REGIONAL MUNICIPALITY OF OTTAWA-CARLETON | REPORT
MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON | RAPPORT

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Your File/V/Réf.

DATE 16 April 1996

TO/DEST. Co-ordinator, Transportation Committee

FROM/EXP. Director, Infrastructure Maintenance Division
Environment and Transportation Department

SUBJECT/OBJET **MICHAEL SNOW DISPOSAL FACILITY - ENGINEERING AND ENVIRONMENTAL REVIEW**

DEPARTMENTAL RECOMMENDATIONS

That the Transportation Committee recommend Council:

1. **Approve the concept design for improvements to the Michael Snow Disposal Facility as illustrated in Annex B;**

2. **Direct staff to request that the City of Gloucester authorize the preparation of an Engineer's Report for the lowering of the South Cyrville Drain at the RMOC's cost;**

3. **Authorize the Environment and Transportation Department to negotiate with the Cities of Gloucester and Ottawa to recover part of the cost of lowering the South Cyrville Drain;**

4. **Authorize the Environment and Transportation Department to undertake a meltwater quality monitoring programme at the Michael Snow Disposal Facility, after completion of the facility, as funds become available.**

BACKGROUND

Executive Committee, at its meeting of 27 September 1993, approved the appointment of A. J. Robinson Consultants to carry out an engineering and environmental review study of the Michael Snow Disposal Facility (SDF) for a total contract provision $291,000.

Council, at its meeting of 22 November 1995, approved the Department's report on SDF's. One recommendation of this report was to upgrade all existing snow disposal sites to meet environmental and social standards. It was recommended that environmental improvements at the existing Michael site be implemented as funds become available.

This report summarizes the results of the engineering and environmental review of the Michael site. A copy of the Consultant's final report (two volumes) is on file in the Regional Clerk's office.

INTRODUCTION

The Regional Municipality of Ottawa-Carleton owns a 11.5 ha (28.5 acre) snow disposal facility located to the east of Michael Street in east Ottawa/west Gloucester. The location of the site is shown on Annex A. The RMOC first used the site for snow disposal during the winter of 1992/93. The eastern portion of the site has in previous years been used by others for snow disposal.

As a result of the continuing loss of snow disposal capacity close to the core area of the City of Ottawa and to reduce high trucking costs, the use of the Michael snow disposal facility has been maximized.

The RMOC now proposes to further develop the site in conformance with planning and environmental controls as stipulated by federal, provincial and municipal legislation.

DISCUSSION

The Engineering and Environmental Review study includes a detailed assessment of such issues as snow pile construction, site capacity, operations, meltwater management, sound levels, visual impact and maintenance.

Technical studies and investigation were carried out to ensure that design and operational proposals would comply with requirements of the various review and regulatory agencies, including the Ministry of the Environment and Energy, the Ministry of Natural Resources, the Rideau Valley Conservation Authority, the RMOC Environment and Transportation Department and the Cities of Gloucester and Ottawa.

These studies included hydrogeological and geotechnical investigations, a detailed noise analysis, a review of drainage and hydrology, detailed water quality analyses and a determination of traffic generation.

SOUTH CYRVILLE DRAIN

The South Cyrville drain, which is a "municipal drain" under the Drainage Act, is located immediately north of the Michael site access road. As insufficient property is available to develop a two lane roadway adjacent to the drain, it will be necessary to place the drain in a culvert and construct the road above the drain.

Discussions with the Cities of Gloucester and Ottawa indicate that the design of their future storm sewer systems on Michael Street and Triole Street requires the lowering of the South Cyrville drain by approximately one metre in this area. The City of Gloucester has indicated that if the RMOC proposes to place culverts on portions of the South Cyrville drain, a condition of the City would be for the drain to be placed at an appropriate elevation to provide an outlet for any proposed storm sewers. Therefore it is proposed to lower the drain at this time as part of the Michael SDF project.

ENGINEER'S REPORT

Under the Drainage Act, any alteration to a municipal drain requires an Engineer's Report, to be prepared by the area municipality. As neither the City of Gloucester nor Ottawa have scheduled the construction of the affected storm sewers in the near future, it is proposed that the RMOC pay for this engineer's study in order to expedite this project, at an estimated cost of $80,000. It should be noted that an Engineer's Report would have been required in any case for the RMOC work in relocating the drain within the SDF site and for the installation of the culvert under the access road.

After completion of the Engineer's Report, and costs to lower the drain have been determined, it is intended to negotiate with the Cities of Gloucester and Ottawa for a cost sharing arrangement for the portions of the work not directly related to the Michael SDF.

The Engineer's Report will have to be completed, and all necessary approvals received, before contract documents for the Michael SDF can be prepared.

CONCEPT DESIGN

The capacity of this site will be approximately 1.1 million cubic metres (at a 15 m snow pile height).

The South Cyrville drain will be placed in a culvert from Michael Street to the site entrance. The drain will then be realigned through the site and placed in a culvert at the Algoma Road entrance. The drain will be reconstructed between the Michael site and Star Top Road.

A paved access road will be constructed from Michael Street to the site entrance.

A meltwater management pond is required to improve meltwater quality. This measure is capable of attenuating the concentration of sand, grit and heavy metals in the meltwater by up to 90%. The site will be graded towards this pond.

Earth berms, with landscaping on the outside, are proposed along the north, west and south limits of this site to contain the snow, provide some noise mitigation and help mitigate the visual impact of the snow pile.

Noise levels should not increase above existing levels as an acoustic fence along the north side of the site will provide noise mitigation.

Adequate lighting will be provided for safe operations.

To ensure public safety and to control blowing debris, a security fence is proposed along the west, south and east sides of the site. Gates are proposed at the west and east roadway access points.

It is proposed that the concept design for the snow disposal facility, attached as Annex B, be approved and that detailed design and contract drawings be completed for construction. Because of capital budget limitations, it is proposed that the construction of this facility be separated into phases as funding becomes available. It is proposed that the first phase, the South Cyrville Drain lowering and relocation, drainage works and the Michael Street access road be undertaken as soon as possible. The estimated cost of this first phase is $1,516,000. Subject to the approval of the South Cyrville drain Engineer's Report, and to gaining the necessary formal approvals from the appropriate regulatory agencies, it is expected that construction of the first phase could take place this summer.

The estimated cost of the entire project, including the first phase, is $3,100,000.

CERTIFICATE OF APPROVAL

Construction of the proposed meltwater management facility requires a Certificate of Approval from the Ministry of the Environment and Energy under the Ontario Water Resources Act.

As a condition of approval, it is expected that the regulatory agency will require a meltwater monitoring programme to be carried out. In view of this, and since information from such a programme is also of great value to the Environment and Transportation Department for design and operational purposes, it is proposed that this be done. Financial authority for this work will be requested at a later date.

CONSULTATION

A comprehensive public consultation programme was carried out for this project in conformance with the Region's Public Consultation Policy.

Two rounds of public consultation were completed. The first round presented the objectives and provided specific information about the Engineering and Environmental Review. The second round presented the conceptual alternative designs and the recommended alternative. The public was invited to participate in the Review by calling or writing one of the two project representatives.

An invitation to participate was published in the three daily papers and in three community papers. In addition, flyers were distributed to all residents and businesses in the area bounded by the Queensway, Cyrville Road, Highway 417, Innes Road and St. Laurent Boulevard.

Notification letters were sent to all Regional Councillors, all RMOC Departments, the Cities of Ottawa and Gloucester, and appropriate Members of Parliament and the Provincial Legislature.

All residences and businesses in the surrounding area were mailed an information flyer which described the anticipated operation of the Michael SDF.

Concerns expressed by the respondents were recorded and considered in the selection of the preferred site design and in the proposed operational procedures.

The development and operation of a snow disposal facility, in conformance with the Ministry of the Environment and Energy guidelines, is automatically approved as a "Schedule A" Project under the Municipal Class Environmental Assessment process.

Notwithstanding, this project followed a more thorough process in keeping with the RMOC's public consultation policy and the objective of developing a system of fiscally, socially and environmentally responsible snow disposal facilities.

FINANCIAL IMPLICATIONS

The Michael Snow Disposal Facility is the principal facility for serving the core area of the City of Ottawa. Physical improvements are needed to improve the operational efficiency of this site and to ensure compliance with current environmental and social standards.

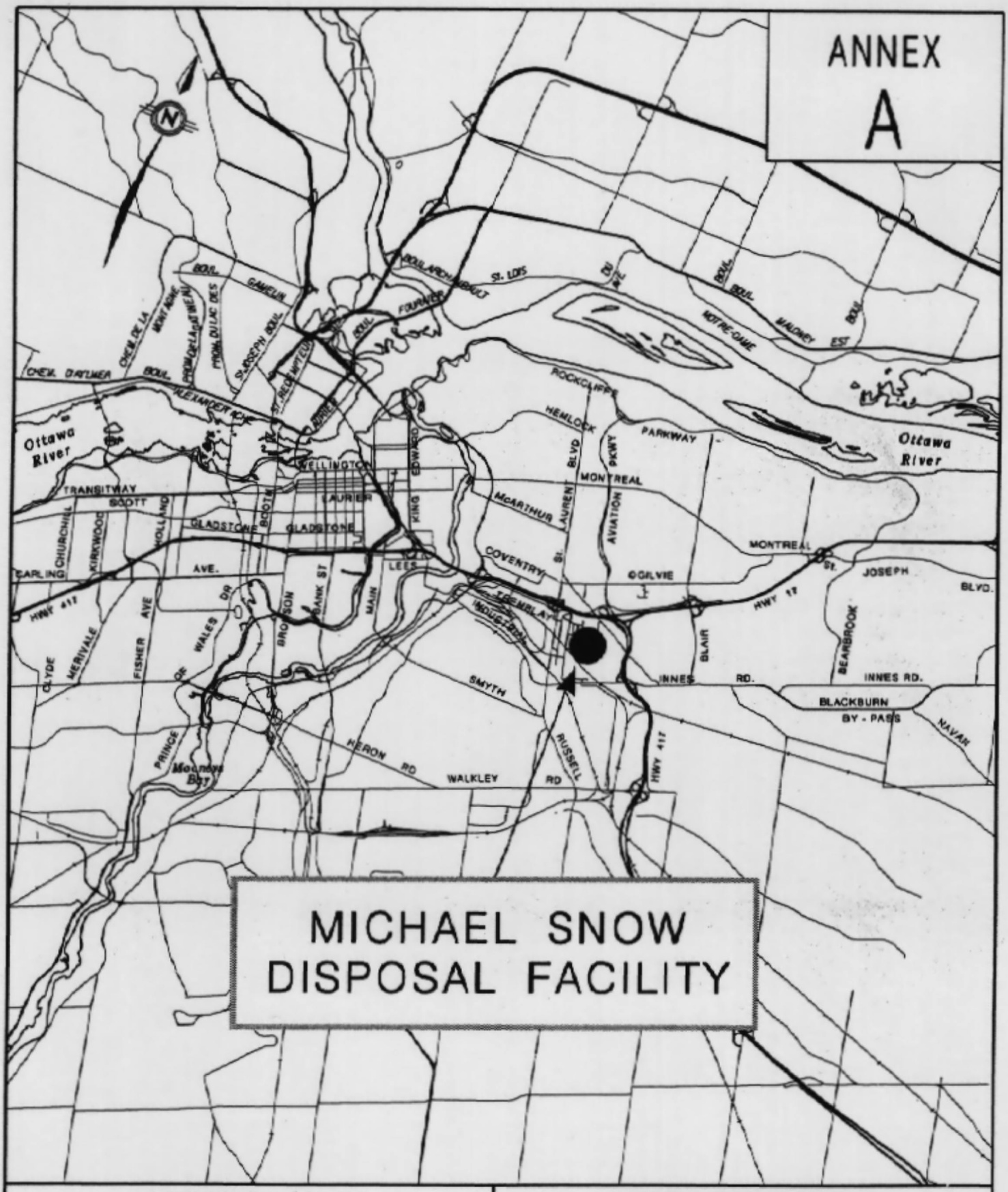
The preparation of the South Cyrville Drain Engineer's report is estimated at $80,000. Funds are available in Account No. 912-33815, Snow Disposal Facilities.

Construction is dependent upon Capital project funding.

Approved by
W.S. Beveridge, P.Eng.

ICB/ms

Attach.(2)

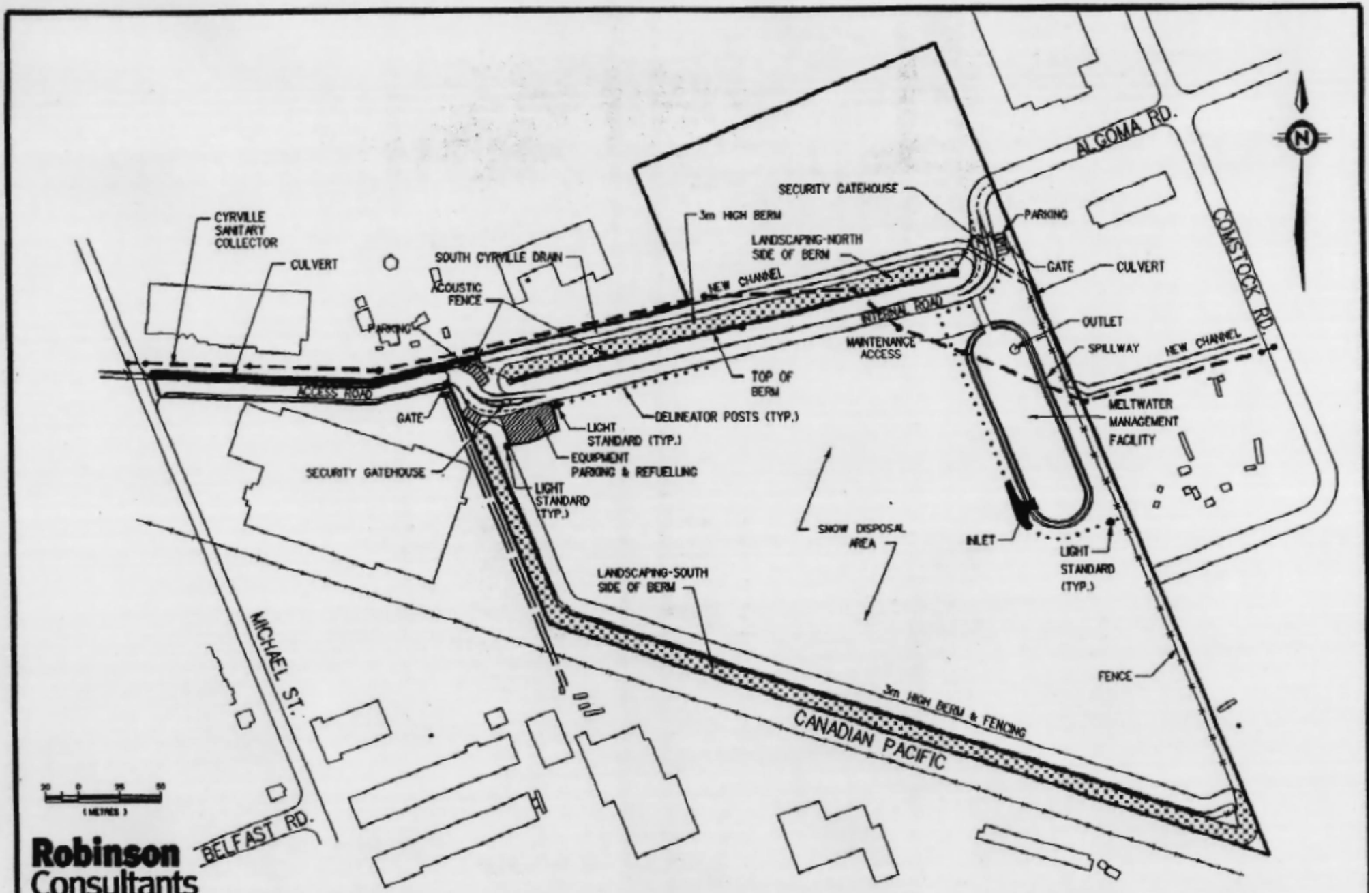


LOCATION PLAN
MICHAEL
SNOW DISPOSAL FACILITY

SCALE	DRAWN BY	CHECKED BY
N.T.S.	G.P.	
# 3406s1	DATE Mar. '96	APPROVED BY

Ottawa-Carleton

Environmental & Transportation Department



Robinson Consultants

Ottawa-Carleton
A PARTNERSHIP IN PROGRESS

SITE FEATURES PLAN

MICHAEL SNOW DISPOSAL FACILITY

REGIONAL MUNICIPALITY OF OTTAWA-CARLETON

DESIGN BY:	D.G.
DRAWN BY:	D.S.
DATE:	DEC 1994
PROJECT:	93073

ANNEX B