflected user preference based on participation levels in selected recreational activities.

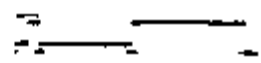
A detailed inventory and analysis was carried out on the bio-physical resources of the shoreland and backshore areas including water quality, vegetation, soils, wildlife, etc. In addition, a user survey of cottagers and weekend visitors was completed.

BUFFALO LAKE RECREATION STUDY





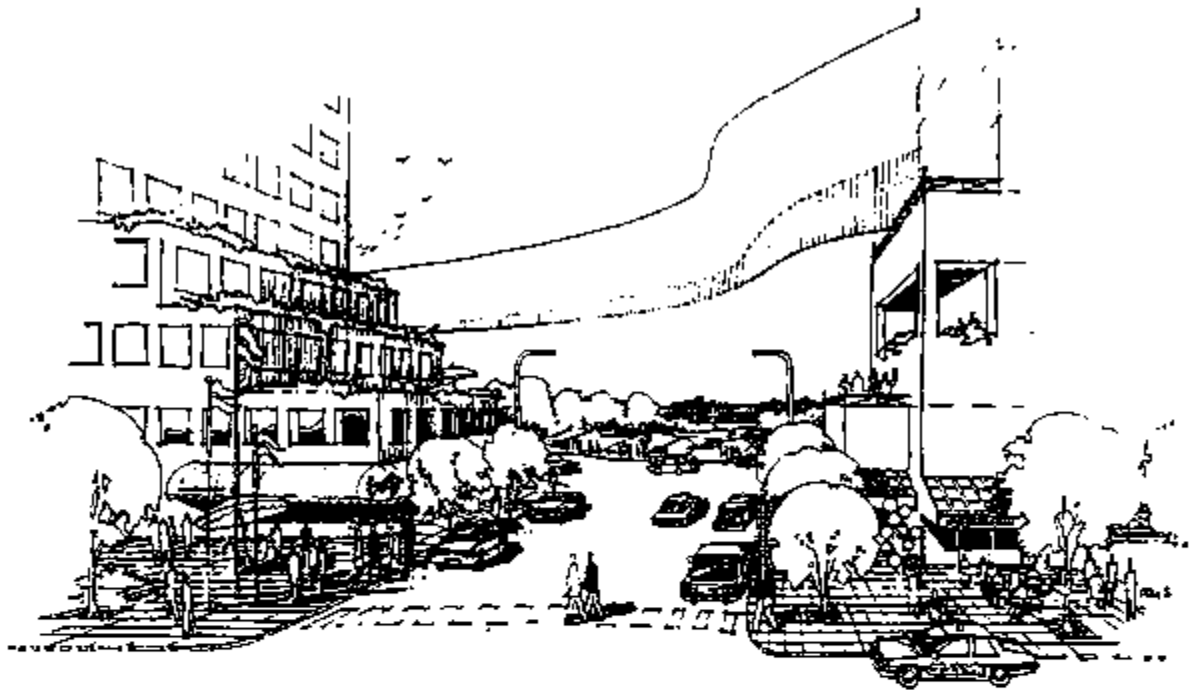
CN DOWNTOWN LANDS



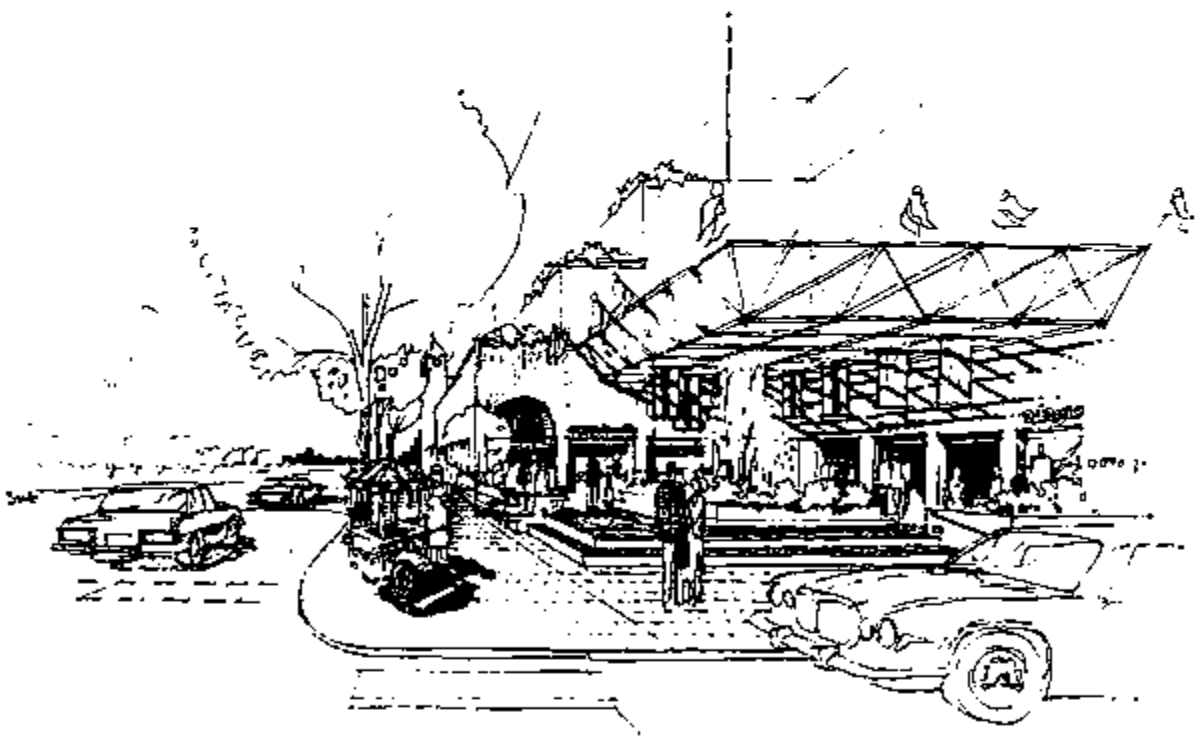
CN LANDS · EDMONTON

Site Context





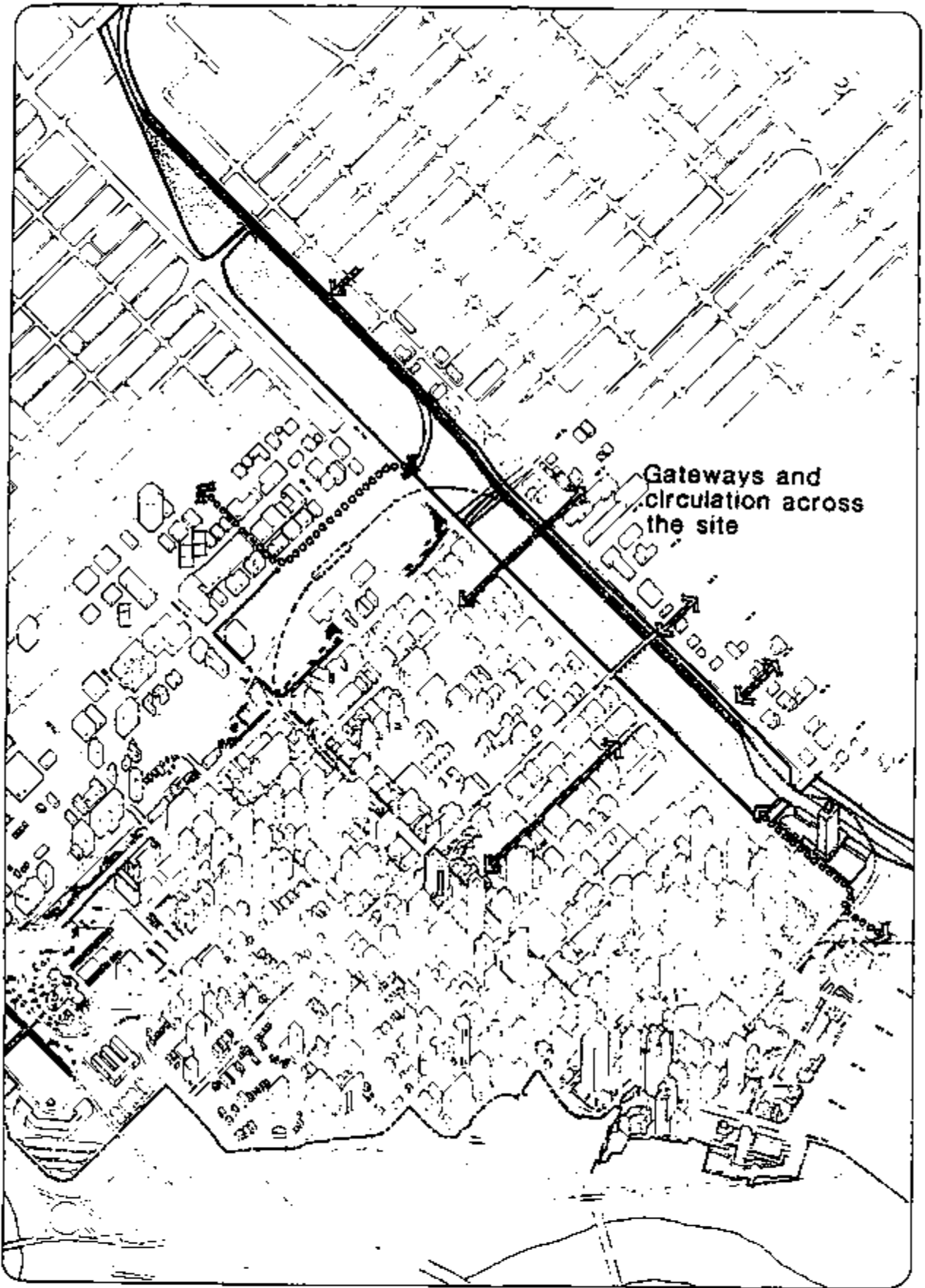
View North at 106 St. & 104 Ave.



View West Along 104 Ave.

CN LANDS · EDMONTON





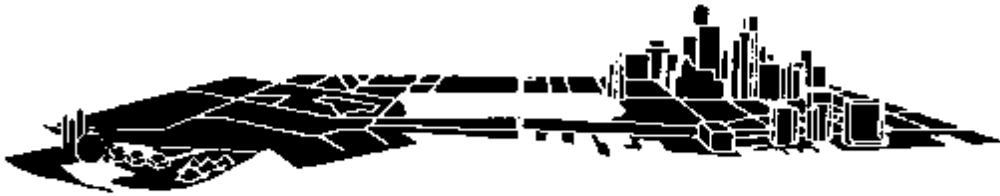
Gateways and
circulation across
the site

CN LANDS · EDMONTON

Urban Context



RAILWAY LANDS

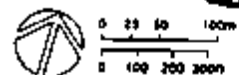
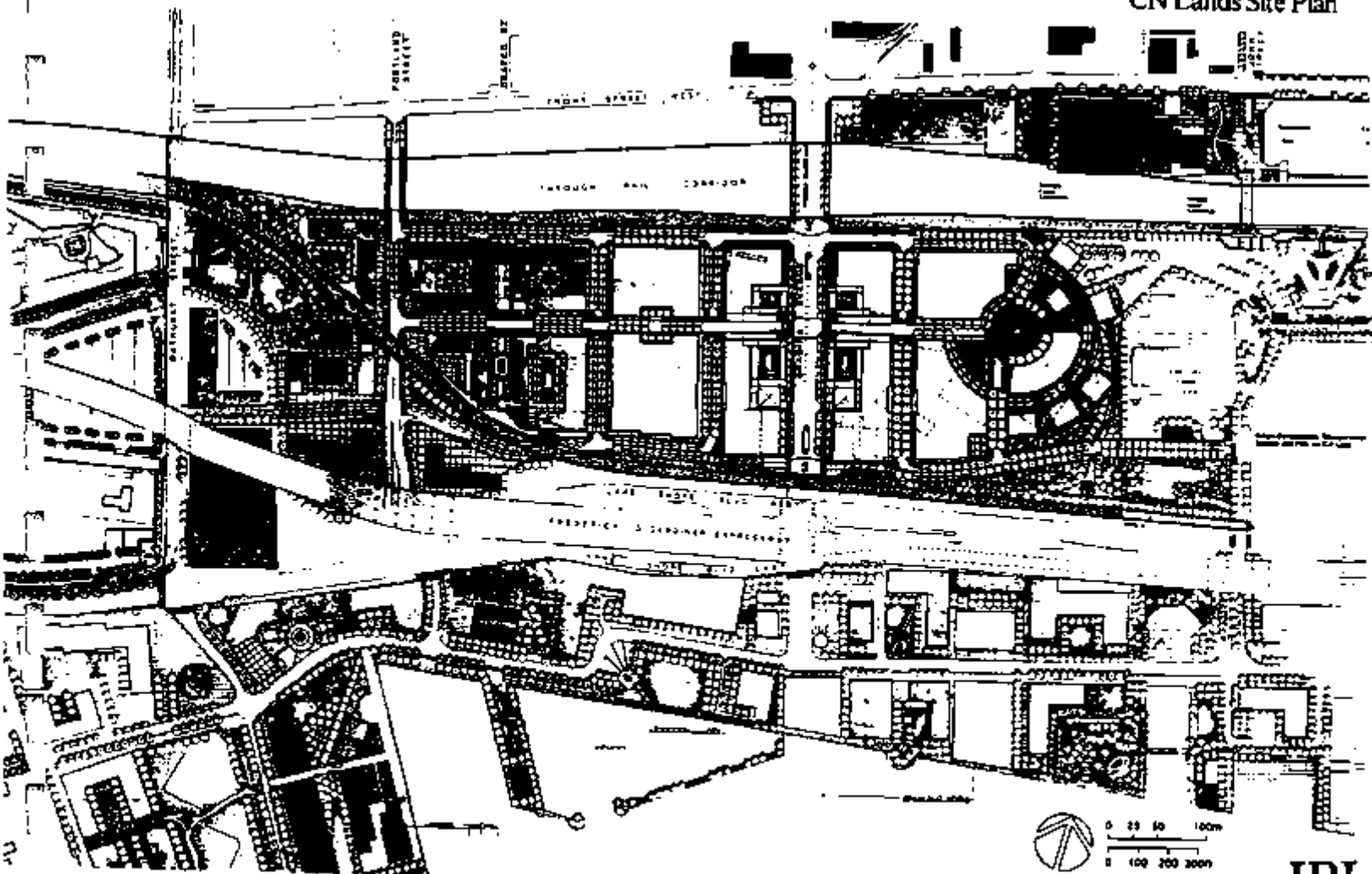


Design For Development

The ultimate transformation of CN Lands would result in a fully serviced sub-core providing a link between the financial district and the emerging west downtown area and the major regional recreational facilities located along the harbourfront. The conceptual plan provides for a city street grid pattern, with north-south linkages connecting Front Street to the harbourfront and east-west linkages connecting the core, the Convention Centre and the CN Tower across to Fort York, Exhibition Park and Ontario Place.

The pattern generates a series of urban spaces connected by pedestrian linkages all extensively landscaped in the tradition of noted urban places in North America and Europe.

CN Lands Site Plan

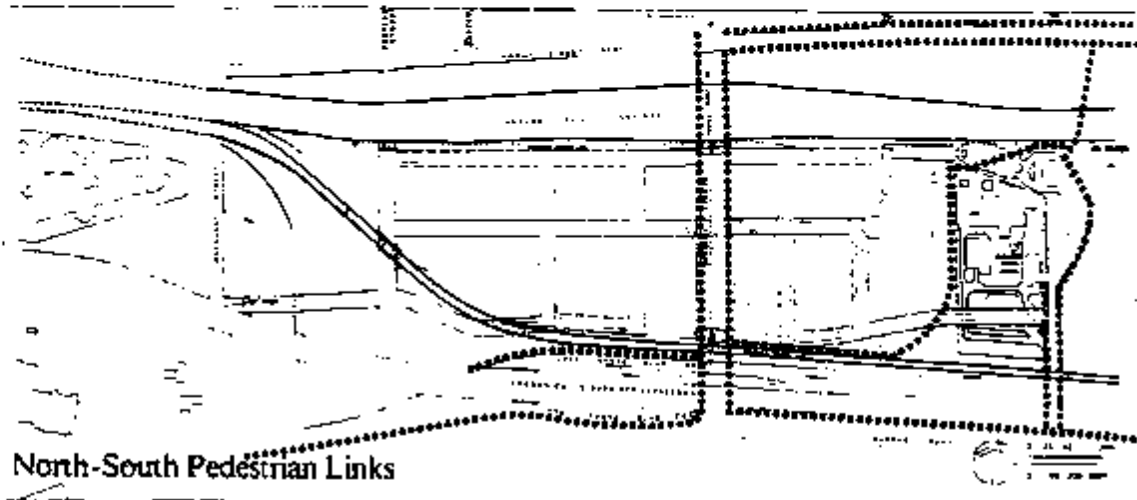


RAILWAY LANDS



Urban Design

The two main north-south pedestrian linkages take people from Front Street into the Lands. One link connects from Front Street over Spadina Bridge to Harbourfront and points west. Another link passes over the rail corridor near the base of the CN Tower initially on the existing CN Tower bridge and eventually on a more generous pedestrian connection, and continues across the eastern edge of the site toward Harbourfront's major park to be developed south of the John Street pumping station and Lakeshore Boulevard.

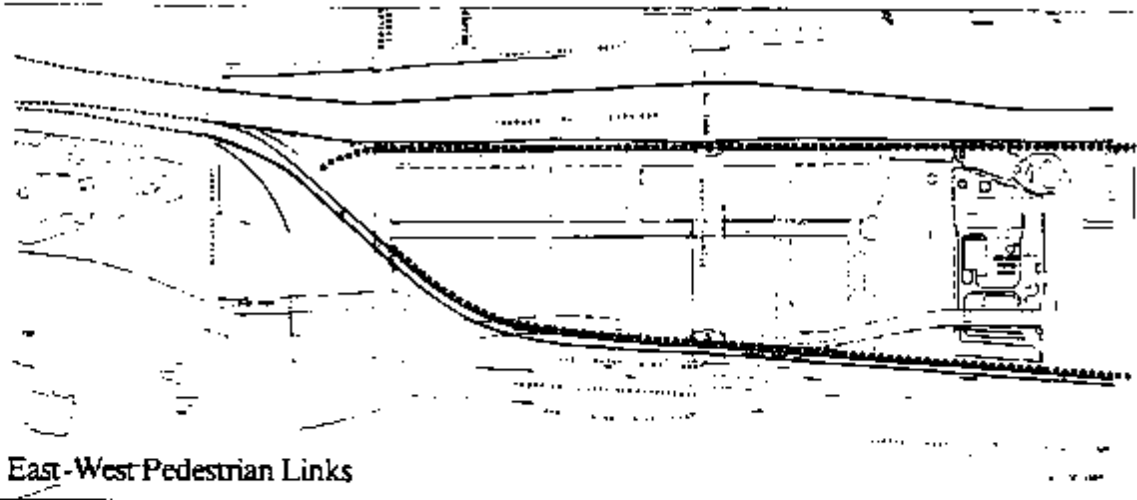


North-South Pedestrian Links

East-west pedestrian movement can occur in a protected environment adjacent to the east-west site edges:

- along the landscaped embankment formed by the High Line at the south edge of the site;
- along the north edge of the site adjacent to the rail corridor.

One of these edges may see provision of a proposed rapid transit line which will likely result in a station at Spadina.



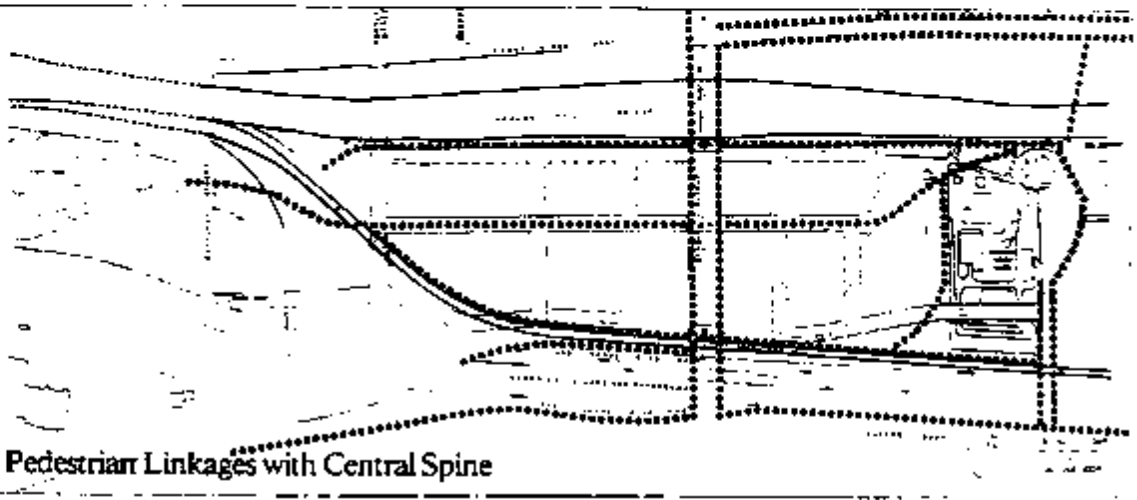
East-West Pedestrian Links

Overlaying the north-south and east-west edge linkages and the location of the Roundhouse and Fort York strongly suggests a central pedestrian spine, in keeping with the development of a multi-use sub-core. This spine would focus on the centre of the Roundhouse at one end of the site and on the proposed Fort York Park at the west end. Three levels of intersection would occur at Spadina Avenue:

- grade level for access and circulation for vehicles and pedestrians;
- mid level for pedestrian accessibility crossing below Spadina Avenue and accessing directly to transit;
- Spadina Bridge level, reached by the ramps adjacent to pedestrian spaces.

Four pedestrian spaces would provide the transition between the three levels and would provide access to the parking facilities.

The urban design contemplated therefore highlights the unique identity of the lands as a sub-core while reinforcing the linkage of the Lands to the surrounding city.



Pedestrian Linkages with Central Spine

IBI GROUP

EXPO 86 / BC PLACE V a n c o u v e r , B . C .

IBI Group are currently involved in the capacity of facilities and site programmers for Expo 86. Our assignments include:

- *Site Programming* — the preparation of a *program for all exterior spaces* on the site including theme plazas, parks, building linkages, etc. This work will result in a design manual to be issued to designers on an area-by-area basis throughout the site. The document will *relate the operational requirements to physical design requirements.*
- *Pedestrian Flow Analysis* — the development of a *computer based pedestrian flow model.* This program, now operational, models flow patterns throughout the site, identifies potential congestion areas caused by a number of factors, i.e. peak loading, types of on site activities, etc.; and suggests mitigating measures.
- *Facility Capacity Analysis* — we have carried out a detailed pedestrian flow analysis of the BC Pavilion. The purpose of the analysis is to *assess pedestrian movement relative to the range of exhibits proposed* throughout the facility (confirming flow rates, potential congestion areas, wait times, queuing options, etc.).

This work is an extension of the initial programming work carried out in November/December 1983 by IBI Group, for both Expo and post Expo uses.



SITE PLAN

Fall 1984

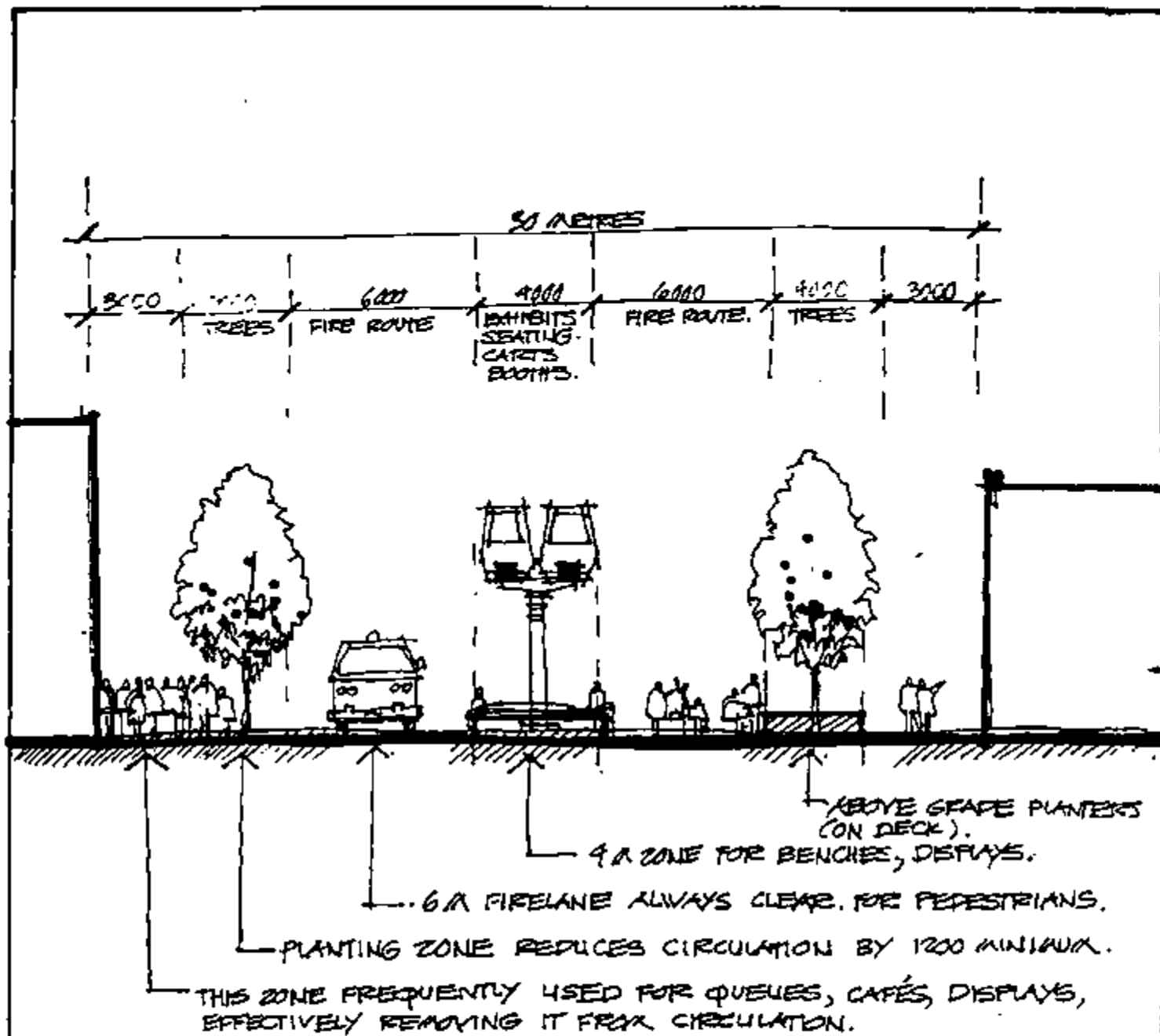


LEGEND


- 1 International
- 2 Provincial
- 3 Provincial
- 4 Provincial
- 5 Korea
- 6 Corporate
- 7 Telecom
- 8 Oregon, Washington
- 9 U.S.A.
- 10 International
- 11 West Coast
- 12 International
- 13 Corporate
- 14 International
- 15 Corporate
- 16 Spain
- 17 International
- 18 Bay
- 19 Blinn
- 20 International
- 21 France
- 22 West Germany
- 23 International
- 24 International
- 25 Roushovsky
- 26 Corporate
- 27 An Canada
- 28 Alberta
- 29 Marine Plaza
- 30 International
- 31 International
- 32 U.S.M.
- 33 International
- 34 Corporate
- 35 Czechoslovakia
- 36 Peru
- 37 Dugayshon ul
- 38 International
- 39 Avignon Plaza
- 39 Mexico
- 40 Plaza of Nations
- 41 B.C. Pavilion
- 42 Expo Theatre
- 43 Saskatchewan
- 44 International
- 45 United Nations
- 46 Manitoba
- 47 Australia
- 48 Canadian National
- 49 Land Plaza
- 50 Ontario
- 51 Kemp & Seppelt
- 52 Expo Centre
- 53 Urban Transit Plaza
- 54 Corporate
- 55 Yuban
- 56 North West
- 57 Tennessee
- 58 China
- 59 Doublet House

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 Corporation
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 Menlo Park, CA 94025





- * EFFECTIVE PEDESTRIAN CIRCULATION WIDTH IS ALWAYS 12 M CLEAR. UP TO 18 M. CLEAR WIDTH REQUIRED SOME LOCATIONS: THIS WILL REQUIRE EITHER THE TWO SIDELANES OR THE MONORAIL ZONE BE KEPT TOTALLY CLEAR OF OBSTRUCTIONS (EXCEPT PIERS)
- * THROUGH MUCH OF THE SITE THE SPINE WIDTH IS GREATER THAN REQUIRED FOR CIRCULATION, PARTICULARLY WHERE AN ALTERNATE ROUTE (i.e. SHORELINE WALKWAY) IS AVAILABLE.

 <p>EXPO 86 The 1986 World Exposition Vancouver British Columbia, Canada May 2 - October 13, 1986</p>	<p>PRIVATE PEDESTRIAN "SPINE"</p>		<p>AUG 14/84</p>
	<p>Job description</p>		<p>Scale</p>
	<p>Drawing title</p>		<p>Job number</p>
	<p><small>THIS DRAWING AND ALL COPYRIGHT THEREIN ARE THE SOLE AND EXCLUSIVE PROPERTY OF EXPO 86 OR CORPORATION REPRODUCED OR USE OF THIS DRAWING IN WHOLE OR IN PART BY ANY INDIVIDUAL OR ANY FIRM OR CORPORATION WITHOUT THE PRIOR WRITTEN CONSENT OF EXPO 86 OR CORPORATION IS STRICTLY PROHIBITED</small></p>		<p>Checked</p>
		<p>Drawn PEPL. (FBI)</p>	

TOURISM/CULTURAL/RECREATION STUDIES

Cranberry Portage Area Tourism Development Strategy Study

In connection with the Federal-Provincial Destination Manitoba Program, IBI Group was retained to prepare a Tourism Development Strategy Study for the Cranberry Portage area of Northern Manitoba.

The key products of this study included: a profile of existing and potential tourism resources and target markets; conceptualization of an overall destination area image; formulation of an overall tourism development strategy and action plan; and design of an appropriate marketing and promotional strategy for the area. The study was implementation oriented and included an organization plan for the activities of a proposed local tourism association. Among the study's recommendations were specific improvements to existing tourist facilities and the addition of new facilities and activities designed to broaden the market base.

Southeastern Alberta Tourism Study

This study, conducted for Travel Alberta, was an analysis of the tourism resources for a 15,000 square mile area in Southeastern Alberta, stretching roughly from Big Valley (north of Drumheller) to the eastern and southern borders of the province. The existing tourism resources in the area were inventoried and their utilization examined. These resources included tourist facilities, services, attractions, events, and physical resources. An important aspect of the investigation was a cost/benefit analysis of a major air show held in Medicine Hat, which included interview surveys of spectators as well as businesses in the Medicine Hat area. Another major element of the study was the recommendation of alternative strategies for the future development of tourism facilities and resources. IBI was responsible for directing sub-consultants in the investigation and analysis of biophysical and historical resources.

Atlantic Region Tourism Study

For the Atlantic Development Board, IBI staff conducted studies of the tourist industry in the Provinces of Nova Scotia, New Brunswick and Newfoundland.

The studies included extensive surveys of tourist and tourist industry operators, assessment of the economic and employment implications of existing industry trends, development of alternatives and recommendations for an industry improvement program, and specific recommendations for recreational developments associated with a number of existing parks and tourist attractions.

This study produced, in addition to the broad strategy for developing the tourism and recreation industry as outlined above, a number of site-specific plans to improve the attractiveness, versatility and utilization of several national and provincial parks in the Atlantic Region.

Analysis of the Impact of the Proposed Port Aberdeen Resort Development on the Township of Harvey, Ontario

On behalf of the Township of Harvey in Peterborough County, IBI Group reviewed the potential impact of a proposed 3,200-unit resort development which was to include such features as a marina, hotel, 18-hole golf course, equestrian centre, and ski facilities. In order to determine the impact of the Port Aberdeen development on the Township, we examined the following issues:

- o the market demand and justification for a resort development such as Port Aberdeen;
- o legal restrictions on permanent occupancy of seasonal dwelling units;
- o the impact of Port Aberdeen on the natural environment;
- o the impact of Port Aberdeen on municipal finances;
- o the impact of Port Aberdeen on the social structure of the Township.

Feasibility Study of Hotel/Convention/Exhibition Complex, - Cambridge, Ontario

On behalf of a private sector client, IBI Group carried out a feasibility study of a hotel/convention/exhibition facility in the City of Cambridge and its economic viability. The analysis was part of a development program for 25 acres of industrial and commercial land. A detailed market analysis of hotel establishments in the area was carried out in order to assess the convention and trade show potential, and a survey of local businesses was designed and carried out to establish their use of hotel, meeting and exhibition facilities.

Tower Dome

This project, to date, has involved urban design and planning for the proposed 65,000 seat retractable roof stadium in downtown Toronto. IBI Group carried out engineering and planning studies at the feasibility and design levels including traffic and parking analysis, studies for relocation of a major existing water pumping station, and recommendations for re-distribution of zoning densities in the surrounding areas. Urban design work on this project has included building envelope design for the stadium itself, design of pedestrian access and of the spatial relationship between the stadium, the CN Tower and the adjacent streetscapes. Building envelopes for the proposed surrounding commercial and residential blocks have been re-configured with regard to location of the stadium, planning and design objectives of the City, and economic requirements of the owners/developers. Preliminary designs have been developed for the adjacent plazas and parks including surface treatment and landscaping.

Tourism Component of Victoria County Financial Impact and Economic Base Study

The tourism-recreation industry is a major source of employment and income for Victoria County. Consequently, assessing the economic impact of tourism and recreation industry became a major aspect of the study.

A survey of cottages in Victoria County was undertaken to:

- o determine patterns of cottage use in the County according to summer weekend use, summer vacation use, and winter weekend use;
- o determine how much money was spent in the vicinity of the cottage or en route to the cottage during weekends, extended vacations, and for cottage maintenance throughout the entire year;
- o determine whether or not expenditures vary according to the location of the cottage, the place of residence of the owner, whether or not the cottage is winterized, etc.;
- o determine intentions of present cottagers to convert their seasonal dwellings to permanent use.

Small Crafts Harbours Study for the Atlantic Provinces

For the Small Craft Harbours Branch, Department of Fisheries and Oceans, IBI Group conducted a study of the recreational harbours in the Maritimes Region which included the preparation of an inventory of recreational harbour facilities, analysis of boat ownership and the demand for harbour facilities, and projection of future growth in recreational harbours in the Atlantic Provinces. Other tasks in the study include analysis of development policies and strategies of the various Provincial Government agencies, examination of the Federal Government role in recreational harbour development and management, and assessment of policy options in the implementation of the Fishing and Recreational Harbours Act.

Travel Expenditures by Canadians

For the Canadian Tourist Association, IBI Staff conducted a study designed to investigate the economic significance of travel by Canadians across Canada. Total travel expenditures made in each region or province were calculated.

Northwestern Ontario Tourism Industry Study

Senior members of the firm conducted one of the early major tourism industry studies for the Provincial Government of Ontario, designed to evaluate in broad terms the potential of the Northwestern Ontario area to support growth in the tourism and recreation sector and to identify, in terms of programs and a limited number of potential projects, the means whereby the Government of Ontario could encourage and stimulate growth. In this study, the following interlocking investigations were conducted:

- o a brief study of the history and broad parameters of economic growth and the role played by tourism and recreation;
- o an inventory of facilities available to tourists;
- o an analysis of data available on tourist entry by all modes of transportation;
- o an estimate of numbers of visitors and visitor nights spent in the study area and of the patterns of seasonality of tourism;
- o an estimate of the probable rate and pattern of growth of the tourist industry;
- o a broad regional analysis of the natural recreational resources of the study area and mapping of natural Recreation Opportunity Regions.

Durham Region Recreational Travel Analysis

The study was concerned with recreational travel within and through the Region of Durham immediately to the east of Metropolitan Toronto. The primary objectives were to evaluate existing and future recreational travel demands and to calculate the total requirements to accommodate recreational travel. To do this the recreational capacity of the regions to the north and east of Metropolitan Toronto were examined as well as growth trends in various types of recreational activity. Future volumes of travel were predicted and assigned to several alternative future transportation systems.

Year-Round Tourist Complex Cape Breton Island

This study examined the seasonal, off-season, and shoulder-season markets for a tourist complex to include hotels/motels in Cape Breton Island. It suggested that properly designed facilities could attract a significant proportion of the convention/conference market in the shoulder seasons. The study also analyzed both the physical and market potential for a ski operation in the winter season and concluded that such an operation is practicable, and that it would make an important contribution to improving occupancy rates in the off-peak season.

Macdonald Hotel, Edmonton

IBI Group was retained by CN Real Estate and Nu-West Group Limited in connection with the renovation of the historic portion of the Macdonald Hotel, addition of a large new wing and integration with a major new downtown multi-use complex. Among the unique aspects of the site planning and proposed open space systems are a series of atriums and the proposed connection with the existing Heritage Trail along the edge of the North Saskatchewan River Valley, adjacent to the hotel site.

MACDONALD HOTEL Edmonton, Alberta

The MacDonald Hotel was constructed in 1919 and consisted of approximately 160 rooms. In 1952, a sixteen storey addition of 210 rooms was added to the north and a ballroom and kitchen was added to the east of the historic building.

The hotel is now part of a larger project, MacDonald Centre, that will add two office buildings to the site. To facilitate this development, the '52 additions will be demolished. The first phase of the development, the renovation on the historic building as a luxury 200 room hotel, will commence construction in the fall of 1984.

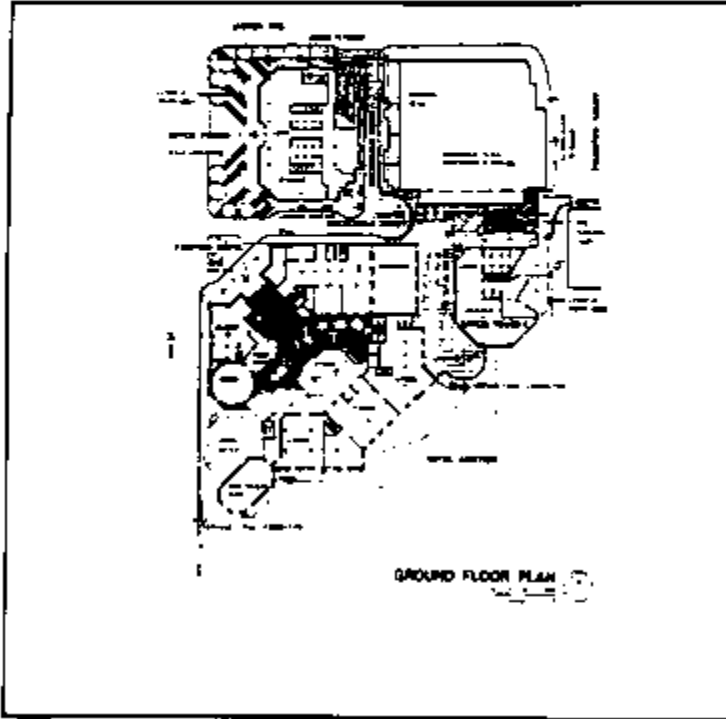
IBI Group's architectural assignment includes:

- *Complete building survey, photographic inventory and increased drawings*
- *Securing of all approvals*
- *Design development of "CN Hotels" approved functional layouts*
- *Preparation of working drawing, specifications and contract documents*
- *Assistance in the preparation of budgets and project scheduling*
- *Site administration of the construction contract*

The project is in the working drawing stage with selective demolition underway. When completed in March 1986, the facility will have 200 rooms including "after/loft" suites in the high sloped roof areas; a new kitchen; restored main and mezzanine levels, bringing back to Edmonton the historic Palm Court Lounge; the Empire Ballroom; the Confederation Lobby Bar and the Wedgewood Room. A glazed terrace restaurant will be added to the south elevation, and the grounds will be developed in a manner reminiscent of the original rose gardens and orchards which were replaced with surface parking in the 1950's.

MacDonald Hotel

IBI
GROUP



MacDonald Hotel

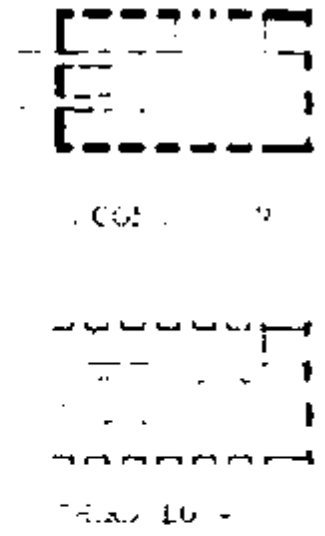
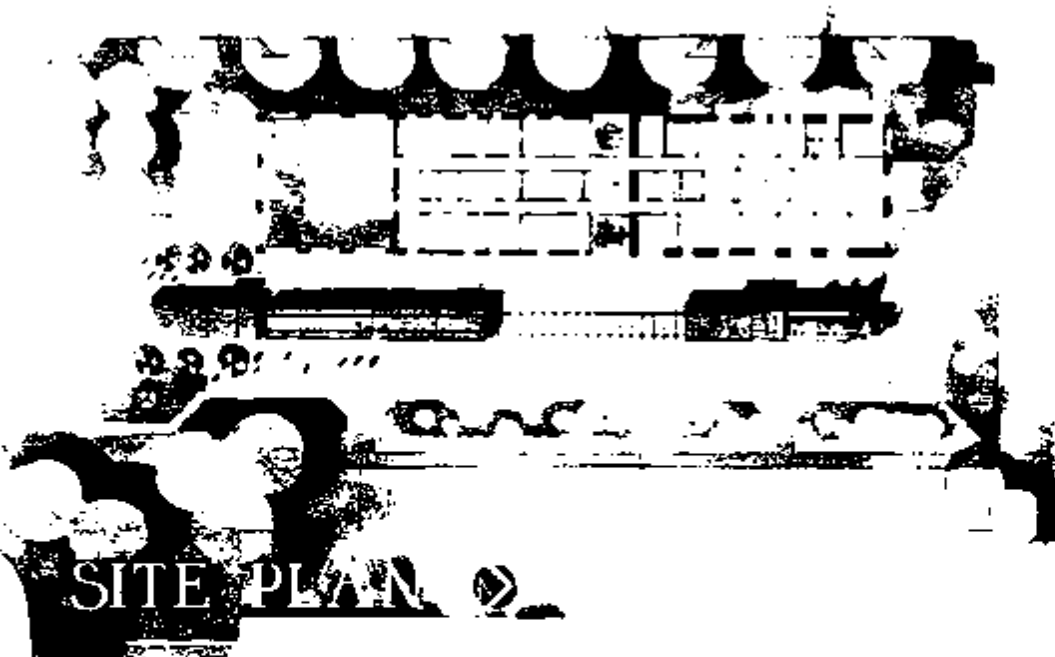
**CANADIAN NATIONAL
STATION**
C a l g a r y , A l b e r t a

IBI Group have recently completed the Alberta Heart Foundation's tender to the City of Calgary to secure the right to use the CN Station as its permanent home. Our involvement with this historic building started when it was to be included as part of the mixed-use Cathedral Square Development.

Maintaining the railway character of the building is an essential part of the design concept; and is achieved through the introduction of railway tracks and four railway cars, a locomotive and tender, a caboose and a dining car. The building itself will be rehabilitated and two small additions added to visually integrate the roof forms and open the building to the southern river exposure.

The proposed design retains the essential "earlier" character of the building yet develops the site in a manner that will ensure that it will continue to be an active and vital element within the City fabric.

Old CN Station



Old CN Station



Old CN Station